David City Public School Board of Education
Regular Board Meeting
Wednesday, January 14, 2026 7:00 PM
Board Meeting Room at the High School
750 D St.
David City, NE 68632-1724

1. Call Meeting to Order
    1.1. Pledge of Allegiance
    1.2. Open Meetings Statement
    1.3. Attendance/Absence Approval
    1.4. Review code of ethics policy.
    1.5. Elect Board Officers
    1.6. Appoint Board Members to Committees
    1.7. Select District Newspaper(s) of Record
    1.8. Select Depository Banks and Approve Related Resolution
    1.9. Select Legal Counsel
2. Student and Staff Involvement
    2.1. ESU 7 Presentation
    2.2. PreK LETRS Training
    2.3. SPIRE Training
    2.4. National FFA Trip
    2.5. Student Board Member Reports
3. Public Forum
4. Consent Agenda

4.1. Approve Minutes of the Previous Meeting(s).

4.2. Approve Claims Against the District

4.3. Financial Reports

5. Board Committee Reports

6. Board Workshop/Conference Reports

7. Administrative Reports

7.1. Dr. Denker

7.2. Mrs. Athow

7.3. Mr. Lindsley

7.4. Ms. Greenfield

7.5. Ms. Romshek

7.6. Ms. Daniels

7.7. Mr. Hermelbracht

8. Discussion and Action Items

8.1. Discuss, consider, and take action on early graduation request(s).

8.2. Discuss, consider, and take action on lower platte north NRD hazard mitigation plan and related resolution.

9. Personnel

9.1. Discuss, consider, and take action on staff resignation(s).

9.2. Discuss, consider, and take action on new teacher contracts for the 2025-26 school year.

10. Future Discussion and Action Items

11. Adjournment

PRINCIPLES OF CONDUCT
DAVID CITY PUBLIC SCHOOLS

The Board of Education is committed to ensuring the public, staff, and students that school board members will govern through policy. In accordance with this belief and by adoption of this policy, each board member commits to following the Board Code of Conduct.

The members of the David City Public Schools Board of Education willingly agree, to the best of their ability, to:

 Recognize that authority rests not with individual members of the board, but within a legal session of the board; respecting and abiding by the majority decision of the board.

 Consistently uphold all applicable local, state, and federal laws, rules, and policies.

 Attend all regularly scheduled board meetings, insofar as possible, and diligently prepare for meetings by reviewing in advance the material provided.

 Remain informed of local, state, and national educational developments of significance, remaining current on needs and requirements pertaining to educational issues through individual study and participation in board development opportunities.

 Consider the needs of the entire community and vote in the best interest of students, staff, and the educational program.

 Encourage individual board member free expression of ideas, listen without judgement, engage in thoughtful deliberation, and maintain open communication between all stakeholders.

 Complete the Conflict of Interest form, and not use the school district or any part of the school district program for my own personal advantage or for the advantage of my friends or supporters.

 Abide by the Open Meetings Law and only enter closed session of the board if the situation requires it and consider “secret” sessions of the board violations of the law.

 Recognize that promising in advance of a meeting how I will vote on any item prohibits open discussion and inhibits transparency.

 Retain independent judgement and refuse to surrender that judgment to individual or special interest groups.

 Respect the confidentiality of privileged information, as prescribed by law.

 Prioritize policymaking, budget, goal setting, school district strategic planning process and evaluation, and the effects on increasing student learning and achievement, ensuring efficient use of educational resources.

 Act only as a member of the board and do not assume any individual authority when the board is not in session and take no private action that will compromise the board, administration, or the district.

 Request recommendations from the superintendent and consider legal counsel advice for the board when required for full and informed board consideration of issues requiring legal expertise.

 Acknowledge that the superintendent of schools and his or her staff are responsible and accountable for the delivery of the educational programs and the conduct of school operations.

 Adhere to and encourage others to follow the Chain of Command regarding complaints, requests, and concerns related to the school district.

 Ensure strong management of the school system by hiring and evaluating the superintendent, collaborating toward a common vision and goals for the district.
 Hold the superintendent accountable by jointly creating job performance standards and at least annually performing a comprehensive evaluation based on the job description, contract, and superintendent goals.
 Provide policy support for school administrators in the performance of their duties and delegate authority commensurate with those responsibilities.
 Recognize the board president (or designee) will speak as the official voice of the board. A single board member will not represent the board without the consent of the board, and board members making personal statements (in any format, including speeches, articles, social media posts, etc.) should clearly state these statements are their opinion and not the position of the board.
 Acknowledge the different roles that we play as individuals (board member, patron, parent, etc.).

Policy Adopted:	February 11, 2015
Policy Reviewed/Revised:	November 9, 2020; May 8, 2024

Annual Organizational Meeting

A. An organizational meeting of the David City School District Board of Education shall be held on or before the third Monday of January of each year for the purposes of seating any new members and electing officers.

The following are procedures for election of officers and other business to take place at the annual organizational meeting of the Board:

1. After new Board members are sworn in, the Board will elect from its members a President, Vice President, Secretary and Treasurer, and if it is determined by the Board of Education to be needed an ex officio secretary and treasurer and those elected will assume office at the organizational meeting.

   Upon call for nominations for each office by the Chair, nominations shall be made by written or oral ballot. Voting will be by oral or written ballot on all members nominated and repeated until a majority is achieved for a nominee. If no member receives a majority of votes after ten (10) ballots or one (1) hour, the Board member who was the President of the Board during the immediately preceding term shall continue as President. In the event that the previous Board President is no longer a Board member, then the Vice President from the immediately preceding term shall become the President. In the event that both the prior President and Vice President are no longer members of the Board, then the longest tenured Board member shall serve as President. The vote may be taken by secret ballot, but the total number of votes for each candidate shall be recorded in the minutes of the meeting.

2. The President shall assume the chair immediately upon the President's election.

3. The motions for the officer elections should read: Move that _____ be elected as _____ (name of office) to serve a term of one year, or until the person's successor is elected and qualified.

B. The order of business for meeting should be as follows:

1. Call to Order and Roll Call

2. Oath of Office for most recently elected

3. Elections
    a. President
    b. Vice President
    c. Treasurer
    d. Secretary

4. Approval of committees, positions, and designations
    a. Consider, discuss and take action to elect Recording Secretary of the BOE
    b. Consider, discuss and take action to select Legal counsel
    c. Consider, discuss and take action to elect Committees as determined by the BOE
    d. Consider, discuss and take action to select Depository bank(s)
    e. Consider, discuss and take action to select District newspaper(s) of record

5. Approval of current Board policies and regulations

6. Designate dates for the review of BOE policies

7. Dissemination to each Board member of conflict of interest statutes

8. Adjournment

Policy Adopted: July 10, 2023
Policy Reviewed/Revised: May 8, 2024

RESOLUTION

RESOLVED, that the official depositories of school funds for this School District is hereby designated to be Bank of the Valley (General Fund, Depreciation Fund, Special Building Fund, Employee Benefit Fund, Lunch Fund, Student Fee Fund, and Bond Fund) and First National Bank (Activity Fund, QCPUF, and HSA Accounts) and Union Bank (403b Accounts), and that the designation of any other institution as the depository of school funds is hereby withdrawn.

The above Resolution, having been read in its entirety, member ????? moved for its passage and adoption, and member ????? seconded the same. After discussion and roll call vote, the following members voted in favor of passage and adoption of the above Resolution: Marcus Thoendel, Justin Krafka, Aaron Rerucha, Stephanie Summers, Donnie Moravec, and Kasey Kuhlman.
The following members voted against the same: None.
The following members were absent or not voting: None.

The above Resolution, having been consented to and approved by a majority of the members of the School Board of this School District, was declared as passed and adopted by the President at a duly held and lawfully convened meeting in full compliance with the Nebraska open meetings law.

DATED this 14th day of January, 2026.

David City Public Schools

BY: _____
Board President

Attest:

_____
Board Secretary

Girls Basketball just recently had a win against Osceola on the 9th and are now 7-4. They will be playing Raymond Central on the 13th.

Boys Basketball also had a good win against the Osceola Bulldogs and will take on Raymond Central later as well.

The Blue River Panthers Wrestling attended the Malcolm Invite on the 9th and finished in 3rd overall, and will wrestle next at Shelby against Lakeview for senior night on the 13th.

Boys Wrestling had an invite at the Columbus YMCA on Saturday the 10th, and they will have the Butler County Triangular on Thursday the 15th at Aquinas.

FCA kicked off the new year with having a band come in and play for the night so that everyone could worship through songs.

FFA will have their district competition on the 22nd of this month at Columbus Community College.

Speech recently had a meet at Twin River on the 10th and will have their next invite at Gretna East on the 16th.

The National Honor Society took down all Christmas trees and decorations that were set up throughout the school, and is working on their Random Act of Kindness for January.

Stay-U is putting on a middle school dance at the end of January and co-hosting it with NHS to bring a fun night for the junior high to enjoy.

Student Council will be putting on the blood drive later this month in the high school gym, and members will call donors to remind them of their schedules, as well as be down there to check people in and help set up and take down.

FCCLA will have a District STAR Competition on the 21st of this month.

Cheer and Dance have been performing at basketball games as well as dance, being able to perform their holiday dance during the holiday tournament for basketball and hand out candy canes to the crowd while wearing Christmas sweaters.

Harrison Blades

School Board of Education

1/14/26

Board Report

David City hosted its annual Holiday Basketball Tournament over break. The boys finished 3rd, and the girls finished as runner-up.

The boys' basketball team is now 4-7. Their last win came against Osceola on the 9th, after a clutch play on the defensive end by Diondrae Aerni.

The girls' basketball team has moved to 7-4 after a dominant win over Osceola as well. Their next game is at Raymond Central on the 13th.

Esports practice for the spring season began on Thursday, the 8th. Games include Valorant, Fortnite, Mario Kart, and Hearthstone.

Boys' wrestling competed at the Norm Manstad Invite throughout Friday, the 9th, and Saturday, the 10th.

The Blue River Panthers finished 3rd out of 16 teams at the Malcom Invite. Kaileigh Covert and Navaeh Martinez both placed 1st individually.

NHS and Stay-U are collaborating for the upcoming middle school dance on the 30th.

The quiz bowl team most recently competed on the 12th at Central City. They were able to reach the quarter-finals.

High school speech began practicing on the 5th. Their first competition was on the 10th, where they brought home a strong 2nd-place finish.

DC Supt Monthly Board Report
January 2026
Chad Denker, Supt

School Foundation
We had our annual meeting before the board meeting tonight. Our hope is to have a kick-off event of some type during 2026 to let people know about it.

FB Storage Shed
Travis and Matt just about have the storage shed done. The metal roof was installed on Monday. They are waiting for one more piece of metal to arrive and then they can officially finish the project.

HVAC Unit
We had a unit above the stage and girls' locker room quit working. We are getting a couple of bids and then we will have the contractor order and replace it.

Bellwood 6th Grade
We have a plan on how to move people around to make room for the sixth-grade teacher next year. We will repurpose some space in and around the media center.

Annual Report
Stephanie Summers has been working hard on the annual report. It should be ready for approval at our February meeting.

Staff Hiring
We are still searching for a science teacher and either an ind tech or voc ag teacher with the right skills at the high school for next year. We also need a sped teacher in Bellwood. The shortage of paras is real as we are looking for paras to work in all of our buildings.

David City School Board Report: Athow

January 9, 2026

📰Communication

The Newsletter was sent to families with articles on Esports by Mr. Ebekka, Wrestling by Mr. Worm, Girls Basketball by Mr. Schlautman, One Act by Mr. Ockander and 402 Floral by Mrs. Didier. The Principal's Corner has an article about the last day of school, community service and celebrating the work that was done by students and staff this semester. A great deal of thanks goes out to Mrs. Heins, Mr. Sobota, Mrs. Sanders and Mr. Nerud for the work they put into that day. The DC Scouts Newsletter is attached here: https://5il.co/3t3so

📚 Professional Development and Leadership

During our recent Professional Development Day, district educators engaged in a targeted "refresher" on the Marzano Instructional Framework. The session focused on shifting from foundational understanding to advanced application of research-based teaching habits. Teachers refined the use of proficiency scales to help students track their own progress. By aligning our daily habits with Marzano's 23 elements of instruction, we ensure a consistent, high-quality learning experience across all grade levels. This dedicated time allows our staff to move beyond "covering the curriculum" to mastering the art and science of teaching. We are confident these reinforced skills will lead to measurable gains in student engagement and achievement.

👩‍🏫December Faculty Meeting

The December Faculty Meeting focused on the last day of school plans, SAEBRS implementation for 7th and 8th grade and MTSS progress.

Schedule Planning: There is continued conversation regarding planning for next year's schedule, specifically how to effectively fit in CCCs (Communicate, Connect Collaborate Teams) during the week without taking time away from essential learning or students. We are exploring common plan times for departments or using ACCESS time for CCC's.

MTSS Work: We will continue our MTSS (Multi-Tiered System of Supports) work in February with Dr. Gebers and Dr. Eickmeier. The secondary team raved about how

much they learned and wanted to continue the work with this team. We are making impactful progress!

📝 Student Assessment Updates

> 7th and 8th grade teachers completed the SAEBRS (Social, Academic, and Emotional Behavior Risk Screener) for their ACCESS students. The SAEBRS is a quick tool used in K-12 schools to identify students who may need extra support in social skills, academic engagement, and emotional regulation, helping educators support overall student success.

🎄 Holiday Spirit and Staff/Student Appreciation

The last day before break was titled “Day of Giving and Celebration”, and it provided a meaningful conclusion to the semester. The day was focused on three main areas: finishing strong academically, community service, and incorporating a little bit of joy before the two-week break. Mr. Nerud, Mrs. Heins, and Mrs. Sanders deserve all of the credit for the exceptional work they put into organizing this final day. They ensured the day was both meaningful and fun for all students.

Students created and delivered Christmas cards to the retirement homes and the individuals that are homebound and receive Meals on Wheels services. Students baked cookies, decorated and wrapped them and delivered them to the police department and fire department. Some of our students delivered goodie bags to nurses and doctors at the hospitals and clinics, and another group of students toured around to different business partners in the town and sang Christmas carols.

The annual Christmas video was the “Search for the Grinch” themed, and Mr. Shaefer and Mr. Fish pulled it off, again. It really is so much fun, and the kids love every minute of it.

Last but not least, thank you to the school board for the hats, apple bars and soup luncheon. The staff were buzzing about it, and they appreciated it so very much. We are really blessed to have you all. I’ve said it before, and I’ll say it again, the David City School Board goes above and beyond to make the staff feel appreciated, and it matters.

Thank you for your continued support!

DC Secondary Principal, Stacy Athow

Chad Lindsley
Board Report
1/14/2025

I wanted to focus on a few data points this month comparing first semester last year to first semester this year. Thank you to Austin Schafer for the help pulling all this data together for this report comparing behavior referral, attendance, and tardies.

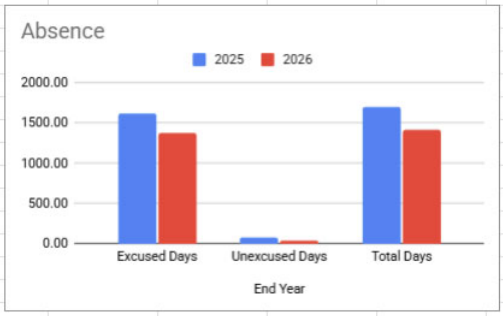
Absence

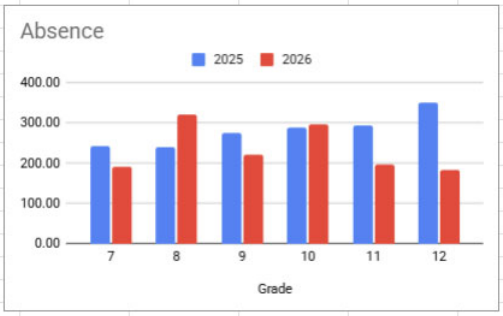
End Year	Excused Days	Unexcused Days	Total Days
2025	1620.44	74.56	1695.00
2026	1379.33	34.56	1413.89

Excused Days	End Year	
Grade	2025	2026
7	234.56	191.33
8	234.22	316.56
9	267.56	212.67
10	284.67	290.89
11	280.89	194.44
12	318.56	173.44

Unexcused Days	End Year	
Grade	2025	2026
7	8.33	1.11
8	7.00	5.00
9	8.78	8.67
10	4.00	6.78
11	14.11	3.22
12	32.33	9.78

Total Days	End Year	
Grade	2025	2026
7	242.89	192.44
8	241.22	321.56
9	276.33	221.33
10	288.67	297.67
11	295.00	197.67
12	350.89	183.22

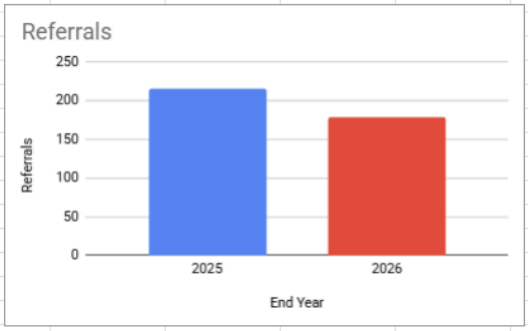


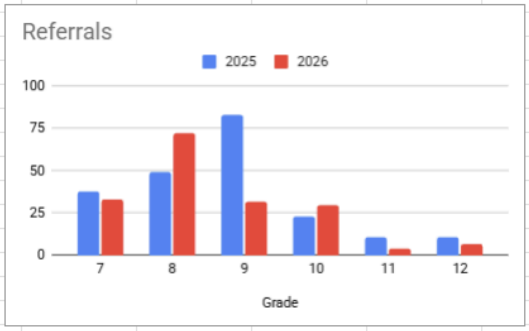


Referrals (not including attendance)

End Year	Referrals
2025	215
2026	178
Grand Total	**393**

Referrals	End Year	
Grade	2025	2026
7	38	33
8	49	72
9	83	32
10	23	30
11	11	4
12	11	7
Grand Total	**215**	**178**





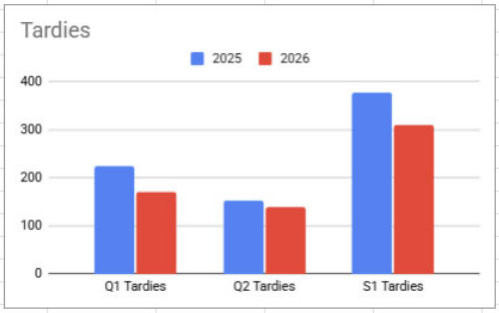
Tardies

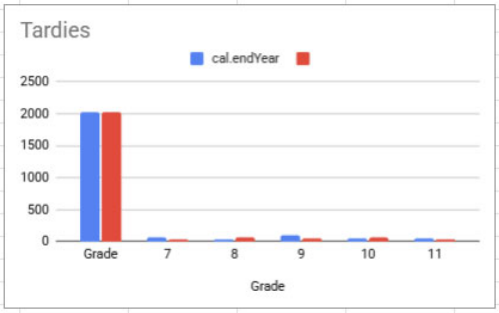
End Year	Q1 Tardies	Q2 Tardies	S1 Tardies
2025	224	153	377
2026	171	138	309
Grand Total	**395**	**291**	**686**

Q1 Tardies	cal.endYear	
Grade	2025	2026
7	44	22
8	21	40
9	53	30
10	40	40
11	26	17
12	40	22
Grand Total	**224**	**171**

Q2 Tardies	cal.endYear	
Grade	2025	2026
7	26	19
8	16	27
9	42	20
10	18	27
11	23	23
12	28	22
Grand Total	**153**	**138**

S1 Tardies	cal.endYear	
Grade	2025	2026
7	70	41
8	37	67
9	95	50
10	58	67
11	49	40
12	68	44
Grand Total	**377**	**309**





David City Elementary
January 2025–26 Board Report

Students returned to the building after a two-week break full of energy and excitement for the new semester. Teachers took time to reteach classroom expectations and support students in reestablishing routines, setting the stage for a successful and productive start to the second half of the year.

Enrollment

David City Elementary currently serves 242 students in grades K–6 and 45 students in preschool. At this time, preschool enrollment is full for both half-day and full-day students.

Attendance

Our average K–6 attendance for the past month was 97.83%, up from 94.29% at this time last year. Our chronic absenteeism rate is currently 4.87% (15 out of 308 students), a notable improvement from 7.57% (24 out of 317 students) last year. Attendance letters were recently sent to families of students with five or more absences to continue supporting consistent student attendance.

Behavior Summary – First Semester

Across the first semester, we had 136 minor citations with “Respectful” identified as the most frequently noted behavior category. There were 49 major citations, most commonly in the “Safe” behavior area.

We will continue strengthening our schoolwide PBIS practices with a focus on consistency, relationship-building, and proactive support. While most students are meeting expectations, a portion of behaviors has had an impact on instructional time. Supporting students’ social–emotional needs remains a priority, and our goal is to maintain focused, positive learning environments for all students.

Families play an important role in reinforcing expectations. Encouraging regular attendance, establishing consistent routines at home, talking with children about being respectful and safe, and maintaining open communication with teachers all contribute to stronger behavior and a more successful school experience for students.

Winter Data Days

Prior to Christmas break, our data team met with each grade level to review winter benchmark results. Our new eduClimber data management system has proven to be an invaluable resource, giving teachers a clear and objective view of student performance in both reading and math. This tool has strengthened our ability to analyze trends, identify specific skill needs, and make informed instructional decisions.

As we shift into the second semester, we remain encouraged by the progress students are making and focused on the work still ahead. Our goal continues to be having all students performing at or above the 50th percentile. Using the benchmark data, grade-level teams have refined intervention groups and pinpointed priority areas to target instruction more effectively. These adjustments position us well to support continued growth for every student.

We also recognize the critical role our families play in reinforcing strong reading and math habits at home. Continued practice outside of school, whether through reading together, engaging in math conversations, or using simple skill-building activities, gives students an extra boost and helps sustain the momentum they build in the classroom.

Scout Camp Day & Christmas Celebrations

On the last day of first semester, our PBIS team organized a memorable Scout Camp Day filled with attendance prizes, positive ticket recognitions, and engaging games for all students. Those with strong attendance earned a hot chocolate party and Camp Unique celebrated earning the most positive tickets with an extra recess, complete with music on an unseasonably warm 60-degree day!

As part of giving back, students also created Christmas cards for members of the community, spreading kindness and holiday cheer beyond our school walls.

In the afternoon, the entire school gathered in the gym to sing Christmas carols, followed by a surprise visit from Santa. He joined in the singing and gifted every student a new pair of Scout gloves. Classrooms ended the day with parties and special activities, creating a joyful and community-centered sendoff to winter break.

Facilities

Over break, measurements were taken for new library shelving that will be installed this summer. This remodel is long overdue, and the updated shelving will add much-needed space while improving the overall flow of the room. In addition, a dedicated quiet work area will be created for teachers and students to use throughout the week, providing a more functional and welcoming learning environment

Professional Development

On Monday, January 5, 2026, all staff participated in the second day of our Marzano Training, continuing to deepen their understanding of high-impact instructional practices. Preschool paras also engaged in Pyramid Training with Amy Richards from ESU 7, building their skills in supporting early learners.

Looking Ahead

- No School on Friday, January 23, 2026 - Staff Work Day
- Next HAL Day is Wednesday, January 28, 2026

- PTO’s Family Fun Night on Friday, February 6, 2026 @ 6-8 PM.
- Preschool Round Up is Monday, February 9, 2026 from 5:30-6:30

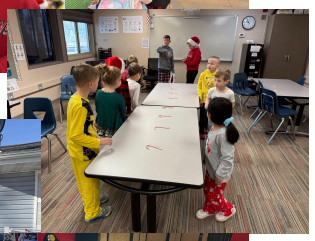
January Newsletter Link

Bellwood Board of Education Report
January 2025

Bellwood Elementary had a positive end to the first semester, and the students have transitioned well back to school for the second semester of the 2025-26 School Year.

Mid-Year Assessments and Data Day

DIBELS and NWEA MAP mid-year assessments were completed in December. On December 16th, Bellwood Elementary Grade Level Data Day meetings were held. At these meetings we reviewed data and made decisions about which interventions students should be in. These changes were put in place at the start of 2nd semester.



End of 1st Semester Celebration

On December 19th, we had a very busy day as we celebrated the end of 1st semester. The Bellwood Elementary students participated in the following events on this day:

- We held our end of 2nd quarter PBIS celebration where students participated in different games planned by the student leadership team.
- Students went caroling around town, which is a long-standing Bellwood tradition.
- Classrooms had their classroom parties.
- We watched The Garfield Movie as a school in the gym.

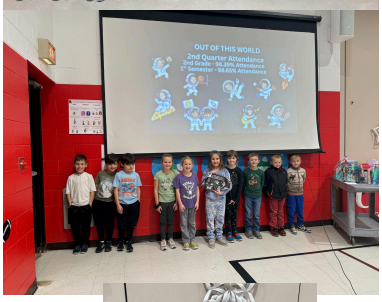
Overall, it was a great day, and it was a nice way to celebrate the end of 1st semester. Our SLT did a great job planning this day.

January 5th PD Day

On January 5th all students and teachers attended Marzano training. I thought the presenter did a nice job of giving staff practical ideas to implement, some of which they could implement right away. Our staff did a nice job of collaborating with each other and sharing ideas throughout the training.

Start of 2nd Semester

The 2nd semester of the 2025-26 school year is off to a great start. Teachers spent time last week reviewing routines and expectations and helping students transition back into the routine of school. It took students some time to adjust but overall the first week back was a positive one.



1st Semester Attendance

As you know, we have been diligently working to improve our overall school attendance at Bellwood Elementary over the last couple of years. I feel like we have really started to gain buy-in to this initiative from students and families. On Monday, January 12th, I handed out first semester attendance awards. We have 36 students who have missed 1.5 days or less, and 10 of these students had perfect attendance for the first semester. Our second grade class had the best attendance for the 2nd quarter with 98.39%, and they had 98.69% attendance the entire 1st semester. They won the class pizza party This is phenomenal! On Monday, we also had our quarterly attendance drawing, and two students who have missed less than 5 days won prizes for 2nd quarter.

Below is our overall school attendance this year compared to last year. I think this is a great improvement!

- Attendance for 1st semester of 2024-25 school year - 96.18%
- Attendance for 1st semester of the 2025-26 school year - 97.37%

January Newsletter

Here is a link to January 2026 Newsletter for Bellwood Elementary: Link

If you have any questions, please let me know.
Peggy Romshek
Bellwood Elementary Principal

1/9/2026
School Board Report: Special Education
Submitted by: Kari Daniels

Happy New Year! The second semester has begun and it was great to have students back in the building on Tuesday. The transition back to school after a long break can be challenging for some students, but I believe all students could feel the warm reception they received upon their return.

We received a letter from NDE on Monday, January 5th, stating that the district met all of the Indicator 13 requirements. Indicator 13 is a federal accountability measure under IDEA that focuses on transition activities for students with disabilities. Transition planning, in Nebraska, begins the year in which a student turns 14. Districts must start looking at student goals beyond high school. The areas that we must specifically look at include: education/training, employment and independent living. Every year, the Nebraska Department of Education - Office of Special Education 'randomly' picks students from each district and reviews their paperwork through the transition lens. (We have found that the students that are selected are often the students with unique situations). This is the letter that we received from the NDE:



January 5, 2026

Indicator 13: Notification of Compliance

To: David City Public Schools

We have reviewed the Indicator 13 self-assessment data that was completed in October 2025. As a result of the hard work of the staff, no additional action is needed. Thank you for your work on behalf of transition aged students!

Sincerely,

Amy R. Rhone, Administrator/ State Director
NDE Office of Special Education
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This is a direct result of the conscientious work that our teachers perform on a daily basis. They do a fantastic job.

We continue to advertise for a special education teacher. While we have yet to interview any candidates, we look forward to having a new member on our team.

All Scouts Have Power

Activities Director Board Report

January 14, 2025

Football district assignments were released in late December. David City will compete in the D1-3 District, which includes Cedar Bluffs, Cross County, David City, Nebraska Christian, Tekamah-Herman, and Twin River. We have submitted a list of preferred non-district opponents, and final football schedules are expected to be released in February.

Bailey Svoboda - Assistant Speech- was selected as an NSAA Above and Beyond recipient. This is a new recognition that the NSAA started doing at the end of last year to recognize and celebrate individuals who make a meaningful impact within their communities. Whether it's a student, coach, community member, or parent, this award honors those who go the extra mile to support and uplift others.

Weather conditions cooperated for the Holiday Basketball Tournament, allowing us to host the event without any setbacks. Our girls basketball team finished as Holiday Tournament Runner-Up, defeating Palmyra in the opening round before falling in a very competitive championship game to Aquinas Catholic.
In the boys division, Howells-Dodge won the tournament, defeating Aquinas Catholic in the opening round and Palmyra in the championship game. Our boys basketball team finished third, defeating Aquinas Catholic in the consolation game.

The 2005 State Champion One-Act team and the 2006 State Championship Speech team were recognized during the first day of the Holiday Tournament. While turnout was lower than hoped, it was still important to recognize and celebrate these accomplishments.

The first annual Blue River Wrestling Tournament was held on January 3rd with 11 teams participating. All teams have already returned contracts indicating their intent to return next year. A special thank you goes out to everyone who helped make this event successful, especially Darrell Allen for managing table setup and Laurel Valentine, who organized and ran the meet using TrackWrestling.

SNC Activities Directors continue to meet and discuss potential changes to tournament formats with the addition of Freeman and EMF.

Middle school winter seasons began this week. Middle school girls wrestling currently has 24 participants (16 from David City, 5 from East Butler, and 3 from SRC). Middle school boys basketball currently has 15 participants.

Parent Nights

- Girls Wrestling: January 13 — Shelby–Rising City (Lakeview Dual)
- Boys Wrestling: January 20 — Wahoo Dual
- Girls Basketball: February 12 vs. Madison
- Cheer/Dance: February 10 vs. Twin River
- Boys Basketball: February 20 vs. Clarkson-Leigh

All David City Public Schools State Championship and Runner-Up Wrestling Teams, along with all State Champion wrestlers and coaches prior to 2012, will be recognized on Friday, January 23, 2026, during the David City Wrestling Invite.

Dear School Board Members,

I am requesting permission to graduate mid-term. Most of my credits needed are completed or will be as I will work hard to achieve it. Graduating early will allow me to begin pursuing my career goals sooner, which is joining the Army. I have talked to my recruiter, who says it would be a good idea to graduate mid-term. I appreciate your consideration and support as I try to take this next step in my life.

Sincerely,

Tayja Slonecker



Guardian's Signature

Tayja Slonecker

Students Signature

To: David City School Board

I would like to highly recommend Tayja Slonecker as a candidate for early graduation so that she can explore her opportunities with the United States Military. I feel that she has many fine qualities as both a student and as a person and she has expressed her desire to begin her journey as soon as possible.



David City School Board:

I am writing to recommend Tayja Slonecker be allowed to graduate at the end of the first semester of the 2026-2027 school year. Tayja plans to enter the military, and this will allow her to begin her military career.

I feel that she has many fine qualities as both a student and person; and those qualities will benefit which ever branch of military she so chooses to enlist. I appreciate your most serious consideration and approval of this request.

Sincerely,

Bob Fish

Bob Fish
Guidance Counselor
David City High School

December 12, 2025

To Whom It May Concern,

I am writing this letter in strong support of Tayja Slonecker's request to graduate early in order to pursue enlistment in the United States military. I believe Tayja is exceptionally well-prepared—academically, mentally, and personally—for this next step, and early graduation will allow her to move forward with her goals in a timely and responsible manner.

Tayja has consistently demonstrated a level of maturity and discipline that exceeds expectations for her age. She approaches her academic responsibilities with focus and determination, understands the importance of accountability, and takes ownership of her commitments. These qualities are essential not only for early graduation, but also for success in a structured and demanding environment such as the military.

Granting Tayja the opportunity to graduate early would not be an exception made lightly, but a recognition of her readiness and capability. She has a clear sense of purpose, has thoughtfully considered her future, and is motivated to serve her country. Early graduation would allow her to begin that service at the appropriate time and continue her personal and professional development without unnecessary delay.

I am confident that Tayja Slonecker will represent her school, her family, and herself with honor as she enters the military. I strongly recommend approval of her early graduation request and fully support her decision to pursue this path.

Please feel free to contact me if additional information is needed.

Sincerely,

Greg Hansen

David City Public Schools

LOWER PLATTE NORTH
Natural Resources District

2025

Lower Platte North
Natural Resources District

HAZARD MITIGATION PLAN



PLAN PREPARED BY
JEO CONSULTING GROUP

Regional Planning Team

Name	Title	Jurisdiction
Ryan Chapman	Assistant Manager	Lower Platte North NRD
Drew ten Bensel	GIS/Grants Coordinator	Lower Platte North NRD
Eric Gottschalk	General Manager	Lower Platte North NRD
Mark Doehling	Emergency Manager	Butler County
Tom Smith	Emergency Manager	Dodge County
Terry Miller	Emergency Manager	Saunders County
Tim Hofbauer	Emergency Manager	Platte County
Mark Arps	Emergency Manager	Colfax County
Erin Wendt	Outreach & NFIP Specialist	NeDNR
Daryl Holmberg	City Council	City of Schuyler
Don Glodowski	Floodplain Administrator	City of Schuyler
Theresa Busse	City Clerk/Floodplain Administrator	City of North Bend
*Alyssa Grosse	Hazard Mitigation Planning Specialist	NEMA
*Becky Appleford	Project Manager	JEO Consulting Group
*Karl Dietrich	Planner	JEO Consulting Group
*Anthony Kohel	Planner	JEO Consulting Group
*Ruva Tsoka	Associate Planner	JEO Consulting Group

**Served in an advisory or consultant role.*

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Section 1: Introduction

Hazard Mitigation Planning

Hazard mitigation planning is a process in which hazards are identified and profiled; people and facilities at-risk are identified and assessed for threats and potential vulnerabilities; and strategies and mitigation measures are identified. Hazard mitigation planning increases the ability of communities and other governmental entities to effectively function in the face of natural disasters. The goal of the process is to reduce risk and vulnerability, in order to lessen impacts on life, the economy, and infrastructure.

Severe weather and hazardous events are occurring more frequently in our daily lives. Pursuing mitigation strategies reduces risk and is socially and economically responsible to prevent long-term risks from natural and human-caused hazard events.

FEMA definition of Hazard Mitigation

"Any sustained action taken to reduce or eliminate the long-term risk to human life and property from [natural] hazards."

Hazards, such as severe winter storms, drought, severe thunderstorms, terrorism and cyber-attack, tornadoes and high winds, floods, and grass/wildfires are part of the world around us. These hazard events can occur as a part of normal operation or because of human error. All jurisdictions participating in this planning process are vulnerable to a wide range of hazards that threaten the safety of residents and have the potential to damage or destroy both public and private property, cause environmental degradation, or disrupt the local economy and overall quality of life.

This plan is an update to the Lower Platte North Natural Resources District (LPNNRD) Hazard Mitigation Plan approved in 2020. The plan update was developed in compliance with the requirements of the Disaster Mitigation Act of 2000 (DMA 2000). By preparing this plan, LPNNRD has demonstrated commitment to reducing risks from hazards and to helping decision makers establish mitigation activities and resources.

Hazard Mitigation Assistance

On June 1, 2009, FEMA initiated the Hazard Mitigation Assistance (HMA) program integration, which aligned certain policies and timelines of the various mitigation programs. These HMA programs present a critical opportunity to minimize the risk to individuals and property from hazards while simultaneously reducing the reliance on federal disaster funds.

Mitigation is the cornerstone of emergency management. Mitigation focuses on breaking the cycle of disaster damage, reconstruction, and repeated damage. Mitigation lessens the impact disasters have on people's lives and property through damage prevention, appropriate development standards, and affordable flood insurance. Through measures such as avoiding building in damage-prone areas, stringent building codes, and floodplain management regulations, the impact on lives and communities is lessened.
- FEMA Mitigation Directorate

Each HMA program was authorized by separate legislative actions, and as such, each program differs slightly in scope and intent.

- **HMGP:** To qualify for post-disaster mitigation funds, local jurisdictions must adopt a mitigation plan that is approved by FEMA. HMGP provides funds to states, territories,

Indian tribal governments, local governments, and eligible private non-profits following a presidential disaster declaration. The DMA 2000 authorizes up to seven percent of HMGP funds available to a state after a disaster to be used for the development or update of state, tribal, and local mitigation plans.

- **FMA:** This program provides grant funds to implement projects such as acquisition or elevation of flood-prone homes. Jurisdictions must be participating communities in the National Flood Insurance Program (NFIP) to qualify for this grant. The goal of FMA is to reduce or eliminate claims under the NFIP.

- **PDM:** The PDM grant program makes federal funds available to state, local, tribal, and territorial governments to implement measures designed to reduce the risk to individuals and property from future natural hazards. The Consolidated Appropriations Act of 2023 authorizes funding for 100 projects with total funds of $233,043,782 in 2023.

- **FMAG:** Section 404 of the Stafford Act allows FEMA to provide HMGP grants to any area that received a Fire Management Assistance Grant declaration even if no major Presidential declaration was made. FMAG aids communities in implementing long-term mitigation measures after a wildfire event.

For more information about these grant programs and other funding opportunities to help implement identified mitigation actions see *Appendix E: Hazard Mitigation Project Funding Guidebook*.

Summary of Changes

The hazard mitigation planning process undergoes several changes during each plan update to best accommodate the planning area and specific conditions. Changes from the 2020 Hazard Mitigation Plan and planning process in this update included: an updated plan layout, greater efforts to reach and include stakeholder groups, greater effort to include all taxing authorities as participants; a more in-depth funding guidebook; and changes to meet updated FEMA hazard mitigation plan policies. The plan was also updated to reflect changing priorities for each participating jurisdiction. Prioritized hazards of concern were identified by each local planning team along with a review of mitigation actions. Each local planning team reviewed the mitigation actions from 2020 and updated the timeline, priority (high, medium, low), and status. Local planning teams were also able to add new mitigation actions to better fit any changing priorities and concerns. The 2020 LPNNNRD Hazard Mitigation Plan Review Tool was reviewed for possible changes to incorporate into this plan update and were addressed where applicable. These changes are described in the table below.

Table 1: 2020 Plan Comments and Revisions

Comment/Revision from 2020 Review Tool	Location of Revision	Summary of Changes
The way the plan is organized with the base plan and community specific profiles in separate sections makes it difficult to determine how the planning team aligns with the community hazard mitigation teams listed in the profile.	Overall Hazard Mitigation Plan	An updated plan format was implemented to create a better flow of sections and information. Sections of the base plan were moved into respective appendices and referenced in each appendix.
The plan could clarify how opportunities were provided for local and regional agencies involved in hazard mitigation activities or development regulatory agencies. Specifically, how local and regional hazard mitigation-related agencies and development regulatory agencies were provided opportunities to be involved. For example, the mention of Floodplain Administrators in Community Profiles implies specific outreach was conducted to these individuals, but it is not clear if this was a standard practice for communities participating in the NFIP.	Upfront Summary & Appendix B: Planning Process Documentation	Outreach efforts are detailed in the Planning Process section and documentation of materials are provided in Appendix B.
The plan does not clearly identify how stakeholder input was incorporated. Additionally, the plan does not clearly document how public review comments were incorporated.	Upfront Summary, Participant Profiles	Information received from stakeholders is integrated into relevant areas. A summary of public review comments received is provided.
The plan could better identify how public participation will be continued in plan maintenance activities. Identify how the public will "continue participation" in the plan maintenance process beyond the issuance of public notifications for public meetings. Per Element A3, it is not clear how public input was incorporated in this plan, so it is unclear how this will be continued. Section 6, it is also not clear the distinctions between monitoring, evaluation or updating the plan and no further clarifications were provided in the Community Profiles.	Participant Profile Appendices	Information on how the local planning team will notify the public of reviews and updates of the plan in between updates is addressed in participant profiles.
It should be noted that PDM has been discontinued and is being replaced by BRIC.	Upfront Summary & Appendix E: Hazard Mitigation Funding Guidebook	Updated funding mechanisms have been included based on most current information to date.
The plan does not consistently relate information on previous occurrences of hazard events and on the probability of future hazard events for each jurisdiction.	Participant Profile Appendices	Regional information about previous occurrences and the probability of future occurrences can be found in the Risk Assessment Appendix and is referenced in the Participant Profiles.

Comment/Revision from 2020 Review Tool	Location of Revision	Summary of Changes
The plan does not consistently describe the connection of all hazards to each jurisdiction. The base plan describes type, location, and extent for the natural hazards (and selected technological) and relates that information to each county… for many of the jurisdictions, the hazard information provided is limited to the priority lists identified by the Local Planning Team and/or the consultant. It is assumed that all jurisdictions are not vulnerable to all hazards but conversely, jurisdictions may be vulnerable to hazards they have not identified as priorities. Therefore, the addition of a matrix in the base plan and/or county profiles that indicates which hazards are relevant, i.e., "can affect" each specific jurisdiction would provide a clearer connection between the information in Section 4 and the risk faced by "each jurisdiction".	Participant Profile Appendices & Appendix D: Mitigation Strategies	Additional information about hazards was requested in community worksheets to connect hazards that directly impact jurisdictions. Hazards that do not impact the jurisdiction were omitted from the profile and were not given a mitigation action. A hazard prioritization and mitigation strategy matrix has been developed and included in Appendix D: Mitigation Strategies to visualize which hazards participating jurisdictions prioritize and which were omitted.
The plan should address the RL property identified in Saunders County, as part of mitigation strategy for the community.	Appendix A: Full Risk Assessment	Through direct communication with NeDNR and NEMA, repetitive loss structure data is provided in this plan update.
The overall summary of vulnerability should identify structures, systems, populations or other community assets that are susceptible to damage and loss from hazard events and describe the communities chief vulnerabilities to be addressed in the mitigation strategy. There are also a couple areas of conflicting loss.	Participant Profile Appendices	Vulnerability statements are included in Future Development sections of jurisdiction profiles. Participating jurisdictions that identified prioritized concerns or vulnerabilities developed a mitigation action to help reduce impacts from the identified hazard.
The plan does not clearly indicate how hazard impacts were considered by the individual communities. It appears that the work needed to address this element was essentially completed by the Local Planning Committees, but the documentation does not indicate this clearly. Problems statements could also be employed as a succinct method to define an issue and communicate a potential solution.	Participant Profile Appendices	Information about how the hazard impacts each jurisdiction has been asked in this plan update.
The plan should document each jurisdiction's ability to expand on and improve their capabilities, especially where these capabilities are an impediment to plan implementation.	Participant Profile Appendices	Some jurisdictions identified low funding capabilities to implement project development and listed the need for alternative funding mechanisms for some projects to start or continue.

Comment/Revision from 2020 Review Tool	Location of Revision	Summary of Changes
The plan contains conflicting information regarding continued NFIP compliance in the Community Profiles. Several of the Community Profiles include "Maintain Participation in the National Flood Insurance Program" as a "Removed Mitigation Action" with the reason cited: "This project is no longer considered a mitigation action by FEMA". It is not clear why this would be included as element C2 requires the community to address continued compliance with the NFIP. Regardless of the appropriateness of identifying this as a "mitigation action", this citation, in the absence of a statement by the NFIP community to continue compliance creates the appearance of a conflict.	Participant Profile Appendices	Updated and more comprehensive information about NFIP participation is provided in the Capability Assessment section in applicable jurisdiction's profile. This includes information on whether the community will remain in compliance with the NFIP or whether there is interest in joining if they are not a part of the program.
The plan does not consistently clearly identify what alternatives were examined and evaluated to arrive at the indicated mitigation actions.	Participant Profile Appendices	The FEMA *Mitigation Ideas* guidebook was provided to jurisdictions to choose applicable mitigation actions. Outreach efforts were conducted to ensure hazards had a mitigation action, where consultants provided catered mitigation actions to jurisdictions based on their profile.
The plan does not describe a process for how communities will integrate the mitigation plan into other planning mechanisms. Discussion of Plan Integration in Section 6 on pages 182 and 183 identifies how Local Planning Teams were asked to identify existing planning mechanisms, and how they currently overlap with the HMP. However, neither the base plan nor the Community Profiles indicate how the results of this current planning effort will be integrated moving forward.	Participant Profile Appendices	Updated plan integration information is provided in the Plans and Studies section in each participating jurisdiction's profile, including whether the hazard mitigation plan has or has not been integrated into the various planning mechanisms. The local planning team is committed to reviewing the hazard mitigation plan for opportunities to incorporate relevant data into future plans and studies.

Goals and Objectives

The potential for disaster losses and the probability of occurrence of natural and human-caused hazards present a significant concern for the jurisdictions participating in this plan. The driving motivation behind this hazard mitigation plan is to reduce vulnerability and the likelihood of impacts to the health, safety, and welfare of all citizens in the planning area. To this end, the Regional Planning Team reviewed and approved goals which helped guide the process of identifying both broad-based and jurisdictional-specific mitigation strategies and projects that will, if implemented, reduce their vulnerability and help build stronger, more resilient communities.

Goals from the 2020 hazard mitigation plan were reviewed, and the Regional Planning Team agreed that most are still relevant and applicable for this plan update. Goal 5 that stated "Pursue

Multi-Objective Opportunities (wherever possible)" and the objectives with it were removed. The updated goals and objectives for this plan update are as follows.

Goal 1: Protect the Health and Safety of Residents

Objective 1.1: Reduce or prevent damage to property or prevent loss of life or serious injury (overall intent of the plan).

Objective 1.2: Improve real-time monitoring of hazards with stream gauges, weather stations, and other technology where data gaps are identified.

Goal 2: Reduce Future Losses from Hazard Events

Objective 2.1: Provide protection for existing structures, future development, community lifelines, infrastructure, services, utilities, and trees.

Objective 2.2: Develop hazard specific plans, conduct studies or assessments, and retrofit buildings and facilities to mitigate hazards and minimize their impact.

Objective 2.3: Minimize and control the impact of hazard events through enacting or updating ordinances, permits, laws, or regulations.

Goal 3: Increase Public Awareness and Education Regarding Vulnerabilities to Hazards

Objective 3.1: Develop and provide information to the public, visitors, and property owners about their risk and vulnerability to hazards.

Goal 4: Improve Emergency Management Capabilities

Objective 4.1: Develop or update City and/or County Emergency Response Plan(s) and procedures and increase the capability to respond.

Objective 4.2: Develop or improve Evacuation Plans and procedures.

Objective 4.3: Improve warning systems and ability to communicate with the public before, during, and following a disaster or emergency.

Goal 5: Enhance Overall Resilience and Promote Sustainability

Objective 5.1: Incorporate hazard mitigation and adaptation into updating other local planning endeavors (e.g., comprehensive plans, zoning ordinance, subdivision regulation, etc.).

Participating Jurisdictions

Jurisdictions that participated in the LPNNRD Hazard Mitigation Plan are listed in the table below. These jurisdictions met all the requirements for participation by attending required meetings, assisting in data collection, identifying mitigation actions, reviewing plan drafts, and either adopting the plan by resolution or planning to adopt the plan by resolution.

Table 2: Participating Jurisdictions

Participating Jurisdictions			
Butler County	Village of Inglewood	Village of Richland	Platte Township
David City	Saunders County	Village of Rogers	Pohocco Township
Village of Abie	City of Wahoo	Colon Volunteer Fire District	Reading Township
Village of Bruno	City of Yutan	Dwight Volunteer Fire Department	Skull Creek Township
Village of Dwight	Village of Cedar Bluffs	Malmo Volunteer Fire Department	Ulysses Township
Village of Garrison	Village of Colon	North Bend Volunteer Fire Department	Union Township
Village of Linwood	Village of Leshara	Rising City Rural Fire Protection District #3	Cedar Bluffs Public School
Village of Octavia	Village of Malmo	Schuyler Volunteer Fire Department	David City Public Schools
Village of Rising City	Village of Mead	Weston Volunteer Fire Department	ESU #2
Village of Surprise	Village of Morse Bluff	Ames Diking and Drainage District	Mead Public Schools
Village of Ulysses	Village of Prague	Cotterell Diking and Drainage District	North Bend Central Public Schools
Dodge County	City of Schuyler	North Bend Drainage District	Lake Ventura SID #3
City of Fremont	Village of Lindsay	Platte Valley Drainage District	Woodcliff Lakes SID #8
City of North Bend	Village of Platte Center	Three Rivers Public Health Department	Lower Platte North NRD

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Section 2: How to Use This Hazard Mitigation Plan

Introduction

This hazard mitigation plan was developed for anyone that lives, works, owns a business, owns land, or visits Butler, Dodge, or Saunders Counties and the remaining communities in the partial counties. Different sections of the plan will be helpful to different people. This section is designed to help guide readers to the most relevant information.

How to Use This Document

Jurisdiction that Participated in the Plan

I am a governing official from a participating jurisdiction and want to learn more about the hazards that could impact my jurisdiction, identified strategies to reduce vulnerability to those hazards, how to secure funding for those strategies, and how to keep the plan up to date. I would review:

- **Section Three: Planning Area Overview, Participant Profile Appendices, and Appendix C: Planning Area Profile:** To learn about demographics, at-risk populations, housing, employment, economics, social vulnerability, rural capacity index, and historical sites.

- **Section Five: Risk Assessment Summary and Appendix A: Full Risk Assessment:** To learn about the hazards that could impact the planning area, where those hazards are likely to occur, how often they are likely to occur, the possible extent of the hazards, how changes in extreme weather will impact the hazards, and regional vulnerabilities.

- **Section Seven: Plan Implementation and Maintenance and Appendix F: Guide to Review and Update the Hazard Mitigation Plan:** To learn about plan maintenance and how to update your participant section.

- **Section Eight: Participant Profiles, Participant Profile Appendices, and Special Districts Appendix:** To learn jurisdictional specific information about the three counties, local communities, and other local jurisdictions. Each participant section contains information about prioritized hazards, community lifelines, and mitigation action and strategies.

- **Appendix E: Hazard Mitigation Funding Guidebook:** To learn about various federal, state, and other funding sources to help pay for identified mitigation strategies.

Resident, Landowner, Visitor, or Business

I am a resident, landowner, visitor, or business and want to learn about my county, my community, and protecting my family, home, and property from natural and human-caused hazards. I would review:

- **Section Three: Planning Area Overview, Participant Profile Appendices, and Appendix C: Planning Area Profile:** To learn about demographics, at-risk populations, housing, employment, economics, social vulnerability, rural capacity index, and historical sites.

- **Section Five: Risk Assessment Summary and Appendix A: Full Risk Assessment:** To learn about the hazards that could impact the planning area, where those hazards are likely to occur, how often they are likely to occur, the possible extent of the hazards, how changes in extreme weather will impact the hazards, and regional vulnerabilities.

- **Section Eight: Participant Profiles and Participant Profile Appendices:** To learn jurisdictional specific information about the three counties, local communities, and other local jurisdictions. Each participant section contains information about prioritized hazards, community lifelines, and mitigation action and strategies.

State or Federal Agency

I am with a state or federal agency and want to learn more about the planning process, hazard risks, and mitigation strategies across all jurisdictions in Butler, Dodge, and Saunders Counties. I would review:

- **Section One: Introduction:** To learn about the goals and objectives of the Lower Platte North Hazard Mitigation Plan.

- **Section Three: Planning Area Overview, Participant Profile Appendices, and Appendix C: Planning Area Profile:** To learn about demographics, at-risk populations, housing, employment, economics, social vulnerability, rural capacity index, and historical sites.

- **Section Four: Planning Process Summary and Appendix B: Planning Process Documentation:** To learn about the planning process, who attended meetings, and who was invited to participate.

- **Section Five: Risk Assessment Summary and Appendix A: Full Risk Assessment:** To learn about the hazards that could impact the planning area, where those hazards are likely to occur, how often they are likely to occur, the possible extent of the hazards, how changes in extreme weather will impact the hazards, and regional vulnerabilities.

- **Appendix D: Mitigation Strategy, Participant Profile Appendices:** To learn about the mitigation strategies identified by each participating jurisdiction.

Section Three: Planning Area Overview

Introduction

To identify jurisdictional vulnerabilities, it is vitally important to understand the people and built environment of the planning area. The following section provides a summary of characteristics for Butler County, Dodge County, and Saunders County. A more detailed profile broken down by community is covered in *Appendix C: Planning Area Profile*, including demographics, at-risk populations, employment, economics, and housing.

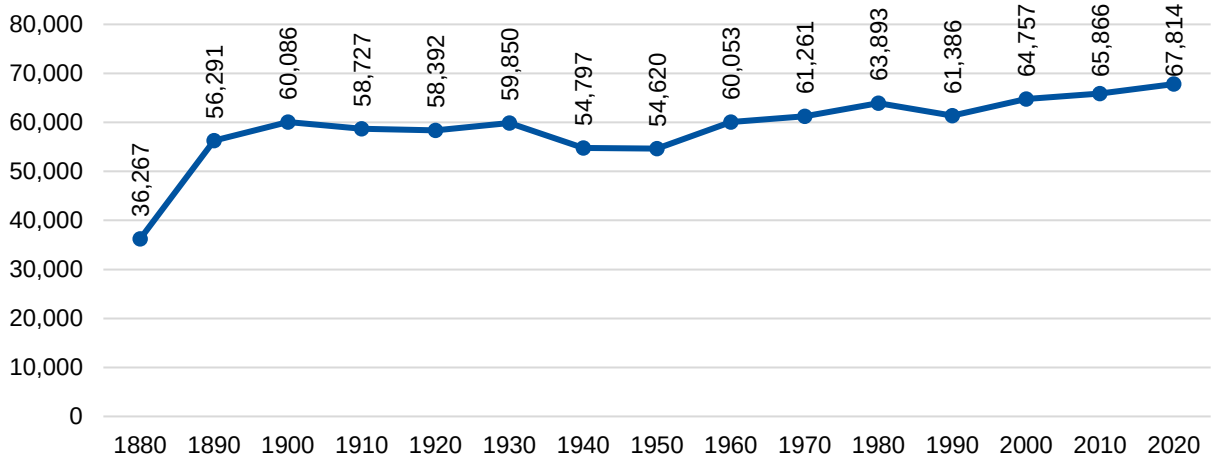
Location and Geography

The Lower Platte North NRD hazard mitigation planning area is located in eastern Nebraska. It includes most of Butler and Saunders Counties, as well as portions of Dodge, Boone, Colfax, Madison, and Platte Counties. The planning area covers approximately 1,894 square miles. There are 33 incorporated communities in the district. Major transportation routes include U.S. Highways 30, 77, 81, 275 and State Highways 15, 32,45, 63, 64, 66, 79, 91, 92, and 109. Major waterways in the district include the Big Blue River, North Branch Big Blue River, Elkhorn River, and the Platte River. There are 82 creeks and tributaries within the planning area, which include Pebble Creek, Shell Creek, and Wahoo Creek. Other bodies of water include Czechland Lake, Homestead Lake, and Lake Wanahoo. Figure 2 shows planning area, incorporated communities, major transportation routes, major waterways, and location within the state.

Demographics

The U.S. Census Bureau collects specific demographic information for the three counties. The estimated population of the three-county planning area is 67,814.[1]

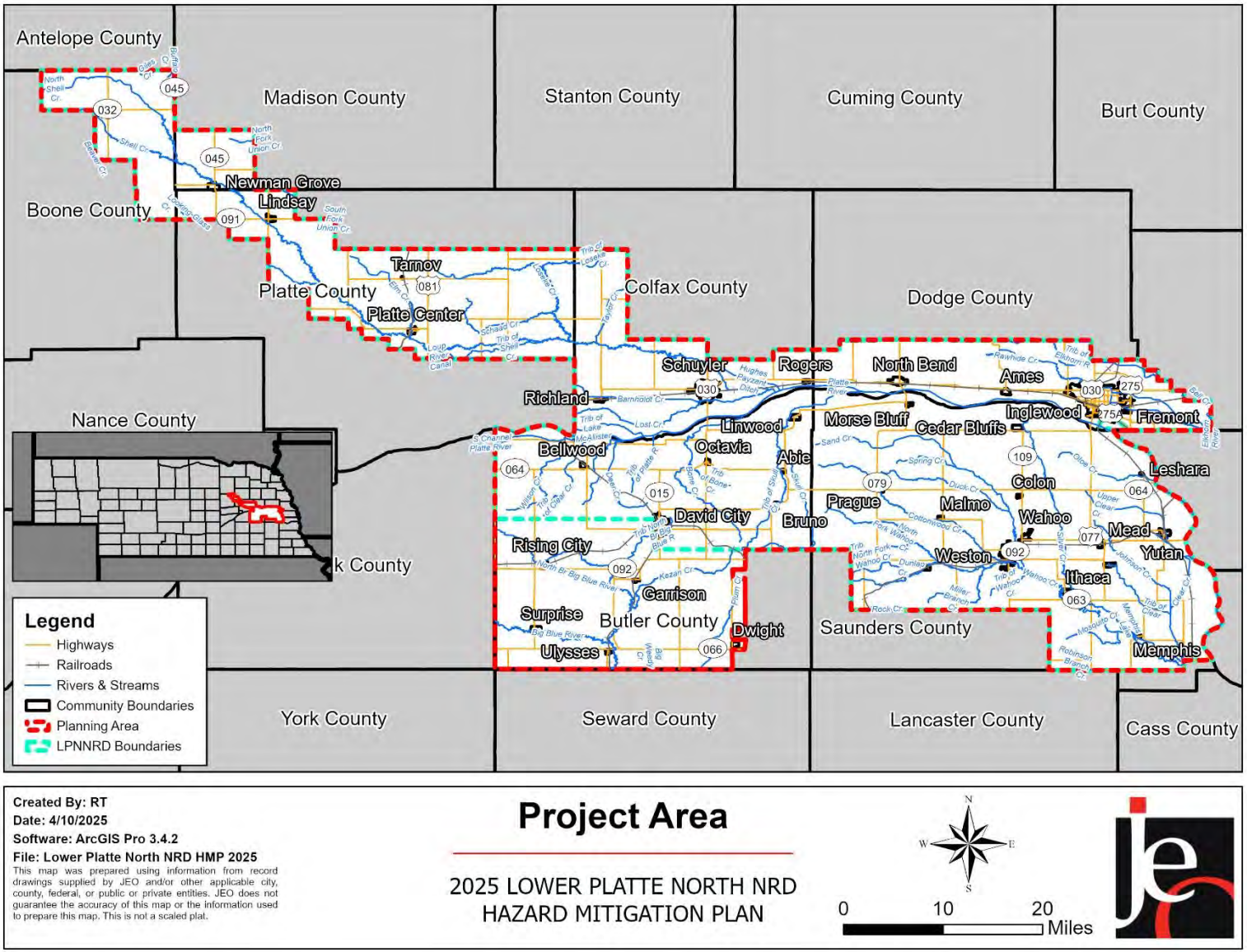
Figure 1: Planning Area Population, 1880-2020



Source: U.S. Census Bureau[2]

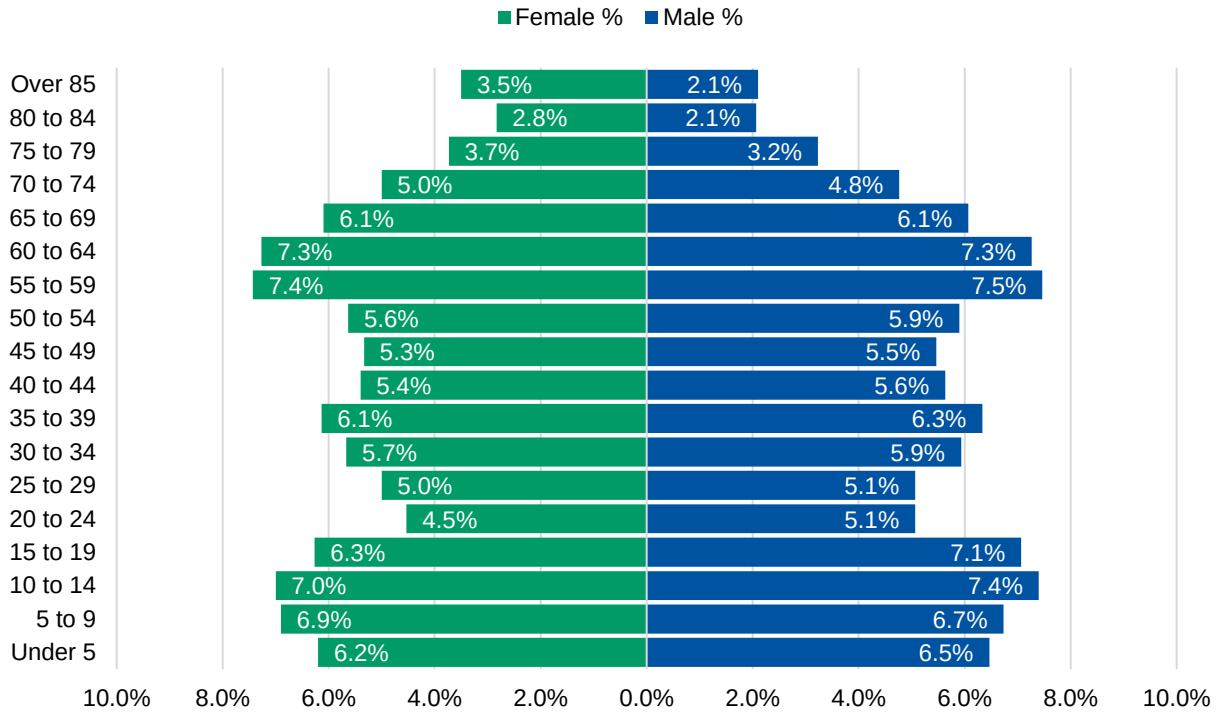
1 United States Census Bureau. "2020 Census Bureau Decennial Census: P1: Race." https://data.census.gov/.
2 United States Census Bureau. "2020 Census Bureau Decennial Census: P1: Race." https://data.census.gov/.

Figure 2: Planning Area Map



Community and regional vulnerability are impacted by growing or declining populations. The planning area has grown slowly since 1950 with periods when the population has declined and periods when the population has increased. Looking at the age cohort breakdown of the planning area, there is a large majority of the population between the ages 0 to 19, 35 to 39, and 55 to 69. This suggests a steady population and a need for elderly care, childcare, and schools in the future. Additional population vulnerability information can be found in *Appendix C: Planning Area Profile*.

Figure 3: Population by Age Cohort and Sex (2020)



Source: U.S. Census Bureau[3]

In general, certain populations may have increased vulnerability due to difficulty with medical issues, extremes in age, and communication issues due to language barriers. Several at-risk populations have been identified in the planning area. These include:

- Schools
- Medical/Elderly Care Facilities
- Racial Minorities

The tables on the next page list the at-risk populations in the county. For addition information about at-risk populations see *Appendix C: Planning Area Profile.*

3 United States Census Bureau. "2020 Census Bureau Decennial Census: P1: Race." https://data.census.gov/.

Table 3: School Inventory

School District	Total Enrollment (2022-2023)
Ashland-Greenwood Public Schools	1,099
Cedar Bluffs Public School	469
David City Public Schools	676
East Butler Public Schools	297
Fremont Public Schools	5,217
Logan View Public Schools	590
Mead Public Schools	283
Newman Grove Public Schools	219
North Bend Central Public Schools	591
Scribner-Snyder Community Schools	171
Wahoo Public Schools	1,085
Yutan Public Schools	506
Total	**11,203**

Source: Nebraska Department of Education[4]

Table 4: Planning Area Inventory of Care Facilities

County	Hospitals	Long Term Care Facilities	Assisted Living Homes
Butler County	1	2	1
Dodge County	1	4	6
Saunders County	1	2	2
Total	3	8	9

Source: Nebraska Department of Health and Human Services[5]

Table 5: Racial Composition Trends

Race	2010		2020		% Change
	Number	% of Total	Number	% of Total	
White, Not Hispanic	61,730	93.7%	59,170	87.3%	-4.15%
Black	300	0.5%	355	0.5%	1.67%
American Indian and Alaskan Native	244	0.4%	457	0.7%	87.3%
Asian	301	0.5%	299	0.4%	-0.66%
Native Hawaiian and Other Pacific Islander	76	0.1%	26	0.0%	-65.79%
Other Races	2,417	3.7%	3,699	5.5%	53.04%
Two or More Races	798	1.2%	3,808	5.6%	377.19%

4 Nebraska Department of Education. October 2023. "Nebraska Education Profile". https://nep.education.ne.gov/.
5 Nebraska Department of Health and Human Services. December 2023. "Rosters of Facilities And Services". https://dhhs.ne.gov/licensure/Pages/Rosters-of-Facilities-and-Services.aspx.

Race	2010		2020		% Change
	Number	% of Total	Number	% of Total	
Total Population	**65,866**	**-**	**67,814**	**-**	**2.96%**

Source: U.S. Census Bureau[6,7]

Housing

The U.S. Census Bureau provides information related to housing units and potential areas of vulnerability. Potentially vulnerable housing characteristics include vacant housing, rental properties, mobile homes, older housing, those with no internet, and homes with no vehicles available. The tables below show vulnerable housing characteristics in the planning area. Additional housing vulnerability information can be found in *Appendix C: Planning Area Profile*.

Table 6: Occupied, Vacant, Owner, and Renter Housing

Total Housing Units					Occupied Housing Units			
Occupied		Vacant			Owner		Renter	
#	%	#	%		#	%	#	%
26,921	**88.5%**	**3,491**	**11.5%**		**19,538**	**72.6%**	**7,383**	**27.4%**

Source: U.S. Census Bureau[8]

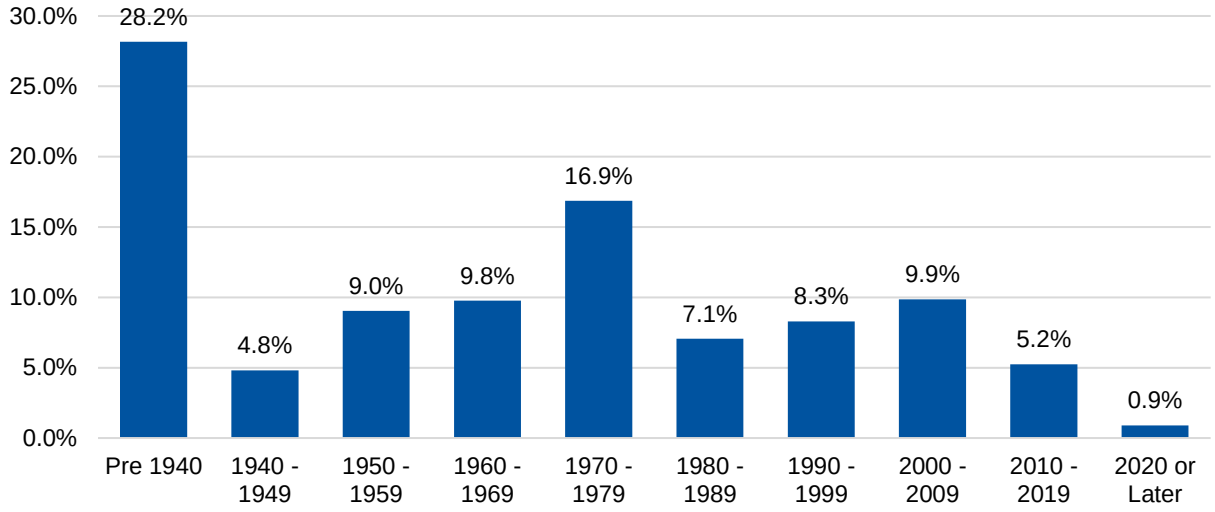
Table 7: Selected Housing Vulnerabilities

Housing Characteristics	Butler County	Dodge County	Saunders County	Total
Occupied Housing Units	3,508 (87.0%)	14,624 (89.5%)	8,789 (87.6%)	**26,921**
Lacking Complete Plumbing Facilities	1.0%	0.2%	0%	**59 (0.2%)**
Lacking Complete Kitchen Facilities	2.4%	1.9%	0.1%	**363 (1.4%)**
Broadband Internet Subscription	85.0%	85.8%	89.5%	**23,394 (86.9%)**
No Vehicles Available	2.7%	4.8%	3.5%	**1,111 (4.1%)**
Mobile Homes	7.1%	4.8%	4.0%	**1,465 (4.8%)**

Source: U.S. Census Bureau[9,10]

6 United States Census Bureau. "2010 Census Redistricting Data (Public Law 94-171): P1: Race." https://data.census.gov.
7 United States Census Bureau. "2020 Census Redistricting Data (Public Law 94-171): P1: Race." https://data.census.gov/.
8 United States Census Bureau. "2022 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." https://data.census.gov/.
9 United States Census Bureau. "2022 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." https://data.census.gov/.
10 United States Census Bureau. "2022 Census Bureau American Community Survey: DP02: Selected Social Characteristics in the United States." https://data.census.gov/.

Figure 4: Housing Age in the Planning Area



Source: U.S. Census Bureau[11]

Employment and Economics

The U.S. Census Bureau provides information related to employment and economic indicators. Low-income populations and the unemployed may be more vulnerable to certain hazards like flooding and severe winter weather. Additional employment and economic vulnerability information can be found in *Appendix C: Planning Area Profile*.

Table 8: Employment and Economic Characteristics

Employment and Economic Characteristics	Butler County	Dodge County	Saunders County	Total
Percent of People Living Below the Poverty Line	7.9%	9.1%	6.7%	**8.2%**
Median Household Income	$75,690	$66,793	$84,474	**$ 75,652**
Unemployment Rate	0.7%	4.1%	2.4%	**3.2%**

Source: U.S. Census Bureau[12]

11 United States Census Bureau. "2022 Census Bureau American Community Survey: DP04: Selected Housing Characteristics". https://data.census.gov/.

12 United States Census Bureau. "2022 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." https://data.census.gov/.

Section Four: Planning Process Summary

Introduction

The process utilized to develop a hazard mitigation plan is often as important as the final planning document. For this planning process, LPNNRD adapted the four-step hazard mitigation planning process outlined by FEMA to fit the needs of the participating jurisdictions. The following pages give a summary of the planning process that took place during the plan update.

Requirement §201.6(b): Planning process. An open public involvement process is essential to the development of an effective plan. In order to develop a more comprehensive approach to reducing the effects of natural disasters, the planning process shall include:

(1) An opportunity for the public to comment on the plan during the drafting stage and prior to plan approval;
(2) An opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development, as well as businesses, academia and other private and non-profit interests to be involved in the planning process; and
(3) Review and incorporation, if appropriate, of existing plans, studies, reports, and technical information.

Requirement §201.6(c)(1): The plan shall document] the planning process used to develop the plan, including how it was prepared, who was involved in the process, and how the public was involved.

Plan Update Process

Once LPNNRD was awarded a FEMA grant for their hazard mitigation plan update, JEO Consulting Group, Inc. (JEO) was contracted to assist, guide, and facilitate the planning process and plan assembly.

To be a participant in the development of this plan update, jurisdictions were required to attend required meetings or have meetings with the Regional Planning Team, assist in data collection, identify mitigation actions, and review plan drafts. Following plan completion and per FEMA requirements, jurisdictions who participated in the HMP process were required to adopt the plan via resolution within one year of plan approval.

Kick Off Meeting

To start the project, a meeting was held between LPNNRD staff, county emergency managers, community representatives, and JEO to discuss the planning process and a general schedule for the plan update (Figure 5). Key takeaways from the meeting include the following.

- Clarification of potential participants in the plan.
- Roles and responsibilities for the regional planning team.
- Goals and objectives for the plan.
- Identification of hazards for the plan.
- Discussion of vulnerable populations.

Figure 5: Project Timeline



Round 1 Meetings: Hazard Identification & Plan Integration

The intent of the Round 1 Meeting was to familiarize jurisdictional representatives (i.e., the local planning teams), stakeholders, and the public with the plan update process, expected actions for the coming months, the responsibilities of being a participant, and to collect preliminary information to update the plan. After the meeting the attendees conducted risk and vulnerability assessments based on local capabilities, previous occurrences of hazards, and potential exposure. In addition, local planning team members evaluated potential integration of the hazard mitigation plan alongside other local planning mechanisms.

The Round 1 Meetings were held as a hybrid and a virtual meeting where participants, stakeholders, and the public could either join in-person or online via Zoom. Meeting dates, times, and location are given below. Virtual and in-person sign-in sheets can be found in *Appendix B: Planning Process Documentation*.

- **Monday, June 17, 2:00pm at the Lake Wanahoo NRD Education Building, 1655 County Road 16, Wahoo, NE**
- **Thursday, June 20, 6:30pm at the David City Library, 399 N 5th St, David City, NE**
- **Wednesday, June 26, 10:00am via Zoom**

Round 2 Meetings: Mitigation Strategies, NFIP, & Plan Maintenance

Round 2 Meetings are designed to identify and prioritize new mitigation measures, update previous mitigation actions from the 2020 hazard mitigation plan, update NFIP information, and identify when the plan would be reviewed and by whom. Attendees were also asked to review the information collected from the Round 1 meeting related to their jurisdiction through this planning process for accuracy.

The Round 2 Meetings were held as one virtual and two hybrid meetings where participants, stakeholders, and the public could either join in-person or online via Zoom. Meeting dates, times, and locations are listed below. Virtual and in-person sign-in sheets can be found in *Appendix B: Planning Process Documentation*.

- **Tuesday, January 7, 2:00pm at the Lake Wanahoo NRD Education Building, 1655 County Road 16, Wahoo, NE**
- **Thursday, January 16, 6:30pm at the David City Library, 399 N 5th St, David City, NE**
- **Tuesday, January 21, 10:00am via Zoom**

Public Review

Once the hazard mitigation plan draft was completed, a public review period was opened to allow local planning teams, stakeholders, and community members at large to review the plan, provide comments, and request changes. The public review period was open from May 12, 2025, through June 2, 2025. Participating jurisdictions were emailed a letter notifying them of this public review period. The draft plan was also made available on the project website (https://jeo.com/lower-platte-north-nrd-hazard-mitigation-plan-update/) to download the document. Jurisdictions, stakeholders, and the public could provide comments via mail or email. A review of the comments and who they were from can be found in *Appendix B: Planning Process Documentation*. All changes and comments were reviewed and incorporated into the plan as applicable.

Plan Adoption

Based on FEMA requirements, this multi-jurisdictional hazard mitigation plan must be formally adopted by each participant through approval of a resolution. This approval will create individual ownership of the plan by each participant. Formal adoption provides evidence of a participant's full commitment to implement the plan's goals, objectives, and action items. A copy of the resolution draft provided to participating jurisdictions is located in *Appendix B: Planning Area Documentation* along with any copies adoption resolutions that have already been received.

Requirement §201.6(c)(5): For multi-jurisdictional plans, each jurisdiction requesting approval of the plan must document that it has been formally adopted.

Public Involvement and Outreach

To notify and engage the public in the planning process, a wide range of stakeholder groups, State of Nebraska agencies, neighboring jurisdictions, and the general public were contacted and encouraged to participate in the plan update. Lists of the notified stakeholders, agencies, and neighboring jurisdictions can be found in *Appendix B: Planning Area Documentation*.

The Regional Planning Team was asked to identify any underserved communities or vulnerable populations in the planning area not already identified in the stakeholder list, so they could have the opportunity to be involved in the planning process. The City of Schuyler and southern Fremont were identified as they have a large Spanish-speaking population. Public outreach materials were offered in Spanish and English to better reach these communities.

Stakeholder Groups

There were 53 stakeholder groups that were identified and emailed or mailed invitations to participate in the planning process by attending meetings. Representatives from Omaha Steel, Methodist Health System, Dodge County, Farm Service Agency, DNR Floodplain, Nebraska Extension, NEMA, and FEMA attended meetings and/or provided input for their respective participant profiles.

Neighboring Jurisdictions

Neighboring jurisdictions were notified and invited to participate in the planning process by attending meetings. Representatives from Colfax County attended a Round 1 Meeting. No comments or revisions were received from any neighboring jurisdictions.

Vulnerable and Underserved Populations

During the project kickoff meeting with the county emergency managers, the Lower Platte North NRD, and the attendees were asked to identify vulnerable and underserved populations within the planning area, as well as the best methods to engage them. Vulnerable populations identified by the attendees included the very young, elderly, and those with low income. The City of Schuyler and southern Fremont were also identified as they have a large Spanish-speaking population. The Regional Planning Team felt that utilizing the participating jurisdiction's local planning teams and stakeholders that support vulnerable populations to represent and reach out to those groups would be the best course of action. Local planning teams were asked during meetings to reach out directly (i.e. meetings, phone calls, emails) to vulnerable populations and organizations that represent them and invite them to participate through the public survey and communication with their local planning team.

Public Survey

The general public was encouraged to participate in the planning process through a public survey that was available online and by hard copy. The survey was shared with the public by the local planning teams, NRD press release and social media, county social media, and county emails. Copies of the survey along with outreach documentation can be found in *Appendix B: Planning Process Documentation*. The purpose of the survey was to collect specific concerns related to hazards and projects the public have a vested interest in. It was available beginning after the Round 1 meeting and closed a week prior to the Round 2 meeting. In total there were 80 responses to the survey from members of the public.

Results of the public survey were shared with participating jurisdictions during the Round 2 meeting. Due to the low number of responses, the results could only be used by a few communities to help influence hazard prioritization and mitigation actions selected by local planning teams.

The most commonly experienced hazard events for residents included tornadoes and high winds, flooding, severe thunderstorms, and severe winter storms. This was the same for the ranked level of concern for hazard events. Alert sirens, levee construction or improvements, stormwater system improvements, water and sanitary sewer system protective measures, and backup generators were the most popular mitigation projects of importance for the public. The full results of the public survey can be found in *Appendix B: Planning Process Documentation*.

Fremont Flood Risk Open House

As part of the hazard mitigation planning process, the City of Fremont partnered with JEO Consulting Group and UNL's Master of Community and Regional Planning students to host a Flood Risk Open House. The purpose of this open house was to educate the public about the city's risk of flooding and to obtain public input on problem areas and possible solutions. Information about the Flood Risk Open House can be found in *Appendix G: Fremont Flood Risk Open House*.

Section Five: Risk Assessment Summary

Introduction

The ultimate purpose of this hazard mitigation plan is to minimize the loss of life and property across the planning area due to natural and human-caused hazards. The basis for the planning process is the regional and local risk assessment. This section contains a summary of potential hazards, regional vulnerabilities and exposures, probability of future occurrences, and potential impacts and losses. By conducting a regional and local risk assessment, participating jurisdictions can develop specific strategies to address areas of concern identified through this process. This section is meant to provide a summary of the risk assessment for the planning area. The full risk assessment can be found in *Appendix A: Full Risk Assessment*.

Hazard Identification

The identification of relevant hazards for the region began with a review of the 2021 Nebraska State Hazard Mitigation Plan. The Regional Planning Team reviewed, discussed, and determined the list of hazards to be profiled in this hazard mitigation plan update. The hazards for which a risk assessment was completed are listed below.

Table 9: Hazards Addressed in the Plan

Hazards Addressed in the Plan		
Animal and Plant Disease	Flooding	Severe Thunderstorms
Dam Failure	Grass/Wildfire	Severe Winter Storms
Drought	Hazardous Materials Release	Terrorism & Cyber-Attack
Extreme Temperatures	Levee Failure	Tornadoes & High Winds

Hazards identified in the 2021 Nebraska State Hazard Mitigation Plan that were not identified in the LPNNRD Hazard Mitigation Plan update include Human Infectious Disease and Power Failure.[13] These hazards were reviewed by the Regional Planning Team and were chosen to not be included in this plan due to a variety of reasons. Power failure is discussed within the hazards that may cause the failure. The Regional Planning Team felt Human Infectious Disease would be better addressed in other planning documents or mechanisms.

Hazard Assessment Summary Tables

Table 10 and Table 11 provide an overview of the data contained in the hazard profiles. These tables are intended to be a quick reference for people using the plan and do not contain full source information. Source information and a full discussion of individual hazards are included in *Appendix A: Full Risk Assessment*. There are five main pieces of data used within these tables.

13 Nebraska Emergency Management Agency. January 2021. "2021 Nebraska State Hazard Mitigation Plan". https://nema.nebraska.gov/assets/files/hazard-mitigation/hazmitplan2021.pdf.

- **Property and Crop Damage in Dollars:** This is the total dollar amount of all property damage and crop damage as recorded in federal, state, and local data sources. The limitation to these data sources is that dollar figures usually are estimates and often do not include all damages from every event, but only officially recorded damages from reported events.

- **Total Years of Record:** This is the span of years there is data available for recorded events.

- **Number of Hazard Events:** This shows how often an event occurs. The frequency of a hazard event will affect how a community responds. Severe winter storms may not cause much damage each time, but multiple storms can have an incremental effect on housing and utilities. In contrast, tornadoes and high wind can have a widespread effect on a community.

- **Historical probability:** This can be calculated based on the total years of record and the total number of years in which an event occurred. An example of the annual historical probability estimate is found below:

$$\boldsymbol{Historical\ Probability}\ (\%) = \frac{Total\ Years\ with\ an\ Event\ Occuring\ (\#)}{Total\ Years\ of\ Record\ (\#)}\ x\ 100$$

- **Future Likelihood:** This is the probability that a hazard will occur in the future. Future likelihood takes into account historical probability, changes in extreme weather , and future development. It is broken down into the four categories listed below.

  Very Unlikely = Hazard is expected to occur once every 50+ years.

  Unlikely = Hazard is expected to occur once every 10+ to 50 years.

  Likely = Hazard is expected to occur once every 5+ to 10 years.

  Very Likely = Hazard is expected to occur once every 1 to 5 years.

The following table provides loss estimates for hazards with sufficient data. Detailed descriptions of major events are included in *Appendix A: Full Risk Assessment* and *Participant Profile Appendices*. It should be noted that NCEI data are not all inclusive and the database provides very limited information on crop losses. To provide a better picture of the crop losses associated with the hazards within the planning area, crop loss information provided by the United States Department of Agriculture (USDA) Risk Management Agency (RMA) was utilized for this update of the plan. Data for all the hazards are not always available, so only those with an available dataset are included in the loss estimation.

Table 10: Loss Estimation for the Planning Area

Hazard Type		Count	Property Damage	Crop Damage[2]
Animal & Plant Disease	Animal Disease[1]	84	3,141 Animals	N/A
	Plant Disease[2]	55	N/A	$306,967
Dam Failure[5]		2	$0	N/A
Drought[6]		441 out of 1,548 Months	$55,000	$159,863,886
Extreme Temperatures	Extreme Heat[7]	Avg. 5 Days a Year	N/A	$20,194,663
	Extreme Cold[7]	Avg. 32 Days a Year	$0	$320,710
Flooding[8]	Flash Flood	58	$492,500	$5,736,483
	Flood	127	$58,763,000	
Grass/Wildfires[9] *2 Injuries, 2 Fatalities*		1,086	6,366 Acres Burned	$70,739
Hazardous Materials Release	Fixed Site[3] 6 Injuries 1 Fatality	84	$0	N/A
	Transportation[4] 1 Injury	35	$100,104	N/A
Levee Failure[11]		3	$12,130,000	N/A
Severe Thunderstorms[8]	Hail Range: 0.75-4.5 Inches Average: 1.2 Inches	549	$14,251,000	$25,485,345
	Thunderstorm Wind Range: 50-100 mph Average: 56 mph	366	$850,000	$37,666,301
	Heavy Rain	12	$0	
	Lightning	6	$303,000	
Severe Winter Storms[8]	Blizzard	27	$0	$1,837,180
	Heavy Snow	16	$,3000,000	
	Ice Storm	11	$0	
	Winter Storm	148	$0	
	Winter Weather	40	$0	
Terrorism & Cyber Attack[10]		1	$0	N/A
Tornadoes and High Winds[8]	High Winds Range: 35-58 mph Average: 49 mph	64	$5,000	$6,825,252
	Tornadoes Range: EFU-EF2 Average: EF0	44	$2,093,000	$18,612
Total		**2,818**	**$89,042,604**	**$258,326,138**

N/A: Data not available
1 – NDA, 2014 – 2023
2 - USDA RMA, 2000 –2023
3 – NRC, 1990 – December 2023
4 – PHSMA, 1971 – June 2024
5 – Stanford University NPDP, December 2023
6 – NOAA, 1895 – December 2023
7 – NOAA Regional Climate Center, 1893 – 2024
8 – NCEI, 1996 - December 2023
9 – NFS, 2000 - 2023
10 – University of Maryland, 1970 – 2017
11 – USACE, 2019-2021

Table 11: Hazard Occurrences

Hazard	Previous Occurrence Events/Years of Record	Historical Probability	Future Likelihood	Likely Extent
Animal Disease[1]	84/10	90%	Very Likely	Range: 1-2,650 animals
Plant Disease[2]	55/24	83%	Very Likely	Crop damage or loss
Dam Failure[5]	2/136	1.5%	Very Unlikely	Varies by structure and event
Levee Failure[11]	3/53	6%	Unlikely	Varies by structure and event
Drought[5]	441/1,548 months	57%	Very Likely	D1-D4
Extreme Cold[7]	Avg 14 days a year ≤ 0°F	100%	Very Likely	≤ 0°F
Extreme Heat[7]	Avg 5 days a year ≥100°F	76%	Very Likely	≥100°F
Flooding[8]	185/28	93%	Very Likely	Flooding likely to occur within the mapped flood risk hazard areas (see FIRMs). Some inundation of structures (15% of structures) and roads near streams. Some evacuations of people may be necessary
Grass/Wildfire[9]	1,086/24	100%	Very Likely	Avg: 6 acres burned Some homes and structures threatened or lost
Hazardous Materials Release: Fixed Site[3]	84/34	88%	Very Likely	Range: 1-2,000 gallons and <1-20,000 pounds
Hazardous Materials Release: Transportation[4]	35/54	37%	Likely	Range: 1-1,000 gallons, <1-800 pounds
Severe Thunderstorms[8]	933/28	100%	Very Likely	Avg: 56 mph winds Avg: 1.2-inch hail Range: 50-100 mph winds Range: 0.75-4.5-inch hail
Severe Winter Storms[6,8]	242/28	100%	Very Likely	0.25”-0.5” Ice (SPIA Level 2) 15°-30° below zero (wind chill) Range: 1-9 inches snow 25-35 mph winds
Terrorism & Cyber-Attack[10]	2/55	4%	Unlikely	Varies by event
High Winds[8]	64/28	50%	Very Likely	Avg: 49 mph Range: 35-58 mph

Hazard	Previous Occurrence Events/Years of Record	Historical Probability	Future Likelihood	Likely Extent
Tornadoes[8]	44/28	71%	Very Likely	Avg: EF0 Range: EFU-EF2

1 – NDA, 2014 - 2023
2 – USDA RMA, 2000 - 2023
3 – NRC, 1990 – December 2023
4 – PHSMA, 1971 – June 2024
5 – NPDP, 1890 – 2024
6 – NOAA, 1991 – 2020
7 – NOAA RCC, 1897 - 2024
8 – NCEI, 1996 – December 2023
9 – NFS, 2000 - 2023
10 – University of Maryland, 1970 – 2020, Local Planning Teams Communication
11 – USACE, 2024

FEMA National Risk Index

FEMA's National Risk Index is an online tool that analyzes natural hazard and community risk factors to develop a risk measurement for each county in the United States. Eighteen natural hazards are given a score from very high to very low. The table below gives the National Risk Index ratings for Butler County, Dodge County, and Saunders County. Risk Index scores are calculated using an equation that combines scores for expected annual loss, social vulnerability, and community resilience. All values fall between 0 (lowest possible value) and 100 (highest possible value).

Table 12: National Risk Index

Hazard	Butler County	Dodge County	Saunders County
Avalanche	N/A	N/A	N/A
Coastal Flooding	N/A	N/A	N/A
Cold Wave	Very Low (30)	Relatively Moderate (78.94)	Very Low (30.8)
Drought	Relatively Low (80.97)	Relatively Moderate (84.6)	Relatively Moderate (84.06)
Earthquake	Very Low (15.18)	Very Low (29.78)	Very Low (18.36)
Hail	Relatively Moderate (95.26)	Relatively High (97.74)	Relatively Low (56.86)
Heat Wave	Relatively Low (32.07)	Relatively Moderate (75.15)	Relatively Low (31.15)
Hurricane	N/A	N/A	N/A
Ice Storm	Relatively Moderate (70.09)	Relatively High (87.28)	Relatively Low (58.79)
Landslide	Relatively Low (12.4)	Relatively Low (45.04)	Relatively Low (23.03)
Lightning	Very Low (24.39)	Relatively Low (44.82)	Very Low (20.95)
Riverine Flooding	Very Low (22.78)	Relatively Moderate (92.97)	Relatively Moderate (84.76)

Hazard	Butler County	Dodge County	Saunders County
Strong Wind	Relatively Low (39.83)	Relatively Moderate (68.22)	Relatively Moderate (75.41)
Tornado	Relatively Low (53.01)	Relatively Moderate (89.31)	Relatively Low (67.67)
Tsunami	N/A	N/A	N/A
Volcanic Activity	N/A	N/A	N/A
Wildfire	Very Low (18.74)	Very Low (37.58)	Very Low (26.66)
Winter Weather	Relatively Low (43.75)	Relatively Moderate (85.05)	Relatively Low (47.34)
Overall Score	**Very Low (38.56)**	**Relatively Low (79.48)**	**Relatively Low (50.11)**

Source: FEMA[14]

Historical Disaster Declarations

Presidential Disaster Declarations

Presidential disaster declarations by county are available via FEMA from 1960 to July 2024. The following table describes the presidential disaster declarations within the planning area for the period of record. There have been 32 presidential disaster declarations in the planning area.

Table 13: Presidential Disaster Declarations

Disaster Declaration Number	Declaration Date	Title	County
228	7/18/1967	Severe Storms, Flooding	Butler, Dodge, Saunders
303	2/23/1971	Floods	Dodge, Saunders
406	10/20/1973	Severe Storms, Flooding	Saunders
500	4/8/1976	Ice Storms, High Winds	Butler, Saunders
552	3/24/1978	Storms, Ice Jams, Snowmelt, Flooding	Dodge, Saunders
716	7/3/1984	Tornadoes & Flooding	Dodge, Saunders
873	7/4/1990	Severe Storms, Tornadoes, Flooding	Dodge
908	5/28/1991	Severe Storms, Flooding	Dodge
983	4/2/1993	Ice Jams, Flooding	Butler, Dodge, Saunders
998	7/19/1993	Severe Storms, Flooding	Butler, Dodge, Saunders
1190	11/1/1997	Severe Snow Storms, Rain, Strong Winds	Butler, Dodge, Saunders
1480	7/21/2003	Severe Storms & Tornadoes	Butler
1517	5/25/2004	Severe Storms, Flooding, Tornadoes	Butler, Dodge, Saunders
3245	9/13/2005	Hurricane Katrina Evacuees	Butler, Dodge, Saunders
1674	1/7/2007	Severe Winter Storms	Butler

14 FEMA. April 2025. “The National Risk Index”. https://hazards.fema.gov/nri/map.

Disaster Declaration Number	Declaration Date	Title	County
1706	6/6/2007	Severe Storms, Flooding, Tornadoes	Saunders
1770	6/20/2008	Severe Storms, Flooding, Tornadoes	Butler, Saunders
1779	7/18/2008	Severe Storms, Straight-line Winds, Flooding	Dodge, Saunders
1878	2/25/2010	Severe Winter Storms, Snowstorm	Butler, Dodge, Saunders
1902	4/21/2010	Severe Storms, Ice Jams, Flooding	Butler
1924	7/15/2010	Severe Storms, Flooding	Dodge, Saunders
1945	10/21/2010	Severe Storms, Flooding, Tornado, Straight-Line Winds	Saunders
4014	8/12/2011	Severe Storms, Tornadoes, Straight Line Winds, and Flooding	Dodge
4179	6/17/2014	Severe Storms, Tornadoes, Straight Line Winds, and Flooding	Saunders
4185	7/28/2014	Severe Storms, Tornadoes, Straight Line Winds, and Flooding	Butler
4225	6/25/2015	Severe Storms, Tornadoes, Straight Line Winds, and Flooding	Saunders
4325	8/1/2017	Severe Storms, Tornadoes, Straight-Line Winds	Butler, Dodge, Saunders
4420	3/21/2019	Severe Winter Storm, Straight-Line Winds, and Flooding	Butler, Dodge, Saunders
3483	3/13/2020	COVID-19	Butler, Dodge, Saunders
4521	4/4/2020	COVID-19 Pandemic	Butler, Dodge, Saunders
4616	9/6/2021	Severe Storms and Straight-Line Winds	Saunders
4641	2/23/2022	Severe Storms, Straight-Line Winds, Tornadoes	Saunders

Source: Federal Emergency Management Agency, 1960-June 2024[15]

USDA Secretarial Disasters

Several USDA Secretarial Disasters for the planning area have occurred since 2012. Table 14 lists these disaster events. All of the disasters were for drought.

Table 14: USDA Secretarial Disasters (2012-July 2024)

Year	Type	Declaration Number	County
2012	Drought	S3315	Butler
2012	Drought	S3330	Butler, Dodge, Saunders
2012	Drought	S3343	Butler, Dodge, Saunders
2013	Drought	S3505	Butler, Dodge, Saunders
2020	Drought	S4789	Dodge, Saunders

15 Federal Emergency Management Agency. July 2024. "Disaster Declarations". https://www.fema.gov/openfema-data-page/disaster-declarations-summaries-v2.

Year	Type	Declaration Number	County
2020	Drought	S4799	Butler, Dodge, Saunders
2020	Drought	S4816	Butler
2022	Drought	S5163	Butler
2022	Drought	S5207	Butler, Dodge
2022	Drought	S5275	Butler, Dodge, Saunders
2022	Drought	S5304	Butler, Dodge, Saunders
2022	Drought	S5297	Dodge
2022	Drought	S5319	Butler
2023	Drought	S5392	Saunders
2023	Drought	S5405	Butler, Saunders
2023	Drought	S5427	Saunders
2023	Drought	S5392	Butler

Source: USDA, 2012-March 2025[16]

State Emergency Declarations

The Regional Planning Team reached out to NEMA in July 2024 for a list of State Emergency Declarations in the planning area that did not reach the level of a Presidential Disaster Location. At this time NEMA does not track State Disaster Declarations and there is no other site or organization that tracks this information. This has been identified by NEMA as a need, and they are currently developing a list of State Disaster Declarations. Once this information is available, it will be added to the plan.

Hazard Profiles

Information from participating jurisdictions was collected and reviewed alongside hazard occurrence, magnitude, and event narratives as provided by local, state, and federal databases. Profiles for each identified hazard in the plan were created to examine their risk and potential impact in the planning area. These full profiles can be found in *Appendix A: Full Risk Assessment*. Hazards of local concern or events which have deviated from the norm are discussed in greater detail in each respective participant profile (see *Participant Profile Appendices* of this plan).

Local planning teams prioritized hazards of concern from the hazard list based on historical hazard occurrences, potential impacts, and local capabilities. The table below lists the participants along with their prioritized hazards of concern. It is important to note that while a jurisdiction may not have selected a specific hazard as prioritized, hazard events can impact any jurisdiction at any time and their selection is not a full indication of risk.

16 U.S Department of Agriculture. 2025. "Disaster Designation Information" https://www.fsa.usda.gov/programs-and-services/disaster-assistance-program/disaster-designation-information/index.

Table 15: Prioritized Hazards of Concern by Jurisdiction

Jurisdiction	Animal and Plant Disease	Dam Failure	Drought	Extreme Temperatures	Flooding	Grass/Wildfire	Hazardous Materials Release	Levee Failure	Severe Thunderstorms	Severe Winter Storms	Terrorism & Cyber-Attack	Tornadoes & High Wind
Lower Platte North NRD		X	X		X			X				
Butler County					X		X					X
Abie							X		X	X		X
Bruno			X		X				X	X		X
David City					X				X		X	X
Dwight			X						X	X		X
Garrison										X		
Linwood					X	X			X	X		X
Octavia									X			X
Rising City			X						X	X		X
Surprise					X				X	X		X
Ulysses					X				X			X
Dodge County	X	X			X		X	X				X
Fremont					X		X	X	X	X	X	X
Inglewood					X			X	X	X		X
North Bend					X			X	X	X		X
Saunders County	X	X			X			X	X			
Cedar Bluffs		X	X		X				X	X		X
Colon					X							X
Leshara					X			X	X	X		X
Malmo		X							X	X		X
Mead				X					X	X	X	X
Morse Bluff					X			X	X	X		
Prague		X	X		X				X	X	X	X
Wahoo		X			X				X	X		X
Yutan					X	X		X	X	X		X
Lindsay					X				X	X		X
Platte Center					X				X	X		X
Richland							X		X	X		X

Jurisdiction	Animal and Plant Disease	Dam Failure	Drought	Extreme Temperatures	Flooding	Grass/Wildfire	Hazardous Materials Release	Levee Failure	Severe Thunderstorms	Severe Winter Storms	Terrorism & Cyber-Attack	Tornadoes & High Wind
Rogers					X		X			X		X
Schuyler								X	X			
Colon Volunteer Fire Department					X		X		X	X		X
Dwight Volunteer Fire Department			X			X			X			
Malmo Volunteer Fire Department						X			X	X		
North Bend Volunteer Fire Department					X	X	X					X
Rising City Rural Fire Department						X	X		X			X
Schuyler Volunteer Fire Department			X		X	X	X			X		X
Weston Volunteer Fire & Rescue					X	X	X		X	X		X
Cedar Bluffs Public School									X		X	X
David City Public Schools			X		X				X	X	X	
Mead Public Schools				X	X		X		X	X	X	X
North Bend Central Public Schools			X		X				X	X		X

Jurisdiction	Animal and Plant Disease	Dam Failure	Drought	Extreme Temperatures	Flooding	Grass/Wildfire	Hazardous Materials Release	Levee Failure	Severe Thunderstorms	Severe Winter Storms	Terrorism & Cyber-Attack	Tornadoes & High Wind
Platte Township					X				X	X		
Pohocco Township					X					X		X
Reading Township					X					X		
Skull Creek Township					X					X		
Ulysses Township					X					X		
Union Township					X					X		
Ames Diking and Drainage District		X			X			X				
Cotterell Diking and Drainage District					X			X				
North Bend Drainage District					X			X				
Platte Valley Drainage District					X			X				
Lake Ventura SID #3			X		X			X	X			X
Woodcliff Lakes SID #8					X		X		X	X		X
Educational Service Unit #2									X		X	
Three Rivers Public Health Department	X	X			X		X	X	X			X

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Section Six: Mitigation Strategy

Introduction

The primary focus of the mitigation strategy is to identify action items to reduce the effects of hazards on existing infrastructure and property based on the established goals and objectives of the hazard mitigation plan. These actions should consider the most cost effective and technically feasible options to address risk.

FEMA Mitigation Strategy Requirements

Requirement §201.6(c)(3)(i): [The hazard mitigation strategy shall include a] description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.

Requirement §201.6(c)(3)(ii): [The mitigation strategy shall include a] section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with particular emphasis on new and existing buildings and infrastructure.

Requirement: §201.6(c)(3)(ii): [The mitigation strategy] must also address the jurisdiction's participation in the National Flood Insurance Program, and continued compliance with NFIP requirements, as appropriate.

Requirement: §201.6(c)(3)(iii): [The mitigation strategy section shall include] an action plan describing how the actions identified in section (c)(3)(ii) will be prioritized, implemented, and administered by the local jurisdiction. Prioritization shall include a special emphasis on the extent to which benefits are maximized according to a cost benefit review of the proposed projects and their associated costs.

Requirement §201.6(c)(3)(iv): For multi-jurisdictional plans, there must be identifiable action items specific to the jurisdiction requesting FEMA approval or credit of the plan.

Summary of Changes

The development of the mitigation strategy for this plan update includes the addition of new mitigation actions, updated status or removal of past mitigation actions, and revisions to descriptions for consistency across the planning area.

Selected Mitigation and Strategic Actions

After establishing the goals, the local planning teams evaluated mitigation and strategic actions. These actions included: the mitigation and strategic actions identified by each participating jurisdiction in the previous plan and additional actions discussed during the update planning process. The Regional Planning Team provided each participant a link to the FEMA Mitigation Ideas document to be used as a starting point to review a wide range of potential mitigation actions. Participants were also encouraged to think of actions that may need FEMA grant assistance and to review their hazard prioritization section for potential mitigation and strategic actions. Members of the Regional County Planning Team were also available to help local jurisdictions identify additional action alternatives. These suggestions helped participants

determine which actions would best assist their respective jurisdiction in alleviating damage in the event of a disaster.

During the update of previous identified actions and the identification of new actions, local planning teams prioritized each identified mitigation and strategic action as high, medium, or low. The listed priority rating does not indicate which actions will be implemented first. Generally, high priority actions either address a major concern for the jurisdiction, have few to no challenges in implementation, and/or garner large support from the public and administration. Low priority actions either address a minor concern for the jurisdiction, have many challenges in implementation, and/or may not have support from the public or administration at this time. Medium priority actions may only have one or two of the items listed above. A mitigation and strategic action's priority may change very quickly as circumstances change.

The mitigation and strategic actions are the core of a hazard mitigation plan. The local planning teams were instructed that each hazard identified in the plan must have an action that addresses it. Mitigation and strategic actions were evaluated based on referencing the community's risk assessment and capability assessment. Jurisdictions were encouraged to choose actions that were realistic and relevant to the concerns identified.

It is important to note that not all the mitigation and strategic actions identified by a jurisdiction may ultimately be implemented due to limited capabilities, prohibitive costs, low benefit-cost ratio, or other concerns. These factors may not be identified during this planning process.

Participant Mitigation and Strategic Actions

Mitigation and strategic actions identified by participants of the HMP are found in the Mitigation and Strategic Actions Matrix in *Appendix D: Mitigation Strategy*. Additional information about selected actions can be found in the participant profiles in the *Participant Profile Appendices.* Each action includes the following information in the respective community profile.

- **Action:** General title of the action item.
- **Description & Location:** Brief summary of what the action item(s) will accomplish and the location of the project where applicable.
- **Hazard(s) Addressed:** Which hazard the mitigation action aims to address.
- **Estimated Cost:** General cost estimate for implementing the mitigation action for the appropriate jurisdiction.
- **Local Funding:** A list of any potential local funding mechanisms to fund the action.
- **Timeline:** General timeline as established by the local planning teams.
- **Priority:** General description of the importance and workability in which an action may be implemented (high/medium/low).
- **Lead Agency:** Listing of agencies or departments which may lead or oversee the implementation of the action item.
- **Status:** A description of what has been done, if anything, to implement the action item.

Implementation of the actions will vary between individual plan participants based upon the availability of existing information; funding opportunities and limitations; and administrative capabilities of communities. Establishing a cost-benefit analysis is beyond the scope of this plan and could potentially be completed prior to submittal of a project grant application or as part of a five-year update. Completed, removed, kept, and new mitigation actions for each participating jurisdiction can be found in the *Participant Profile Appendices*.

Section Seven: Plan Implementation and Maintenance

Monitoring, Evaluating, and Updating the Plan

Each participating jurisdiction in the LPNNRD Hazard Mitigation Plan will be responsible for monitoring, evaluating, and updating the plan during its five-year lifespan. Hazard mitigation projects will be prioritized by each participant's governing body with support and suggestions from the public and business owners. Each local planning team will be responsible for plan maintenance, the frequency of review, and how the public will be involved. This information can be found in each participant's profile under the Local Planning Team section. During the review, the local planning team can report on the status of projects and include which implementation processes worked well, any difficulties encountered, how coordination efforts are proceeding, and which strategies should be revised.

In addition, each local planning team will be responsible for ensuring that the plan's goals are incorporated into applicable revisions of their jurisdiction's relevant planning documents. The hazard mitigation plan will also consider any changes in planning documents and incorporate the information accordingly in its next update. *Appendix F: Guide to Review and Update the Hazard Mitigation Plan* may also be used to assist with plan updates.

The FEMA required update of this plan will occur at least every five years, to reduce the risk of the plan expiring. Updates may be incorporated more frequently, especially in the event of a major hazard. LPNNRD will start meetings to discuss mitigation plan updates at least nine months prior to the deadline for completing the plan update. LPNNRD staff and county emergency managers will review the goals and objectives of the previous plan and evaluate them to determine whether they are still pertinent and current. Among other questions, they may want to consider the following.

Requirement §201.6(c)(4)(i): [The plan maintenance process shall include a] section describing the method and schedule of monitoring, evaluating, and updating the mitigation plan within a five-year cycle.

Requirement §201.6(c)(4)(ii): [The plan shall include a] process by which local governments incorporate the requirements of the mitigation plan into other planning mechanisms such as comprehensive or capital improvement plans, when appropriate.

Requirement §201.6(c)(4)(iii): [The plan maintenance process shall include a] discussion on how the community will continue public participation in the plan maintenance process.

- Do the goals and objectives address current and expected conditions?
- If any of the recommended projects have been completed, did they have the desired impact on the goal for which they were identified? If not, what was the reason it was not successful (lack of funds/resources, lack of political/popular support, underestimation of the amount of time needed, etc.)?
- Have either the nature, magnitude, and/or type of risks changed?

- Are there implementation problems?
- Are current resources appropriate to implement the plan?
- Were the outcomes as expected?
- Did the plan partners participate as originally planned?
- Are there other agencies which should be included in the revision process?

If deemed necessary, a private consulting firm or individual will be hired to help facilitate the plan update process.

Continued Public Involvement

To ensure continued plan support and input from the public and stakeholders, public involvement should remain a top priority for each participating jurisdiction. Every participant identified ways the public will be involved in the update process including the following.

- Social Media
- Websites
- Board/Council Meetings
- Newsletters
- Letters
- Bulletin Postings

Unforeseen Opportunities

If new, innovative mitigation options arise that could impact the planning area or elements of this plan, which are determined to be of importance, a plan amendment may be proposed and considered separate from the annual review and other proposed plan amendments. LPNNRD, as the plan sponsor, provides an opportunity for jurisdictions to compile proposed amendments and send them to NEMA, and subsequently to FEMA, for a plan amendment. Such amendments should include all applicable information for each proposal including description of changes, identified funding, responsible agencies, etc.

Incorporation into Existing Planning Mechanisms

The Regional Planning Team utilized a variety of plan integration tools to help communities determine how their existing planning mechanisms were related to the Hazard Mitigation Plan. Utilizing FEMA's *Integrating the Local Natural Hazard Mitigation Plan into a Community's Comprehensive Plan*[17] guidance, each jurisdiction engaged in a plan integration discussion. This discussion was facilitated by a Plan Integration Worksheet or set of questions, created by the Regional Planning Team. This offered an easy way for participants to notify the Regional Planning Team of existing planning mechanisms, and if they interface with the hazard mitigation plan.

Each jurisdiction referenced all relevant existing planning mechanisms and provided information on how these did or did not address hazards and vulnerability. Summaries of plan integration are found in each individual participant profile. For jurisdictions that lack existing planning mechanisms, especially smaller communities, the plan may be used as a guide for future activity and development in the jurisdiction.

17 Federal Emergency Management Agency. November 2013. "FEMA Region X Integrating the Local Natural Hazard Mitigation Plan into a Community's Comprehensive Plan". https://www.fema.gov/sites/default/files/2020-07/integrating-hazard-mitigation-local-plan.pdf.

Section Eight: Participant Profiles

Purpose of Participant Profiles

Participant profiles contain information specific to jurisdictions participating in the LPNNRD Hazard Mitigation Plan planning effort. Participant profiles were developed with the intention of highlighting each jurisdiction's unique characteristics that affect its vulnerability to hazards. These profiles may serve as a short reference of identified vulnerabilities and mitigation actions for a jurisdiction as they implement the mitigation plan. Information from individual jurisdictions was collected at public and one-on-one meetings and used to establish their section of the plan. Participant profiles may include the following elements:

- Community Fact Sheet
- Local Planning Team
- Capability Assessment
- Plans and Studies
- Future Development Trends
- Community Lifelines
- Hazard Prioritization and Mitigation Strategy

Community Fact Sheets

Community fact sheets were added at the beginning of the participant profiles for all counties and communities. These fact sheets provide demographic, housing, economic, and employment information specific to that community or county. To learn more about how these factors can impact vulnerability see *Appendix C: Planning Area Profile*.

Participant Profile Appendices

Individual participant profiles can be found in the *Butler County Appendix, Dodge County Appendix, Saunders County Appendix, Partial Counties Appendix, or Special Districts Appendix*. The location of the profiles is given below.

Participant Profile Appendices
- Butler County Appendix
  - Village of Abie
  - Village of Bruno
  - David City
  - Village of Dwight
  - Village of Garrison
  - Village of Linwood
  - Village of Octavia
  - Village of Rising City
  - Village of Surprise
  - Village of Ulysses

- Dodge County Appendix
  - City of Fremont
  - Village of Inglewood
  - City of North Bend
- Saunders County Appendix
  - Village of Cedar Bluffs
  - Village of Colon
  - Village of Leshara
  - Village of Malmo
  - Village of Mead
  - Village of Morse Bluff
  - Village of Prague
  - City of Wahoo
  - City of Yutan
- Partial Counties Appendix
  - Village of Lindsay
  - Village of Platte Center
  - Village of Richland
  - Village of Rogers
  - City of Schuyler
- Special Districts Appendix
  - Lower Platte North NRD
  - Ames Diking and Drainage District
  - Cedar Bluffs Public School
  - Colon Volunteer Fire Department
  - Cotterell Diking and Drainage District
  - David City Public Schools
  - Dwight Volunteer Fire Department
  - Educational Service Unit #2
  - Lake Ventura SID #3
  - Malmo Volunteer Fire Department
  - Mead Public Schools
  - North Bend Central Public Schools
  - North Bend Drainage District
  - North Bend Volunteer Fire Department
  - Platte Township
  - Platte Valley Drainage District
  - Pohocco Township
  - Reading Township
  - Rising City Rural Fire Department
  - Schuyler Volunteer Fire Department
  - Skull Creek Township
  - Three Rivers Public Health Department
  - Ulysses Township
  - Union Township
  - Weston Volunteer Fire & Rescue Department
  - Woodcliff Lakes SID #8

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Village of Rising City 100
Village of Surprise 111
Village of Ulysses 123

County Profile

Butler County



Lower Platte North NRD
Hazard Mitigation Plan 2025

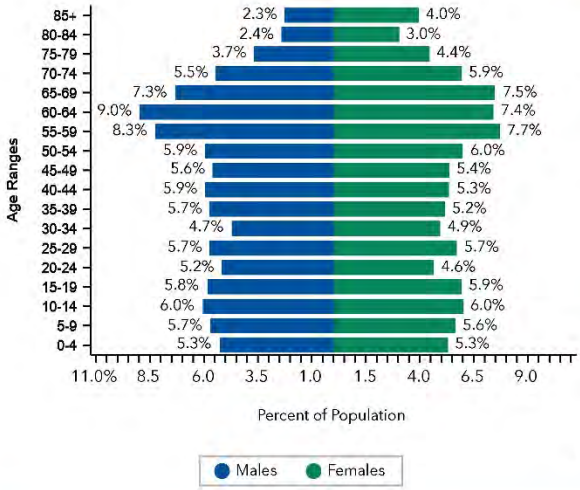
County Fact Sheet

Community Summary Fact Sheet

Butler County, NE
Lower Platte North NRD Hazard Mitigation Plan 2025

8,371	45.6	3,442	2.39	$184,571	$77,377
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID



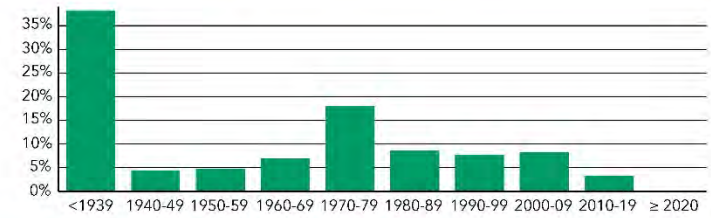
TOTAL POPULATION

2023 Total Population (Estimate)	8,371
2020 Total Population (U.S. Census)	8,369
2010 Total Population (U.S. Census)	8,395
2000 Total Population (U.S. Census)	8,863

AT RISK POPULATIONS

853	1,924	92	12%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

HOUSING: YEAR BUILT



EMPLOYMENT

335	1.3%
Total Businesses	Unemployment Rate

POPULATION BY RACE



- Asian Population
- American Indian Population
- Black Population
- Population of 2+ Races
- Other Race Population
- White Population

6% **of the Total Population is Hispanic**

HOUSING

606	7%
Vacant Housing Units	Mobile Homes

esri THE SCIENCE OF WHERE

Source: Esri, U.S. Census, Esri-Data Axle, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021.

Local Planning Team

Butler County Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Mark Doehling	Emergency Manager	Butler County	Attended, Materials Development	Attended, Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The County Emergency Manager and Board Member will be responsible for reviewing and updating the community profile outside of the five-year update. Butler County will review the plan annually, and the public will be notified at the county board meetings, which occur twice a month.

Capability Assessment

The planning team assessed Butler County's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	No
	Capital Improvements Plan	No
	Economic Development Plan	Yes
	Emergency Operations Plan	Yes
	Floodplain Management Plan	Yes
	Storm Water Management Plan	No
	Zoning Ordinance	No
	Subdivision Regulation/Ordinance	No
	Floodplain Ordinance	Yes
	Building Codes	No
	Wellhead Protection Plan	No
	Water System Emergency Response Plan	No
	National Flood Insurance Program	Yes
	Community Rating System	No
	Community Wildfire Protection Plan	Yes (Regional)
	Other (if any)	-
Administrative & Technical	Planning Commission	No
	Floodplain Administrator	Yes
	GIS Capabilities	Yes

Capability/Planning Mechanism		Yes/No
Capability	Chief Building Official	No
	Civil Engineering	No
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	-
Fiscal Capability	1- & 6-Year Plan	Yes
	Applied for Grants in the Past	Yes
	Awarded a Grant in the Past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric/Water/Sewer Service Fees	No
	Storm Water Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	Yes
	Ongoing Public Education or Information Program (e.g., Responsible Water Use, Fire Safety, Household Preparedness, Environmental Education)	Yes
	Natural Disaster or Safety Related School Programs	Yes
	StormReady Certification	Yes
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	-

Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Limited
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

National Flood Insurance Program (NFIP)

Butler County is a member of the NFIP, having joined 8/16/2011, and the Floodplain Administrator oversees the commitments and requirements of the program. A permit is required before development can occur in the floodplain. Floodplain maps from the FEMA Map Service Center or NeDNR are used to determine if a development will be located in the floodplain. Enforcement of

the floodplain regulations occurs in the permitting process to ensure development adheres to the regulations. After a flood event, substantially damaged and substantially improved structures are inspected. Letters of Map Change can be found on the FEMA Map Service Center website.

The local planning team has stated that Butler County will remain in good standing and be involved with the NFIP. There are currently no known areas in the county with limited NFIP coverage. Education about the floodplain and the importance of flood insurance can be done when a developer asks for a permit. Additional NFIP information is given in the table below.

Butler County NFIP Information

NFIP Overview	
Date of NFIP Participation:	8/16/2011
Floodplain Administrator:	Breann Whitmore
Is Floodplain Administrator a Certified Floodplain Manager?	No
Is Floodplain Management an Auxiliary Function?	No
Number of NFIP Policies In-Force:	23
Total NFIP Premium ($):	$21,963
Total NFIP Coverage ($):	$3,458,000
Number of Claims Paid Out:	7
Total Amount of Claims Paid Out ($:)	$88,122
Number of Repetitive Loss Structures:	0
Number of Severe Repetitive Loss Structures:	0
Is the County Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	No
FIRMs Digital or Paper?	Digital
Located in a RISK Map Area?	Yes (Partially)

Buildings and Valuation in the Floodplain

The planning team acquired GIS parcel data from the County Assessor and Microsoft building footprint data to analyze the location, number, and value of buildings located in the 100-year and 500-year floodplains. A summary of the results of this analysis is provided in the following tables.

Butler County Buildings and Value in the 100-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
11,053	$1,980,101,135	791	$68,059,495	7.2%

Source: County Assessor, 2024; Microsoft, 2024

Butler County Buildings and Value in the 500-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
11,053	$1,980,101,135	72	$6,174,565	0.7%

Source: County Assessor, 2024; Microsoft, 2024

Plans and Studies

Butler County has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the county updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to

incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Butler County Local Emergency Operations Plan (2021)

The Butler County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. The hazard mitigation plan has been integrated with this plan and includes the top hazards that would affect the county and its populations. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines.

East Central Planning, Exercise and Training Region Threat and Hazard Identification and Risk Assessment (2024)

The Threat and Hazard Identification and Risk Assessment (THIRA) is a three-step process for communities and regions to understand and address their risks and capabilities. Counties in the East Central Planning, Exercise and Training (PET) Region were asked what threats and hazards affected their counties and communities, what impacts those threats and hazards would have if they occurred, and what capabilities they should have based on those impacts. Updates to the THIRA are made every three years. Due to the sensitive nature of the THIRA document, it is not included as an annex to the hazard mitigation plan. However, the NRD and all counties have copies of the THIRA. Findings from the THIRA process were integrated into the hazard mitigation plan in the hazard risk assessments and mitigation alternatives.

Floodplain Ordinance (2015)

The county's floodplain ordinance outlines requirements for structures and developments located in the 100-year floodplain. By having a floodplain ordinance, the county promotes public health, safety, and welfare by minimizing losses due to floods. It also helps to assure eligibility of purchasing flood insurance for property owners. The hazard mitigation plan has not been integrated with the zoning ordinance. The zoning ordinance restricts development in hazard prone areas, prohibits development within the floodplain without a permit, and requires more than one foot of elevation above Base Flood Elevation in the floodplain. The ordinance is reviewed every 10 years for potential changes.

Lower Platte North NRD Drought Risk and Resiliency Report (2025)

The purpose of the Lower Platte North NRD Drought Risk and Resiliency Report is to better understand drought risks on community water systems within the NRD and establish proactive measures to reduce impacts from drought throughout the NRD. The report includes the development of drought mitigation strategies based on the outcomes of the drought risk analysis and meetings with communities. Also included with the report is a community engagement materials kit and sample drought ordinances for communities to utilize and update to fit their needs. Outcomes have been integrated into community profiles and the drought risk profile in this hazard mitigation plan. The Drought Risk and Resiliency Report is included as an annex to the hazard mitigation plan.

Southeast Nebraska Community Wildfire Protection Plan (2020)

The purpose of the Southeast Nebraska Community Wildfire Protection Plan (CWPP) is to help effectively manage wildfires and increase collaboration and communication among organizations

who manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years.

Zoning Regulations (2009)

The county's zoning ordinance outlines where and how development should occur in the future. Future updates to the regulations will discourage housing and vulnerable populations near chemical storage sites, consider wildfire and the wildland urban interface, include well setback requirements and the ability to implement water restrictions, and have subdivision regulations restrict subdivision of land within or adjacent to the floodplain. The hazard mitigation plan has not been integrated into the county's zoning regulations.

Future Development Trends

A new soybean processing plant is being built northwest of David City near the city's industrial land use and a railroad, potentially increasing the vulnerability of communities along the transportation routes as more traffic is anticipated to move through the region. Butler County does not anticipate new housing, business, or industrial developments in the near future; therefore, vulnerability is likely to remain the same.

For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted. According to the local planning team, none of the new developments occurred in the floodplain or other known hazard areas.

Community Lifelines

As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.

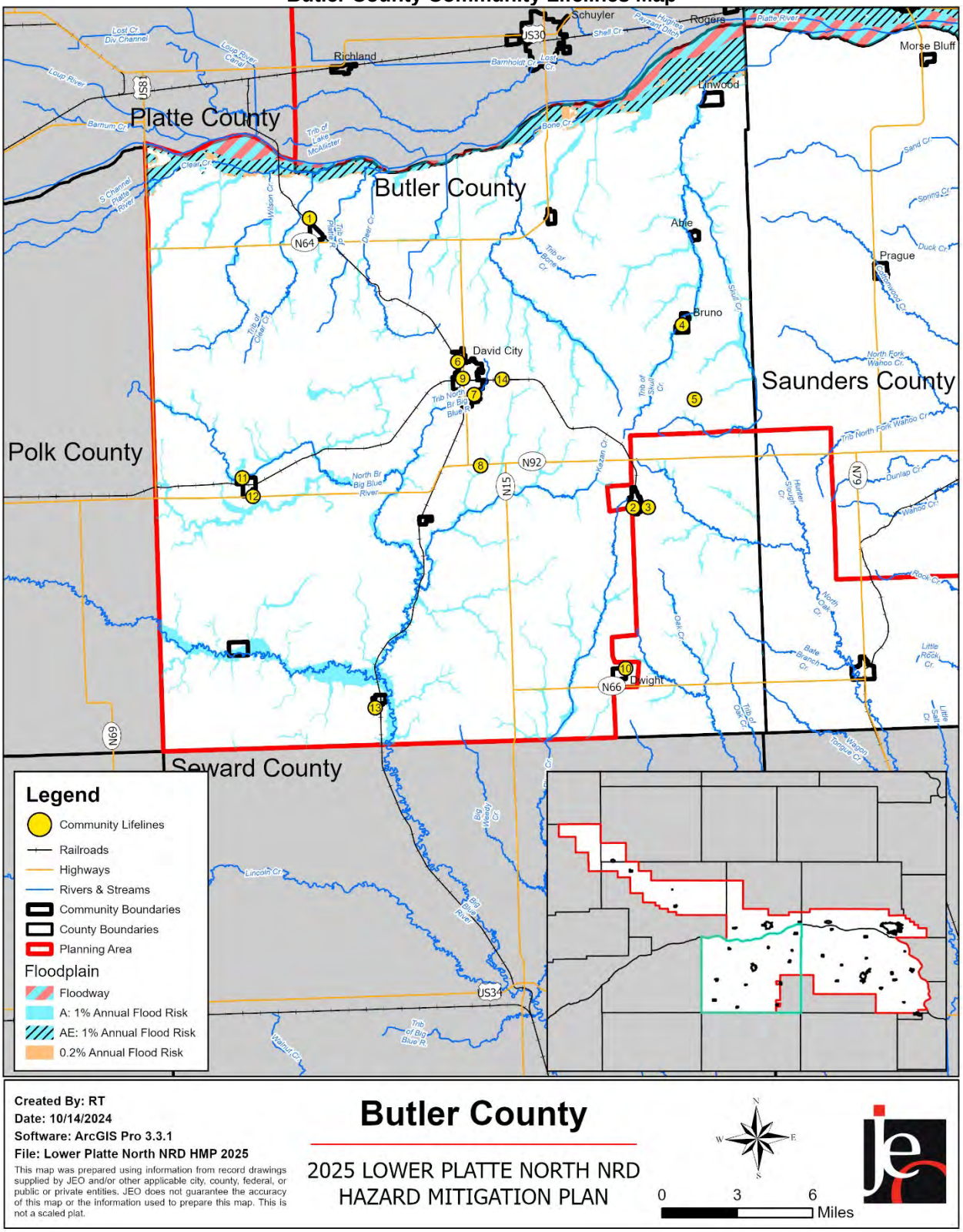


Butler County Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Bellwood County Shed	Other	-	N
2	Brainard County Shed	Other	-	N
3	Brainard Grain Elevator	Food, Water, Shelter	-	N
4	Bruno County Shed	Other	-	N
5	Bruno Paging Tower	Communications	G	N
6	Butler County Event Center	Other	-	N
7	Butler County Health Care Center	Health and Medical	G	N

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
8	Butler County Highway Department	Transportation	G	N
9	County Courthouse, Sheriff's Office, & County Jail, 911 Dispatch, Butler County Paging	Safety and Security	G	N
10	Dwight Tower	Communications	-	N
11	Rising City County Shed	Other	-	Y (1%)
12	Rising City Communication Tower	Communications	G	N
13	Ulysses County Shed	Other	-	N
14	Yanka Grain Elevator	Food, Water, Shelter	-	N

Butler County Community Lifelines Map



Hazard Historical Occurrences

Butler County Hazard Loss History

Hazard Type		Count	Property Damage	Crop Damage[2]
Animal & Plant Disease	Animal Disease[1]	30	1,275 Animals	N/A
	Plant Disease[2]	20	N/A	$77,954
Dam Failure[5]		2	$0	N/A
Drought[6]		457 out of 1,548 Months	$0	$64,703,538
Extreme Temperatures	Extreme Heat[7]	Avg. 3 Days a Year	N/A	$6,484,664
	Extreme Cold[7]	Avg. 33 Days a Year	$0	$119,155
Flooding[8]	Flash Flood	13	$111,000	$415,054
	Flood	16	$114,000	
Grass/Wildfires[9] *1 Injury*		277	2,171 Acres Burned	$54,958
Hazardous Materials Release	Fixed Site[3]	8	$0	N/A
	Transportation[4]	0	$0	N/A
Levee Failure[11]		0	$0	N/A
Severe Thunderstorms[8]	Hail Range: 0.75-4 Inches Average: 1.3 Inches	135	$4,000,000	$4,157,121
	Thunderstorm Wind Range: 50-85 mph Average: 57 mph	81	$119,000	$8,937,869
	Heavy Rain	5	$0	
	Lightning	1	$0	
Severe Winter Storms[8]	Blizzard	9	$0	$840,400
	Heavy Snow	5	$1,000,000	
	Ice Storm	3	$0	
	Winter Storm	43	$0	
	Winter Weather	11	$0	
Terrorism & Cyber-Attack[10]		1	$0	N/A
Tornadoes and High Winds[8]	High Winds Range: 35-56 mph Average: 50 mph	22	$5,000	$2,287,418
	Tornadoes Range: EF0-EF2 Average: EF0	10	$17,300	$10,936
Total		**692**	**$5,366,300**	**$80,089,067**

N/A: Data not available
1 – NDA, 2014 – 2023
2 - USDA RMA, 2000 –2023
3 – NRC, 1990 – December 2023
4 – PHSMA, 1971 – June 2024
5 – Stanford University NPDP, December 2023
6 – NOAA, 1895 – December 2023
7 – NOAA Regional Climate Center, 1893 – 2024
8 – NCEI, 1996 - December 2023
9 – NFS, 2000 - 2023
10 – University of Maryland, 1970 – 2017
11 – USACE, 2019-2021

Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Butler County which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by Butler County. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however Butler County has identified mitigation actions to reduce the impacts of the hazards. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Flooding

Butler County experienced flooding events during the first half of 2024. The March 2019 flooding event damaged personal property and washed out roads throughout the county. The Platte River, Blue River, and Skull Creek are most prone to flooding. The local planning team also noted that if the dam at Lake McConaughy were to fail, then areas along the Platte River would flood, causing damage to agricultural land and roadways. There are several lowland areas in the county that have poor stormwater drainage. Butler County has repaired roads and bridges to mitigate potential damage from future flood events. The county has no zoning ordinances, and the FIRM was not adopted until 2011. Risk Mapping, Assessment, and Planning (Risk MAP) was completed for southwestern portions of Butler County and includes the communities of David City, Rising City, Garrison, Ulysses, and Surprise. Additional products, such as flood depths and percent annual or 30-year chance grids, are available to these communities to make informed decisions about reducing and communicating flood risk. The Flood Risk Report can be downloaded from the FEMA Flood Map Service Center.

Mitigation and Strategic Actions

Action	Floodplain Management
Description & Location	Decrease the number of structures in the floodplain by raising structures or purchasing repetitive flood loss structures to use as recreation fields, picnic areas, etc.
Hazard(s) Addressed	Flooding
Estimated Cost	Varies
Local Funding	General Budget
Timeline	2-5 Years
Priority	High
Lead Agency	Floodplain Administrator
Status	The county is seeking landowners who are interested in this project.

Hazardous Materials Release

There are five highways and two rail lines in the county that carry hazardous materials. A semi-truck spilled animal waste from a packing house when it was involved in a wreck in 2015, three miles east of Rising City. Anhydrous ammonia, petroleum products, and alcohol are commonly carried along the rail lines in the county. The County Courthouse and Sheriff's Office are located just west of Highway 15 and within two blocks of both rail lines, making them vulnerable to spills. There are also several oil pipelines in the county that run the risk of leaking. The local fire departments have training to best prepare them for potential hazardous materials releases. Butler County needs to work with the Columbus Fire Department, NEMA, and railroad companies to have access to HAZMAT teams.

Mitigation and Strategic Actions

Action	Emergency Communications
Description & Location	Update LEOP & local action plan to improve communication between agencies during and following emergencies through inter-operable communication methods.
Hazard(s) Addressed	Animal & Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	Varies
Local Funding	General Budget
Timeline	2-5 Years
Priority	High
Lead Agency	Emergency Manager
Status	Updating the County LEOP is an ongoing process of updating yearly.

Tornadoes and High Winds

Tornadoes and high winds are a concern because they can cause damage to crops and infrastructure, including power lines and communication towers. Wind and tornadoes caused property damage in Surprise in 2006 and Dwight and Ulysses in 2008. In case of a disaster event, municipal record storage is being transferred to a new provider that offers offsite data storage. Disaster events in January did establish some rescue responses for disasters. The county's warning sirens are radio controlled by dispatch. All are located in cities and villages instead of the county's rural areas. The county does not have any FEMA-certified safe rooms, and residents must seek shelter in their personal homes or with their neighbors. The County Emergency Manager does not offer emergency text alerts. Information on disaster preparation for residents of Butler County is offered in the local newspaper during Severe Weather Awareness Week. Mutual Aid Agreements to help with disaster events are in place with Colfax, Platte, Polk, Saunders, and Seward Counties.

Mitigation and Strategic Actions

Action	Backup and Emergency Generators
Description & Location	Identify and evaluate current backup and emergency generators. Obtain additional generators based on identification and evaluation. Provide portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations and other community lifelines and shelters. One generator was repaired at the Highway Department Building at 3190 N Road.
Hazard(s) Addressed	Extreme Temperatures, Severe Thunderstorms, Severe Winter Storms, Terrorism & Cyber-Attack, Tornadoes and High Winds
Estimated Cost	Varies by size
Local Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	County Emergency Management Agency
Status	The backup generator was repaired at the County Highway Department. The county is installing a backup generator at the new 911 tower.

Action	Storm Shelter
Description & Location	Design and construct a storm shelter at the Butler County Fairgrounds.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes and High Winds
Estimated Cost	$150,000-$200,000
Local Funding	General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Butler County Emergency Management
Status	New action. The project has been proposed.

Other Mitigation and Strategic Actions

Action	Public Education
Description & Location	Through activities such as outreach projects, distribution of maps, and environmental education to increase public awareness of natural and technical hazards and mitigation alternatives for both public and private entities (including property owners, renters, and businesses). Also educate citizens on water conservation methods, evacuation plans, etc.
Hazard(s) Addressed	Animal & Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	Varies
Local Funding	General Budget
Timeline	5+ Years
Priority	High
Lead Agency	Butler County Emergency Management
Status	Public Education is ongoing in conjunction with the Community Resilience Project of the East Central PET Region.

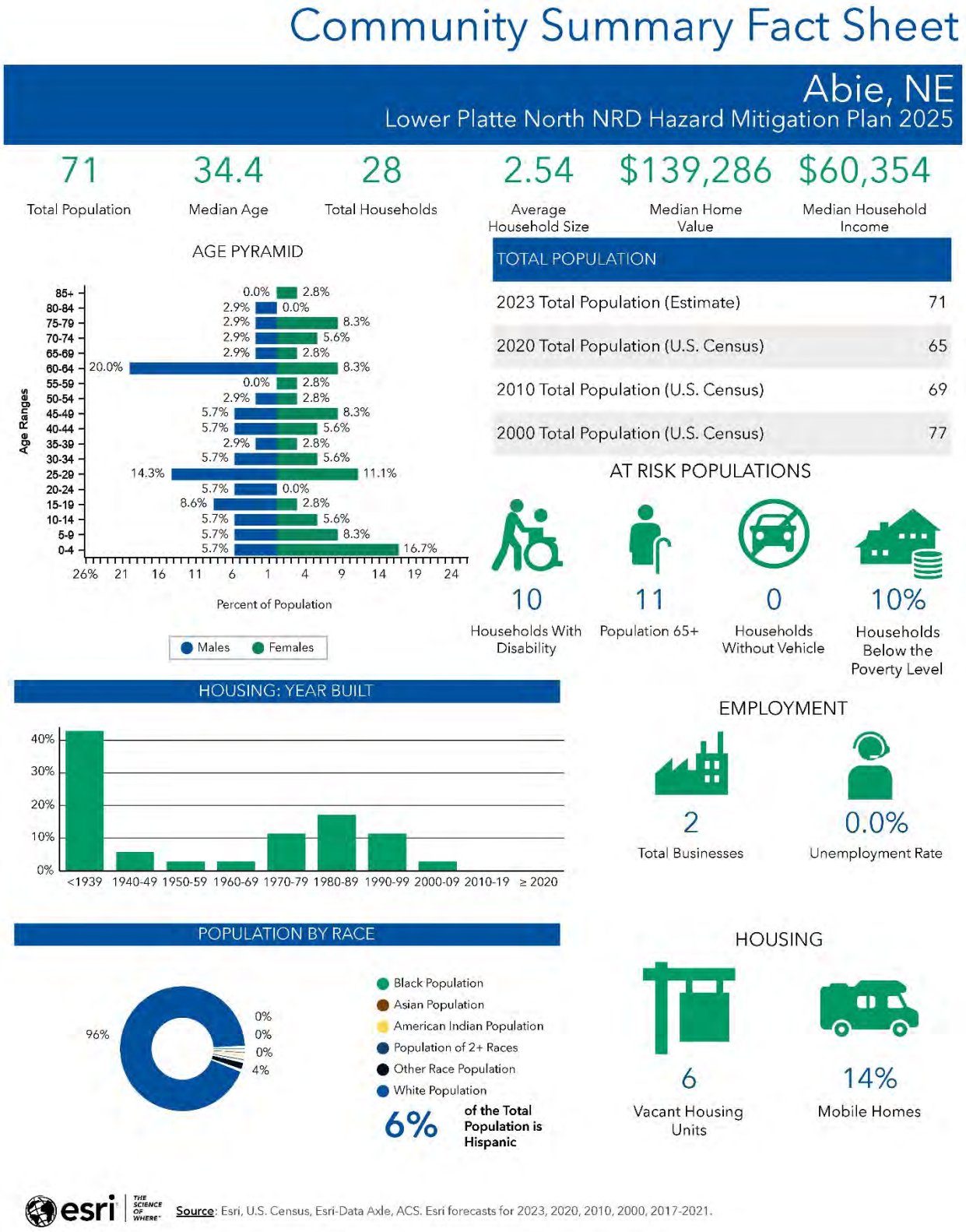
Community Profile

Village of Abie



Lower Platte North NRD
Hazard Mitigation Plan 2025

Community Fact Sheet



Local Planning Team

Abie Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
David Polacek	Clerk	Village of Abie	Attended, Materials Development	Attended, Materials Development
Dennis Polacek	Chairman	Village of Abie	Attended, Materials Development	Attended, Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The clerk, chairman, and village board members will be responsible for reviewing and updating the community profile outside of the five-year update. The village will review the plan bi-annually, and the public will be notified at board meetings. Letters will also be mailed to residents if needed.

Capability Assessment

The planning team assessed the Village of Abie's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Abie Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	No
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operations Plan	Yes (County)
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	No
	Subdivision Regulation/Ordinance	No
	Floodplain Ordinance	No
	Building Codes	No
	Water System Emergency Response Plan	Yes
	Wellhead Protection Plan	Yes
	National Flood Insurance Program	No
	Community Rating System	No
	Community Wildfire Protection Plan	Yes (Regional)
	Other (if any)	-
	Planning Commission	No

Capability/Planning Mechanism		Yes/No
Administrative & Technical Capability	Floodplain Administrator	No
	GIS Capabilities	No
	Chief Building Official	No
	Civil Engineering	Yes
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	-
Fiscal Capability	1- & 6-Year Plan	Yes
	Applied for Grants in the Past	Yes
	Awarded a Grant in the Past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	No
	Gas/Electric/Water/Sewer Service Fees	No
	Storm Water Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	No
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	No
	Ongoing Public Education or Information Program (e.g., Responsible Water Use, Fire Safety, Household Preparedness, Environmental Education)	No
	Natural Disaster or Safety Related School Programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	-

Abie Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Moderate
Staff/Expertise to Implement Projects	Moderate
Public Support to Implement Projects	Moderate
Time to Devote to Hazard Mitigation	Moderate
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Moderate

National Flood Insurance Program (NFIP)

The Village of Abie is not a participant in the National Flood Insurance Program as it has a very low flood risk. Portions of the west part of the community are in a flood zone, but no critical infrastructure is located in a flood hazard area. The village does not anticipate joining the NFIP in the near future.

Abie NFIP Information

NFIP Overview	
Date of NFIP Participation:	N/A
Floodplain Administrator:	N/A
Is Floodplain Administrator a Certified Floodplain Manager?	N/A
Is Floodplain Management an Auxiliary Function?	N/A
Number of NFIP Policies In-Force:	N/A
Total NFIP Premium ($):	N/A
Total NFIP Coverage ($):	N/A
Number of Claims Paid Out:	N/A
Total Amount of Claims Paid Out ($:)	N/A
Number of Repetitive Loss Structures:	N/A
Number of Severe Repetitive Loss Structures:	N/A
Is the Community Currently Suspended from the NFIP?	N/A
Any Outstanding Compliance Issues?	N/A
FIRMs Digital or Paper?	Digital
Located in a RISK Map Area?	No

Buildings and Valuation in the Floodplain

The planning team acquired GIS parcel data from the County Assessor and Microsoft building footprint data to analyze the location, number, and value of buildings located in the 100-year and 500-year floodplains. A summary of the results of this analysis is provided in the following tables.

Abie Buildings and Value in the 100-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
88	$6,842,280	1	$28,250	1.1%

Source: County Assessor, 2024; Microsoft, 2024

Abie Buildings and Value in the 500-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
88	$6,842,280	0	$0	0%

Source: County Assessor, 2024; Microsoft, 2024

Plans and Studies

The Village of Abie has a handful of planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the village updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Butler County Local Emergency Operations Plan (2021)

The Butler County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. The hazard mitigation plan has been integrated with this plan and includes the top hazards that would affect the county and its populations. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines.

Southeast Nebraska Community Wildfire Protection Plan (2020)

The purpose of the Southeast Nebraska Community Wildfire Protection Plan (CWPP) is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years.

Water System Emergency Response Plan

A water system emergency response plan serves as a guideline for water operators and the village board to minimize the disruption of normal services to consumers and to provide public health protection during an emergency event. The document identifies several natural and human-caused events and discusses the water system's response during those events. The water system emergency response plan is reviewed and updated annually.

Wellhead Protection Plan

The purpose of wellhead protection plans is to protect the public drinking water supply wells from contamination. It includes identifying potential sources of groundwater contamination in the area and managing the potential contaminant sources. The hazard mitigation plan has not been integrated into the wellhead protection plan.

Future Development Trends

Over the last five years, old buildings (bar, bank, and café) on Main Street were demolished due to being unsafe and were replaced with new buildings to be used by a local construction company. With the removal of old buildings, the community is likely less vulnerable to hazards like fires, severe thunderstorms, severe winter storms, and tornadoes and high winds. In the next five years, there are currently no planned housing or commercial developments in the community.

For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted. According to the local planning team no new developments occurred in any known hazard locations.

Community Lifelines

As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline

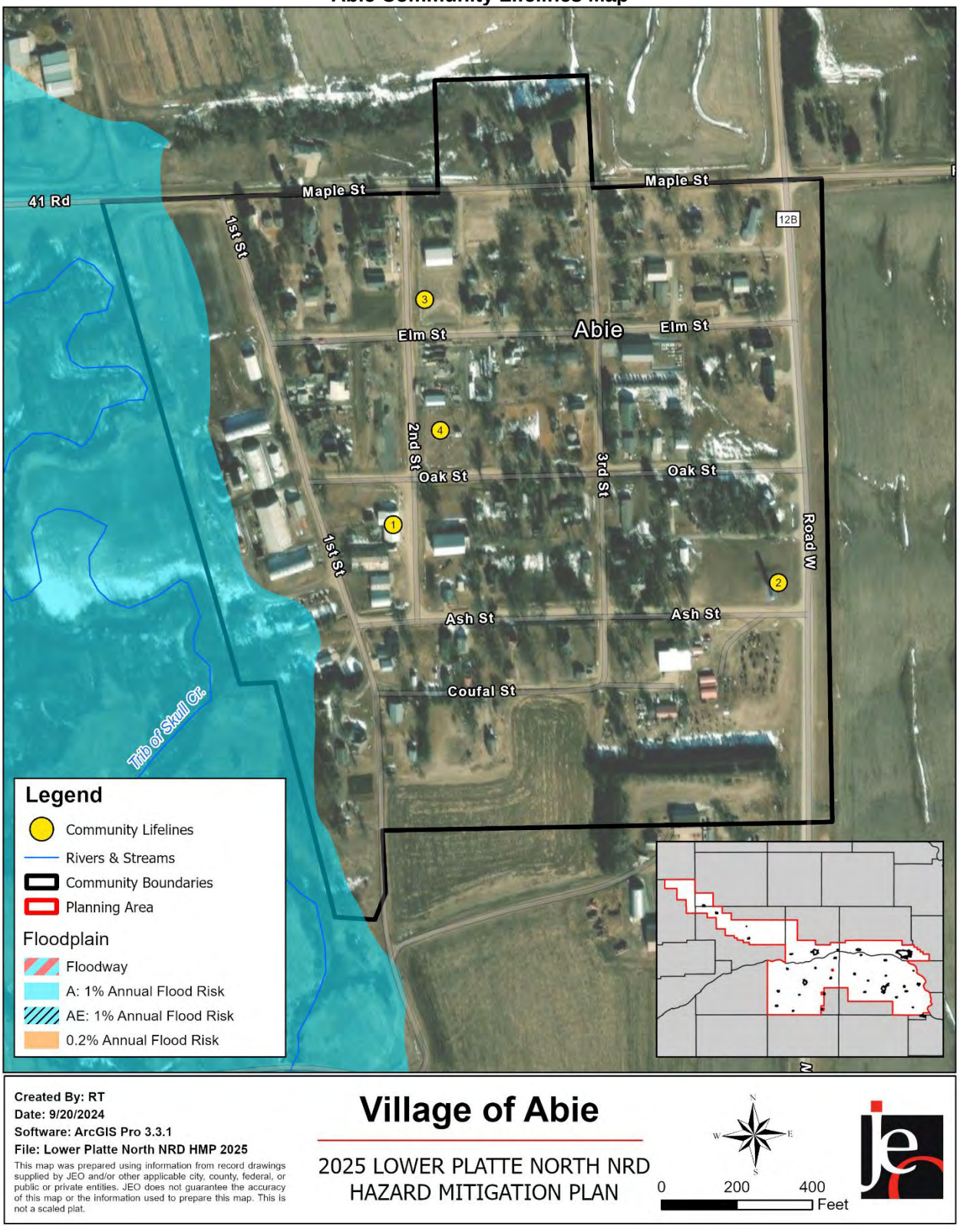
categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Abie Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Fire Hall	Safety & Security	G	N
2	Water Tower	Food, Water, Shelter	-	N
3	Well	Food, Water, Shelter	G	N
4	Well	Food, Water, Shelter	G	N

Abie Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Abie which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Village of Abie. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however Abie has identified mitigation actions to reduce the impacts of the hazards. Dam Failure and Levee Failure have been omitted from this profile as there are no high hazard dams upstream or any levee protected areas near the community according to NeDNR and USACE data. Therefore, no mitigation actions have been identified for those two hazards. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Hazardous Materials Release

Anhydrous ammonia is the most likely chemical to spill in Abie. There is a co-op facility in the area that transports anhydrous ammonia. Highway Spur 12B is the transportation route of most concern because it is the most heavily traveled with vehicles transporting chemicals. This route is especially busy during the spring and fall, when agricultural chemicals from the co-op are being applied in the area. While no spills have happened in the community to date, a future spill could have acute effects on the community because some residential homes are located within two blocks of the local co-op. These residents have been educated about the threat and appropriate response to a spill. The local volunteer fire department and their mutual aid has the appropriate gear and training to respond to a spill.

Mitigation and Strategic Actions

Action	Shelter in Place
Description & Location	Provide shelter in place training and instructions for residents in Abie in the event of a transportation spill. The fire hall will serve as a location for the community.
Hazard(s) Addressed	Hazardous Materials Release
Estimated Cost	Staff Time
Local Funding	Staff Time
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board, Fire Department
Status	New Action. This action has not been started yet. Fire department will be responsible for cleaning potential spills.

Severe Thunderstorms

In the spring and summer of 2024, the village experience several thunderstorms that caused damage to trees and buildings. Since those events damaged trees have been removed and property owners repaired building damage. Building damage is the most pressing concern regarding severe thunderstorms. Community lifelines are not fitted with hail resistant building materials but are insured against hail and wind damage. In the event of power loss, the village has a portable generator that can be hooked to either well for backup power.

Mitigation and Strategic Actions

Action	Infrastructure Hardening
Description & Location	Harden community lifelines to withstand high winds, hail, heavy snow, etc., by hardening roofs, hail-resistant barriers to HVAC systems, shatter-proofing windows, and building tie-downs and anchors, and other architectural designs that reduce damage.
Hazard(s) Addressed	Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	Varies by structure
Local Funding	General Budget, Insurance
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	New. This mitigation action has not started yet. The fire hall is not equipped with hail-resistant materials to withstand severe storms. Hail-resistant coverage can be covered through insurance.

Completed Mitigation and Strategic Actions

Action	Backup and Emergency Generators
Description & Location	Identify and evaluate current backup and emergency generators. Obtain additional generators based on identification and evaluation. Provide portable/stationary source of backup power to redundant power supplies, municipal wells, lift stations, and other community lifelines and shelters.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Terrorism & Cyber-Attack, Tornadoes and High Winds
Status	Completed and in working order.

Severe Winter Storms

In November of 2022, the Village of Abie had a severe ice storm, followed by snow which caused tree damage and power loss. The water tower, wells, and fire hall are all vulnerable to damage during severe winter storms. Only approximately 20% of the power lines in the village are buried, making them vulnerable to heavy snow and ice storms. Snow removal is done by a private contractor using their motor-grader, and usually takes about two hours depending on the amount of snow. The village will continue to work on trimming trees near power lines and buildings to mitigate risks during severe winter weather.

Mitigation and Strategic Actions

Action	Identify Heating/Cooling Centers
Description & Location	Identify locations in the community that would be ideal for a heating or cooling station in case of extreme heat or cold conditions. Promote these areas to vulnerable populations.
Hazard(s) Addressed	Extreme Temperatures, Severe Winter Storms
Estimated Cost	Varies by size
Local Funding	General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	New Action. Not Started.

Action	Hazardous Tree Removal
Description & Location	Continue maintenance and tree trimming services to remove hazardous limbs and trees.
Hazard(s) Addressed	Animal & Plant Disease, Extreme Temperatures, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$15,000-$30,000 per mile
Local Funding	General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board, Butler Public Power District
Status	New/ongoing. Abie has a local and private company to manage tree trimming services.

Action	Tree Care Ordinance
Description & Location	Pass and enforce a tree care ordinance to improve tree health and to have guidelines on removing dangerous trees and limbs.
Hazard(s) Addressed	Animal & Plant Disease, Extreme Temperatures, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	Staff Time
Local Funding	Staff Time, General Budget
Timeline	1 Year
Priority	Low
Lead Agency	Village Board
Status	New action. Not started.

Tornadoes and High Winds

Abie experienced an F1 tornado on June 20, 1996, with an estimated $150,000 in property damage. Future tornado and high wind events could be catastrophic. Some municipal records are stored on a computer and protected from a disaster with a backup system. The village's siren reaches all areas of the town however, there are no FEMA certified safe rooms so residents must seek shelter in their own homes. County Emergency Management offers text alerts to the fire department. The village will continue to educate people on risks and what to do in the event of this hazard occurring. The local fire department offers a yearly course on tornado and high winds safety. In case of a disaster Mutual Aid Agreements are in place with all communities in the county.

Mitigation and Strategic Actions

See the *Infrastructure Hardening* action under Severe Thunderstorms.

Other Mitigation and Strategic Actions

Completed Mitigation and Strategic Actions

Action	Implement Drought Water Conservation Regulations
Description & Location	Develop a plan and implement a program to conserve water use by the citizens during elongated periods of drought. Potential restrictions on water could include limitation on lawn watering, car washing, and other non-essential residential uses.
Hazard(s) Addressed	Drought, Grass/Wildfire
Status	Completed.

Ongoing Mitigation and Strategic Actions

Action	Drought Monitoring
Description & Location	Increase drought monitoring at a local and regional level.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	Staff Time, General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board
Status	Not started.

Action	Drought Ordinance
Description & Location	Create and pass a more robust drought ordinance. The NRD can work with local community leaders and water system operators to promote developing and updating local drought ordinances.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	Staff Time, General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not started.

Action	Identify Potential New Water Source
Description & Location	Identify alternative solutions or locate new water sources. Either have a new well or connect with the David City system.
Hazard(s) Addressed	Drought, Grass/Wildfire
Estimated Cost	Varies by project
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not started.

Action	Install Water Meters
Description & Location	Install water meters on all homes and implement tiered water rates.
Hazard(s) Addressed	Drought
Estimated Cost	Unknown
Local Funding	General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board
Status	Not started.

Action	Well Transducers
Description & Location	Install transducers on wells to monitor water levels. The real-time groundwater level monitoring allows for early identification of declining water tables, helping to detect drought conditions earlier and track water levels over time. The NRD is currently working with interested community water systems to install the transducers in community wells at minimal cost to the community.
Hazard(s) Addressed	Drought
Estimated Cost	Unknown
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not started.

Community Profile

Village of Bruno

Lower Platte North NRD
Hazard Mitigation Plan 2025

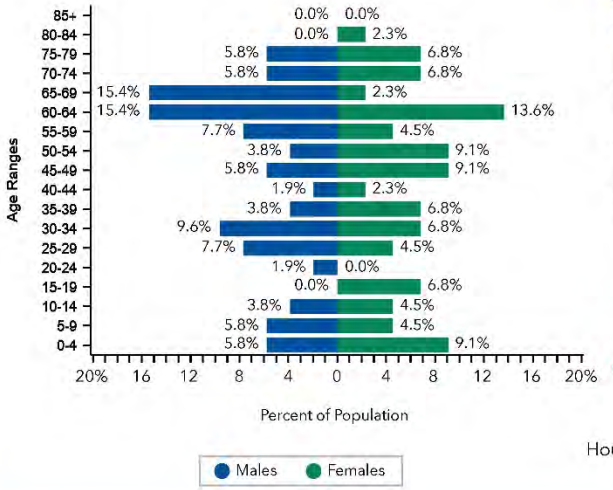
Community Fact Sheet

Community Summary Fact Sheet

Bruno, NE
Lower Platte North NRD Hazard Mitigation Plan 2025

96	50.0	44	2.18	$200,000	$45,461
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID



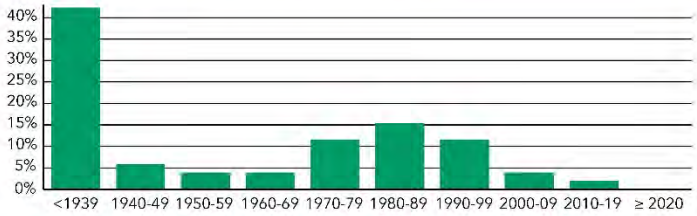
TOTAL POPULATION

2023 Total Population (Estimate)	96
2020 Total Population (U.S. Census)	95
2010 Total Population (U.S. Census)	100
2000 Total Population (U.S. Census)	113

AT RISK POPULATIONS

16	22	1	8%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

HOUSING: YEAR BUILT



EMPLOYMENT

6	0.0%
Total Businesses	Unemployment Rate

POPULATION BY RACE



- Black Population
- Asian Population
- American Indian Population
- Other Race Population
- Population of 2+ Races
- White Population

4% **of the Total Population is Hispanic**

HOUSING

10	15%
Vacant Housing Units	Mobile Homes

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Source: Esri, U.S. Census, Esri-Data Axle, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021.

Local Planning Team

Bruno Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Larry E. Polivka	Board Chairperson	Village of Bruno	Attended, Materials Development	Materials Development
Frank Sabata	Board Member	Village of Bruno	Materials Development	-
Chad Smith	Board Member	Village of Bruno	Materials Development	-

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The village board will be responsible for reviewing and updating the community profile outside of the five-year update. Bruno will review the plan annually and the public will be notified during board meetings.

Capability Assessment

The planning team assessed the Village of Bruno's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Bruno Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	No
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operations Plan	Yes (County)
	Floodplain Management Plan	Yes
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	No
	Floodplain Ordinance	Yes
	Building Codes	Yes
	Water System Emergency Response Plan	No
	Wellhead Protection Plan	No
	National Flood Insurance Program	Yes
	Community Rating System	No
	Community Wildfire Protection Plan	Yes (Regional)
	Other (if any)	-

Capability/Planning Mechanism		Yes/No
Administrative & Technical Capability	Planning Commission	No
	Floodplain Administrator	Yes
	GIS Capabilities	No
	Chief Building Official	No
	Civil Engineering	Yes (JEO Consulting)
	Grant Manager	No
	Mutual Aid Agreement	No
	Other (if any)	-
Fiscal Capability	1- & 6-Year Plan	Yes
	Applied for Grants in the Past	Yes
	Awarded a Grant in the Past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric/Water/Sewer Service Fees	Yes
	Storm Water Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	No
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	No
	Ongoing Public Education or Information Program (e.g., Responsible Water Use, Fire Safety, Household Preparedness, Environmental Education)	No
	Natural Disaster or Safety Related School Programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	-

Bruno Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Limited
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

National Flood Insurance Program (NFIP)

Bruno is a member of the NFIP, having joined on 1/1/1987, and the village Floodplain Administrator oversees the commitments and requirements of the program. Interactive floodplain maps are available on the NeDNR website and other floodplain information is available on the FEMA Map Service Center for the Floodplain Administrator to use to determine if a development will be located in the floodplain. Enforcement of the floodplain regulations can happen at the permitting process. Letters of Map Change can be found on the FEMA Map Service Center website.

Bruno will remain in good standing and be involved with the NFIP. No known barriers have been identified when it comes to running the program effectively. There are no known areas in the community with limited NFIP coverage. Educational materials on flood insurance can be found online and can be dispersed to the community through other educational outreach efforts from Butler County. Additional NFIP information is given in the table below.

Bruno NFIP Information

NFIP Overview	
Date of NFIP Participation:	1/1/1987
Floodplain Administrator:	Larry Polivka
Is Floodplain Administrator a Certified Floodplain Manager?	No
Is Floodplain Management an Auxiliary Function?	Yes
Number of NFIP Policies In-Force:	1
Total NFIP Premium ($):	$1,215
Total NFIP Coverage ($):	$85,000
Number of Claims Paid Out:	0
Total Amount of Claims Paid Out ($:)	$0
Number of Repetitive Loss Structures:	0
Number of Severe Repetitive Loss Structures:	0
Is the Community Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	No
FIRMs Digital or Paper?	Digital
Located in a RISK Map Area?	No

Buildings and Valuation in the Floodplain

The planning team acquired GIS parcel data from the County Assessor and Microsoft building footprint data to analyze the location, number, and value of buildings located in the 100-year and 500-year floodplains. A summary of the results of this analysis is provided in the following tables.

Bruno Buildings and Value in the 100-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
127	$7,624,395	27	$2,951,615	21.3%

Source: County Assessor, 2024; Microsoft, 2024

Bruno Buildings and Value in the 500-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
127	$7,624,395	0	$0	0%

Source: County Assessor, 2024; Microsoft, 2024

Plans and Studies

The Village of Bruno has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the village updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Building Code (1993)

The Village of Bruno's building code Ordinance 137 sets standards for constructed buildings and structures and became effective on May 4, 1993. The hazard mitigation plan has not been integrated with the building code due to the age of the document. The building code is enforced by the village board.

Butler County Local Emergency Operations Plan (2021)

The Butler County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. The hazard mitigation plan has been integrated with this plan and includes the top hazards that would affect the county and its populations. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines.

Floodplain Ordinance (2011)

The village's floodplain ordinance outlines requirements for structures and developments located in the 100-year floodplain. By having a floodplain ordinance, the village promotes public health, safety, and welfare by minimizing losses due to floods. It also helps to assure eligibility of purchasing flood insurance for property owners. Floodplain regulations in Bruno discourage development in the floodplain, limit population in the floodplain, require more than one foot of elevation above the Base Flood Elevation in the floodplain, and discourage housing and vulnerable populations near chemical storage sites. Future updates to this ordinance plan to integrate the hazard mitigation plan into it and include regulations that restrict subdivision of land within or adjacent to the floodplain areas.

Southeast Nebraska Community Wildfire Protection Plan (2020)

The purpose of the Southeast Nebraska Community Wildfire Protection Plan (CWPP) is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years.

Zoning Ordinance (1993)

The village's zoning ordinance outlines where and how development should occur in the future. Bruno's zoning ordinance restricts development in hazard prone areas and includes the ability to

implement water restrictions. The hazard mitigation plan has not been integrated into the zoning ordinance, but it is planned to be integrated in future updates of the ordinance.

Future Development Trends

The Village of Bruno has added two houses within the past five years. No structures were developed in the floodplain or any hazardous areas. There is no planned development in Bruno in the near future, which will likely keep the community's vulnerability to hazards the same. For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted regardless of where they are located. According to the local planning team any new and future development is not likely to occur in any other known hazard locations.

Community Lifelines

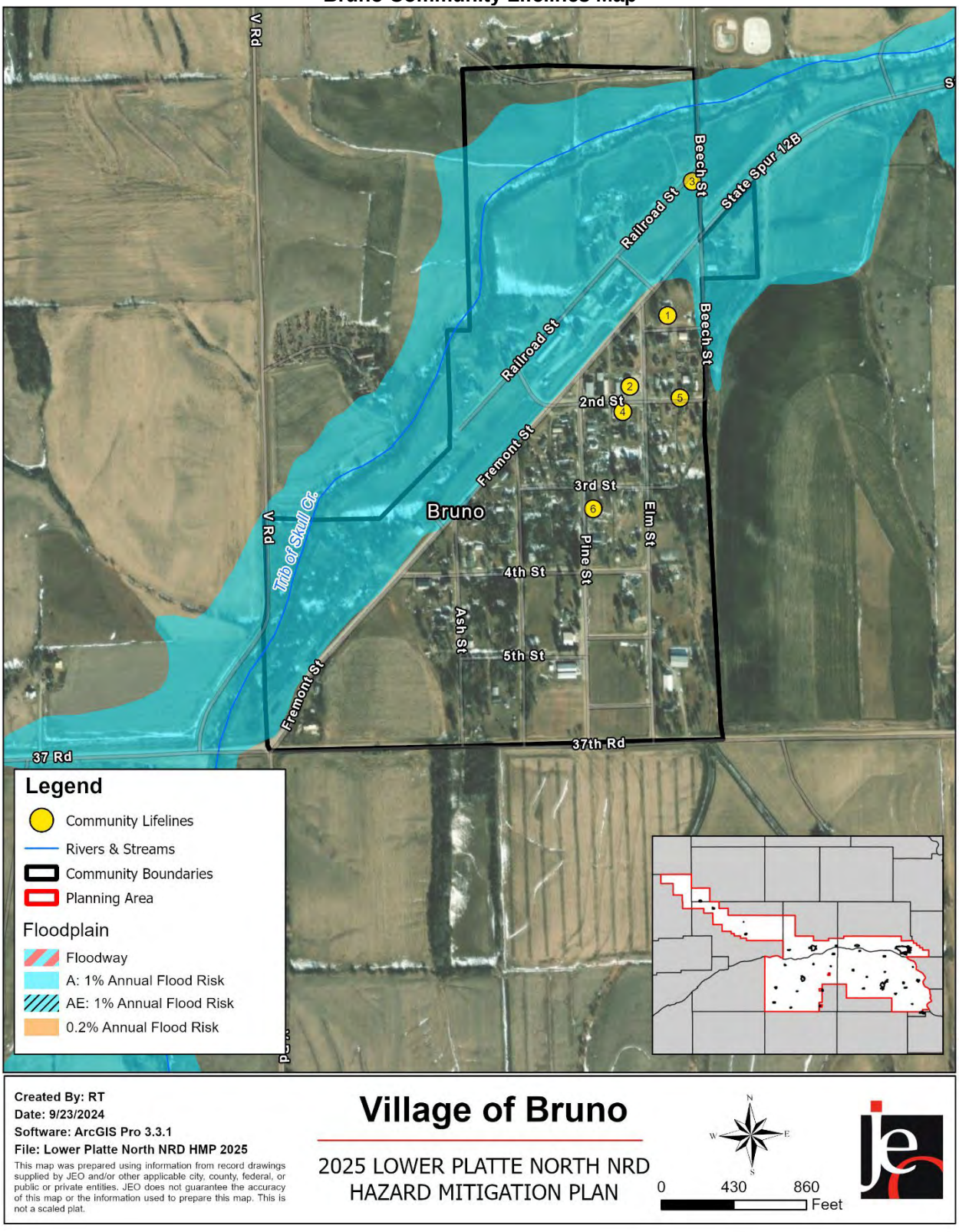
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Bruno Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain
1	Community Center	Other	-	N
2	Fire Hall	Safety and Security	-	N
3	Lift Station	Food, Water, Shelter	-	Y (1%)
4	Post Office	Safety and Security	-	N
5	Town Maintenance Shed	Other	-	N
6	Water Tower	Food, Water, Shelter	-	N

Bruno Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Bruno which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Village of Bruno. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however Bruno has identified mitigation actions to reduce the impacts of the hazards. Dam Failure and Levee Failure have been omitted from this profile as there are no high hazard dams upstream or any levee protected areas near the community according to NeDNR and USACE data. Therefore, no mitigation actions have been identified for those two hazards. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Drought

Drought can be a concern for Bruno as it can impact the community's municipal wells, water levels, and regional agriculture. Bruno has experienced significant drops in water levels, especially in the summers. This was a concern during the severe drought conditions in 2012. In 2016, the Lower Platte North NRD began supplying drinking water to Bruno. Continual monitoring of water levels and establishing a drought plan for the village are potential actions for Bruno to implement to reduce risks from this hazard.

Mitigation and Strategic Actions

Action	Establish Local Drought Conditions
Description & Location	Work with the LPNNRD to establish local drought conditions and look into implementing drought response actions/an ordinance.
Hazard(s) Addressed	Drought
Estimated Cost	Varies
Local Funding	General Budget
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board, LPNNRD
Status	New action. Not started.

Flooding

A significant flood in 1963 caused water to enter Bruno in the west area of the community along Skull Creek. The railroad tracks that run through Bruno from the southwest to the northeast and were replaced years later served as a levee and prevented larger damage within the community. May 2024 produced heavy rains that caused widespread flooding in eastern Nebraska, and in Bruno. Many roads in the area were flooded and between four to nine inches of rain was reported in the area. Skull Creek that runs through Bruno has a history of flooding after heavy rain events.

Mitigation and Strategic Actions

Action	Drainage Improvements
Description & Location	Deepen drainage ditches and install drains in areas with higher risks of flooding, particularly along roadways that have been previously damaged from flooding.
Hazard(s) Addressed	Flooding
Estimated Cost	Varies by project
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board, Floodplain Administrator
Status	New action. Not started.

Severe Thunderstorms

A severe thunderstorm with hail around the size of a half dollar occurred in Bruno on May 21, 2011. Two severe thunderstorms occurred in 2006 with reported wind gusts of about 60 mph and caused property damage and downed tree branches. Monitoring and removing hazardous trees in the community can help reduce risks of damage from severe thunderstorms in Bruno.

Mitigation and Strategic Actions

Action	Tree City USA
Description & Location	Work to become a Tree City USA through the National Arbor Day Foundation in order to receive direction, technical assistance, and public education on how to establish a hazardous tree identification and removal program in order to limit potential tree damage and damages caused by trees in a community when a storm event occurs.
Hazard(s) Addressed	Animal & Plant Disease, Extreme Temperatures, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	Tree care program funded at $2 per capita
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	New action. Not started.

Severe Winter Storms

In the past, a water main in Bruno broke and the village was unable to have someone repair it for a few days. Severe winter storms are also a concern when the village has to drain the water tower if the temperature reaches sub-zero levels. Bruno has not completed projects to reduce the risk of severe winter storm weather. In the future, establishing a better system where they can shut off more sections of the main is an action they plan to take to reduce the risk to the community.

Mitigation and Strategic Actions

Action	Infrastructure Hardening
Description & Location	Harden community lifelines to withstand high winds, hail, heavy snow, etc., by hardening roofs, hail resistant barriers to HVAC systems, shatter-proofing windows, building tie-downs and anchors, flood walls, and other architectural designs that reduce damage. Make improvements to the municipal water tower and water mains to prevent damages from extreme temperatures.
Hazard(s) Addressed	Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	Varies by project
Local Funding	General Budget
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board
Status	New action. Not started. Repairs were done to a broken water main.

Tornadoes and High Winds

Tornadoes and high wind events have the potential to cause significant damage in the planning area. No tornadoes have been reported in Bruno; however, high wind events have led to tree damage and downed trees in the past. Continual maintenance and removal of hazardous trees can help reduce risks of damage from tornadoes and high wind events in Bruno.

Mitigation and Strategic Actions

See the *Tree City USA* mitigation action under Severe Thunderstorms.

Other Mitigation and Strategic Actions

Action	Public Education
Description & Location	Educate staff, residents, and visitors on their risks to all hazards that could impact the community, how to get information and emergency notifications, mitigation actions that can be taken, and preparedness actions to keep themselves safe. Coordinate outreach and education projects and materials with Butler County and other project partners such as the Nebraska Department of Environment and Energy, Department of Transportation, etc. Bruno will amplify and expand on education and outreach strategies created by Butler County and other organizations on hazardous materials release and operations.
Hazard(s) Addressed	Hazardous Materials Release
Estimated Cost	$500
Local Funding	General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	New action. Not started.

Community Profile

David City



Lower Platte North NRD
Hazard Mitigation Plan 2025

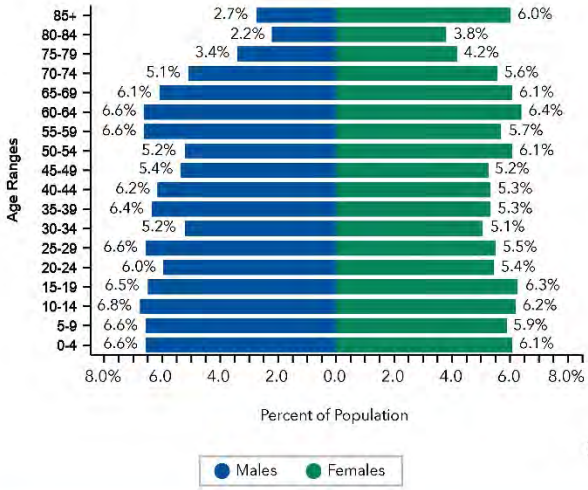
Community Fact Sheet

Community Summary Fact Sheet

David City, NE
Lower Platte North NRD Hazard Mitigation Plan 2025

3,076	41.7	1,228	2.38	$160,096	$69,262
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID



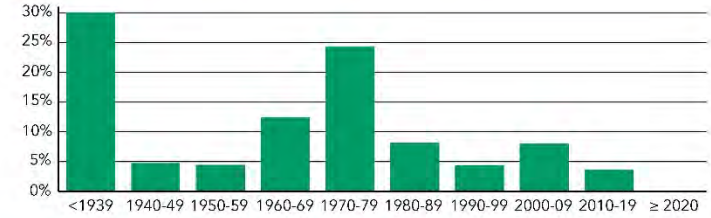
TOTAL POPULATION

2023 Total Population (Estimate)	3,076
2020 Total Population (U.S. Census)	2,995
2010 Total Population (U.S. Census)	2,941
2000 Total Population (U.S. Census)	2,664

AT RISK POPULATIONS

271	697	58	17%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

HOUSING: YEAR BUILT



EMPLOYMENT

162	0.3%
Total Businesses	Unemployment Rate

POPULATION BY RACE



- Asian Population
- Black Population
- American Indian Population
- Population of 2+ Races
- Other Race Population
- White Population

9% **of the Total Population is Hispanic**

HOUSING

83	5%
Vacant Housing Units	Mobile Homes

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Source: Esri, U.S. Census, Esri-Data Axle, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021.

Local Planning Team

David City Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Tami Comte	Clerk	David City	Attended, Materials Development	Attended, Materials Development
Raiko Martinez	City Administrator Intern	David City	Attended, Materials Development	Attended
Gary Meister	Building Inspector	David City	-	Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The planning team will be responsible for reviewing and updating the community profile outside of the five-year update. David City will review the plan annually and the public will be notified on social media, website updates, and posting letters for residents.

Capability Assessment

The planning team assessed David City's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

David City Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	Yes (In Progress)
	Economic Development Plan	No
	Emergency Operations Plan	Yes
	Floodplain Management Plan	Yes
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	No
	Building Codes	Yes
	Water System Emergency Response Plan	Yes
	Wellhead Protection Plan	Yes
	National Flood Insurance Program	Yes
	Community Rating System	No
	Community Wildfire Protection Plan	Yes (Regional)
	Other (if any)	-

Capability/Planning Mechanism		Yes/No
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administrator	Yes
	GIS Capabilities	Yes
	Chief Building Official	Yes
	Civil Engineering	No
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	-
Fiscal Capability	1- & 6-Year Plan	Yes (In Progress)
	Applied for Grants in the Past	Yes
	Awarded a Grant in the Past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric/Water/Sewer Service Fees	Yes
	Storm Water Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	Yes
	Ongoing Public Education or Information Program (e.g., Responsible Water Use, Fire Safety, Household Preparedness, Environmental Education)	No
	Natural Disaster or Safety Related School Programs	Yes
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	Yes
	Other (if any)	-

David City Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Moderate
Public Support to Implement Projects	Limited
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited/Moderate

National Flood Insurance Program (NFIP)

David City is a member of the NFIP, having joined on 8/24/2012, and the city's Floodplain Administrator/Building Inspector oversees the commitments and requirements of the program. The floodplain administrator is training to develop various tools and resources to determine if a development will be located in the floodplain. A permit is required for any new construction in the floodplain. Enforcement is done through the city's floodplain regulations. Site inspections are conducted to identify substantially damaged and substantially improved structures after a flood event. The city's floodplain regulations do not exceed the State of Nebraska requirements.

The floodplain administrator has stated David City will remain in good standing and continue to be involved in the National Flood Insurance Program. There are no known areas in the community with limited NFIP coverage. David City presently uses no educational materials for the floodplain. Additional NFIP information is given in the table below.

David City NFIP Information

NFIP Overview	
Date of NFIP Participation:	8/24/2012
Floodplain Administrator:	Gary Meister
Is Floodplain Administrator a Certified Floodplain Manager?	No (Training)
Is Floodplain Management an Auxiliary Function?	Yes
Number of NFIP Policies In-Force:	0
Total NFIP Premium ($):	$0
Total NFIP Coverage ($):	$0
Number of Claims Paid Out:	0
Total Amount of Claims Paid Out ($:)	$0
Number of Repetitive Loss Structures:	0
Number of Severe Repetitive Loss Structures:	0
Is the Community Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	No
FIRMs Digital or Paper?	Digital
Located in a RISK Map Area?	Yes

Buildings and Valuation in the Floodplain

The planning team acquired GIS parcel data from the County Assessor and Microsoft building footprint data to analyze the location, number, and value of buildings located in the 100-year and 500-year floodplains. A summary of the results of this analysis is provided in the following tables.

David City Buildings and Value in the 100-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
1,489	$235,813,360	6	$407,435	0.4%

Source: County Assessor, 2024; Microsoft, 2024

David City Buildings and Value in the 500-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
1,489	$235,813,360	0	$0	0%

Source: County Assessor, 2024; Microsoft, 2024

Plans and Studies

David City has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the city updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Building Code (2024)

The building code sets standards for constructed buildings and structures. David City's building code is based on the 2012 International Building Codes, and no amendments have been made. Enforcement of the building code goes through the city's building inspector. The hazard mitigation plan has not been integrated with the building code.

Capital Improvement Plan

The capital improvement plan outlines projects the city would like to pursue and provides a planning schedule and financing options. Projects include stormwater and drainage improvements, improving transportation routes for drainage, widening roadways to improve evacuations, installing new municipal wells, upsizing water distribution pipes, installing water meters for residential structures, updating the electrical distribution system, burying powerlines, constructing a community storm shelter, and constructing a new water treatment facility. There are plans to integrate the hazard mitigation plan with the capital improvement plan and to include the installation of emergency generators in community lifelines.

Comprehensive Plan (2022)

The comprehensive plan is designed to guide the future actions and growth of the city. The hazard mitigation plan has not been integrated into the plan, but the plan does contain details that directs development away from the floodplain and encourages structures to be elevated if they are located in the floodplain. The plan also contains Safe Growth goals, directs housing and vulnerable populations away from chemical storage facilities and transportation routes, encourages infill development, and identifies areas that need emergency shelters. Currently, there is not a timeline to update the plan.

Butler County Local Emergency Operations Plan (2021)

The Butler County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. The hazard mitigation plan has been integrated with this plan and includes the top hazards that would affect the county and its populations. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines.

Southeast Nebraska Community Wildfire Protection Plan (2020)

The purpose of the Southeast Nebraska Community Wildfire Protection Plan CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and

identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years.

Subdivision Regulations (2019)

The city's subdivision regulations govern the division of land from one or more larger parcels into smaller lots. The hazard mitigation plan has not been integrated into the subdivision regulations. However, the documents discourage housing and vulnerable populations near chemical storage sites, discourage development in and next to the floodplain, include well setback requirements, and include the ability to implement water restrictions.

Water System Emergency Response Plan (2023)

A water system emergency response plan serves as a guideline for water operators and city staff to minimize the disruption of normal services to consumers and to provide public health protection during an emergency event. The document identifies several natural and human-caused events and discusses the water system's response during those events.

Wellhead Protection Plan (2020)

The purpose of wellhead protection plans is to protect the public drinking water supply wells from contamination. It includes identifying potential sources of groundwater contamination in the area and managing the potential contaminant sources. The wellhead protection plan has not been integrated with the hazard mitigation plan.

Zoning Ordinance (2024)

The city's zoning ordinance outlines where and how development should occur in the future. The hazard mitigation plan has not been integrated into David City's zoning ordinance. Regulations on hazardous materials are included in the zoning ordinance. The zoning ordinance is being updated for 2024, and there are plans to adopt a floodplain ordinance in 2025. There is currently a Flood Hazard Overlay District regulation in the zoning ordinance that provides rules regarding development in flood risk areas. Future updates and additions will include restricting development in hazard prone areas, prohibiting or discourage development in the floodplain, and require more than one foot of elevation above the Base Flood Elevation in the floodplain.

Future Development Trends

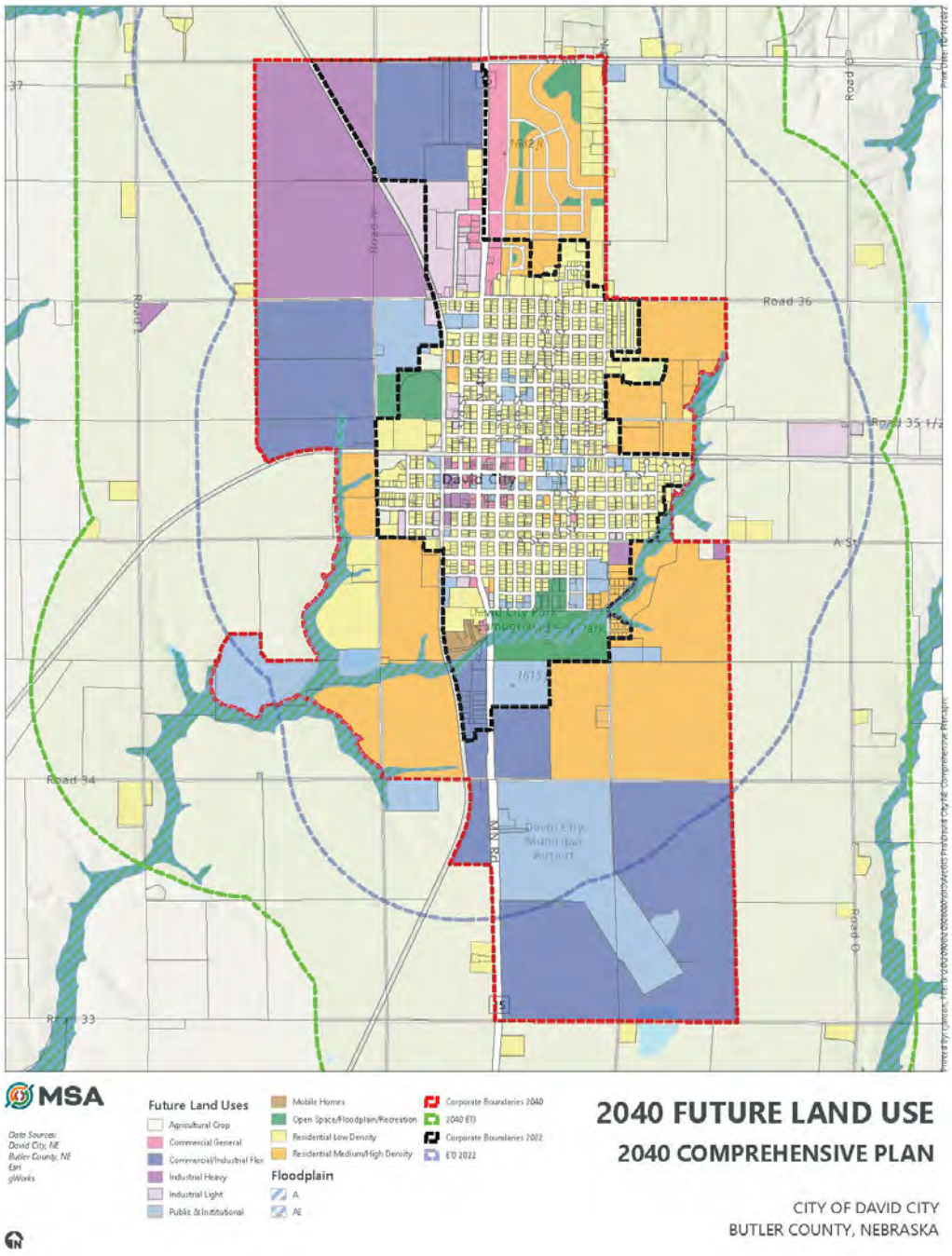
Over the past few years, David City has experienced new commercial development that includes the new AGP facility, the new AKRS Equipment store, Timpte Inc. expansion, Northside expansion, a new Casey's location, and the Cooperative Way paving project. In the southeast portion of David City, the Butler County Health Care Center and the David Place long-term living facility expanded their respective facilities. Residential development includes the Larry Sabata subdivision development in the northeast part of the community and the Northland subdivision development. The city has also done curb and gutter construction on O Street and expansions and renovations to both the water plant and wastewater plant. No structures were developed in the floodplain or other known hazardous areas. Currently, there are no new housing developments or new businesses planned.

For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted regardless of

where they are located. According to the local planning team, any future development is not likely to occur in any other known hazardous locations.

The future land use plan anticipates residential land use to continue to the north, west and east. The floodplain and flood zone areas are considered within the open space and recreational land uses to encourage maintenance of natural resources and regulate development in flood risk areas. The northwestern and southern portions of the city are designated for commercial or industrial land use. The future land use map for the city can be seen below.

Future Land Use Map



Community Lifelines

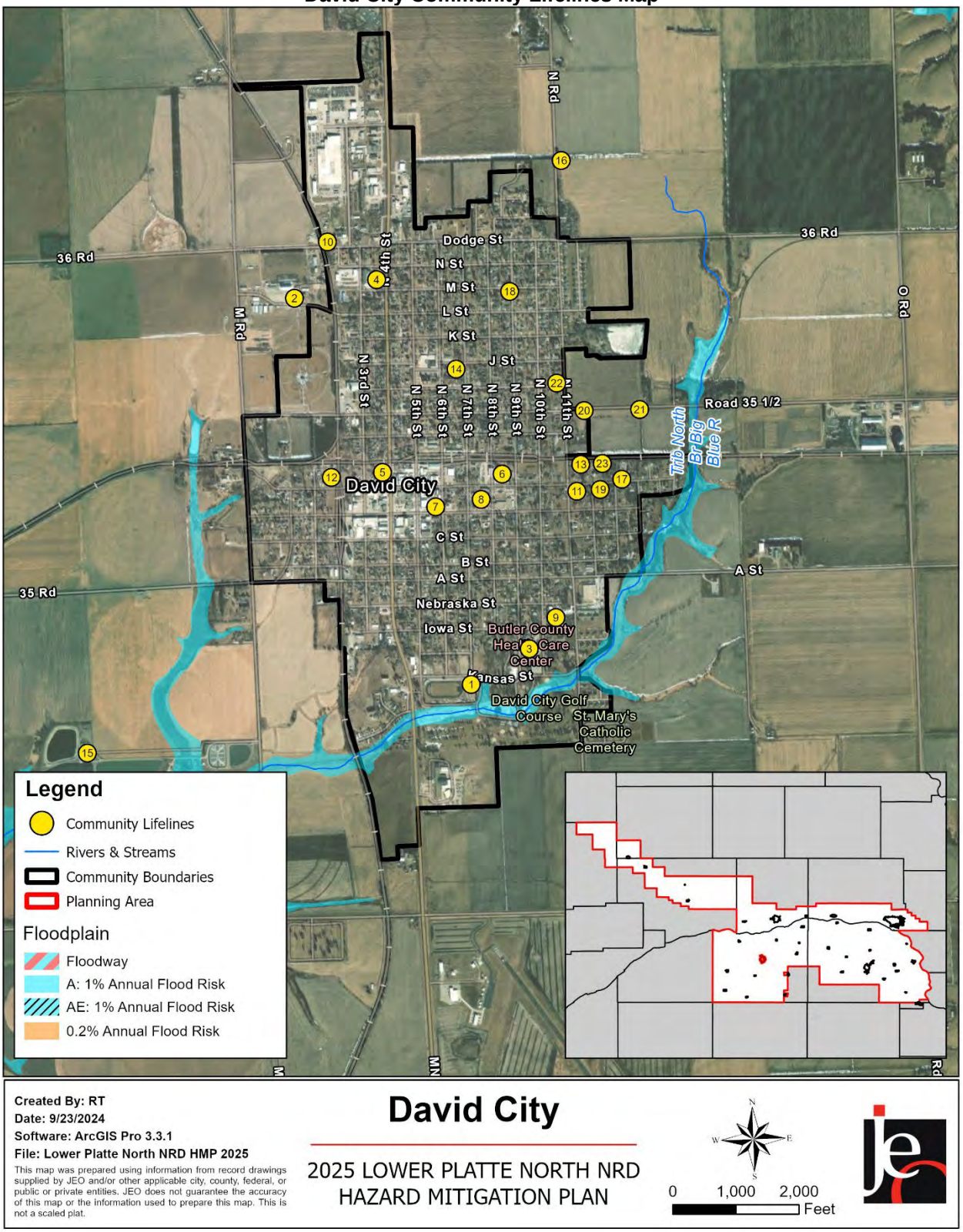
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



David City Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Auditorium	Food, Water, Shelter	S	N
2	Butler County Event Center	Other	-	N
3	Butler County Hospital	Health and Medical	G	N
4	Butler Public Power District	Energy	G	N
5	David City – City Hall	Safety and Security	-	N
6	David City Elementary School	Safety and Security	S	N
7	David City Fire Department	Safety and Security	G	N
8	David City High School	Safety and Security	S	N
9	David's Place Nursing Home	Health and Medical	G	N
10	Electric Substation	Energy	-	N
11	Electric Substation 1	Energy	-	N
12	Electric System Department/Street Department	Energy	-	N
13	Power Plant	Energy	G	N
14	St. Joseph's Villa Nursing Home	Health and Medical	G	N
15	Wastewater Treatment Facility	Food, Water, Shelter	G	N
16	Water Tower	Food, Water, Shelter	-	N
17	Water Treatment Plant	Food, Water, Shelter	G	N
18	Well No. 8	Food, Water, Shelter	-	N
19	Well No. 9	Food, Water, Shelter	-	N
20	Well No. 10	Food, Water, Shelter	-	N
21	Well No. 11	Food, Water, Shelter	-	N
22	Well No. 12	Food, Water, Shelter	G	N
23	Well No. 14	Food, Water, Shelter	-	N

David City Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for David City which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by David City. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however David City has identified mitigation actions to reduce the impacts of the hazards. Dam Failure and Levee Failure have been omitted from this profile as there are no high hazard dams upstream or any levee protected areas near the community according to NeDNR and USACE data. Therefore, no mitigation actions have been identified for those two hazards. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Flooding

David City experienced a flash flood event in August of 2021 where law enforcement reported flooded roads. During the March 2019 floods the wastewater plant sustained damage in the control room, losing the main pump after the room flooded. Two culverts, blocked with debris and ice, contributed to two sections of road washing out. The flood damage in David City was a flash flood event, with heavy rains falling on melting snow. The city otherwise has no issues with stormwater drainage. About ten years ago the city partnered with the Upper Big Blue NRD to create a water diversion plan. From this plan the city implemented the Northwest Drainage Project. The $2,000,000 project ended what had been recurrent flooding at the intersection of O Street and 4th Street and in the north side of town. The only other flooding event to occur since the completion of the Northwest Drainage Project was in August of 2017 when ten inches of rain fell in two hours. The wastewater system was overwhelmed then as well, damaging the wastewater plant. David City has increased building in the northwest drainage area. Improvements to the headworks building at the wastewater plant were made to mitigate potential floods. Future floods are a concern because of their potential to damage the wastewater plant and roads. Risk Mapping, Assessment, and Planning (Risk MAP) was completed for southwestern portions of Butler County, including David City. Additional products, such as flood depths and percent annual or 30-year chance grids, are available to David City to make informed decisions about reducing and communicating flood risk. The Flood Risk Report can be downloaded from the FEMA Flood Map Service Center.

Mitigation and Strategic Actions

Action	Above Ground Stormwater System and Drainage Improvements
Description & Location	Stormwater systems comprising of ditches, culverts, or drainage ponds and other nature-based solutions can be used to convey runoff. Undersized systems can contribute to flooding. Drainage improvements may include ditch upsizing, ditch cleanout and culvert improvements. Retention and detention facilities may also be implemented to decrease runoff while also decreasing the need for other stormwater system improvements. Bridges typically serve as flow restrictions along streams and rivers. Cleanout and reshaping channel segments at bridge crossings can increase conveyance, reducing potential flooding.
Hazard(s) Addressed	Flooding, Severe Thunderstorms
Estimated Cost	Varies
Local Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Streets Department
Status	The city is identifying ditches and culverts that can be upgraded.

Action	Infrastructure Hardening
Description & Location	Locate critical mechanical systems above the base flood elevation. Consider moving electrical systems to higher floors or the roof rather than the basement.
Hazard(s) Addressed	Flooding
Estimated Cost	$1,000,000+
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Sewer Department
Status	No progress.

Removed Mitigation and Strategic Actions

Action	Stream Bank Stabilization / Grade Control Structures / Channel Improvements
Description & Location	Stabilize banks along streams and rivers. This may include, but is not limited to: reducing bank slope, addition of riprap, installation of erosion control materials/fabrics.
Hazard(s) Addressed	Flooding
Status	Removed

Severe Thunderstorms

Severe thunderstorms cause concerns of property damage, tree damage, and power loss. Severe thunderstorms are an annual occurrence and have been accompanied by wind and hail that caused property damage and power outages. A lightning strike during one of these storms damaged critical infrastructure at the wastewater plant. The swimming pool roof was replaced after being damaged by hail. The city has surge protectors and lightning arrestors to protect electrical equipment in community lifelines.

Mitigation and Strategic Actions

Action	Backup and Emergency Generators
Description & Location	Obtain a backup generator for the city hall and any other community lifelines as deemed necessary. The city office, auditorium, water plant, and street/light department all need backup generators.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$500,000
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	City Administrator
Status	Searching for funding available to help assist the purchase of a generator.

Action	Weather Radios
Description & Location	Identify weather warning radio locations. Purchase or upgrade weather radios as needed. Radios will be located in department offices.
Hazard(s) Addressed	Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$50 per unit
Local Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	All departments
Status	No progress.

Terrorism and Cyber-Attack

There was a cyber-attack that occurred in David City in 2017. With the rise in events nationwide the local planning team is concerned that there are vulnerabilities for bad actors to cause issues. If someone were able to hack the public infrastructure systems, it could cause great harm and expense to the city. No mitigation actions have been implemented currently, but the city plans on taking quotes for installing camera systems for protection.

Mitigation and Strategic Actions

Action	Facility Monitoring
Description & Location	Install security cameras in and around community lifelines and key infrastructure.
Hazard(s) Addressed	Terrorism and Cyber-Attack
Estimated Cost	$100 per unit
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	City Administrator
Status	Planning on taking quotes to get a camera system installed.

Tornadoes and High Winds

In June of 2017 a high wind event downed trees, tree limbs, and power lines throughout the city. An entire line of electrical infrastructure was damaged on Industrial Drive. The power was out for parts of the town for five hours until Nebraska Public Power rerouted the electricity. The electrical infrastructure was repaired in about a day. High wind events are a common experience in the city

and often cause damage. Future high wind events are a concern for the community because of their potential to cause tree and power line damage. No hazardous trees are left in the community, and the city maintenance staff trim trees in the fall. All critical municipal records have a data backup system.

Mitigation and Strategic Actions

Action	Alert/Warning Sirens
Description & Location	Perform an evaluation of existing alert sirens in order to determine sirens which should be replaced or upgraded. Install new sirens where lacking with remote activation options.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes and High Winds
Estimated Cost	$5,000+
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Electric Department
Status	Testing sirens and developing a plan to upgrade the current system.

Action	Electrical System Looped Distribution/Redundancies
Description & Location	Provide looped distribution service and other redundancies in the electrical system as a backup power supply in the event the primary system is destroyed or fails.
Hazard(s) Addressed	Extreme Temperatures, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$5,000+
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Electric Department
Status	No progress.

Action	Hazardous Tree Removal
Description & Location	Conduct a tree inventory. Develop and implement tree maintenance and trimming program to remove hazardous limbs and trees.
Hazard(s) Addressed	Animal & Plant Disease, Drought, Extreme Temperatures, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$200 per tree
Local Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	Street Department
Status	The city has a tree removal program in place.

Action	Power, Service, and Electrical Lines
Description & Location	David City can work with Nebraska Public Power District or electricity department to identify vulnerable transmission and distribution lines and plan to bury lines underground or retrofit existing structures to be less vulnerable to storm events. Electrical utilities shall be required to use underground construction methods where possible for future installation of power lines. David City should also work with their water providers to ensure that distribution strategies are protected against natural disasters.
Hazard(s) Addressed	Flooding, Severe Thunderstorms, Tornadoes and High Winds
Estimated Cost	Varies
Local Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Electrical Department
Status	No progress. Need coordination with Nebraska Public Power District.

Action	Safe Rooms and Storm Shelters
Description & Location	Design and construct storm shelters and safe rooms in highly vulnerable areas such as churches, schools and other areas.
Hazard(s) Addressed	Flooding, Hazardous Materials Release, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$350+ per square foot
Local Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	City Administrator
Status	No progress.

Other Mitigation and Strategic Actions

Action	Drought Monitoring
Description & Location	Increase drought monitoring at a regional level.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	Staff Time, General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	Water Operator, City Administrator
Status	Not started.

Action	Drought Ordinance
Description & Location	Create and pass a more robust drought ordinance. The NRD can work with local community leaders and water system operators to promote developing and updating local drought ordinances.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	Staff Time, General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Water Department, City Administrator, City Council
Status	Not started.

Action	Hazardous Fuels Reduction
Description & Location	Create buffers around structures through the removal or reduction of flammable vegetation and replacing it with nonflammable vegetation.
Hazard(s) Addressed	Extreme Temperatures, Drought, Grass/Wildfires
Estimated Cost	Varies by project
Local Funding	General Fund
Timeline	2-5 Years
Priority	Low
Lead Agency	City Administrator
Status	New action. Not started.

Action	Monitoring Wells
Description & Location	Work with the LPN NRD on possibly adding groundwater monitoring wells near the community.
Hazard(s) Addressed	Drought
Estimated Cost	Unknown
Local Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Water Operator, City Administrator
Status	New action. Not started.

Action	New Well for AGP Plant
Description & Location	Drill a well for the planned AGP Plant.
Hazard(s) Addressed	Drought
Estimated Cost	Unknown
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Water Operator, City Administrator
Status	New action. Not started.

Action	Update Comprehensive Plan
Description & Location	Update comprehensive plan. Integrate plan with Hazard Mitigation Plan components. Components can include mitigation actions in the profile.
Hazard(s) Addressed	Animal & Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$15,000+
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	City Administrator
Status	Comprehensive Plan was last updated in 2022 and is planned to be reviewed annually.

Removed Mitigation and Strategic Actions

Action	Improve Construction Standards and Building Survivability
Description & Location	Prohibit the installation of flat roofs in new construction.
Hazard(s) Addressed	Severe Winter Storms
Status	Removed.

Community Profile

Village of Dwight

Lower Platte North NRD
Hazard Mitigation Plan 2025

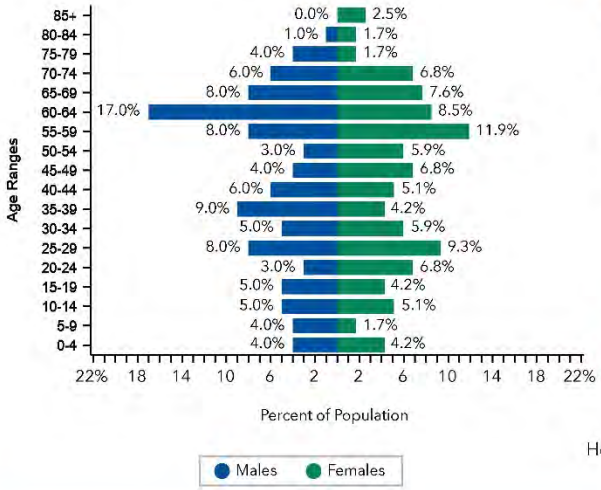
Community Fact Sheet

Community Summary Fact Sheet

Dwight, NE
Lower Platte North NRD Hazard Mitigation Plan 2025

218	47.1	96	2.27	$230,882	$83,965
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID



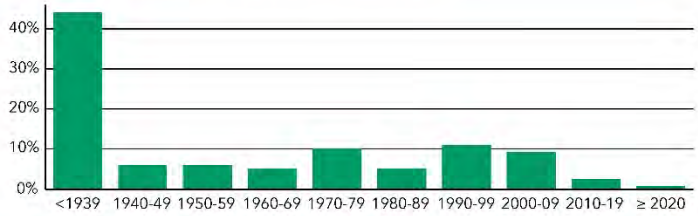
TOTAL POPULATION

2023 Total Population (Estimate)	218
2020 Total Population (U.S. Census)	229
2010 Total Population (U.S. Census)	226
2000 Total Population (U.S. Census)	262

AT RISK POPULATIONS

26	43	0	9%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

HOUSING: YEAR BUILT



EMPLOYMENT

12	1.5%
Total Businesses	Unemployment Rate

POPULATION BY RACE



- American Indian Population
- Black Population
- Asian Population
- Other Race Population
- Population of 2+ Races
- White Population

1% **of the Total Population is Hispanic**

HOUSING

14	2%
Vacant Housing Units	Mobile Homes

esri THE SCIENCE OF WHERE

Source: Esri, U.S. Census, Esri-Data Axle, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021.

Local Planning Team

Dwight Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Steven Policky	Chairman	Village of Dwight	Materials Development	Materials Development
Jim Mastny	Clerk	Village of Dwight	Materials Development	Materials Development
Terrence St.Hilaire	Water Operator	Village of Dwight	Attended, Materials Development	Attended, Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The Chairman, Clerk, and Water Operator will be responsible for reviewing and updating the community profile outside of the five-year update. Dwight will review the plan bi-annually and the public will be notified through door-to-door communications and on public bulletin boards.

Capability Assessment

The planning team assessed the Village of Dwight's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Dwight Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operations Plan	Yes (County)
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	No
	Building Codes	No
	Water System Emergency Response Plan	Yes
	Wellhead Protection Plan	Yes
	National Flood Insurance Program	No
	Community Rating System	No
	Community Wildfire Protection Plan	Yes (Regional)
	Other (if any)	-

Capability/Planning Mechanism		Yes/No
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administrator	No
	GIS Capabilities	No
	Chief Building Official	No
	Civil Engineering	Yes
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	-
Fiscal Capability	1- & 6-Year Plan	Yes
	Applied for Grants in the Past	Yes
	Awarded a Grant in the Past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	No
	Gas/Electric/Water/Sewer Service Fees	Yes (Water, Sewer)
	Storm Water Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	Yes
	Ongoing Public Education or Information Program (e.g., Responsible Water Use, Fire Safety, Household Preparedness, Environmental Education)	Yes
	Natural Disaster or Safety Related School Programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	Yes
	Other (if any)	-

Dwight Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Limited
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

National Flood Insurance Program (NFIP)

Dwight is not a participant in the National Flood Insurance Program. The village is not located in a floodplain and does not plan to join the program in the near future.

Dwight NFIP Information

NFIP Overview	
Date of NFIP Participation:	N/A
Floodplain Administrator:	N/A
Is Floodplain Administrator a Certified Floodplain Manager?	N/A
Is Floodplain Management an Auxiliary Function?	N/A
Number of NFIP Policies In-Force:	N/A
Total NFIP Premium ($):	N/A
Total NFIP Coverage ($):	N/A
Number of Claims Paid Out:	N/A
Total Amount of Claims Paid Out ($:)	N/A
Number of Repetitive Loss Structures:	N/A
Number of Severe Repetitive Loss Structures:	N/A
Is the Community Currently Suspended from the NFIP?	N/A
Any Outstanding Compliance Issues?	N/A
FIRMs Digital or Paper?	Digital
Located in a RISK Map Area?	No

Buildings and Valuation in the Floodplain

The planning team acquired GIS parcel data from the County Assessor and Microsoft building footprint data to analyze the location, number, and value of buildings located in the 100-year and 500-year floodplains. A summary of the results of this analysis is provided in the following tables.

Dwight Buildings and Value in the 100-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
185	$20,231,970	0	$0	0%

Source: County Assessor, 2024; Microsoft, 2024

Dwight Buildings and Value in the 500-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
185	$20,231,970	0	$0	0%

Source: County Assessor, 2024; Microsoft, 2024

Plans and Studies

The Village of Dwight has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the village updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Butler County Local Emergency Operations Plan (2021)
The Butler County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. The hazard mitigation plan has been integrated with this plan and includes the top hazards that would affect the county and its populations. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines.

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The subdivision regulations govern the division of land from one or more larger parcels into smaller lots. The hazard mitigation plan has not been integrated into the subdivision regulations. The subdivision regulations restrict the subdivision of land within or adjacent to the floodplain, includes well setback requirements, and includes the ability to implement water restrictions.

Water System Emergency Response Plan (2022)
A water system emergency response plan serves as a guideline for water operators and village board to minimize the disruption of normal services to consumers and to provide public health protection during an emergency event. The document identifies several natural and human-caused events and discusses the water system's response during those events. The hazard mitigation plan has not been integrated into the water system emergency response plan.

Wellhead Protection Plan (2006)
The purpose of wellhead protection plans is to protect the public drinking water supply wells from contamination. It includes identifying potential sources of groundwater contamination in the area and managing the potential contaminant sources. Due to the year the plan was published, the wellhead protection plan has not been integrated with the hazard mitigation plan.

Zoning Ordinance (2008)

The village's zoning ordinance outlines where and how development should occur in the future. The hazard mitigation plan has not been integrated with the zoning ordinance. The zoning ordinance restricts development in hazard prone areas, prohibits development within the floodplain, discourages development in the floodplain, and limits population density in the floodplain. Additionally, the ordinance requires more than one foot of elevation above Base Flood Elevation in the floodplain. The ordinance discourages housing and vulnerable populations near chemical storage sites and takes into consideration wildfire and wildland urban interface.

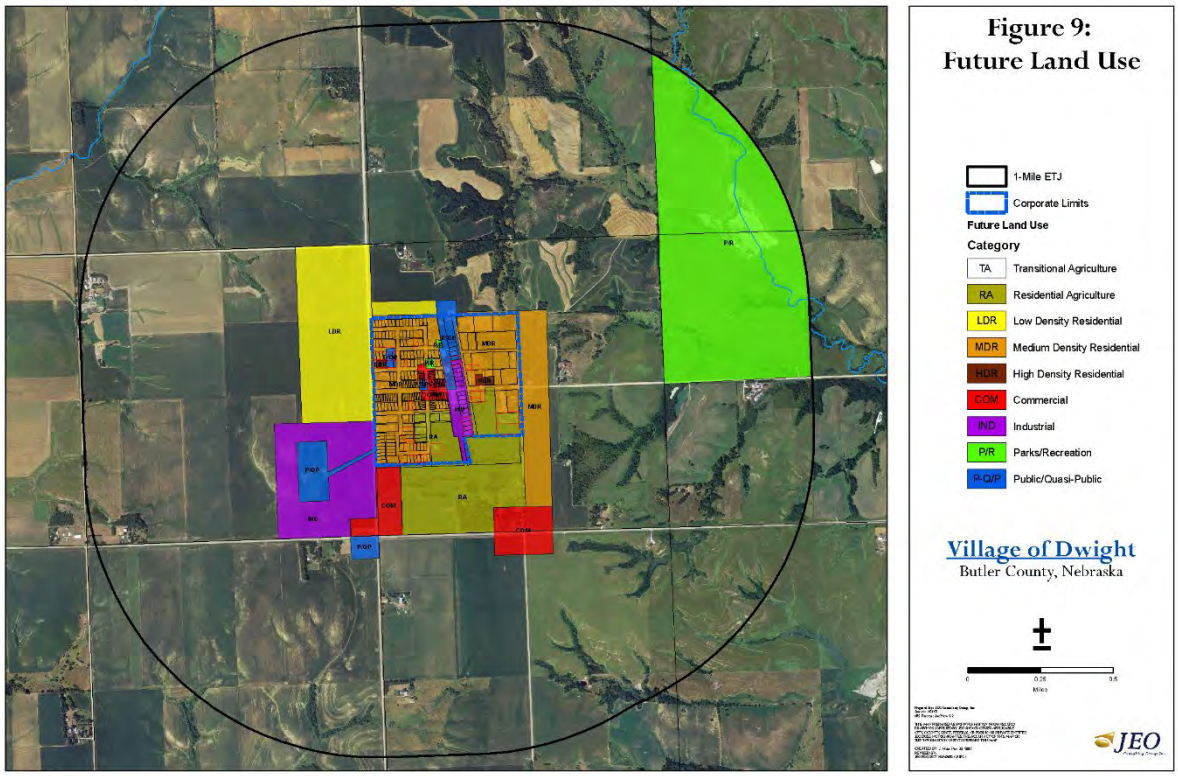
Future Development Trends

The Village of Dwight has developed several new houses in the past five years. Approximately 10 new houses have been built on previously empty lots or in place of older housing units that were demolished. The infill development is in line with Smart Growth techniques, which likely reduces the community's vulnerability. Additionally, there have been no new structures built within the floodplain due to the village not being in a floodplain area. A three-acre lot adjacent to the northeast corner of town has been purchased with plans for two houses and a commercial shop. A planned development with 10 five-acre lots on the southeastern border of the village is anticipated to be developed in the near future. The lots will be annexed once they are sold and developed. The village has agreed to extend the water main to provide water service to the area, and the developer has constructed two access roads to the community.

The Future Land Use map below indicates intended growth areas for Dwight over time. Residential development is expected to continue growing further northwest and east of the village, with residential agricultural land use extending to the south. Industrial use is projected to develop in the southwest part of the village surrounding the lagoon. Residential development is being buffered from the lagoon with various other land uses, potentially reducing the vulnerability of residents from living near a hazardous area. Commercial land use is planned between industrial and residential agriculture in the southwest, along with in the southeast, below the medium residential and residential agriculture land uses. Parks and recreational land use is anticipated in the far northeast of Dwight, adjacent to an existing statewide wildlife management area.

All new and future developments could be impacted, regardless of where they are located, by hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds. According to the local planning team any new and future development is not likely to occur in any other known hazard locations.

Dwight Future Land Use Map



Community Lifelines

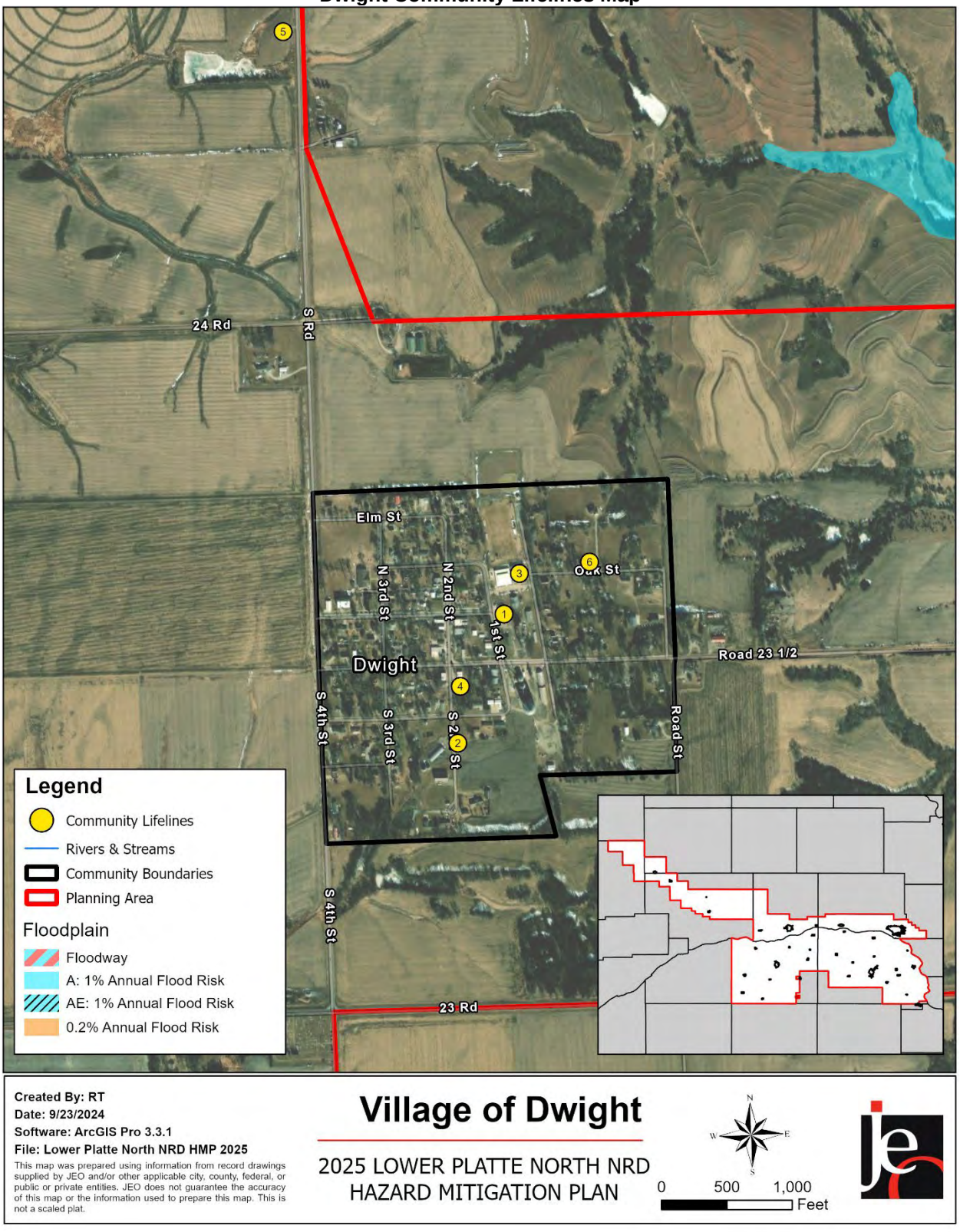
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Dwight Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Fire Hall	Safety & Security	G	N
2	Sanitary Lift Station	Food, Water, Shelter	G (Mobile)	N
3	School	Safety & Security	G	N
4	Water Tower	Food, Water, Shelter	-	N
5	Well House	Food, Water, Shelter	G	N
6	Well House	Food, Water, Shelter	G (Mobile)	N

Dwight Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Dwight which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Village of Dwight. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however Dwight has identified mitigation actions to reduce the impacts of the hazards. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Drought

Drought is a concern for Dwight because they only have two wells, and the water table can become exhausted when levels quickly drop due to the surrounding farmers during droughts. No significant drought events have occurred in Dwight in recent history. Drought is currently defined qualitatively by local officials and varies by event. There is no drought monitoring board in the county. If a drought were to occur, there is no formal response plan in place, though village officials will encourage residents to conserve water when the well levels drop. Dwight has established a wellhead protection zone to limit new wells and has recently increased water rates, especially for high-end water users. The water supply is currently sufficient with no nitrate issues. The village is planning to install a third well once funding is secured. All residents and both wells have water meters to monitor the amount of water used. In the future, Dwight would need a new well as both of their current wells are 50 years old.

Mitigation and Strategic Actions

Action	Assess Vulnerability to Drought Risk
Description & Location	The jurisdiction will review relevant plans and systems to identify factors which may increase drought impacts or gaps in planning and service delivery. This may include but is not limited to: assessing water distribution system(s), reviewing well levels and identifying alternative water sources (if needed), examining water intensive consumers, review of water pricing structures, considering the need for municipal water meters, and other locally appropriate actions.
Hazard(s) Addressed	Drought
Estimated Cost	$10,000+
Local Funding	General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	Dwight is still in the process of developing this action.

Action	Drought Management Plan
Description & Location	Work with relevant stakeholders to develop or update a drought management plan. Includes: identify water monitoring protocols, outline drought responses (watering restrictions), identify opportunities to reduce water consumption (swimming pools, fountains), and establish jurisdictional management procedures.
Hazard(s) Addressed	Drought
Estimated Cost	$25,000+
Local Funding	General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	A town ordinance detailing a 3-stage drought emergency plan to limit water usage was adopted in 2014. Further action is on hold.

Action	Expand Water Storage Capacity
Description & Location	Evaluate the need to expand current water storage capacity (via new water tower, additional wells, etc.). Establish emergency water supplies such as dry hydrants and individual or community cisterns for defending structures from wildland fires.
Hazard(s) Addressed	Drought, Grass/Wildfires
Estimated Cost	Varies
Local Funding	General Budget
Timeline	1 Year
Priority	High
Lead Agency	Village Board
Status	The water tower was repaired and repainted inside and out in 2018, but it is over 80 years old. Both wells are at their expected 50 lifespans. A new well is certain in the near future, especially if the town continues to grow. Preparations are being made to start the grant application process.

Action	Monitor Water Supply
Description & Location	Establish a system/process for monitoring water supplies (establishing timeframes for measuring well depths, increasing stream flow, etc.)
Hazard(s) Addressed	Drought, Grass/Wildfires
Estimated Cost	Staff time
Local Funding	General Budget
Timeline	1 Year
Priority	High
Lead Agency	Village Board
Status	Ongoing. A Well Head Protection Area was established in 2006 to limit the drilling of new wells around the village. The Water Operator monitors water levels closely throughout the year.

Action	New Municipal Well
Description & Location	Evaluate the need to install a new well to provide a safe backup water supply for the community, replace existing wells affected by drought, and/or add additional water for fire protection.
Hazard(s) Addressed	Drought
Estimated Cost	$500,000 - $1,000,000
Local Funding	General Budget
Timeline	1 Year
Priority	High
Lead Agency	Village Board
Status	In process. The village is currently evaluating the need for a new well and preparing the groundwork for applying for grants when the time comes. Water rates also increased in 2024.

Action	Water Availability Study
Description & Location	Develop and/or update a water availability study to evaluate the need for additional water supplies; identify alternative solutions or locate new water sources; and implement measures to increase/improve the supply of drinking water and water for fire protection.
Hazard(s) Addressed	Drought
Estimated Cost	$25,000+
Local Funding	General Budget
Timeline	1 Year
Priority	High
Lead Agency	Village Board
Status	Ongoing. JEO Consulting last conducted a water system study in 2016. Recommendations for repairing and updating the water tower were completed in 2018. A test well was dug one mile north of town in 2013, but no further action has been approved on that site.

Action	New Water Main Extension
Description & Location	Extension of a new 6-inch water main to future development on the southeast border of town.
Hazard(s) Addressed	Drought, Grass/Wildfire
Estimated Cost	$250,000+
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	New action. Agreements have been made with the developer of the property located on the southeast border of town to supply the development (up to 10 5-acre lots) with water when lots start to sell and are developed. No lots have been sold as of this date.

Severe Thunderstorms

Damage to buildings and trees from hail is the biggest concern for Dwight. In 2006 a storm caused severe hail damage throughout the village. Community lifelines are not fitted with hail-resistant materials, but they are insured. The village water tower, wastewater lagoons, fire hall, school, and stormwater culverts are at most risk of damage from a severe thunderstorm event. There is no tree board that monitors the upkeep of trees to mitigate damage during storms.

Mitigation and Strategic Actions

Action	Hazardous Tree Removal
Description & Location	Identify and remove hazardous trees and limbs
Hazard(s) Addressed	Animal & Plant Disease, Drought, Extreme Temperatures, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$5,000 - $10,000
Local Funding	General Budget
Timeline	1 Year
Priority	High
Lead Agency	Village Board
Status	Ongoing. Many of the trees are aging. The village works annually with a local tree service to remove limbs or trees before they become dangerous and manage clearing and clean-up of any fallen limbs after storms.

Severe Winter Storms

Significant severe winter storms occurred in 2009. Six inches of snow blocked all travel out of town and damaged the awning of the fire station. The severe cold weather in the 2023-2024 winter prevented the hydraulics on the village's old truck plow from functioning properly, which limited the ability to remove snow in a timely fashion. It is important to maintain transportation routes, especially in case fire and rescue teams are called. Approximately 15% of power lines are buried. There are no snow routes in the village, but snow fences are located along the north side of town. Snow removal is done by a local farmer and residents of Dwight using a truck with a blade, a tractor with a bucket and blade, and the local township's maintainer. These snow removal resources are currently sufficient. Maintaining adequate snow removal equipment and operations is a current and future need for the village to reduce risks during severe winter storms.

Mitigation and Strategic Actions

Action	Backup and Emergency Generators
Description & Location	Identify and evaluate current backup and emergency generators. Obtain additional generators based on identification and evaluation. Provide a portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations and other critical facilities and shelters.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	Varies by size
Local Funding	General Budget, Forestry Service loaner program
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	Ongoing. Two of the village's generators are loaned from the Forestry Service One. One was replaced in 2023. A third generator was purchased by the village for a mobile unit in 2014 for $16,000 ($11,000 of which was funded by a state grant).

Tornadoes and High Winds

In 2008 an EF1 tornado passed through the west end of Dwight, uprooting trees and damaging homes. Trees throughout Dwight were severely damaged by high winds in 2018. Tree damage is the most pressing concern for the village regarding high winds. Community lifelines have not been

damaged in the past. Future events have the potential to be catastrophic. Warning sirens are activated by the local fire department or Butler County dispatch. In case of a disaster, all municipal records are backed up on CDs and paper copies. There are no FEMA-certified safe rooms, but residents can seek shelter at the village hall, fire hall, and in the basement of the library. The elementary school also has a tornado shelter, though it is not open to the public. Emergency text alerts are not offered by the county and the village does not provide any education outreach on tornado response. Mutual Aid Agreements are in place with the neighboring villages of Brainard, Ulysses, and Valparaiso.

Mitigation and Strategic Actions

Action	Alert/Warning Sirens
Description & Location	Perform an evaluation of existing alert sirens in order to determine sirens which should be replaced or upgraded. Install new sirens where lacking with remote activation options.
Hazard(s) Addressed	Dam Failure, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$5,000+
Local Funding	General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	The siren at the fire hall was repaired in 2024 for $2,500, paid by the Rural Board.

Other Mitigation and Strategic Actions

Action	2nd Street Stormwater System Improvement
Description & Location	Storm sewer improvements along 2nd Street, running from Maple to Pine Street, which may include pipe upsizing and additional inlets. Retention and detention facilities may also be implemented to decrease runoff rates while also decreasing the need for other stormwater system improvements.
Hazard(s) Addressed	Flooding
Estimated Cost	Varies
Local Funding	Street Budget
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board
Status	This has not been started. It is in the 1-6 Year Plan.

Action	Drainage Study/Stormwater Master Plan
Description & Location	Drainage studies identify and prioritize improvements for specific localized flooding/drainage problems. Stormwater master plans perform a community-wide evaluation to identify poor drainage areas and potential improvements.
Hazard(s) Addressed	Flooding
Estimated Cost	Varies
Local Funding	General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	This project is on hold.

Removed Mitigation and Strategic Actions

Action	Capacity Building
Description & Location	Improve emergency rescue and response equipment and facilities by providing additional or updating existing equipment. For example: backup systems for emergency vehicles, training additional personnel, upgrading radio systems, etc.
Hazard(s) Addressed	Animal & Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Status	Removed. The local volunteer fire department has been turned over to the control of the Rural Board.

Community Profile

Village of Garrison



Lower Platte North NRD
Hazard Mitigation Plan 2025

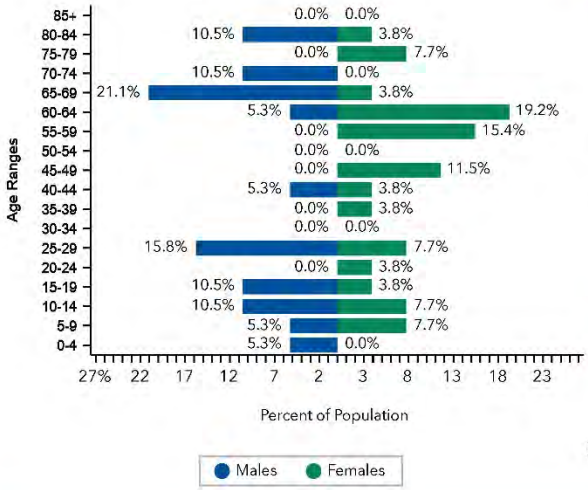
Community Fact Sheet

Community Summary Fact Sheet

Garrison, NE
Lower Platte North NRD Hazard Mitigation Plan 2025

45	49.2	24	1.88	$233,333	$77,842
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID



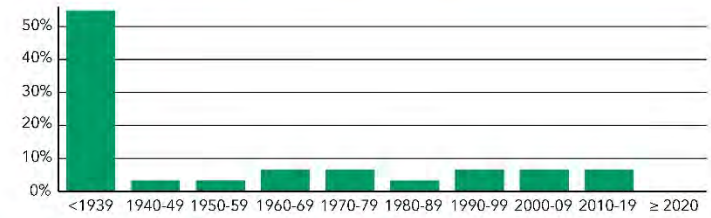
TOTAL POPULATION

2023 Total Population (Estimate)	45
2020 Total Population (U.S. Census)	55
2010 Total Population (U.S. Census)	54
2000 Total Population (U.S. Census)	70

AT RISK POPULATIONS

8	12	1	10%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

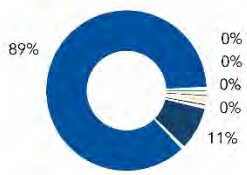
HOUSING: YEAR BUILT



EMPLOYMENT

3	0.0%
Total Businesses	Unemployment Rate

POPULATION BY RACE



- Black Population
- Asian Population
- American Indian Population
- Other Race Population
- Population of 2+ Races
- White Population

4% **of the Total Population is Hispanic**

HOUSING

3	3%
Vacant Housing Units	Mobile Homes

esri THE SCIENCE OF WHERE

Source: Esri, U.S. Census, Esri-Data Axle, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021.

Local Planning Team

Garrison Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
James L. Daro	Clerk	Village of Garrison	Materials Development	Recording, Materials Development
Elizabeth Schmidt	Board Member	Village of Garrison	Attended	-

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The village board and village clerk will be responsible for reviewing and updating the community profile outside of the five-year update. Garrison will review the plan annually and the public will be notified with a physical posting of notice at the village post office box, where most people in the community receive mail.

Capability Assessment

The planning team assessed the Village of Garrison's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Garrison Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	No
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operations Plan	Yes (County)
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	No
	Subdivision Regulation/Ordinance	No
	Floodplain Ordinance	No
	Building Codes	No
	Water System Emergency Response Plan	No
	Wellhead Protection Plan	No
	National Flood Insurance Program	No
	Community Rating System	No
	Community Wildfire Protection Plan	Yes (Regional)
	Other (if any)	-

Capability/Planning Mechanism		Yes/No
Administrative & Technical Capability	Planning Commission	No
	Floodplain Administrator	No
	GIS Capabilities	No
	Chief Building Official	No
	Civil Engineering	No
	Grant Manager	No
	Mutual Aid Agreement	No
	Other (if any)	-
Fiscal Capability	1- & 6-Year Plan	Yes
	Applied for Grants in the Past	No
	Awarded a Grant in the Past	No
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	No
	Gas/Electric/Water/Sewer Service Fees	No
	Storm Water Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	No
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	No
	Ongoing Public Education or Information Program (e.g., Responsible Water Use, Fire Safety, Household Preparedness, Environmental Education)	No
	Natural Disaster or Safety Related School Programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	-

Garrison Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Limited
Time to Devote to Hazard Mitigation	Moderate
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

National Flood Insurance Program (NFIP)

Garrison is not a participant in the NFIP. The village has been contacted about the program in the past, but the possibility of flooding is low. Garrison is located northwest of Kezan Creek and is not subject to flooding. The local planning team is not interested in participating in the program in the near future.

Garrison NFIP Information

NFIP Overview	
Date of NFIP Participation:	N/A
Floodplain Administrator:	N/A
Is Floodplain Administrator a Certified Floodplain Manager?	N/A
Is Floodplain Management an Auxiliary Function?	N/A
Number of NFIP Policies In-Force:	N/A
Total NFIP Premium ($):	N/A
Total NFIP Coverage ($):	N/A
Number of Claims Paid Out:	N/A
Total Amount of Claims Paid Out ($:)	N/A
Number of Repetitive Loss Structures:	N/A
Number of Severe Repetitive Loss Structures:	N/A
Is the Community Currently Suspended from the NFIP?	N/A
Any Outstanding Compliance Issues?	N/A
FIRMs Digital or Paper?	Digital
Located in a RISK Map Area?	Yes

Buildings and Valuation in the Floodplain

The planning team acquired GIS parcel data from the County Assessor and Microsoft building footprint data to analyze the location, number, and value of buildings located in the 100-year and 500-year floodplains. A summary of the results of this analysis is provided in the following tables.

Garrison Buildings and Value in the 100-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
69	$6,724,360	0	$0	0%

Source: County Assessor, 2024; Microsoft, 2024

Garrison Buildings and Value in the 500-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
69	$6,724,360	0	$0	0%

Source: County Assessor, 2024; Microsoft, 2024

Plans and Studies

The Village of Garrison only has regional planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. If the village creates their own plans or studies, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Butler County Local Emergency Operations Plan (2021)

The Butler County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. The hazard mitigation plan has been integrated with this plan and includes the top hazards that would affect the county and its populations. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines.

Southeast Nebraska Community Wildfire Protection Plan (2020)

The purpose of the Southeast Nebraska Community Wildfire Protection Plan (CWPP) is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years.

Future Development Trends

There have been no changes or developments within the past five years in the Village of Garrison. This likely keeps vulnerability to all hazards the same. The village does not anticipate new housing business, or industrial developments in the near future. For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted. According to the local planning team no new developments occurred in any known hazard locations. Therefore, vulnerability in the community is likely to remain the same.

Community Lifelines

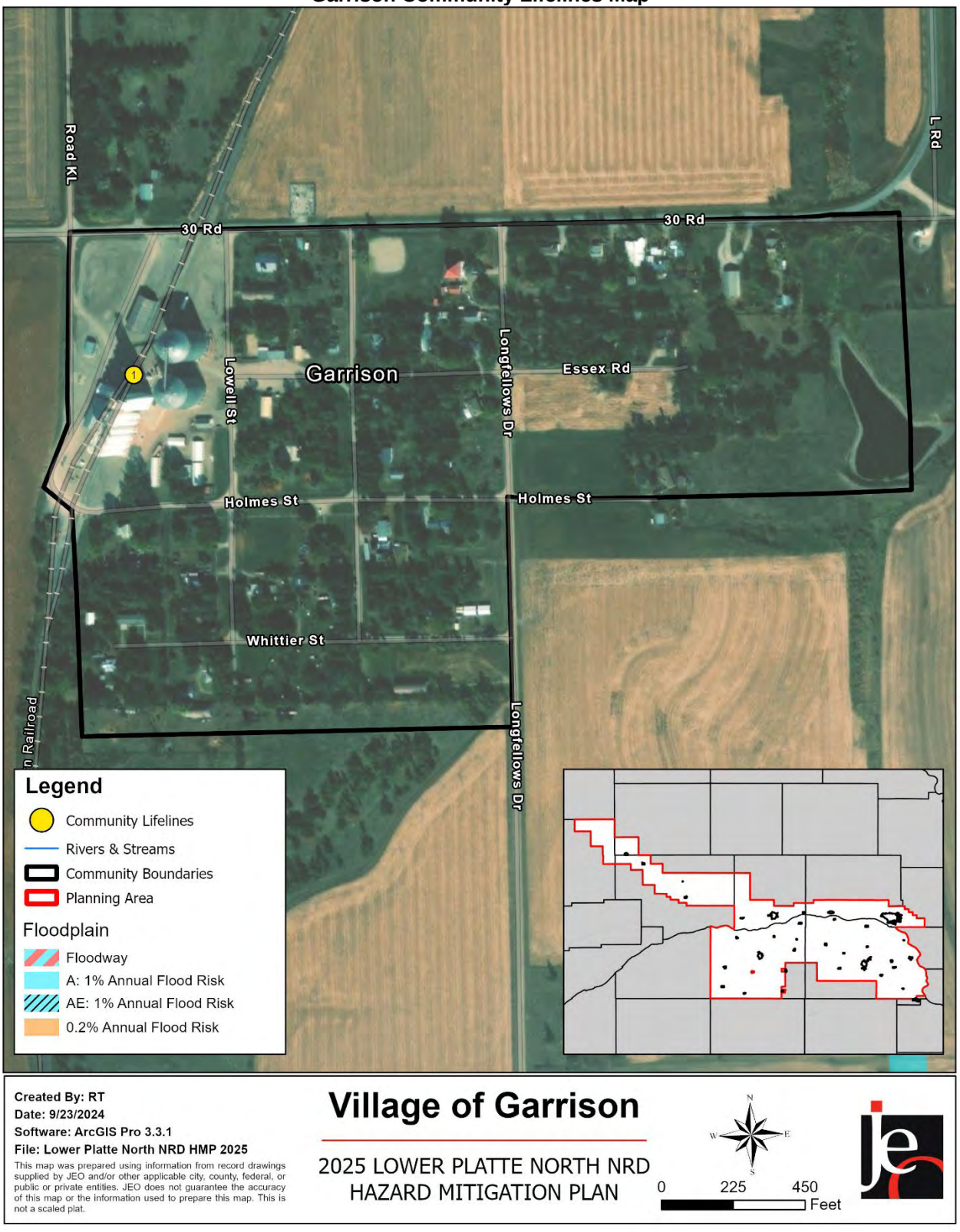
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Garrison Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Railroad Track	Transportation	-	N

Garrison Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Garrison which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Village of Garrison. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however Garrison has identified mitigation actions to reduce the impacts of the hazards. Dam Failure and Levee Failure have been omitted from this profile as there are no high hazard dams upstream or any levee protected areas near the community according to NeDNR and USACE data. Therefore, no mitigation actions have been identified for those two hazards. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Severe Winter Storms

The largest concern regarding severe winter storms is heavy snow blocking transportation routes during emergencies. In March 2013, two days of snow and wind caused drifts up to two feet tall on the roads in and around the village. Electrical power lines are a major concern for the village during severe winter storm events. Snow fences were installed in the village in 2019 on the north side of town. Snow removal is done by a village board member with their truck with a blade. The township road grader is stored in Garrison, so it is also used for snow removal. The village has a tractor with a scoop and blade clears driveways once roads are free of snow. Snow removal takes about six hours after a typical snowstorm.

Mitigation and Strategic Actions

Action	Backup and Emergency Generators
Description & Location	Provide backup generators to community lifelines, especially the Garrison Community Hall.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Severe Thunderstorms, Severe Winter Storms, Terrorism & Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$2,000
Local Funding	General (Street) Fund
Timeline	2-5 Years
Priority	Low
Lead Agency	Village Board
Status	Not started. Can address this to the village board.

Completed Mitigation and Strategic Actions

Action	Hazardous Tree Removal
Description & Location	Identify and remove hazardous limbs and trees, particularly at Lincoln Park.
Hazard(s) Addressed	Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Status	Completed. A privately owned tree business handles hazardous trees in the community.

Other Mitigation and Strategic Actions

Action	Tree City USA
Description & Location	Work to become a Tree City USA through the National Arbor Day Foundation in order to receive direction, technical assistance, and public education on how to establish a hazardous tree identification and removal program in order to limit potential tree damage and damages caused by trees in a community.
Hazard(s) Addressed	Animal & Plant Disease, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	Tree care program funded at $2 per capita
Local Funding	General Fund
Timeline	2-5 Years
Priority	Low
Lead Agency	Village Board
Status	New action. Not started.

Community Profile

Village of Linwood

Lower Platte North NRD
Hazard Mitigation Plan 2025

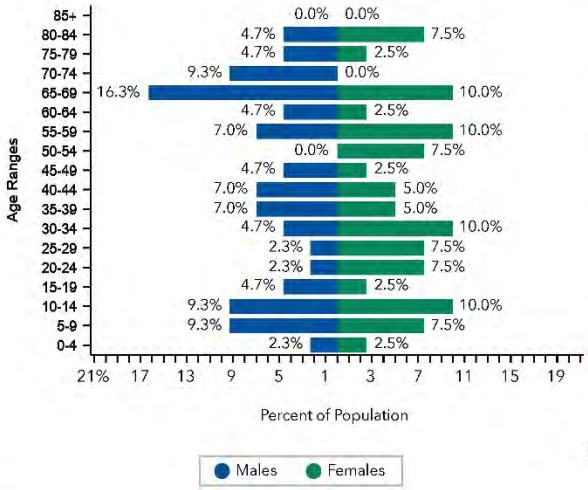
Community Fact Sheet

Community Summary Fact Sheet

Linwood, NE
Lower Platte North NRD Hazard Mitigation Plan 2025

Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income
83	42.5	37	2.24	$127,778	$55,807

AGE PYRAMID



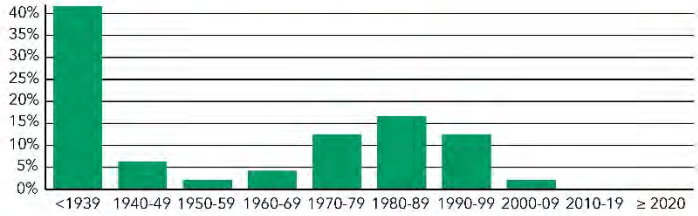
TOTAL POPULATION

2023 Total Population (Estimate)	83
2020 Total Population (U.S. Census)	94
2010 Total Population (U.S. Census)	99
2000 Total Population (U.S. Census)	112

AT RISK POPULATIONS

Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level
13	23	1	10%

HOUSING: YEAR BUILT



EMPLOYMENT

Total Businesses	Unemployment Rate
4	0.0%

POPULATION BY RACE



- Black Population
- American Indian Population
- Asian Population
- Other Race Population
- Population of 2+ Races
- White Population

6% **of the Total Population is Hispanic**

HOUSING

Vacant Housing Units	Mobile Homes
9	15%

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Source: Esri, U.S. Census, Esri-Data Axle, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021.

Local Planning Team

Linwood Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Kathy Eaton	Clerk	Village of Linwood	Attended, Materials Development	Attended, Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The Chairperson and Board of Trustees will be responsible for reviewing and updating the community profile outside of the five-year update. Linwood will review the plan annually and the public will be notified at board meetings.

Capability Assessment

The planning team assessed the Village of Linwood's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Linwood Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	No
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operations Plan	Yes (County)
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	No
	Subdivision Regulation/Ordinance	No
	Floodplain Ordinance	No
	Building Codes	No
	Water System Emergency Response Plan	No
	Wellhead Protection Plan	No
	National Flood Insurance Program	No
	Community Rating System	No
	Community Wildfire Protection Plan	Yes (Regional)
	Other (if any)	-
Administrative & Technical	Planning Commission	No
	Floodplain Administrator	No
	GIS Capabilities	No

Capability/Planning Mechanism		Yes/No
Capability	Chief Building Official	No
	Civil Engineering	No
	Grant Manager	No
	Mutual Aid Agreement	No
	Other (if any)	-
Fiscal Capability	1- & 6-Year Plan	No
	Applied for Grants in the Past	No
	Awarded a Grant in the Past	No
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	No
	Gas/Electric/Water/Sewer Service Fees	No
	Storm Water Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	No
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	No
	Ongoing Public Education or Information Program (e.g., Responsible Water Use, Fire Safety, Household Preparedness, Environmental Education)	No
	Natural Disaster or Safety Related School Programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	-

Linwood Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Limited
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

National Flood Insurance Program (NFIP)

Linwood does not participate in the National Flood Insurance Program since it is not a requirement for the village. At this time, there is no interest in joining the NFIP as most of the residents cannot afford flood insurance.

Linwood NFIP Information

NFIP Overview	
Date of NFIP Participation:	N/A
Floodplain Administrator:	N/A
Is Floodplain Administrator a Certified Floodplain Manager?	N/A
Is Floodplain Management an Auxiliary Function?	N/A
Number of NFIP Policies In-Force:	N/A
Total NFIP Premium ($):	N/A
Total NFIP Coverage ($):	N/A
Number of Claims Paid Out:	N/A
Total Amount of Claims Paid Out ($:)	N/A
Number of Repetitive Loss Structures:	N/A
Number of Severe Repetitive Loss Structures:	N/A
Is the Community Currently Suspended from the NFIP?	N/A
Any Outstanding Compliance Issues?	N/A
FIRMs Digital or Paper?	Digital
Located in a RISK Map Area?	No

Buildings and Valuation in the Floodplain

The planning team acquired GIS parcel data from the County Assessor and Microsoft building footprint data to analyze the location, number, and value of buildings located in the 100-year and 500-year floodplains. A summary of the results of this analysis is provided in the following tables.

Linwood Buildings and Value in the 100-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
105	$3,355,235	0	$0	0%

Source: County Assessor, 2024; Microsoft, 2024

Linwood Buildings and Value in the 500-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
105	$3,355,235	0	$0	0%

Source: County Assessor, 2024; Microsoft, 2024

Plans and Studies

The Village of Linwood only has regional planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. If the village creates their own plans or studies, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Butler County Local Emergency Operations Plan (2021)

The Butler County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation,

fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. The hazard mitigation plan has been integrated with this plan and includes the top hazards that would affect the county and its populations. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines.

Southeast Nebraska Community Wildfire Protection Plan (2020)

The purpose of the Southeast Nebraska Community Wildfire Protection Plan (CWPP) is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years.

Future Development Trends

There have been four house fires within the past five years in the Village of Linwood with one structure replaced. This likely keeps the village's vulnerability to hazards the same. No new structures have been built in the floodplain or other known hazardous areas. The village does not anticipate new housing developments or new businesses or industries planned in the near future.

Community Lifelines

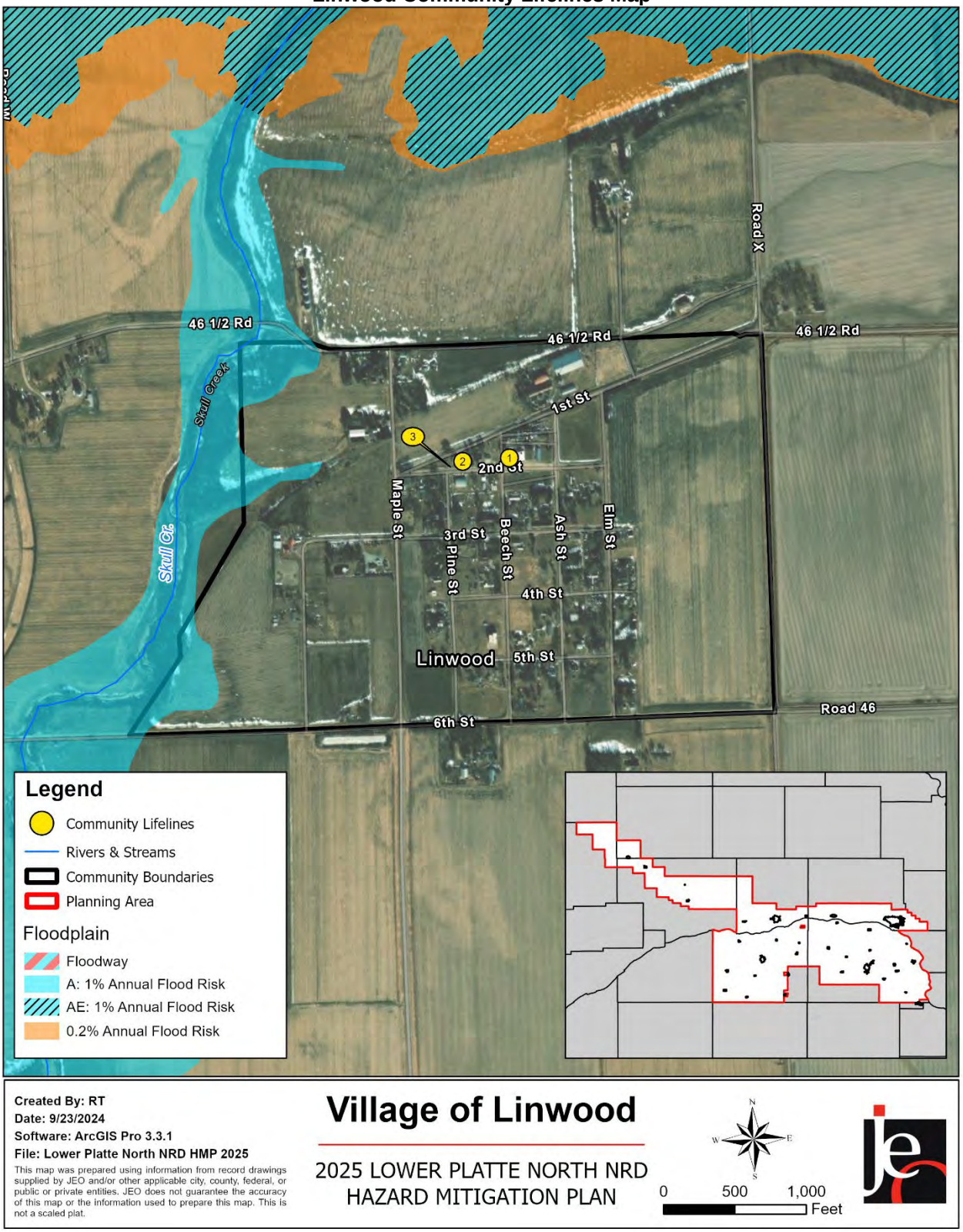
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Linwood Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Community Hall	Other	-	N
2	Linwood Volunteer Fire Department	Safety & Security	G	N
3	Village Maintenance Shop	Other	-	N

Linwood Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Linwood which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Village of Linwood. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however Linwood has identified mitigation actions to reduce the impacts of the hazards. Dam Failure and Levee Failure have been omitted from this profile as there are no high hazard dams upstream or any levee protected areas near the community according to NeDNR and USACE data. Therefore, no mitigation actions have been identified for those two hazards. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Flooding

Linwood has experienced several significant flooding events. In 1963 Skull Creek flooded the whole village. Flooding of Skull Creek occurred again in 1987, 2009-2010, 2017, and August 2018. In the spring of 2024, Skull Creek flooded twice on the west side of the village and wash out damage was reported to the creek itself. Flash flooding is more of a concern than riverine flooding with water coming 600 acres from the southern farm grounds into the village. The ditches that carry water from the village have been cleaned to improve stormwater drainage. Many homes in the community have had flood water in their basements in the last ten years because of the high-water table. Future projects to mitigate the risks from flooding involve coordinating with the landowner to fix the washout on Skull Creek to prevent it from getting closer to town.

Completed Mitigation and Strategic Actions

Action	Above Ground Stormwater System and Drainage Improvements
Description & Location	Stormwater systems comprising of ditches, culverts, or drainage ponds can be used to convey runoff. Undersized systems can contribute to localized flooding. Drainage improvements may include ditch upsizing, ditch cleanout and culvert improvements. The village would like to clean debris out of ditches in the village.
Hazard(s) Addressed	Flooding
Status	Completed. Ditches along 1st Street and Maple Street were cleaned in 2024. Linwood regularly looks at ditches and cleaning needs. Ditches and culverts along Elm Street were cleaned sometime around 2020.

Mitigation and Strategic Actions

Action	Channel Improvements
Description & Location	Cutting a new channel of Skull Creek towards Linwood due to a washout west of the village.
Hazard(s) Addressed	Flooding
Estimated Cost	$15,000
Local Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	Village Board
Status	To be completed in 2025.

Grass/Wildfires

The village is surrounded by trees, farmland, grass, and weeds, making it vulnerable to grass and wildfires. In the last 20 years a fire in a wooded area two miles from Linwood burned for a week before it was controlled. The Linwood Volunteer Fire Department is small but has Mutual Aid Agreements in place in case of a large fire. The village does not have a Wildland-Urban Interface Code, but property owners are encouraged to have defensible space around their structures. Regular maintenance of grass, weeds, and trees are current and future actions for the village to reduce the risk of fires.

Mitigation and Strategic Actions

Action	Hazardous Fuels Reduction
Description & Location	Participate in the Nebraska Forest Service (NFS) Forest Fuels Reduction Program which creates strategically located corridors of thinned forests across the landscape reduces fire intensity, improves fire suppression effectiveness, increases firefighters safety, and better protects lives and property.
Hazard(s) Addressed	Drought, Grass/Wildfires
Estimated Cost	Varies
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	New action. Property owners already are encouraged to create defensible space on their property.

Severe Thunderstorms

A severe storm in May of 2018 had golf ball sized hail that damaged roofs and vehicles across the village. Severe thunderstorms and hail are common in Linwood from spring to fall. They are a concern because of their potential to cause flash flooding, power outages, and damage to property, people, and community lifelines. The community's community lifelines are not fitted with hail resistant building materials though they are insured for hail damage. Critical municipal records are protected with surge protectors in case of a lightning storm. The fire department has four generators and the generators in the maintenance building and village hall could be used if needed. None of the power lines are buried, making them vulnerable to storms. Hazardous trees are located along the east side of Maple Street north of 2nd Street, and on the west side of the 200 block of Beech Street. There are no weather radios in the village community lifeline locations. The community relies on the county and local fire department to alert it to severe weather.

Mitigation and Strategic Actions

Action	Weather Radios
Description & Location	Identify weather warning radio locations throughout the community. National Weather Radios can also report on non-weather related emergencies including hazardous materials spills and national attacks. Purchase or upgrade weather radios as needed.
Hazard(s) Addressed	Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$50 per unit
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	New action. Not started.

Severe Winter Storms

Several severe winter storms have occurred in Linwood, but the most significant was in March 2000 when power was lost for 16 hours. These storms are a concern because transportation becomes difficult, especially during emergencies, and resulting power outages could leave residents without heat. Power lines are vulnerable to heavy snow and ice storms because they are not buried. The utility superintendent is responsible for snow removal using the village's road grader/snowplow and dump truck. Regular upkeep of equipment, such as a larger road grader, is a recent and continuing action the village works on to reduce the risk from severe winter storms. These snow removal resources are sufficient otherwise.

Mitigation and Strategic Actions

Action	Improve and Revise Snow/Ice Removal Program
Description & Location	As needed, continue to revise and improve the snow and ice removal program for streets. Revisions should address situations such as plowing snow, ice removal, parking during snow and ice removal, removal of associated storm debris, and rescuing those stranded during winter weather events.
Hazard(s) Addressed	Extreme Temperatures, Severe Winter Storms
Estimated Cost	Varies by project
Local Funding	General Fund
Timeline	2-5 Years
Priority	Low
Lead Agency	Village Board, Utility Superintendent
Status	New action. Not started.

Tornadoes and High Winds

Linwood has experienced multiple high wind events over the past five years. Tornadoes and high winds are a concern for the village because they can cause tree damage. The village has had trees trimmed and some removed to reduce damage from potential tornadoes and high winds. Future projects to limit risk involve keeping up the maintenance of trees in the village.

Mitigation and Strategic Actions

Action	Hazardous Tree Removal
Description & Location	Conduct a tree inventory. Develop and implement tree maintenance and trimming program to remove hazardous limbs and trees.
Hazard(s) Addressed	Animal and Plant Disease, Drought, Extreme Temperatures, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$200+ per tree
Local Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board
Status	New action. Village trimmed and removed hazardous trees in the past and can inventory additional trees that need maintenance.

Community Profile

Village of Octavia

Lower Platte North NRD
Hazard Mitigation Plan 2025

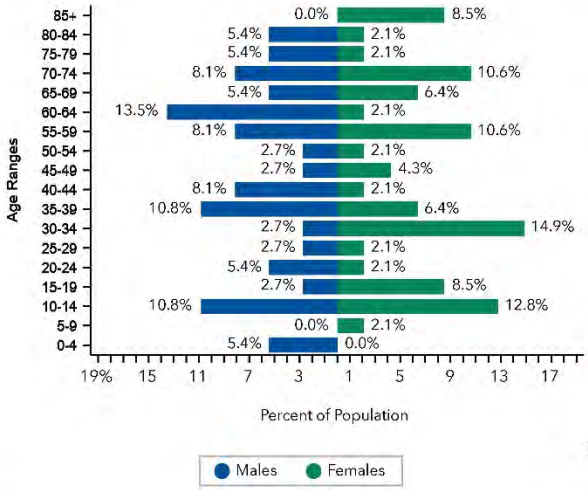
Community Fact Sheet

Community Summary Fact Sheet

Octavia, NE
Lower Platte North NRD Hazard Mitigation Plan 2025

84	45.0	41	2.05	$133,333	$48,708
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID



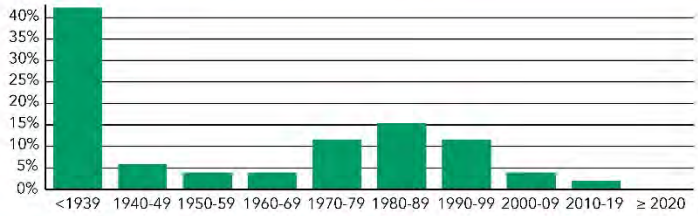
TOTAL POPULATION

2023 Total Population (Estimate)	84
2020 Total Population (U.S. Census)	107
2010 Total Population (U.S. Census)	113
2000 Total Population (U.S. Census)	127

AT RISK POPULATIONS

14	23	1	9%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

HOUSING: YEAR BUILT



EMPLOYMENT

2	0.0%
Total Businesses	Unemployment Rate

POPULATION BY RACE



- Black Population
- Asian Population
- American Indian Population
- Other Race Population
- Population of 2+ Races
- White Population

4% **of the Total Population is Hispanic**

HOUSING

10	15%
Vacant Housing Units	Mobile Homes

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Source: Esri, U.S. Census, Esri-Data Axle, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021.

Local Planning Team

Octavia Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
LaVerne Beringer	Commissioner	Village of Octavia	Attended	-
Eileen Kopecky	Clerk	Village of Octavia	Materials Development	Attended, Materials Development
Jeannie Zegers	Treasurer	Village of Octavia	Attended	-

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The Chairperson, Clerk, and Treasurer will be responsible for reviewing and updating the community profile outside of the five-year update. Octavia will review the plan annually and the public will be notified through letters to sent to residents and at village board meetings open to the public.

Capability Assessment

The planning team assessed the Village of Octavia's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Octavia Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	Yes
	Economic Development Plan	No
	Emergency Operations Plan	Yes
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	No
	Building Codes	Yes
	Water System Emergency Response Plan	No
	Wellhead Protection Plan	No
	National Flood Insurance Program	No
	Community Rating System	No
	Community Wildfire Protection Plan	Yes (Regional)
	Other (if any)	-

Capability/Planning Mechanism		Yes/No
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administrator	No
	GIS Capabilities	No
	Chief Building Official	Yes
	Civil Engineering	No
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	-
Fiscal Capability	1- & 6-Year Plan	Yes (Roads)
	Applied for Grants in the Past	Yes
	Awarded a Grant in the Past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	No
	Gas/Electric/Water/Sewer Service Fees	No
	Storm Water Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	No
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	No
	Ongoing Public Education or Information Program (e.g., Responsible Water Use, Fire Safety, Household Preparedness, Environmental Education)	No
	Natural Disaster or Safety Related School Programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	-

Octavia Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Moderate
Public Support to Implement Projects	Moderate
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Moderate

National Flood Insurance Program (NFIP)

Octavia is not a participant in the NFIP but has expressed interest in joining. The planning team has reached out to a representative on the requirements for participating in the program.

Octavia NFIP Information

NFIP Overview	
Date of NFIP Participation:	N/A
Floodplain Administrator:	N/A
Is Floodplain Administrator a Certified Floodplain Manager?	N/A
Is Floodplain Management an Auxiliary Function?	N/A
Number of NFIP Policies In-Force:	N/A
Total NFIP Premium ($):	N/A
Total NFIP Coverage ($):	N/A
Number of Claims Paid Out:	N/A
Total Amount of Claims Paid Out ($:)	N/A
Number of Repetitive Loss Structures:	N/A
Number of Severe Repetitive Loss Structures:	N/A
Is the Community Currently Suspended from the NFIP?	N/A
Any Outstanding Compliance Issues?	N/A
FIRMs Digital or Paper?	Digital
Located in a RISK Map Area?	No

Buildings and Valuation in the Floodplain

The planning team acquired GIS parcel data from the County Assessor and Microsoft building footprint data to analyze the location, number, and value of buildings located in the 100-year and 500-year floodplains. A summary of the results of this analysis is provided in the following tables.

Octavia Buildings and Value in the 100-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
101	$6,014,210	0	$0	0%

Source: County Assessor, 2024; Microsoft, 2024

Octavia Buildings and Value in the 500-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
101	$6,014,210	0	$0	0%

Source: County Assessor, 2024; Microsoft, 2024

Plans and Studies

The Village of Octavia has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the village updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Building Code (2015)
The building code sets standards for constructed buildings and structures. The building code for Octavia is enforced by the village board who has the authority to approve new construction. The hazard mitigation plan has not been integrated with the village building code.

Butler County Local Emergency Operations Plan (2021)
The Butler County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. The hazard mitigation plan has been integrated with this plan and includes the top hazards that would affect the county and its populations. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines.

Capital Improvement Plan (2015)
The capital improvement plan outlines projects the Village of Octavia would like to pursue and provides a planning schedule and financing options. Future updates to the plan include stormwater projects, upsizing of culverts and drainage structures, upgrading storm sewer systems, improving transportation routes for drainage, widening roadways to improve evacuations, bridge improvements, and installing new municipal wells. The hazard mitigation plan has not been integrated with the current capital improvements plan.

Comprehensive Plan (2015)
The comprehensive plan is designed to guide the future actions and growth of the village. Octavia is in the process of updating their comprehensive plan. In the future update, the plan will include goals and objectives aimed at Safe Growth, encourage infill development, encourage elevations of structures located in the floodplain, and identify areas that need emergency shelters. The updated plan will direct development away from the floodplain, direct housing away from chemical storage facilities, and direct housing and vulnerable populations away from major transportation routes. The hazard mitigation plan has not been integrated with the comprehensive plan.

Southeast Nebraska Community Wildfire Protection Plan (2020)
The purpose of the Southeast Nebraska Community Wildfire Protection Plan (CWPP) is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years.

Subdivision Regulations (2015)
Subdivision regulations in Octavia govern the division of land from one or more larger parcels into smaller lots. The subdivision regulations do not currently restrict the subdivision of land within or adjacent to the floodplain, but future updates will include that restriction. Future updates to the subdivision regulations will include setback requirements and the ability to implement water restrictions. The hazard mitigation plan has not been integrated with the subdivision regulations.

Zoning Ordinance (2015)

The zoning ordinance outlines where and how future development should occur in Octavia. There is no timeline to update the zoning ordinance, but future updates will restrict development in hazard prone areas and require more than one foot elevation above Base Flood Elevation. Future updates will also discourage, limit population, or prohibit development within the floodplain. The hazard mitigation plan has not been integrated with the zoning ordinance.

Future Development Trends

The Village of Octavia constructed the Cleary Building in the northern area of the community in May of 2019 that costs $16,687 to construct. No other housing, commercial, or industrial developments were made. The Cleary Building was not developed in the floodplain or other known hazardous areas. Octavia does not anticipate new developments in the near future. For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted regardless of where they are located.

Community Lifelines

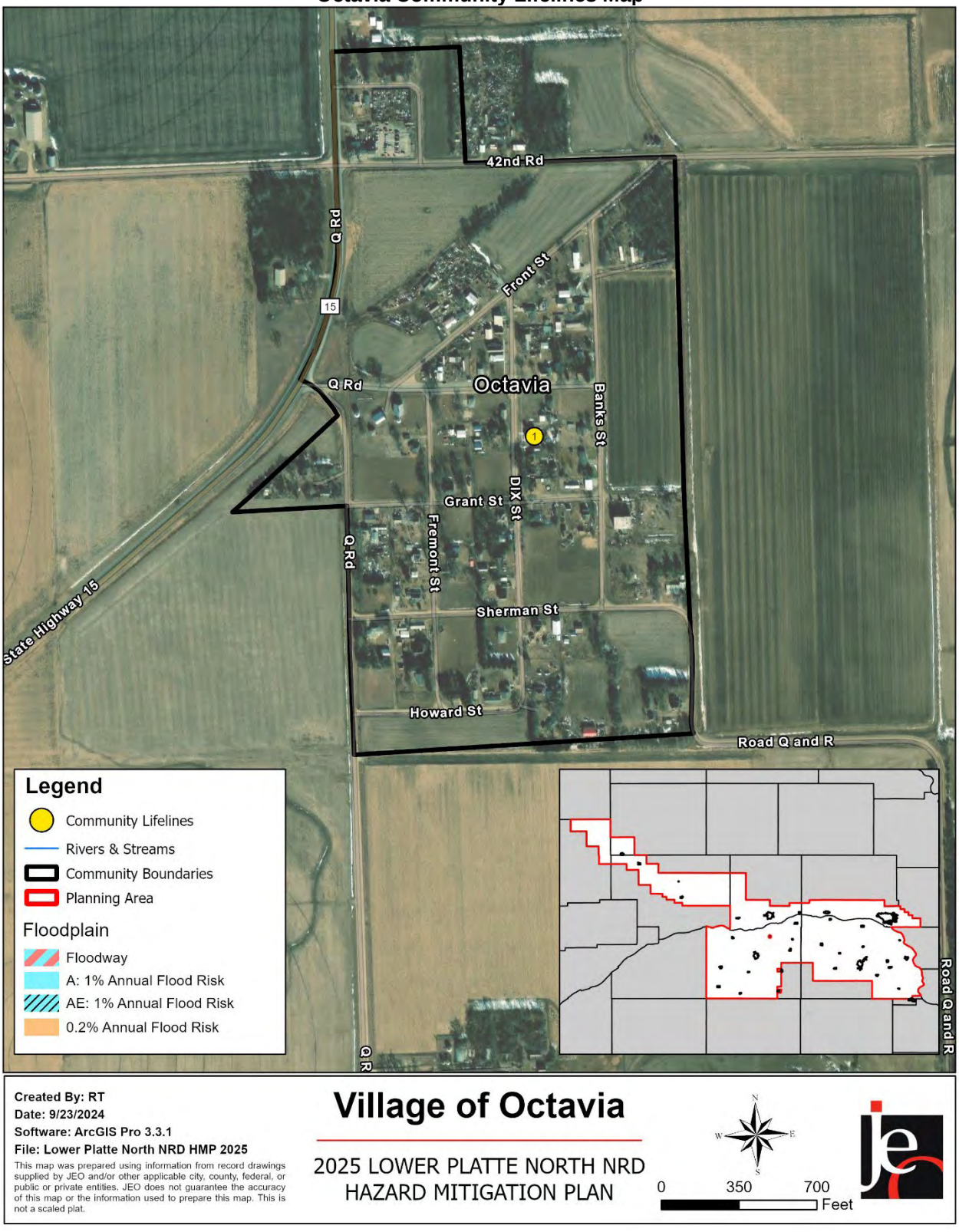
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Octavia Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Octavia Community Church	Other	S	N

Octavia Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Octavia which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Village of Octavia. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however Octavia has identified mitigation actions to reduce the impacts of the hazards. Dam Failure and Levee Failure have been omitted from this profile as there are no high hazard dams upstream or any levee protected areas near the community according to NeDNR and USACE data. Therefore, no mitigation actions have been identified for those two hazards. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Severe Thunderstorms

Loss of power and basement flooding are the most concerning impacts of severe thunderstorms, along with tree damage from high wind, lightning, and heavy rains. After a large storm in 2017 trees near the streets were trimmed, reducing the village's vulnerability to tree damage. In case of a disaster, municipal records are stored at the County Courthouse. On May 1st of 2018 severe hailstorms caused property damage across town to roofing, siding, windows, and vehicles. The village hall sustained $40,000 in damage to the roof, siding, and window wraps. The roof of the park's covered shelter had to be replaced after the storm. The hail was nearly three inches in diameter. All village critical facilities are insured for hail damage but are not constructed with hail resistant materials. The village insurance needs to be evaluated and updated to cover losses. Property owners have been told to clean their culverts for water to run freely during heavy rain.

Mitigation and Strategic Actions

Action	Infrastructure Hardening
Description & Location	Harden community lifelines to withstand high winds, hail, heavy snow, etc., by hardening roofs, hail resistant barriers to HVAC systems, shatter-proofing windows, building tie-downs and anchors, flood walls, and other architectural designs that reduce damage.
Hazard(s) Addressed	Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	Varies by structure
Local Funding	General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	New action. Has not started.

Tornadoes and High Winds

There have been no tornadoes in Octavia, but a future occurrence could be catastrophic. Straight line winds caused a large amount of damage to trees and downed power lines, which caused a loss of power overnight. Community lifelines were not damaged. Octavia does not have FEMA-certified safe rooms, but residents can seek shelter in the basement of the Village Hall. The village also has access to the church which can be used as a shelter for tornado events. The County Emergency Manager maintains a warning siren in the center of the village, activated by County

Dispatch. The siren covers all of the village. The village offers education on tornado preparedness and response by posting locations where people can go for shelter in case of a tornado. The Butler County rural fire districts have Mutual Aid Agreements in place for disaster response.

Mitigation and Strategic Actions

Action	Backup and Emergency Generators
Description & Location	Identify and evaluate current backup and emergency generators. Obtain additional generators based on identification and evaluation. Provide portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations, and other community lifelines and shelters.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	Varies by size
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Pending.

Other Mitigation and Strategic Actions

Action	Drought Education
Description & Location	Encourage citizens to practice water-saving methods such as reducing water intake at home and installing graywater systems. Reach out to farmers to implement soil and water conservation practices.
Hazard(s) Addressed	Drought, Extreme Temperatures, Grass/Wildfires
Estimated Cost	Staff Time
Local Funding	Staff Time, General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	New action. Not started.

Action	Update Comprehensive Plan
Description & Location	Update comprehensive plan. Integrate the plan with Hazard Mitigation Plan components. Consider agricultural diseases and its impact within the community. Include recommendations to restrict residential development near major transportation routes and hazardous areas in the next update. Develop Smart Growth policy recommendations that focus on water resource management in the event of a drought.
Hazard(s) Addressed	Animal & Plant Disease, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$14,000 - $20,000
Local Funding	General Budget
Timeline	1 Year
Priority	Medium
Lead Agency	Village Board
Status	New action. In progress.

Community Profile

Village of Rising City



Lower Platte North NRD
Hazard Mitigation Plan 2025

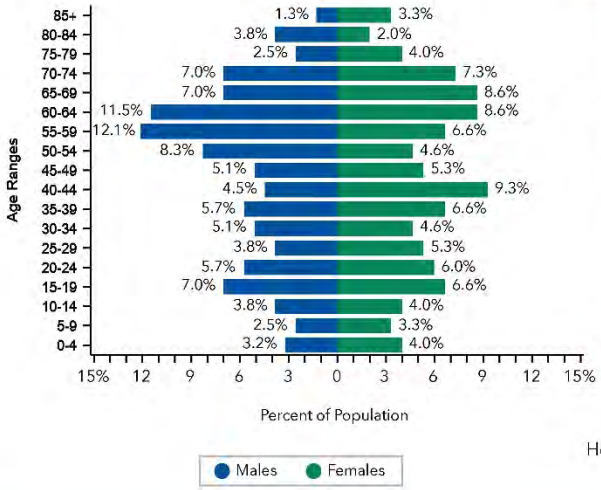
Community Fact Sheet

Community Summary Fact Sheet

Rising City, NE
Lower Platte North NRD Hazard Mitigation Plan 2025

308	49.4	142	2.17	$195,000	$73,729
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID



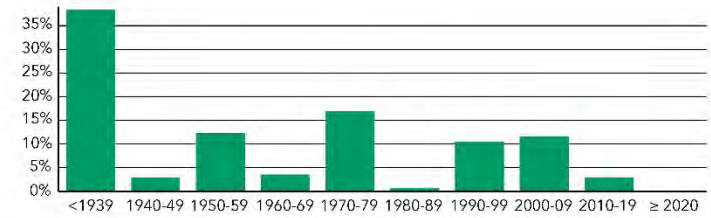
TOTAL POPULATION

2023 Total Population (Estimate)	308
2020 Total Population (U.S. Census)	356
2010 Total Population (U.S. Census)	364
2000 Total Population (U.S. Census)	403

AT RISK POPULATIONS

45	72	1	8%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

HOUSING: YEAR BUILT



EMPLOYMENT

12	1.1%
Total Businesses	Unemployment Rate

POPULATION BY RACE



- Asian Population
- American Indian Population
- Black Population
- Other Race Population
- Population of 2+ Races
- White Population

5% **of the Total Population is Hispanic**

HOUSING

22	5%
Vacant Housing Units	Mobile Homes

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Source: Esri, U.S. Census, Esri-Data Axle, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021.

Local Planning Team

Rising City Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Shane Pavlik	Clerk/Floodplain Administrator	Village of Rising City	1-on-1, Materials Development	1-on-1, Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The Clerk and Utilities Superintendent will be responsible for reviewing and updating the community profile outside of the five-year update. Rising City will review the plan annually and the public will be notified on social media, at village board meetings, and through posting in public locations in the village.

Capability Assessment

The planning team assessed the Village of Rising City's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Rising City Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	No
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operations Plan	Yes (County)
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	No
	Subdivision Regulation/Ordinance	No
	Floodplain Ordinance	Yes
	Building Codes	No
	Water System Emergency Response Plan	Yes
	Wellhead Protection Plan	Yes
	National Flood Insurance Program	Yes
	Community Rating System	No
	Community Wildfire Protection Plan	Yes (Regional)
	Other (if any)	-
Administrative &	Planning Commission	No
	Floodplain Administrator	Yes

Capability/Planning Mechanism		Yes/No
Technical Capability	GIS Capabilities	Yes
	Chief Building Official	No
	Civil Engineering	No
	Grant Manager	No
	Mutual Aid Agreement	No
	Other (if any)	-
Fiscal Capability	1- & 6-Year Plan	Yes (Roads)
	Applied for Grants in the Past	Yes
	Awarded a Grant in the Past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric/Water/Sewer Service Fees	No
	Storm Water Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	No
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	No
	Ongoing Public Education or Information Program (e.g., Responsible Water Use, Fire Safety, Household Preparedness, Environmental Education)	No
	Natural Disaster or Safety Related School Programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	-

Rising City Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited-Moderate
Public Support to Implement Projects	Limited-Moderate
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

National Flood Insurance Program (NFIP)

Rising City is a member of the NFIP, having joined 2/28/2012, and the village Floodplain Administrator oversees the commitments and requirements of the program. The Floodplain Administrator uses the Nebraska Department of Natural Resources (NeDNR) digital tools to determine if a development will be located in the floodplain. If a structure is to be built in the floodplain, the village will need to identify requirements needed to comply with the floodplain ordinance and include those with the building permits. Floodplain ordinance will be enforced during the permitting phase and throughout the planning process of the development. After a flood event, the village would need to hire a contractor or inspector to survey substantially damaged and substantially improved structures. The village floodplain ordinance does not exceed the State of Nebraska requirements. Rising City will work with the NeDNR to track any Letters of Map Change, which will be filed at the village offices.

The local planning team has stated that Rising City will remain in good standing and be involved with the NFIP. The village will coordinate with NeDNR on tasks necessary for compliance. To enhance efficiency, additional training and guidance on running the program are needed. One property needs to be checked for compliance in the NFIP; otherwise, no other areas in the community have been identified as having limited NFIP coverage. The village Clerk or Utilities Superintendent advises property owners in the floodplain about their risk of flooding and the benefits of flood insurance. Additional NFIP information is given in the table below.

Rising City NFIP Information

NFIP Overview	
Date of NFIP Participation:	2/28/2012
Floodplain Administrator:	Shane Pavlik
Is Floodplain Administrator a Certified Floodplain Manager?	No
Is Floodplain Management an Auxiliary Function?	Yes
Number of NFIP Policies In-Force:	3
Total NFIP Premium ($):	$2,206
Total NFIP Coverage ($):	$382,000
Number of Claims Paid Out:	0
Total Amount of Claims Paid Out ($:)	$0
Number of Repetitive Loss Structures:	0
Number of Severe Repetitive Loss Structures:	0
Is the Community Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	No
FIRMs Digital or Paper?	Digital
Located in a RISK Map Area?	Yes

Buildings and Valuation in the Floodplain

The planning team acquired GIS parcel data from the County Assessor and Microsoft building footprint data to analyze the location, number, and value of buildings located in the 100-year and 500-year floodplains. A summary of the results of this analysis is provided in the following tables.

Rising City Buildings and Value in the 100-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
273	$24,986,555	28	$2,963,975	10.3%

Source: County Assessor, 2024; Microsoft, 2024

Rising City Buildings and Value in the 500-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
273	$24,986,555	0	$0	0%

Source: County Assessor, 2024; Microsoft, 2024

Plans and Studies

The Village of Rising City has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When Rising City updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Butler County Local Emergency Operations Plan (2021)

The Butler County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. The hazard mitigation plan has been integrated with this plan and includes the top hazards that would affect the county and its populations. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines.

Capital Improvement Plan

The capital improvement plan outlines projects the village would like to pursue and provides a planning schedule and financing options. Projects include stormwater projects, upsizing culverts and drainage structures, upgrading storm sewer systems, and upsizing water distribution pipes. Some of the projects are included in the 1- and 6-Year Road Plan, while others are discussed in the monthly board meetings. The village tries to prioritize projects yearly.

Floodplain Ordinance (2012)

The village's floodplain ordinance outlines requirements for structures and developments located in the 100-year floodplain. By having a floodplain ordinance, the village promotes public health, safety, and welfare by minimizing losses due to floods. It also helps to assure eligibility of purchasing flood insurance for property owners. Development is not prohibited in the floodplain, but the floodplain ordinance requires a permit to be approved before construction can begin.

Southeast Nebraska Community Wildfire Protection Plan (2020)

The Southeast Nebraska Community Wildfire Protection Plan CWPP aims to help effectively manage wildfires and increase collaboration and communication among organizations that manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP, and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years.

Wellhead Protection Plan

The purpose of wellhead protection plans is to protect the public drinking water supply wells from contamination. It includes identifying potential sources of groundwater contamination in the area and managing the potential contaminant sources. The hazard mitigation plan has not been integrated with Mead's Wellhead Protection Plan.

Water System Emergency Response Plan

A water system emergency response plan is a guideline for water operators and village board to minimize the disruption of regular consumer services and provide public health protection during an emergency. The document identifies several natural and human-caused events and discusses the water system's response during those events. The hazard mitigation plan has not been integrated with Rising City's Water System Emergency Response Plan.

Future Development Trends

Over the past five years, new businesses have entered into Rising City, one in the northeast and another in the southern areas of the community. Several new homes were also built in the community. A shop/house was also built in the floodplain and followed all floodplain requirements. However, this building is still at an increased risk of flooding. There are no planned housing or commercial developments in the next five years. For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new developments could be impacted. According to the local planning team no new developments occurred or will occur in any known hazard locations.

Community Lifelines

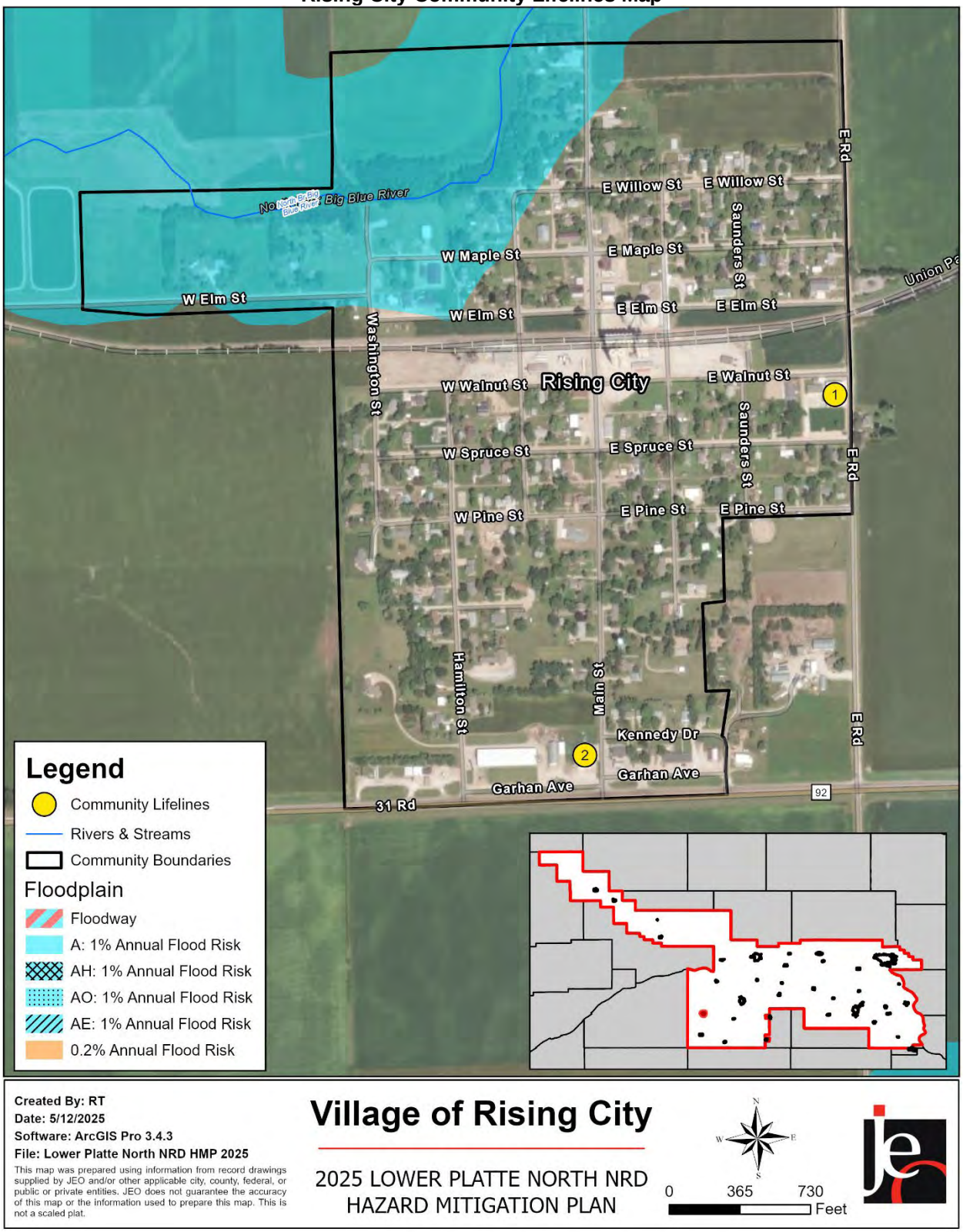
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Rising City Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Community Gym	Other	S	N
2	Fire Department	Safety and Security	G	N

Rising City Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Rising City which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Village of Rising City. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however Rising City has identified mitigation actions to reduce the impacts of the hazards. Dam Failure and Levee Failure are omitted from this profile as there are no high hazard dams upstream or levee protected areas near the community according to NeDNR and USACE data. Therefore, no mitigation actions have been identified for these two hazards. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Drought

Severe droughts impact the community's water supply and water levels. Rising City does limit water use if necessary during the summer by restricting watering lawns. However, the community does not have an official drought ordinance. No projects have been completed to reduce impacts in the community. Future projects can include implementing a drought ordinance or developing agreements with local organizations and jurisdictions for additional water supply during peak seasons.

Mitigation and Strategic Actions

Action	Drought Ordinance
Description & Location	Develop, pass, and enforce water restriction regulations.
Hazard(s) Addressed	Drought
Estimated Cost	$500+
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started

Severe Thunderstorms

Severe thunderstorms are a common occurrence in the planning area. On August 7, 2021, 1.5-inch hail was recorded in the community. Rising City has not experienced a significant event, but the community is vulnerable to power outages in the event of a severe storm. A large park in the village has a lot of trees and private properties also have hazardous trees that can cause damage in the community. Trees throughout the community need to be maintained to prevent future damages after severe weather events.

Mitigation and Strategic Actions

Action	Hazardous Tree Trimming and Removal
Description & Location	Develop a tree maintenance program to remove/trim hazardous trees. Identify and trim hazardous trees located in the village park.
Hazard(s) Addressed	Animal and Plant Disease, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$500+
Local Funding	General Fund
Timeline	2-5 Years
Priority	Low
Lead Agency	Village Maintenance
Status	Not Started

Severe Winter Storms

Severe winter storms are highly likely in Nebraska, and the village is vulnerable to power outages and road closures from future winter storms. The winter storms in 2025 caused significant damage in and around Rising City. The community lost power for 36 hours and roads were closed. The village has a portable generator for the wells in case of power loss. Rising City Rural Fire Protection District has a backup generator that can be used if residents need a warming station. The old school gym is a disaster relief center, but it does not have backup power. Snow removal is done in-house, and the equipment is adequate for snow removal. For more significant snowstorms, the village contracts out snow removal services. Future actions include installing backup and emergency generators, removing hazardous trees, and obtaining a smaller plow for a pickup truck.

Mitigation and Strategic Actions

Action	Backup and Emergency Generators
Description & Location	Provide portable or stationary source of backup power to the old school gym since it is a shelter location.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Terrorism & Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$40,000+
Local Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started

Tornadoes and High Winds

Conditions are highly likely for a tornado or high wind event to occur in the community and can have the potential to cause damage to trees, property, and people. Two tornado events have occurred in Rising City—one in October 2000 and another in May 2013. No damages were reported in the community from either event, but a corn crib and old garage outside of the jurisdiction were damaged in 2000. Future tornadoes and high winds can cause power outages and threaten properties and people. Most residents have a basement, but there is not a safe room or storm shelter in the community. Village-owned buildings do not have basements. There are two tornado sirens that are activated through Butler County Dispatch. The village has not had discussions on updating the sirens to date.

Mitigation and Strategic Actions
See the *Hazardous Tree Trimming and Removal* action under Severe Thunderstorms.

Other Mitigation and Strategic Actions

Action	Public Education
Description & Location	Educate staff, residents, and visitors on their risks to all hazards that could impact the community, how to get information and emergency notifications, mitigation actions that can be taken, and preparedness actions to keep themselves safe, especially regarding the transport of materials along the railway that goes through the community. Coordinate outreach and education projects and materials with Butler County, the railroad company that owns the railway, and other project partners. Rising City will amplify and expand on education and outreach strategies created by Butler County.
Hazard(s) Addressed	Hazardous Materials Release
Estimated Cost	$500+, Staff Time
Local Funding	General Fund
Timeline	2-5 Years
Priority	Low
Lead Agency	Village Board
Status	Not Started.

Community Profile

Village of Surprise

Lower Platte North NRD
Hazard Mitigation Plan 2025

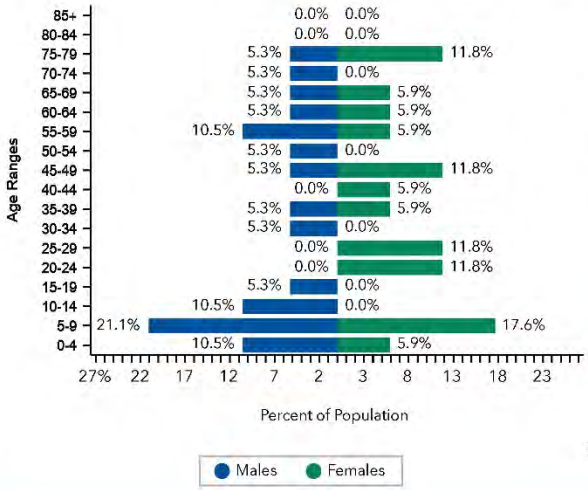
Community Fact Sheet

Community Summary Fact Sheet

Surprise, NE
Lower Platte North NRD Hazard Mitigation Plan 2025

36	35.0	11	3.27	$231,250	$79,776
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID



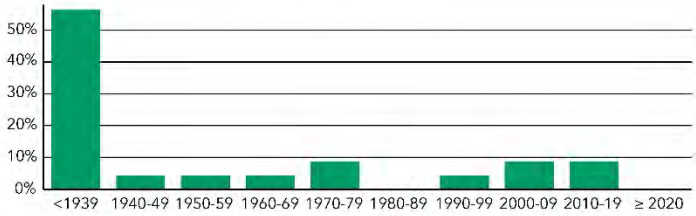
TOTAL POPULATION

2023 Total Population (Estimate)	36
2020 Total Population (U.S. Census)	37
2010 Total Population (U.S. Census)	36
2000 Total Population (U.S. Census)	47

AT RISK POPULATIONS

3	6	0	8%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

HOUSING: YEAR BUILT



EMPLOYMENT

1	0.0%
Total Businesses	Unemployment Rate

POPULATION BY RACE



- Asian Population
- American Indian Population
- Population of 2+ Races
- Black Population
- Other Race Population
- White Population

3% **of the Total Population is Hispanic**

HOUSING

2	4%
Vacant Housing Units	Mobile Homes

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Source: Esri, U.S. Census, Esri-Data Axle, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021.

Local Planning Team

Surprise Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Karl C. Gaiser	Board Chairman	Village of Surprise	Attended, Materials Development	-

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The local planning team will be responsible for reviewing and updating the community profile outside of the five-year update. Surprise will review the plan annually and the public will be notified through public notices.

Capability Assessment

The planning team assessed the Village of Surprise's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Surprise Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	No
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operations Plan	Yes (County)
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	No
	Subdivision Regulation/Ordinance	No
	Floodplain Ordinance	Yes
	Building Codes	No
	Water System Emergency Response Plan	No
	Wellhead Protection Plan	No
	National Flood Insurance Program	Yes
	Community Rating System	No
	Community Wildfire Protection Plan	Yes (Regional)
	Other (if any)	-
Administrative & Technical	Planning Commission	No
	Floodplain Administrator	Yes
	GIS Capabilities	No

Capability/Planning Mechanism		Yes/No
Capability	Chief Building Official	No
	Civil Engineering	No
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	-
Fiscal Capability	1- & 6-Year Plan	No
	Applied for Grants in the Past	Yes
	Awarded a Grant in the Past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric/Water/Sewer Service Fees	No
	Storm Water Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	No
	Ongoing Public Education or Information Program (e.g., Responsible Water Use, Fire Safety, Household Preparedness, Environmental Education)	No
	Natural Disaster or Safety Related School Programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	-

Surprise Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Limited
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

National Flood Insurance Program (NFIP)

Surprise is a member of the NFIP, having joined on 8/16/2011, and the village Floodplain Administrator oversees the commitments and requirements of the program. Interactive floodplain maps are available on the NeDNR website and other floodplain information is available on the FEMA Map Service Center for the Floodplain Administrator to use to determine if a development

will be located in the floodplain. Enforcement of the floodplain regulations can happen at the permitting process. Letters of Map Change can be found on the FEMA Map Service Center website.

Surprise will remain in good standing and be involved with the NFIP. No known barriers have been identified when it comes to running the program effectively. There are no known areas in the community with limited NFIP coverage. Educational materials on flood insurance can be found online and can be dispersed to the community through other educational outreach efforts found online. Additional NFIP information is given in the table below.

Surprise NFIP Information

NFIP Overview	
Date of NFIP Participation:	8/16/2011
Floodplain Administrator:	Karl Gaiser
Is Floodplain Administrator a Certified Floodplain Manager?	No
Is Floodplain Management an Auxiliary Function?	Yes
Number of NFIP Policies In-Force:	0
Total NFIP Premium ($):	$0
Total NFIP Coverage ($):	$0
Number of Claims Paid Out:	0
Total Amount of Claims Paid Out ($:)	$0
Number of Repetitive Loss Structures:	0
Number of Severe Repetitive Loss Structures:	0
Is the Community Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	No
FIRMs Digital or Paper?	Digital
Located in a RISK Map Area?	Yes

Buildings and Valuation in the Floodplain

The planning team acquired GIS parcel data from the County Assessor and Microsoft building footprint data to analyze the location, number, and value of buildings located in the 100-year and 500-year floodplains. A summary of the results of this analysis is provided in the following tables.

Surprise Buildings and Value in the 100-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
55	$2,552,565	35	$1,269,505	63.6%

Source: County Assessor, 2024; Microsoft, 2024

Surprise Buildings and Value in the 500-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
55	$2,552,565	0	$0	0%

Source: County Assessor, 2024; Microsoft, 2024

Plans and Studies

The Village of Surprise has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the village updates these planning mechanisms, the local planning team will review the hazard mitigation plan for

opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Butler County Local Emergency Operations Plan (2021)

The Butler County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. The hazard mitigation plan has been integrated with this plan and includes the top hazards that would affect the county and its populations. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines.

Floodplain Ordinance

The village's floodplain ordinance outlines requirements for structures and developments located in the 100-year floodplain. By having a floodplain ordinance, the city promotes public health, safety, and welfare by minimizing losses due to floods. It also helps to assure eligibility of purchasing flood insurance for property owners. The hazard mitigation plan has not been integrated into the floodplain ordinance.

Southeast Nebraska Community Wildfire Protection Plan (2020)

The purpose of the Southeast Nebraska Community Wildfire Protection Plan (CWPP) is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years.

Future Development Trends

The Village of Surprise has demolished three abandoned houses within its jurisdiction over the past five years, which reduces the risk of structure fires, severe winter storms, severe thunderstorms, and tornadoes and high winds. A new fire station has been built, but not in the floodplain or other hazardous areas. There are no new developments anticipated in the near future. For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted regardless of where they are located.

Community Lifelines

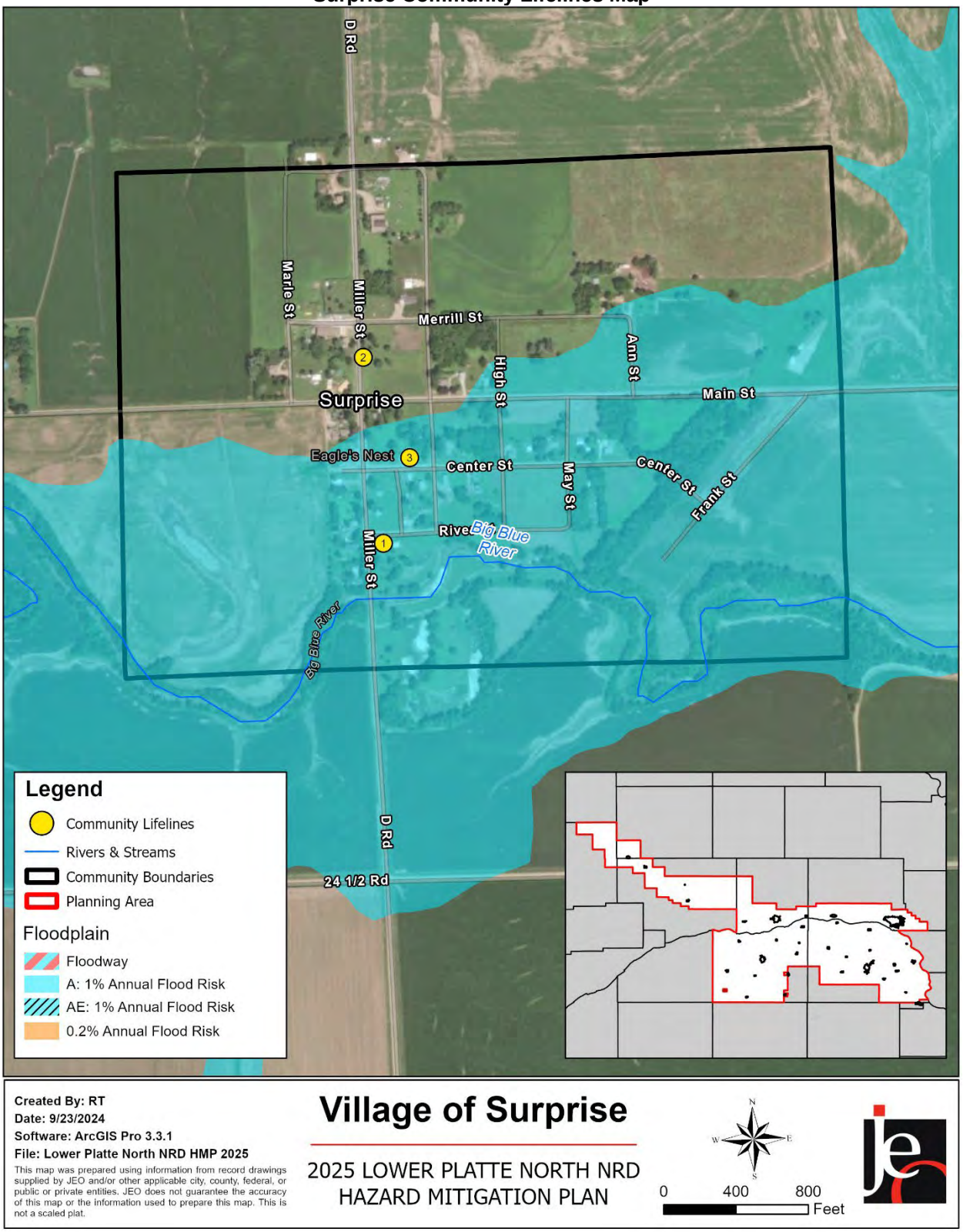
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Surprise Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Community Hall	Other	-	Y (1%)
2	Rising City Rural Fire Department Building	Safety and Security	-	N
3	Village Building	Safety and Security	-	Y (1%)

Surprise Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Surprise which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Village of Surprise. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however Surprise has identified mitigation actions to reduce the impacts of the hazards. Dam Failure and Levee Failure have been omitted as there are no high hazard dams upstream or levee protected areas near Surprise. Therefore, no mitigation actions have been identified for those two hazards according to NeDNR and USACE data. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Flooding

The most recent flooding event in June of 2024 was from the Big Blue River to the south of Surprise. Other events that occurred in 2004 and 2008 flooded basements so that furnaces, water heaters, carpet, walls, and sump pumps were damaged. Riverine flooding from the Big Blue River and flash flooding are both a concern for the community. Highway 12E, just south of Main Street, is particularly prone to flooding though many areas of the community have poor stormwater drainage. No important public infrastructure has been damaged by flooding to date. To reduce the risk of future floods, the village needs to improve ditches to direct water away from homes and more water out of the village.

Risk Mapping, Assessment, and Planning (Risk MAP) was completed for southwestern portions of Butler County, including Surprise. Additional products, such as flood depths and percent annual or 30-year chance grids, are available to these communities to make informed decisions about reducing and communicating flood risk. The Flood Risk Report can be downloaded from the FEMA Flood Map Service Center.

Mitigation and Strategic Actions

Action	Above Ground Stormwater System and Drainage Improvements
Description & Location	Stormwater systems comprising of ditches, culverts, or drainage ponds can be used to convey runoff. Undersized systems can contribute to localized flooding. Drainage improvements may include ditch upsizing, ditch cleanout and culvert improvements. Along Main Street and May Street culverts were damaged and need to be repaired.
Hazard(s) Addressed	Flooding
Estimated Cost	Varies
Local Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Village Chairperson
Status	Ongoing. Need to improve drainage away from homes and out of the village.

Action	Stream Bank Stabilization/Grade Control Structures/Channel Improvements
Description & Location	Stabilization improvements including rock rip rap, vegetative cover, j-hooks, boulder vanes, etc. can be implemented to reestablish the channel banks. Channel stabilization can protect structures, increase conveyance, and provide flood mitigation benefits.
Hazard(s) Addressed	Flooding
Estimated Cost	Varies
Local Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board
Status	Improvements need to be made to reduce flood risk from Big Blue River.

Severe Thunderstorms

The Village of Surprise has had multiple severe thunderstorm events since 1996, with one event on June 20th of 1997 resulting in $3,000 property damage from high windspeeds. The wind during many of these events flipped center pivots, downed trees, and snapped power poles. A recent severe thunderstorm event caused a center pivot to flip, and a roof ripped off a shed. Only about 15% of the power lines in the community are buried. There are no backup municipal records, and no current precautions are taken to protect them.

Mitigation and Strategic Actions

Action	Backup and Emergency Generators
Description & Location	Provide a portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations, and other critical facilities and shelters.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	Varies by size
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Community lifelines still need backup generators.

Severe Winter Storms

Heavy snow and ice impede travel in and out of the village. The heavy snowfall in January of 2024 made travel into and out of Surprise difficult and within the village impossible. In November of 2020, an ice storm knocked out power for over two days. Recovery from a severe winter storm in 2011 was especially difficult, with residents grounded for three to four days before the snow was cleared. The community has only one small JD tractor with a plow to move snow on the village streets. The tractor is often not enough for the town's snow removal needs. The village maintenance staff member is currently working with the local township to help plow snow within the village; they are completely dependent on the state to clear Highway 12E into town. The village does not use snow routes or snow fences. No community lifelines have been damaged by snowstorms in the past.

Mitigation and Strategic Actions

Action	Improve and Revise Snow/Ice Removal Program
Description & Location	Develop and improve the snow and ice removal program for streets. Revisions should address situations such as plowing snow, ice removal, parking during snow and ice removal, removal of associated storm debris, and rescuing those stranded during winter weather events.
Hazard(s) Addressed	Extreme Temperatures, Severe Winter Storms
Estimated Cost	Staff Time
Local Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board
Status	New action.

Tornadoes and High Winds

A tornado in September of 2006 destroyed a local business, two homes, the telephone office, and numerous trees and electrical infrastructure. High winds during this event snapped power lines, damaged trees, flattened crops, and flipped severe center pivots. Another high wind event in 2014 blew trees onto the highway, blocking traffic flow in and out of the village. The largest impact of this hazard is power outages caused by trees falling on power lines. The fire hall, Butler County Rural Public Power District infrastructure, the community hall, and the village's tractor shed have all been damaged by tornadoes in the past, but no community lifelines have been damaged by high winds to date. The County Emergency Manager does not offer text alerts for hazard events. The local severe weather warning siren is activated by David City's Police Department and reaches all areas of the community. There are no safe rooms in Surprise, and no other options for community members seeking safe shelter. No educational outreach activities on high winds are done in the community. Surprise does not have a backup system for municipal records. The Fire Department has Mutual Aid Agreements for disaster assistance.

Mitigation and Strategic Actions

Action	Storm Shelter/Safe Room
Description & Location	Design and construct storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, school, and other areas.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes and High Winds
Estimated Cost	$350+ per sq. ft.
Local Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board
Status	New action.

Action	Tree City USA
Description & Location	Work to become a Tree City USA through the National Arbor Day Foundation in order to receive direction, technical assistance, and public education on how to establish a hazardous tree identification and removal program in order to limit potential tree damage and damages caused by trees in a community when a storm event occurs.
Hazard(s) Addressed	Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	Tree care program funded at $2 per capita
Local Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board
Status	New action.

Other Mitigation and Strategic Actions

Action	Mutual Aid
Description & Location	Establish mutual aid agreements with neighboring jurisdictions to assist during severe weather or major incidents.
Hazard(s) Addressed	Animal & Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	Staff Time
Local Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board
Status	Surprise is working with the local township to help with snow removal. Local fire department has agreements with nearby fire districts.

Community Profile

Village of Ulysses

Lower Platte North NRD
Hazard Mitigation Plan 2025

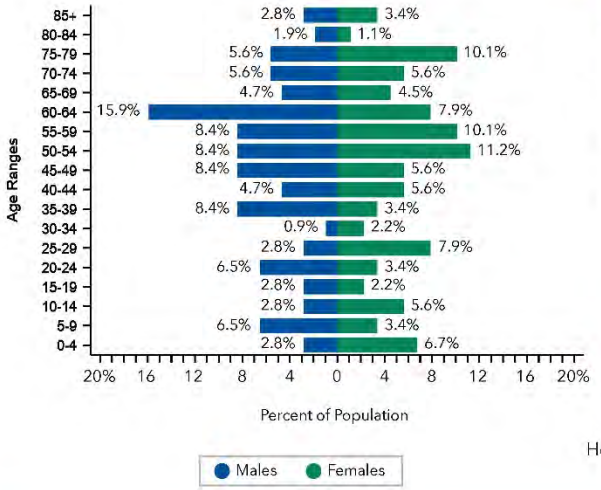
Community Fact Sheet

Community Summary Fact Sheet

Ulysses, NE
Lower Platte North NRD Hazard Mitigation Plan 2025

196	51.8	87	2.25	$238,636	$96,552
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID



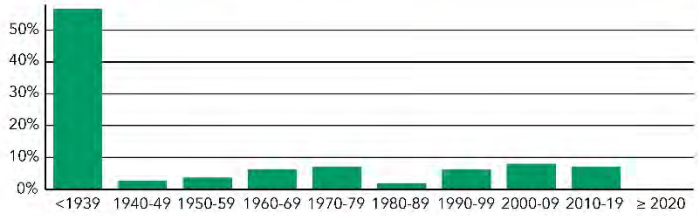
TOTAL POPULATION

2023 Total Population (Estimate)	196
2020 Total Population (U.S. Census)	196
2010 Total Population (U.S. Census)	192
2000 Total Population (U.S. Census)	248

AT RISK POPULATIONS

25	44	2	9%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

HOUSING: YEAR BUILT



EMPLOYMENT

10	6.7%
Total Businesses	Unemployment Rate

POPULATION BY RACE



- Asian Population
- American Indian Population
- Black Population
- Other Race Population
- Population of 2+ Races
- White Population

5% **of the Total Population is Hispanic**

HOUSING

10	3%
Vacant Housing Units	Mobile Homes

esri THE SCIENCE OF WHERE

Source: Esri, U.S. Census, Esri-Data Axle, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021.

Local Planning Team

Ulysses Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Jeanine Wasser	Village Clerk	Village of Ulysses	Recording, Materials Development	Recording, Materials Development
David Schauer	Utility Superintendent	Village of Ulysses	Materials Development	Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The village Clerk, Attorney, Utility Superintendent, Fire Chief, Street Superintendent, Engineer, Water and Wastewater Operators will be responsible for reviewing and updating the community profile outside of the five-year update. Ulysses will review the plan bi-annually and the public will be notified at board meetings.

Capability Assessment

The planning team assessed the Village of Ulysses' hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Ulysses Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operations Plan	Yes
	Floodplain Management Plan	Yes
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	No
	Floodplain Ordinance	Yes
	Building Codes	Yes
	Water System Emergency Response Plan	Yes
	Wellhead Protection Plan	Yes
	National Flood Insurance Program	Yes
	Community Rating System	No
	Community Wildfire Protection Plan	Yes (Regional)
	Other (if any)	-

Capability/Planning Mechanism		Yes/No
Administrative & Technical Capability	Planning Commission	No
	Floodplain Administrator	Yes
	GIS Capabilities	No
	Chief Building Official	No
	Civil Engineering	Yes
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	-
Fiscal Capability	1- & 6-Year Plan	Yes
	Applied for Grants in the Past	Yes
	Awarded a Grant in the Past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	No
	Gas/Electric/Water/Sewer Service Fees	Yes
	Storm Water Service Fees	Yes
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	No
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	Yes
	Ongoing Public Education or Information Program (e.g., Responsible Water Use, Fire Safety, Household Preparedness, Environmental Education)	No
	Natural Disaster or Safety Related School Programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	-

Ulysses Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Moderate
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Moderate

National Flood Insurance Program (NFIP)

Ulysses is a member of the NFIP, having joined on 10/31/1983. The floodplain administrator uses the FEMA Map Service Center to determine if a development will be located in the floodplain. There are currently no buildings in the floodplain in Ulysses; the floodplain administrator has not had to identify substantially damaged or improved structures after a flood event. Development is permitted in the floodplain, but population density is limited. The village requires structures be one foot above Base Flood Elevation in the floodplain. Ulysses does not have areas with limited NFIP Policy Coverage and does not have a formal system to educate property owners or other stakeholders about the importance of flood insurance. The planning team has not experienced barriers to running the program effectively. Additional NFIP information is given in the table below.

Ulysses NFIP Information

NFIP Overview	
Date of NFIP Participation:	10/31/1983
Floodplain Administrator:	Jeanine Wasser
Is Floodplain Administrator a Certified Floodplain Manager?	No
Is Floodplain Management an Auxiliary Function?	Yes
Number of NFIP Policies In-Force:	0
Total NFIP Premium ($):	$0
Total NFIP Coverage ($):	$0
Number of Claims Paid Out:	0
Total Amount of Claims Paid Out ($:)	$0
Number of Repetitive Loss Structures:	0
Number of Severe Repetitive Loss Structures:	0
Is the Community Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	No
FIRMs Digital or Paper?	Digital
Located in a RISK Map Area?	Yes

Buildings and Valuation in the Floodplain

The planning team acquired GIS parcel data from the County Assessor and Microsoft building footprint data to analyze the location, number, and value of buildings located in the 100-year and 500-year floodplains. A summary of the results of this analysis is provided in the following tables.

Ulysses Buildings and Value in the 100-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
186	$8,737,605	0	$0	0%

Source: County Assessor, 2024; Microsoft, 2024

Ulysses Buildings and Value in the 500-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
186	$8,737,605	0	$0	0%

Source: County Assessor, 2024; Microsoft, 2024

Plans and Studies

The Village of Ulysses has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard

mitigation plan or how it contains hazard mitigation principles. When the village updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Building Code (2001)

The building code sets standards for constructed buildings and structures. The village's building code was incorporated into the municipal ordinance book in 2001. Ulysses does not have a formal system of enforcing the building code. The hazard mitigation plan has not been integrated into the building code.

Butler County Local Emergency Operations Plan (2021)

The Butler County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. The hazard mitigation plan has been integrated with this plan and includes the top hazards that would affect the county and its populations. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines.

Comprehensive Plan (2021)

The comprehensive plan is designed to guide the future actions and growth of the village. The hazard mitigation plan has not been integrated with the comprehensive plan; however, it has information about floods, tornadoes, and fires. The plan also discusses details about the floodplain and advises directing development away from hazardous areas, such as those in or near the floodplain and chemical storage facilities. The plan also encourages infill development and contains goals aimed at Safe Growth. There is no plan to update the comprehensive plan.

Drought Ordinance Plan (2012)

Ulysses' drought ordinance outlines the conservation management plan to minimize the effects of water shortage and control the municipal water supply during periods of high demand. The hazard mitigation plan has not been incorporated into the drought ordinance plan.

Floodplain Ordinance (2011)

The village's floodplain ordinance outlines requirements for structures and developments located in the 100-year floodplain. By having a floodplain ordinance, the village promotes public health, safety, and welfare by minimizing losses due to floods. It also helps to assure eligibility of purchasing flood insurance for property owners. The hazard mitigation plan has not been integrated with the floodplain ordinance. Updates to the ordinance are done as needed.

Southeast Nebraska Community Wildfire Protection Plan (2020)

The purpose of the Southeast Nebraska Community Wildfire Protection Plan CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP and wildfire projects in the current hazard mitigation

plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years.

Water System Emergency Response Plan (2024)

A water system emergency response plan serves as a guideline for water operators and the village board to minimize the disruption of normal services to consumers and to provide public health protection during an emergency event. The document identifies several natural and human-caused events and discusses the water system's response during those events. The planning team has not indicated a timeline to update the water system emergency response plan. The hazard mitigation plan has not been integrated into this plan. The plan is set to be updated by 2026-27.

Wellhead Protection Plan (2004)

The purpose of wellhead protection plans is to protect the public drinking water supply wells from contamination. It includes identifying potential sources of groundwater contamination in the area and managing the potential contaminant sources. Ulysses' wellhead protection plan covers the entire town. The hazard mitigation plan has not been integrated with the village wellhead protection plan.

Zoning Ordinance (2010)

The village's zoning ordinance outlines where and how development should occur in the future. There is no timeline to update the zoning ordinance; however, updates are made as needed. Development is restricted in hazard prone areas, and housing and vulnerable populations are discouraged from being near chemical storage sites. The ordinance also includes well setback requirements and the ability to implement water restrictions. Ulysses does not have a formal system of enforcing the zoning ordinance. The hazard mitigation plan has not been integrated into the zoning ordinance, and there is no timeline for updating the zoning ordinance.

Future Development Trends

Over the past five years, the Village of Ulysses has taken an old lumber yard on 3rd and D Street, reducing vulnerability from potential fires. No new structures have been developed in the floodplain or any hazardous areas. For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted regardless of where they are located. According to the local planning team any new and future development is not likely to occur in any other known hazard locations; therefore, vulnerability is expected to remain the same in the coming years.

Community Lifelines

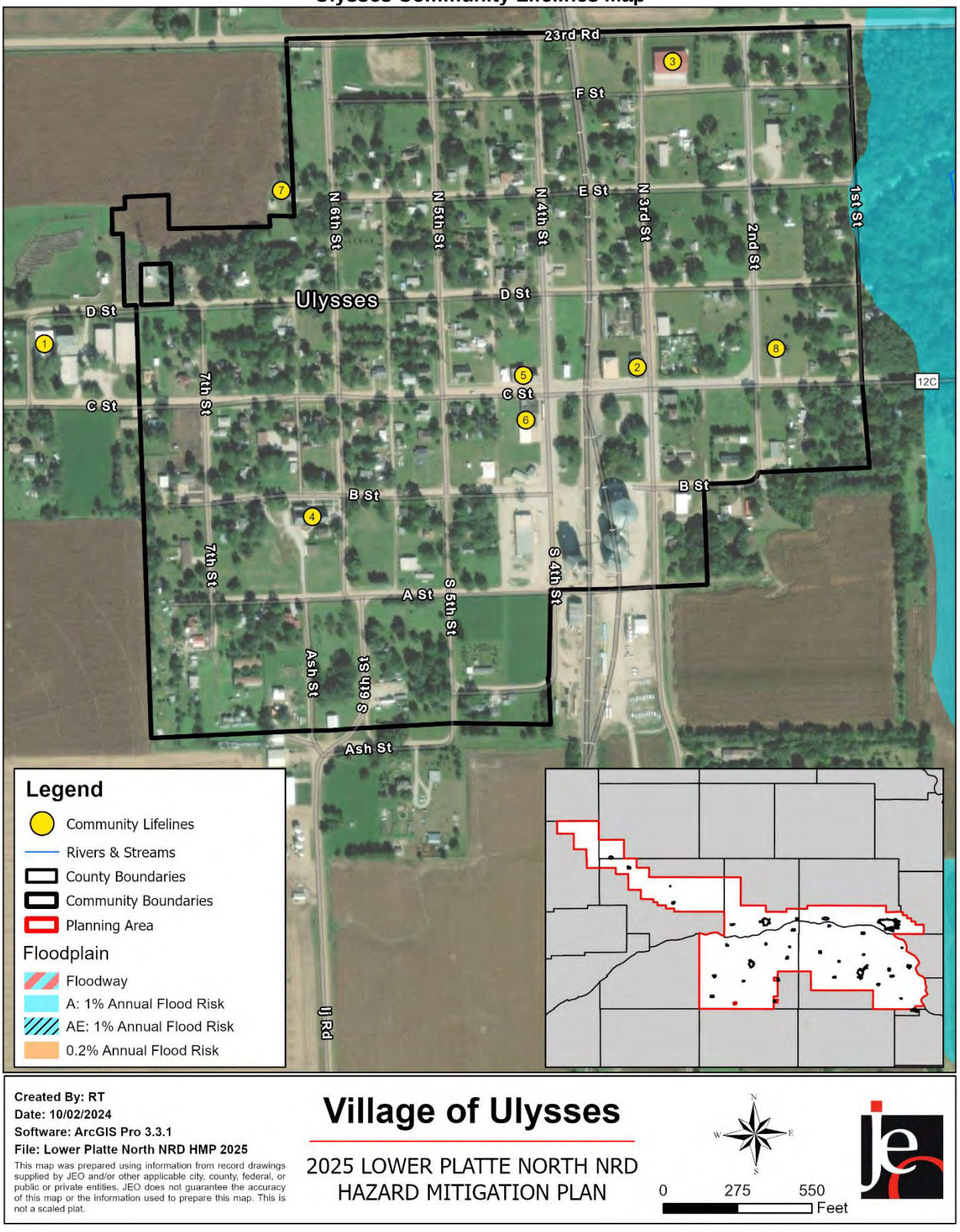
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Ulysses Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Auditorium	Other	-	N
2	Community Center	Other	-	N
3	Fire Hall	Safety and Security	G	N
4	Immaculate Conception Catholic Church	Other	-	N
5	Library	Safety and Security	-	N
6	Village Hall	Safety and Security	-	N
7	Water Tower & Well House #1	Food, Water, Shelter	-	N
8	Well House #2	Food, Water, Shelter	G	N

Ulysses Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Ulysses which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Village of Ulysses. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however Ulysses has identified mitigation actions to reduce the impacts of the hazards. Dam Failure and Levee Failure have been omitted from this profile as there are no high hazard dams upstream or any levee protected areas near the community according to NeDNR and USACE data. Therefore, no mitigation actions have been identified for those two hazards. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Flooding

The NCEI data indicated a flooding event on June 21st, 2010, which resulted in $6,000 in damages to property in the area. Other flooding events near Ulysses occurred in May and June 2008, and August 2007 due to heavy rainfall increasing water levels of the Big Blue River. Agricultural lowlands and some county roads were the primary affected areas. The local planning team indicated that most flooding was a result of poor stormwater drainage, and the community continues to make improvements to its stormwater systems by installing curbs and gutters. The majority of the flood risk indicated on the FIRM map lies just outside the community boundary east of town. Risk Mapping, Assessment, and Planning (Risk MAP) was completed for southwestern portions of Butler County, including Ulysses. Additional products, such as flood depths and percent annual or 30-year chance grids, are available to these communities to make informed decisions about reducing and communicating flood risk. The Flood Risk Report can be downloaded from the FEMA Flood Map Service Center.

Mitigation and Strategic Actions

Action	Culvert Upsizing and Cleaning
Description & Location	The village primarily uses culverts to convey stormwater runoff. Culverts can become clogged with debris causing water to stand or flood. Remove obstacles and upsize culverts where necessary, typically in the southern portion of the community.
Hazard(s) Addressed	Flooding
Estimated Cost	Varies by Project
Local Funding	General Budget
Timeline	Ongoing
Priority	Medium
Lead Agency	Village maintenance
Status	Ongoing. The village continues to improve stormwater system. The municipal budget does have funds allocated for public works projects.

Action	Curb and Gutter
Description & Location	Install curbs and gutters along streets that do not have any. Update and repair curbs and gutters where needed. The village is looking at installing curbs along D Street between 4th and 5th Streets.
Hazard(s) Addressed	Flooding
Estimated Cost	Varies by Project
Local Funding	General Budget
Timeline	Ongoing
Priority	Medium
Lead Agency	Village maintenance
Status	Ongoing. Ulysses continues to find and make improvements to its curbs and gutters. Special attention needs to be paid to the east part of the village, where property is more vulnerable to flooding.

Severe Thunderstorms

Wind and hail in a 2012 severe thunderstorm caused significant damage in the community, especially to the well house roods, siding, and windows. Downed trees and power outages are the biggest concerns over future storms. Different roofs have been installed and repairs have been completed since the storm. All critical facilities are insured against hail damage. The Village Board monitors the condition of trees in the community and removes those that are hazardous. Critical municipal records on digital devices are protected with surge protectors. Most critical facilities do not have backup generators but the water tower and well house #1 are especially critical and need a backup generator. All occupied critical facilities have weather radios. Approximately ten percent of power lines are buried, making the rest vulnerable to storms. Residents are not provided with information on hail resistant building materials with building permits.

Mitigation and Strategic Action

Action	Backup and Emergency Generators
Description & Location	Identify and evaluate current backup and emergency generators. Obtain additional generators based on identification and evaluation. Purchase and install a backup generator for the water tower and well house #1.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfire, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$40,000+
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	New Action. This mitigation action has not started yet.

Tornadoes and High Winds

The population of Ulysses was not impacted but an EF1 tornado in June of 2008 did cause tree and property damage. Multiple center pivots were flipped, and power lines were downed which caused 500 residents to lose power for 24 hours. Significant tree damage occurred during high wind events in 2012, 2017, 2018, and 2019. Community lifelines have been lightly damaged by high winds in the past. In case of a disaster municipal records are backed up on the computer and on paper. The local fire department has Mutual Aid Agreements in place for response. All areas of the community are reached by the warning siren which is activated by County Dispatch or in the Fire Hall and Village Office. A safe room in the Fire Hall is open to the public, though it

is not known if it is FEMA certified. The community center, auditorium, and Village Hall are also available as public storm shelters. A generator was put in the Fire Hall and at Well #2.

Mitigation and Strategic Actions

Action	Hazardous Tree Removal
Description & Location	Conduct tree inventory. Develop and implement tree maintenance and trimming program to remove hazardous limbs and trees.
Hazard(s) Addressed	Animal and Plant Disease, Drought, Extreme Temperatures, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$200+ per tree
Local Funding	General Budget
Timeline	Ongoing
Priority	Medium
Lead Agency	Village maintenance
Status	Ongoing. Trees are removed as identified and when funding is available.

Other Mitigation and Strategic Actions

Action	Power, Service, and Electrical Lines
Description & Location	Install and repair water and sewer lines across the entire community.
Hazard(s) Addressed	Drought
Estimated Cost	Varies by Project
Local Funding	General Budget
Timeline	Ongoing
Priority	Low
Lead Agency	Village maintenance
Status	Ongoing. The village annual budget has funds allocated for public works and wastewater projects.

Action	Public Education
Description & Location	Educate staff, residents, and visitors on their risks to all hazards that could impact the community, how to get information and emergency notifications, mitigation actions that can be taken, and preparedness actions to keep themselves safe, especially regarding the BNSF railway that goes through the community. Coordinate outreach and education projects and materials with Butler County, BNSF Railroad company, and other project partners. Ulysses will amplify and expand on education and outreach strategies created by Butler County.
Hazard(s) Addressed	Hazardous Materials Release
Estimated Cost	$5,000+
Local Funding	General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	New Action. Not started.

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Dodge County

Lower Platte North NRD
Hazard Mitigation Plan 2025

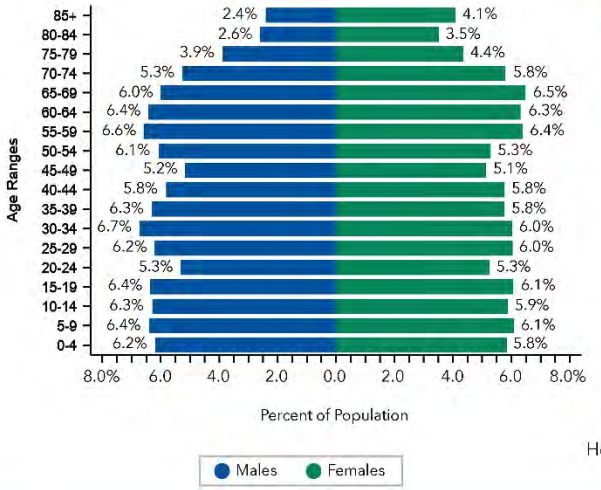
County Fact Sheet

Community Summary Fact Sheet

Dodge County, NE
Lower Platte North NRD Hazard Mitigation Plan 2025

37,096	41.4	14,840	2.45	$179,160	$67,096
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID



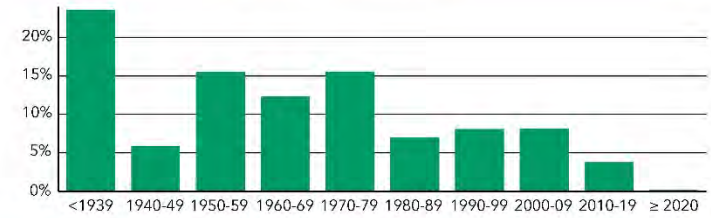
TOTAL POPULATION

2023 Total Population (Estimate)	37,096
2020 Total Population (U.S. Census)	37,167
2010 Total Population (U.S. Census)	36,691
2000 Total Population (U.S. Census)	36,160

AT RISK POPULATIONS

4,078	8,240	881	11%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

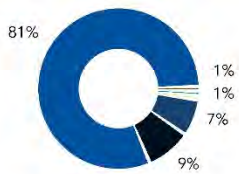
HOUSING: YEAR BUILT



EMPLOYMENT

1,620	3.7%
Total Businesses	Unemployment Rate

POPULATION BY RACE



- Asian Population
- Black Population
- American Indian Population
- Population of 2+ Races
- Other Race Population
- White Population

18% **of the Total Population is Hispanic**

HOUSING

1,644	5%
Vacant Housing Units	Mobile Homes

esri THE SCIENCE OF WHERE

Source: Esri, U.S. Census, Esri-Data Axle, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021.

Local Planning Team

Dodge County Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Jean Andrews	Floodplain Administrator	Dodge County	Attended, Materials Development	Attended, Materials Development
Bob Missel	Board Member	Dodge County	Materials Development	Materials Development
Tom Smith	Emergency Manager	Dodge County	Attended, Materials Development	Attended, Materials Development
Patrick Tawney	Board Member	Dodge County	-	Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

Emergency Management and the Floodplain/Zoning Administrator will be responsible for reviewing and updating the community profile outside of the five-year update. Dodge County will review the plan annually. The public can be notified on the Dodge County Emergency Management social media page.

Capability Assessment

The planning team assessed Dodge County's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	Yes
	Economic Development Plan	Yes
	Emergency Operations Plan	Yes
	Floodplain Management Plan	Yes
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	Yes
	Building Codes	Yes
	Wellhead Protection Plan	No
	Water System Emergency Response Plan	No
	National Flood Insurance Program	Yes

Capability/Planning Mechanism		Yes/No
	Community Rating System	No
	Community Wildfire Protection Plan	Yes (Regional)
	Other (if any)	-
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administrator	Yes
	GIS Capabilities	Yes
	Chief Building Official	Yes
	Civil Engineering	No
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	Joint Water Management Advisory Board - Member
Fiscal Capability	1- & 6-Year Plan	Yes
	Applied for Grants in the Past	Yes
	Awarded a Grant in the Past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric/Water/Sewer Service Fees	No
	Storm Water Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	Yes
	Ongoing Public Education or Information Program (e.g., Responsible Water Use, Fire Safety, Household Preparedness, Environmental Education)	Yes
	Natural Disaster or Safety Related School Programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	-

Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Moderate
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Moderate
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Moderate

National Flood Insurance Program (NFIP)

Dodge County is a member of the NFIP, having joined on 8/17/1981, and the county Zoning Administrator/Floodplain Administrator oversees the commitments and requirements of the program. Development or substantial improvement in the floodplain require a floodplain permit. Online resources such as the NeDNR interactive floodplain map and information on the FEMA Flood Map Service Center are available to determine if a development is located in the floodplain. The Zoning Administrator or the county Building Inspector are responsible for reviewing floodplain permit applications to ensure they adhere to the county floodplain regulations. Letters of Map Change can be found on the FEMA Flood Map Service Center website.

Dodge County will remain in good standing and be involved in the NFIP in the future. Property owners and other stakeholders can reach out to the Zoning Administrator on questions and more information regarding the importance of flood insurance. Additional NFIP information is given in the table below.

Dodge County NFIP Information

NFIP Overview	
Date of NFIP Participation:	8/17/1981
Floodplain Administrator:	Jean Andrews
Is Floodplain Administrator a Certified Floodplain Manager?	No
Is Floodplain Management an Auxiliary Function?	Yes
Number of NFIP Policies In-Force:	87
Total NFIP Premium ($):	$67,126
Total NFIP Coverage ($):	$17,716,000
Number of Claims Paid Out:	151
Total Amount of Claims Paid Out ($:)	$1,724,487
Number of Repetitive Loss Structures:	20
Number of Severe Repetitive Loss Structures:	1
Is the County Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	No
FIRMs Digital or Paper?	Digital
Located in a RISK Map Area?	Yes (Partially)

Buildings and Valuation in the Floodplain

The planning team acquired GIS parcel data from the County Assessor and Microsoft building footprint data to analyze the location, number, and value of buildings located in the 100-year and 500-year floodplains. A summary of the results of this analysis is provided in the following tables.

Dodge County Buildings and Value in the 100-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
22,699	$4,605,647,374	5,149	$1,015,427,925	22.7%

Source: County Assessor, 2024; Microsoft, 2024

Dodge County Parcel Improvements and Value in the 500-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
22,699	$4,605,647,374	10,635	$2,345,768,414	46.9%

Source: County Assessor, 2024; Microsoft, 2024

Plans and Studies

Dodge County has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the county updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Building Code (2018)

The building code sets standards for constructed buildings and structures. Dodge County's building codes are based on the 2018 International Building Codes and have not had any amendments made to them. Enforcement of the building codes is done through plans, building permits, and the County Building Inspector. The hazard mitigation plan has not been integrated with the county building code.

Capital Improvement Plan (2024)

The capital improvement plan outlines projects the county would like to pursue and provides a planning schedule and financing options. Projects include upsizing culverts and drainage structures and bridge improvements. The hazard mitigation plan has not been integrated with the capital improvement plan.

Comprehensive Plan (1998)

The comprehensive plan is designed to guide the future actions and growth within the county. The hazard mitigation plan has not been integrated with the comprehensive plan and does not discuss natural hazards. Dodge County is in the beginning stages of updating the county comprehensive plan.

Dodge County Local Emergency Operations Plan (2021)

The Dodge County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. The hazard mitigation plan has been integrated with this plan and includes the top hazards that would affect the county and its

populations. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines.

East Central Planning, Exercise and Training Region Threat and Hazard Identification and Risk Assessment (2024)

The Threat and Hazard Identification and Risk Assessment (THIRA) is a three-step process for communities and regions to understand and address their risks and capabilities. Counties in the East Central Planning, Exercise and Training (PET) Region were asked what threats and hazards affected their counties and communities, what impacts those threats and hazards would have if they occurred, and what capabilities they should have based on those impacts. Updates to the THIRA are made every three years. Due to the sensitive nature of the THIRA document, it is not included as an annex to the hazard mitigation plan. However, the NRD and all counties have copies of the THIRA. Findings from the THIRA process were integrated into the hazard mitigation plan in the hazard risk assessments and mitigation alternatives.

Floodplain Regulations (2020)

The county's floodplain ordinance outlines requirements for structures and developments located in the 100-year floodplain. By having a floodplain ordinance, the county promotes public health, safety, and welfare by minimizing losses due to floods. It also helps to assure eligibility of purchasing flood insurance for property owners. The hazard mitigation plan has not been integrated with the floodplain regulations. Future updates to the regulations will discourage or prohibit development within the floodplain, limit population density in the floodplain, and require more than one foot of elevation above Base Flood Elevation in the floodplain.

Local Emergency Planning Committee Hazardous Emergency Response Plan (2023)

The hazardous emergency response plan is an annex of the Dodge County LEOP and addresses hazardous material releases to limit the severity of an event. The plan provides guidance for hazardous materials incident planning, notification and response as required by SARA Title III of 1986, also known as the Emergency Planning & Community Right-to-Know Act (EPCRA). This plan is designed to prepare Dodge County and its political subdivisions for incident response and to minimize the exposure to or damage from materials that could adversely impact human health and safety or the environment. The plan is reviewed as needed and is updated annually.

Lower Platte North NRD Drought Risk and Resiliency Report (2025)

The purpose of the Lower Platte North NRD Drought Risk and Resiliency Report is to better understand drought risks on community water systems within the NRD and establish proactive measures to reduce impacts from drought throughout the NRD. The report includes the development of drought mitigation strategies based on the outcomes of the drought risk analysis and meetings with communities. Also included with the report is a community engagement materials kit and sample drought ordinances for communities to utilize and update to fit their needs. Outcomes have been integrated into community profiles and the drought risk profile in this hazard mitigation plan. The Drought Risk and Resiliency Report is included as an annex to the hazard mitigation plan.

Missouri River East Community Wildfire Protection Plan (2022)

The purpose of the Missouri River East Community Wildfire Protection Plan CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and

identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years.

Subdivision Regulations (2015)

The county's subdivision regulations govern the division of land from one or more larger parcels into smaller lots. The hazard mitigation plan has not been integrated with the subdivision regulations and there is no plan or timeline to update the regulations. Future updates to the subdivision regulations will restrict subdivision of land within or adjacent to the floodplain.

Zoning Ordinance (2015)

The county's zoning ordinance outlines where and how development should occur in the future. The hazard mitigation plan has not been integrated with the zoning ordinance and there is no plan or timeline to update the ordinance. The zoning ordinance includes well setback requirements. Future updates will restrict development in hazard-prone areas, consider wildfire and wildland urban interface, include the ability to implement water restrictions, and discourage housing and vulnerable populations near chemical storage units.

Future Development Trends

Over the past five years, four-lane Highway 275 was completed near Scribner to West Point. Highway 77 bypass on the south side of Fremont, along with Highway 275 from Scribner to West Point has also increased to four lanes. A bypass on Highway 275/77 was completed south of Fremont. Highway 30 is now a four-lane highway from Fremont to Columbus. The county is now responsible for the old Highway 30, which is now named Platte River Road. The roadway construction in the county likely decreases vulnerability by improving accessibility to communities in case of a hazardous event.

Development of the Municipal Inland Port Authority near Morningside Road in Fremont is planned for the near future. In the long term, the development will be a 1,500-acre site primarily zoned for industrial use, which has the potential to increase vulnerability to the release of hazardous materials. For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted regardless of where they are located.

Community Lifelines

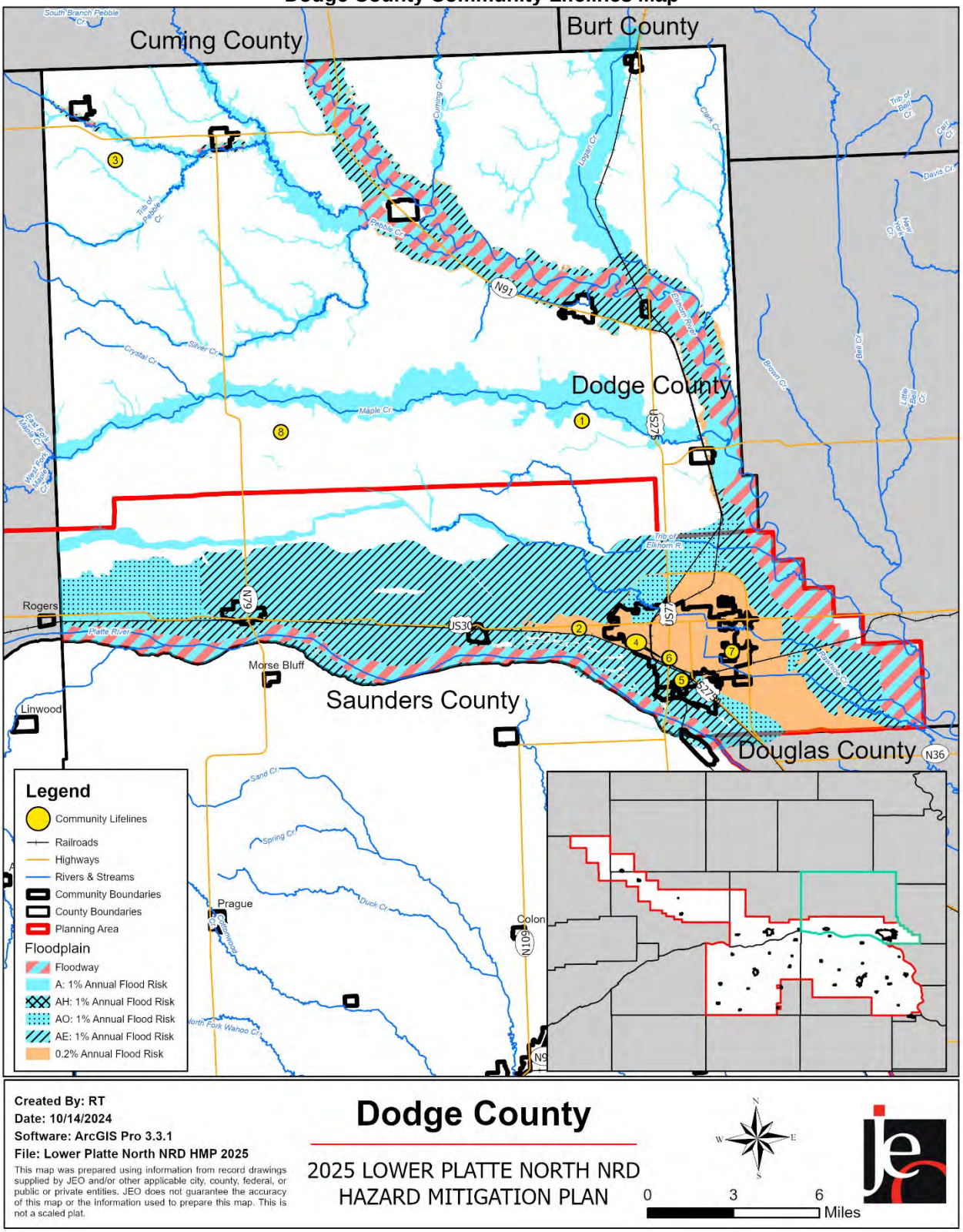
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Dodge County Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain
1	Central Communications Tower	Communications	G	N
2	County Highway Department/ Main Shop	Transportation	G	Y (0.2%)
3	Dodge Communications Tower	Communications	G	N
4	Dodge County Courthouse	Safety and Security	G	Y (0.2%)
5	Dodge County Schneider Building	Other	-	Y (1%)
6	Dodge County Sheriff's Department/Jail	Safety and Security	G	Y (0.2%)
7	First Lutheran Church	Food, Water, Shelter	S, G	Y (0.2%)
8	North Bend Communications Tower	Communications	G	N

Dodge County Community Lifelines Map



Hazard Historical Occurrences

Dodge County Hazard Loss History

Hazard Type		Count	Property Damage	Crop Damage[2]
Animal & Plant Disease	Animal Disease[1]	26	1,712 Animals	N/A
	Plant Disease[2]	17	N/A	$46,529
Dam Failure[5]		0	$0	N/A
Drought[6]		429 out of 1,548 Months	$0	$35,738,935
Extreme Temperatures	Extreme Heat[7]	Avg. 5 Days a Year	N/A	$7,026,392
	Extreme Cold[7]	Avg. 33 Days a Year	$0	$104,741
Flooding[8]	Flash Flood	21	$115,000	$4,189,630
	Flood	60	$3,260,000	
Grass/Wildfires[9]		289	459 Acres Burned	$4,473
Hazardous Materials Release	Fixed Site[3] 5 Injuries 1 Fatality	39	$0	N/A
	Transportation[4] 1 Injury	26	$42,697	N/A
Levee Failure[11]		2	$2,930,000	N/A
Severe Thunderstorms[8]	Hail Range: 0.75-4.5 Inches Average: 1.24 Inches	203	$10,001,000	$10,378,019
	Thunderstorm Wind Range: 50-96 mph Average: 56 mph	137	$31,000	$19,627,438
	Heavy Rain	3	$0	
	Lightning	3	$200,000	
Severe Winter Storms[8]	Blizzard	9	$0	$643,804
	Heavy Snow	4	$0	
	Ice Storm	4	$0	
	Winter Storm	53	$0	
	Winter Weather	13	$0	
Terrorism & Cyber-Attack[10]		0	$0	N/A
Tornadoes and High Winds[8]	High Winds Range: 35-58 mph Average: 49 mph	20	$0	$1,689,299
	Tornadoes Range: EFU-EF2 Average: EF1	17	$1,555,000	$5,691
Total		**946**	**$18,134,697**	**$79,454,951**

N/A: Data not available
1 – NDA, 2014 – 2023
2 - USDA RMA, 2000 –2023
3 – NRC, 1990 – December 2023
4 – PHSMA, 1971 – June 2024
5 – Stanford University NPDP, December 2023
6 – NOAA, 1895 – December 2023
7 – NOAA Regional Climate Center, 1893 – 2024
8 – NCEI, 1996 - December 2023
9 – NFS, 2000 - 2023
10 – University of Maryland, 1970 – 2017
11 – USACE, 2019-2021

Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Dodge County which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by Dodge County. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however Dodge County has identified mitigation actions to reduce the impacts of the hazards. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Animal & Plant Disease

Dodge County is a primarily agricultural county. Over the past five years, the Lincoln Premium Poultry Plant in the City of Fremont was built and increased the number of poultry barns in the county. In addition to the large amount of agriculture and plants, there are concerns that there are not enough livestock holding areas in the county. If a disease were to impede normal agricultural product production, there would be large economic impacts. The 2022 market value of products sold was $459,623,000. Chicken is the largest population of livestock in the county. There are no local plans in place in case of a disease outbreak, though the local Nebraska Extension Office is available to assist producers and first responders. A Livestock Emergency Response Plan is provided statewide through the Extension Office. The largest concentration of livestock near Dodge County is taken to the sale barn in the Village of West Point, just north of Dodge County. There are also smaller sale barns in the Cities of Wahoo and Columbus, and the Villages of Creighton, Elgin, and Pender. Several outreach opportunities for agricultural disease are available in the county. Beef Quality Assurance, Pork Quality Assurance, and other species-specific programs discuss biosecurity and disease concerns. The Extension Office provides further education and information on disease in the BeefWatch Newsletter, BeefWatch podcast, NEBGUIDES, beef.unl.edu website, and meetings hosted by Extension personnel as needed. Extension educators can meet with producers, relay questions to veterinarians and horticulturalists, and provide other additional support. School-aged children in the local 4-H chapter can take a Youth for the Quality Care of Animals course which includes some programming on animal disease. Dodge County Emergency Management has been working with the Nebraska Department of Agriculture on emergency task cards as well as training and exercises. Continued work with the UNL Extension office with preparedness efforts is needed to help reduce the risks and impacts of this hazard.

Mitigation and Strategic Actions

Action	Emergency Exercise: Agricultural Disease Outbreak
Description & Location	Conduct an outbreak exercise with producers, emergency managers, veterinarians, extension agents, etc. Identify areas for improvement and become familiar with procedures.
Hazard(s) Addressed	Animal and Plant Disease
Estimated Cost	$5,000+
Local Funding	General Fund, Homeland Security Regional Funds
Timeline	2-5 Years
Priority	Medium
Lead Agency	County Emergency Management, County Extension Office
Status	Ongoing.

Dam Failure

There are two high hazard dams in Dodge County: the Dodge Dam owned by the Village of Dodge and the Hooper Dam owned by the Village of Hooper. If these dams were to fail, they would cause a considerable amount of damage to their neighboring village. There are also three significant hazard dams and several low and minimal hazard dams in the county. One significant hazard dam of particular concern is Trouble Creek. If it were to fail it would significantly impact areas north of the City of Fremont. There is no history of any of these dams failing. The county has proposed actions within the Rawhide Creek Watershed Plan to mitigate the flood pool of a Trouble Creek dam breach. Dodge County has participated in a Dodge DAM exercise and has updated the Dodge Dam EAP.

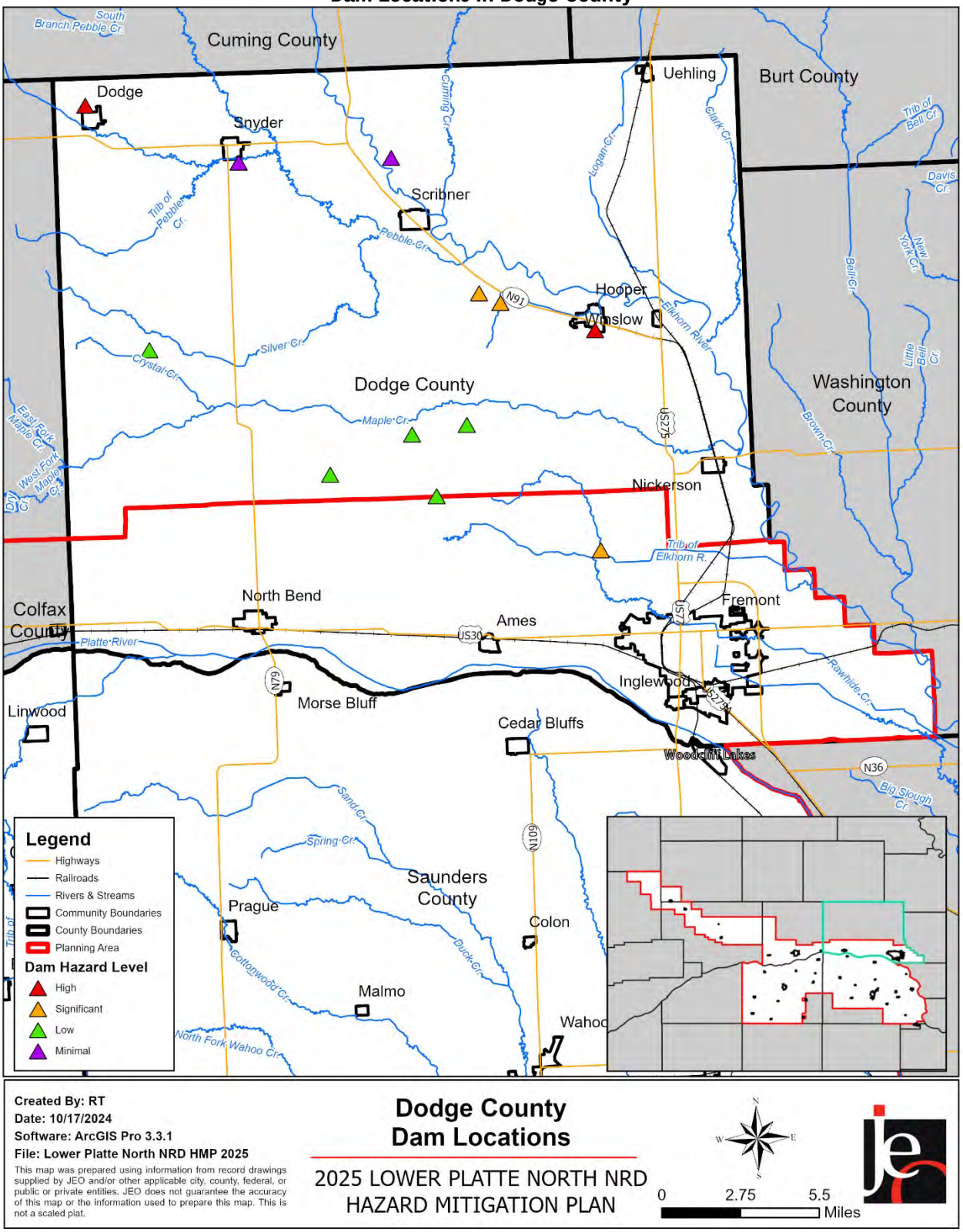
Completed Mitigation and Strategic Actions

Action	Improve Flood and Dam Failure Warning System
Description & Location	Evaluate current flood/water level alert and dam failure warning alert system. Update equipment and ensure it is in a secure location and install additional gages as needed. Increase inspection frequency and rigor of dams. The county would like a river gauge to monitor water flow.
Hazard(s) Addressed	Dam Failure, Flooding
Status	Completed. River gauges and cameras were completed and optional costs are budgeted.

Mitigation and Strategic Actions

Action	Rawhide Creek Improvements
Description & Location	Widening approximately 34,000 feet of ditch. The proposed ditch alignment follows the existing old Rawhide Creek and existing Rawhide Creek through much of the city. 25 bridges and culvert crossing structures would need to be replaced as part of this project.
Hazard(s) Addressed	Dam Failure, Flooding, Levee Failure
Estimated Cost	$75,000,000
Local Funding	General Fund, local partnerships
Timeline	5+ Years
Priority	Medium
Lead Agency	Emergency Manager
Status	The Watershed Protection Plan is in final development.

Dam Locations in Dodge County



Flooding

The March 2019 (DR4420) flooding event was an estimated 250-year flood. Beginning Wednesday, March 13, 2019, a change in the weather temperature, a rainstorm, frozen ground, thick river ice, and high river levels lead to widespread flooding across Dodge County. For five days, multiple roadways and bridges (State and County) were inundated, with many washed out completely. Multiple reports of levees being overtopped and breached were reported. The Platte River, Logan Creek, Maple Creek, Elkhorn River, and Pebble Creek all reached flood stage. The Elkhorn River was forecasted to stay above flood stage until Saturday, March 16 and the Platte River was forecasted to stay above flood stage until Tuesday, March 19. During this time first responders and volunteers assisted in evacuating residents while communities sandbagged areas of concern. There were 20,770 total calls from 23 emergency evacuation notifications sent out to residents and businesses using the Dodge County Emergency Notification System. By late Wednesday evening residents along Ridge Road and Emerson Estates were evacuated. The Village of Winslow was completely flooded by the Elkhorn River and evacuated the morning of March 14. On Friday, March 15 at 10:15 am water began overtopping the cutoff ditch near Highway 30, threatening northwest Fremont. Flood inundation model maps showed that this water had the potential to damage critical infrastructure including the county's only hospital, the Fremont Airport, and four assisted living facilities. The County Roads department conducted 24-hour flood fighting operations along Highway 30 to slow the flow of water into the area. By 11:15 am on March 15th, all state highways into Fremont were closed. Flood waters damaged agricultural land, unincorporated areas, SIDs, county roads and bridges. The total cost for the county response and recovery was $39,000,580.

Heavy rains in May and June 2024 damaged multiple county roads. There were 137 miles of county roads that needed to be repaired and cleaned from debris. Dodge County received a Federal Disaster Declaration (DR4808) for storm damage repairs. Residential damages included some basements with water, over 15 stalled vehicles driven through flooded roads, tree debris and damage to vehicles and homes. There was also minor damage from ping-pong-sized hail to roofs and vehicles. Both flash and riverine flooding are a hazard in the county.

Road Closure due to Flooding in 2024



Source: Local Planning Team

The Elkhorn, Hooper, Cotterell, Union, Platte, Pebble, and Nickerson townships are all prone to flooding. The Elkhorn Township was once a wetland area and is also part of the stormwater drainage system for the City of Fremont. During the March 2019 flooding, water from the Platte River crossed over old Highway 275, while the Elkhorn River reached Highway 275 east of Fremont. Hooper Township is located at the bend of the Elkhorn River, and where the river turns south. This is the location where Logan Creek Converges with the Elkhorn River including the Village of Winslow that flooded in 2019. The Cotterell Township contains the majority of the North Bend Drainage District ditches and extends to the Platte River. The Union Township is in the southwest portion of the county along the Platte River. The Platte Township is just west of Fremont and includes multiple Sanitary Improvement Districts and the low-lying area between the Fremont Cutoff Ditch and West Fremont. The Pebble Township is prone to flooding at the Highway 275 and Highway 91 intersection near the Elkhorn River. This area is a significant stretch (4.5 miles) of bends in the Elkhorn River where ice jams are more likely to occur. The Nickerson Township includes the Village of Nickerson and is located along

the Elkhorn River. The Elkhorn River, Platte River, Maple Creek, Pebble Creek, and Logan Creek are most likely to flood. Areas around the Elkhorn River also have poor stormwater drainage.

In response to the March 2019 flood, communities and diking and drainage districts in southern Dodge County along the Platte River formed the Dodge County Joint Water Management Advisory Board. They've partnered together to develop a comprehensive flood risk reduction and mitigation strategy along the Platte River. The Board is currently looking for funding alternatives to develop a Flood Mitigation and Flood Resiliency Plan to identify, evaluate, and prioritize flood mitigation alternatives to improve flood resiliency along the Platte River. Completed projects include the Elkhorn Township Drainage Study, expanding equipment for the Platte River, bank improvements to the North Bend Drainage Cutoff Ditch, and the Rod and Gun breach lake levee improvement. In progress projects include residential homeowner flood mitigation improvements, along with the Rawhide Watershed WFPO and West Fremont Scoping Project. Dodge County plans to finalize existing projects to mitigate the risks and impacts of flooding.

Completed Mitigation and Strategic Actions

Action	**Drainage Study/Stormwater Master Plan**
Description & Location	Preliminary drainage studies and assessments can be conducted to identify and prioritize design improvements to address site specific localized flooding/drainage issues to reduce and/or alleviate flooding. Stormwater master plans can be developed to help identify stormwater problem areas and potential drainage improvements.
Hazard(s) Addressed	Flooding
Status	Completed. City of Fremont is developing a stormwater master plan. Various mitigation scoping projects and planning has developed hydrologic models for the county.

Mitigation and Strategic Actions

Action	**Acquire High Risk Flooding Property**
Description & Location	Voluntary acquisition and demolition of properties prone to flooding will reduce the general threat of flooding for communities. Additionally, this can provide flood insurance benefits to those communities within the NFIP. Repetitive loss structures are typically highest priority.
Hazard(s) Addressed	Dam Failure, Flooding, Levee Failure
Estimated Cost	Varies by number of properties
Local Funding	N/A, Staff Time
Timeline	5+ Years
Priority	Low
Lead Agency	County Emergency Management, Local Jurisdictions
Status	Little interest from the public and limited capacity at the local level to manage this.

Action	Ditch 2A and Ditch 4 Improvements and Diversion
Description & Location	Widen and create approximately 47,000 feet of ditch including the addition of a new outfall to the Elkhorn River. The proposed ditch improvements include the existing Morningside Road Ditch, Ditch 2A, Ditch 6, Ditch 4, and Ditch 3. Ten bridges and culvert crossing structures would need to be replaced.
Hazard(s) Addressed	Flooding
Estimated Cost	$2,000,000
Local Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	County Emergency Manager
Status	The project was scoped using DR4420 Advanced Assistance Funds; a BRIC application was submitted but not selected. Cost exceeds local funding capability; different actions from the scoped project are being evaluated and will be determined if there are other funding mechanisms to pursue.

Action	Ditch 4D and 4B Improvements and Diversion
Description & Location	Widen and create approximately 46,000 feet of ditch including the addition of a new outfall to the Elkhorn River. The proposed ditch alignment follows the existing Ditch 4B and Ditch 4D through the northeast section of the city. 14 bridges and culvert crossing structures would need to be replaced.
Hazard(s) Addressed	Flooding
Estimated Cost	$2,000,000
Local Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	County Emergency Manager
Status	The project was scoped using DR4420 Advanced Assistance Funds; a BRIC application was submitted but not selected. Cost exceeds local funding capability; different actions from the scoped project are being evaluated and will be determined if there are other funding mechanisms to pursue.

Action	Emergency Exercise: Flooding
Description & Location	Develop and facilitate an exercise to identify gaps in planning and to ensure that community response plans are sufficient to meet the needs of the jurisdiction.
Hazard(s) Addressed	Flooding
Estimated Cost	$5,000+
Local Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	County Emergency Management
Status	Conducted a county EOC exercise. Also conducted the Fremont Emergency Action Plan table-top exercise developed by Silver Jackets (USACE, FEMA, NWS, state agencies).

Action	Floodplain Management
Description & Location	Develop and pass more restrictive floodplain regulations. Enhancements may include: limiting types of development within the floodplain, redefining substantial loss for impacted homes, and increasing the free-board requirement to more than one foot above base flood elevation. Strict enforcement of the type of development and elevations of structures should be considered through issuance of building permits by any community or county.
Hazard(s) Addressed	Flooding
Estimated Cost	Staff Time
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Floodplain Administrator, Planning Commission
Status	This will be a part of the comprehensive plan updates.

Action	Flood Prone Property Mitigation
Description & Location	Decrease the number of structures in the floodplain or at risk to flooding by raising structures or filling in basements.
Hazard(s) Addressed	Dam Failure, Flooding, Levee Failure
Estimated Cost	Varies by number of properties
Local Funding	General Fund, Disaster Recovery Grants
Timeline	1 Year
Priority	Medium
Lead Agency	County Emergency Management, Local Jurisdictions
Status	A DR4420 Mitigation Project; this project is awaiting construction phase.

Action	Morningside Road Ditch Improvements and Detention
Description & Location	Widen and create approximately 17,000 feet of ditch including the installation of approximately 4,600 feet of storm sewer. The proposed ditch follows the existing Morningside Road Ditch from 5th Street and Luther Road southeast to 1st Street and Johnson Road and then east past Highway 275. A 400 acre-ft detention storage will be created. Seven bridges and culvert crossing structures would need to be replaced.
Hazard(s) Addressed	Flooding
Estimated Cost	$60,000,000
Local Funding	General Fund
Timeline	1 Year
Priority	Medium
Lead Agency	Joint Water Management Advisory Board, County Board
Status	The project was scoped using DR4420 Advanced Assistance Funds; a BRIC application was submitted but not selected. Cost exceeds local funding capability; different actions from the scoped project are being evaluated and will be determined if there are other funding mechanisms to pursue.

Action	Stormwater System Improvements
Description & Location	Make improvements to roadways and drainage ways to prevent damage to key transportation routes. Utilize geosynthetic products for repair and mitigation of damages. Consider covering of road washouts, culvert sizing headwalls, steep banks, slides, in-road springs, roadway edge armoring, low water crossings, pothole grading, weak foundations, gravel road maintenance, ditch linings, on steep grades, erosion protection, etc. Fix issues following the 2019 flooding.
Hazard(s) Addressed	Flooding
Estimated Cost	Varies
Local Funding	General Fund
Timeline	5+ Years
Priority	High
Lead Agency	Highway Department
Status	Ongoing. In the 5-year plan.

Action	Stream Bank Stabilization/Grade Control Structures/Channel Improvements
Description & Location	Stabilization improvements including rip rap, vegetative cover/natural-based solutions, j-hooks, and boulder vanes, etc., can be implemented to reestablish channel banks. Channel stabilization can protect structures, increase conveyance, and provide flooding benefits.
Hazard(s) Addressed	Flooding
Estimated Cost	$2,000,000
Local Funding	General Fund
Timeline	5+ Years
Priority	High
Lead Agency	Joint Water Management Advisory Board
Status	Ongoing. In the 5-year plan.

Action	Update Zoning Regulations
Description & Location	Update zoning regulations to include new amendments and rezoning.
Hazard(s) Addressed	Flooding
Estimated Cost	$500
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	County Planning and Zoning Department
Status	Future updates will restrict/prohibit development in hazard prone areas.

Removed Mitigation Actions

Action	Dodge County Platte River Communities Flood Mitigation and Resiliency Plan
Description & Location	Develop a flood mitigation and resiliency plan to holistically look at local flood risks and measures to reduce them from North Bend to Fremont along the Platte River. The plan will include hydrologic and hydraulic analyses to assess the nature of the flood risks and evaluate flood risk reduction improvement projects. Structural and non-structural mitigation may be considered and prioritized. The conceptual flood risk reduction recommendations will serve to provide a path forward towards implementation and a reduction of further damage to structures and community lifelines.
Hazard(s) Addressed	Flooding
Status	Removed.

Hazardous Materials Release

Throughout Dodge County there are 64 SARA Title III reporting facilities, 29 of which house extremely hazardous materials. While nearly every facility is located within a community's jurisdiction, the large number of facilities increases the likelihood of a transportation incident. Dodge County also has 127 miles of natural gas pipeline and 20 miles of crude oil pipelines. Highways 30 and 275 have particularly high traffic. There are also two rail lines in Dodge County, the Union Pacific Railroad and the Burlington Northern Santa Fe Railroad. Trains have derailed seven times since 2010. In August of 2018, 175 pounds of anhydrous ammonia was released. This large chemical spill was followed by another spill in June 2019. There were no injuries or property damage. Both spills occurred during the unloading of the tanker. Highway 30 and the Union Pacific Railroad are the transportation routes of most concern because of their heavy traffic and proximity to the Platte River. Local departments do not have hazardous materials response capabilities. The County Courthouse and Sheriff's Department are vulnerable to chemical transportation spills because they are located next to Highway 77 and within a mile of the Union Pacific Railroad rail line. County Local Emergency Planning Committee developed the 2023 Hazardous Materials Emergency Response Plan. Dodge County has also conducted a tabletop exercise in April of 2024. Continued partnership with Tier II facilities, including training and exercises with first responders are actions the county has identified to reduce the risk of a hazardous materials release.

Mitigation and Strategic Actions

Action	Emergency Exercise: Hazardous Spill
Description & Location	Utilize exercise to prepare for potential explosions or hazardous spills. Ensure that nearby businesses and residents have appropriate plans in place.
Hazard(s) Addressed	Hazardous Materials Release
Estimated Cost	$5,000+
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Local Emergency Planning Committee
Status	Conducted a table-top exercise with the Local Emergency Planning Committee in April 2024. Exercise with CF Industries is done annually.

Removed Mitigation and Strategic Actions

Action	Shelter in Place
Description & Location	Provide shelter in place training to facilities housing vulnerable populations (nursing homes, childcare facilities, schools, etc.)
Hazard(s) Addressed	Hazardous Materials Release
Status	Removed.

Levee Failure

The Ames, Cotterell, and levees around Fremont are of most concern in Dodge County, though there are five other levees and dikes along the Platte River in the county. Ames Diking – Platte River levee protects 54 buildings, 92 people, and an estimated $16 million in property value according to the 2023 USACE National Structure Inventory and is a part of the Army Corps of Engineers PL 84 program. The leveed area also includes a portion of the Union Pacific Railroad. There have been multiple occurrences of water levels reaching high parts of the levee and one instance where the levee was overtopped. Cotterell levees along the Platte River protect 131 buildings, 46 people, and an estimated $79 million in property value. Two wastewater treatment plants that are critical facilities are also protected by the levee according to Homeland Security. The Cotterell and Fremont Dikes are not part of the Army Corps of Engineer's PL 84-99 program. Property and crop damage are the most likely impacts of a failure. Dikes and levees breached in six places in Dodge County during the March 2019 flooding event. Dodge County plans to work with Cotterell to seek funding for maintenance of the levee.

Mitigation and Strategic Actions

Action	Levee Failure Evacuation Plan
Description & Location	Work with community officials to develop and/or update evacuation plans if a levee were to fail.
Hazard(s) Addressed	Levee Failure
Estimated Cost	$10,000+
Local Funding	General Fund, drainage district budgets
Timeline	1 Year
Priority	High
Lead Agency	County Emergency Management
Status	Initial phases of development have occurred for some levees/dikes. Levees/dikes, specifically Cotterell Dike District, are at risk to the public if they fail.

Action	Levee/Floodwall Construction and/or Improvements
Description & Location	Levees and floodwalls serve to provide flood protection to businesses and residents during large storm events. Improvements to existing levees and floodwalls will increase flood protection. If possible, the structure should be designed to FEMA standards to provide 1-percent flood protection providing additional flood insurance benefits.
Hazard(s) Addressed	Flooding, Levee Failure
Estimated Cost	Varies
Local Funding	General Fund
Timeline	5+ Years
Priority	High
Lead Agency	Joint Water Agency Board
Status	Dodge County is supporting Cotterell Diking District to scope a project to make necessary improvements to the dike.

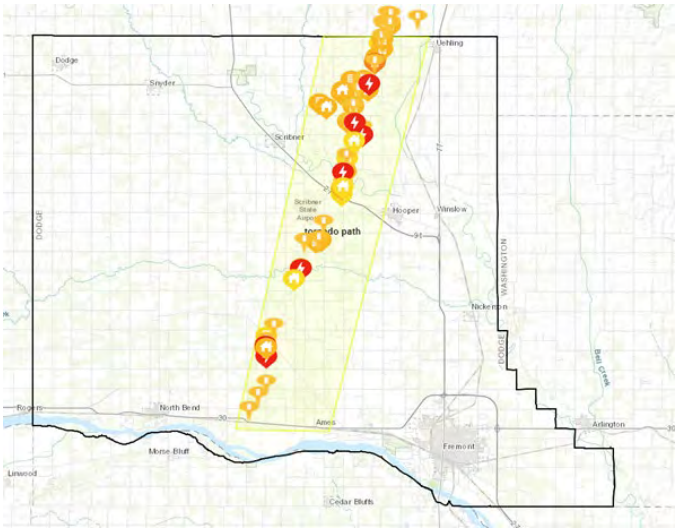
Completed and Removed Mitigation Actions

Action	Emergency Exercise: Levee Failure
Description & Location	Conduct tabletop exercises to determine the response scenarios in the event of levee failure.
Hazard(s) Addressed	Levee Failure
Status	Removed. Part of flood exercises.

Tornadoes and High Winds

Some historically significant tornadoes in Dodge County occurred in 2007 and was a category EF1; 2011 (EF1); 2017; 2023 (EF2), and 2024 (EF0). On May 12, 2023, a tornado touched down just south of Highway 275, damaging a home, power poles and numerous trees. Several center pivots were flipped over and several farmsteads experienced property damage. Windows were broken out of homes, roofs damaged, porches ripped off, garage doors sucked out, and numerous people reported minor injuries after the event. The maximum width of the tornado approached one mile. In 2011 nearly $280,000 in property damage occurred in the City of Fremont as a tornado passed through the eastern and northern sections of town. Numerous trees were uprooted or damaged, homes were damaged, power poles were snapped, and a vehicle was flipped. The path was determined to be about six miles long. The 2007 tornado affected Uehling, causing $300,000 in property damage to homes, the ballpark, trees, and some crop damage. The most significant recorded damage from a tornado ($500,000) occurred in 1998, when an EF1 tornado destroyed several outbuildings, grain bins, a house, a machine shed, and a hay barn.

2023 Tornado Damage Map

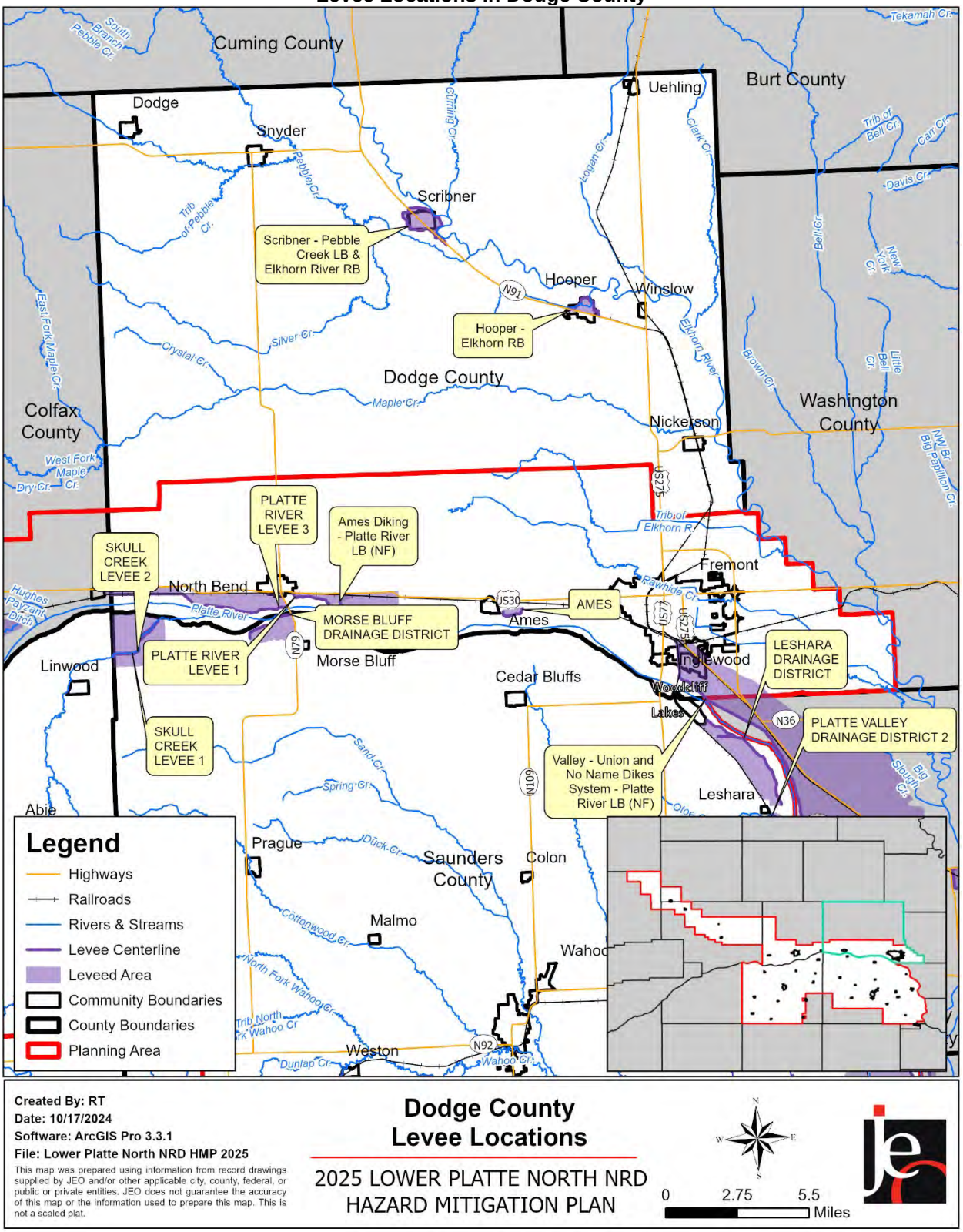


Source: Local Planning Team

Mitigation and Strategic Actions

Action	Backup Records
Description & Location	Develop protocol for backing up critical records onto a portable storage device or service. Maintain routine backup of records.
Hazard(s) Addressed	Extreme Temperatures, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	Staff Time
Local Funding	General Fund (ARPA Funds)
Timeline	2-5 Years
Priority	High
Lead Agency	County Information Technology Committee
Status	In progress; the county has applied for and received cybersecurity grants to implement backing up records, plan development, system redundancy, and training.

Levee Locations in Dodge County



Action	Safe Rooms and Storm Shelters
Description & Location	Design and construct storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, school, and other areas.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes and High Winds
Estimated Cost	$350+ per square foot
Local Funding	Staff Time
Timeline	5+ Years
Priority	Medium
Lead Agency	County Emergency Management
Status	The county has limited capacity to work on heavily regulated residential projects.

Action	Tornado Safety
Description & Location	Implement a tornado safety program.
Hazard(s) Addressed	Tornadoes and High Winds
Estimated Cost	$3,000+
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	County Emergency Management
Status	Discussion started with community partners on shelters, specifically for mobile/manufactured areas.

Other Mitigation and Strategic Actions

Completed Mitigation and Strategic Actions

Action	Capacity Building
Description & Location	Improve emergency rescue and response equipment and facilities by providing additional or updating existing equipment. For example: backup systems for emergency vehicles, training additional personnel, upgrading radio systems, etc.
Hazard(s) Addressed	Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber Attack, Tornadoes and High Winds
Status	Completed. The county finalized upgrading radio systems and hired a county Communications position.

Ongoing Mitigation and Strategic Actions

Action	All Hazards Emergency Operations Plan
Description & Location	Develop and/or update an All Hazards Emergency Operations Plan.
Hazard(s) Addressed	Animal & Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$25,000
Local Funding	General Fund, EMPG
Timeline	5+ Years
Priority	Low
Lead Agency	County Emergency Management, Community Emergency Management
Status	Dodge County revises the Emergency Operations Plan every five years; revisions are due by 2026.

Action	Backup and Emergency Generators
Description & Location	Provide generators for critical facilities including the County Highway Department Main Facility at County Rd 19. This facility is a site for fuel pumps/source for county equipment and county vehicle maintenance site.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$315,000+
Local Funding	General Fund, HMGP
Timeline	2-5 Years
Priority	High
Lead Agency	County Highway, County Emergency Management
Status	The county is in the explorative stage of project.

Action	First Aid Training
Description & Location	Promote first aid training for all residents and staff.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$100 per person
Local Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	County Emergency Management
Status	County staff are given First Aid/CPR training through NIRMA. Community Emergency Response Team (CERT), First Aid/CPR/Stop the Bleed is offered to the public by Emergency Management annually.

Action	Public Education
Description & Location	Through activities such as outreach projects, distribution of maps, and environmental education increase public awareness of natural hazards in public and private property owners, renters, businesses, and local officials. Educate citizens on water conservation methods, evacuation plans, etc. Develop an education program to inform residents of risks related to chemical releases (including direct outreach to residents living in the immediate vicinity of chemical storage sites).
Hazard(s) Addressed	Animal & Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$5,000
Local Funding	General Fund, partnership with nonprofits and the University of Nebraska (HUD Grant CDBG-DR)
Timeline	2-5 Years
Priority	High
Lead Agency	County Emergency Management
Status	In progress. Dodge County has participated with multiple entities (University of Nebraska, Conservation Nebraska, Health Department) to engage with the public. Engagement included open houses, information packets, and training. Open houses were completed concerning multiple mitigation projects.

Action	Update Comprehensive Plan
Description & Location	Update comprehensive plan. Integrate plan with Hazard Mitigation Plan components.
Hazard(s) Addressed	Animal & Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$15,000+
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Planning and Zoning
Status	The county is in the beginning stages of updating the comprehensive plan.

Removed Mitigation and Strategic Actions

Action	Continuity Planning
Description & Location	Develop continuity plans for critical community services. Develop continuity plans for critical services in order to increase resiliency after a hazardous event. Encourage businesses to develop continuity plans.
Hazard(s) Addressed	Animal & Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Status	Removed.

Action	Mutual Aid
Description & Location	Establish mutual aid agreements with neighboring jurisdictions or through the Water/Wastewater Agency Response Network (WARN) Program.
Hazard(s) Addressed	Animal & Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Status	Removed.

Action	Provide Short Term Residency Shelters
Description & Location	Identify and designate short term shelters for rural residents (These structures do not serve as FEMA approved safe rooms and is not intended for long-term recovery, such as displacement from floods, fires, etc.)
Hazard(s) Addressed	Dam Failure, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Status	Removed. The county works with local jurisdictions, Fire Districts and Communities for short term residency shelters.

Community Profile

City of Fremont

Lower Platte North NRD
Hazard Mitigation Plan 2025

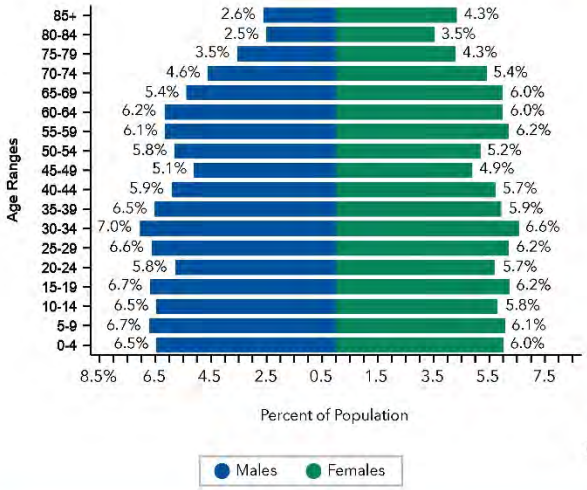
Community Fact Sheet

Community Summary Fact Sheet

Fremont, NE
Lower Platte North NRD Hazard Mitigation Plan 2025

27,223	39.8	10,761	2.47	$175,543	$64,361
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID



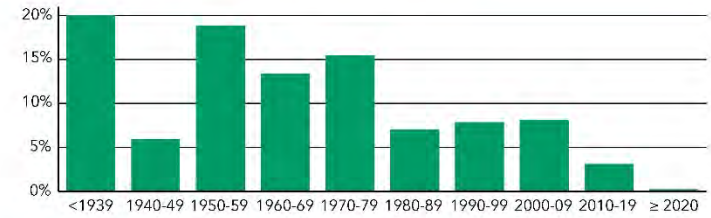
TOTAL POPULATION

2023 Total Population (Estimate)	27,223
2020 Total Population (U.S. Census)	27,141
2010 Total Population (U.S. Census)	26,476
2000 Total Population (U.S. Census)	25,355

AT RISK POPULATIONS

3,126	5,759	786	12%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

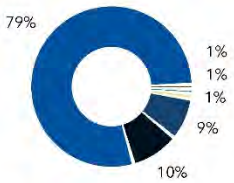
HOUSING: YEAR BUILT



EMPLOYMENT

1,125	4.1%
Total Businesses	Unemployment Rate

POPULATION BY RACE



- Asian Population
- Black Population
- American Indian Population
- Population of 2+ Races
- Other Race Population
- White Population

19% **of the Total Population is Hispanic**

HOUSING

734	2%
Vacant Housing Units	Mobile Homes

esri THE SCIENCE OF WHERE

Source: Esri, U.S. Census, Esri-Data Axle, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021.

Local Planning Team

Fremont Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Tyler Ficken	City Clerk	City of Fremont	1on1, Materials Development	1on1, Materials Development
Angie Olson	Grant Coordinator	City of Fremont	1on1, Materials Development	1on1, Materials Development
Jeff Shanahan	Utility General Manager	City of Fremont	1on1, Materials Development	1on1, Materials Development
Troy Schaba	Assistant Utility Manager / City Engineer	City of Fremont	1on1, Materials Development	1on1, Materials Development
Adam Parsons	Assistant Fire Chief	Fremont Fire Department	1on1, Materials Development	1on1, Materials Development
Lottie Mitchell	Customer Service Director	City of Fremont	1on1, Materials Development	1on1, Materials Development
Jake Herre	Safety Manager	Methodist Fremont Health	1on1, Materials Development	1on1, Materials Development
Nick Walsh	Emergency Preparedness Manager	Methodist Fremont Health	Materials Development	Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The local planning team will be responsible for reviewing and updating the community profile outside of the five-year update. Fremont will review the plan annually and the public will be notified at council meetings and on the city website.

Capability Assessment

The planning team assessed the City of Fremont's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Fremont Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	Yes
	Economic Development Plan	Yes
	Emergency Operations Plan	Yes (City & County)
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	Yes

Capability/Planning Mechanism		Yes/No
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	Yes
	Building Codes	Yes
	Water System Emergency Response Plan	Yes
	Wellhead Protection Plan	Yes (2010)
	National Flood Insurance Program	Yes
	Community Rating System	Yes – Class 8
	Community Wildfire Protection Plan	Yes (Regional)
	Other (if any)	Housing Assessment, Long Range Transportation Plan Parks Master Plan, Storm Sewer Master Plan
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administrator	Yes
	GIS Capabilities	Yes
	Chief Building Official	Yes
	Civil Engineering	Yes
	Grant Manager	Yes
	Mutual Aid Agreement	Yes
	Other (if any)	Joint Water Management Advisory Board, GIS Specialist
Fiscal Capability	1- & 6-Year Plan	Yes
	Applied for Grants in the Past	Yes
	Awarded a Grant in the Past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric/Water/Sewer Service Fees	Yes (Gas/Electric/Water/Sewer)
	Storm Water Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	Yes (Part of Dodge County Long Term Recovery Group)
	Ongoing Public Education or Information Program (e.g., Responsible Water Use, Fire Safety, Household Preparedness, Environmental Education)	Yes
	Natural Disaster or Safety Related School Programs	Yes
	StormReady Certification	No
	Firewise Communities Certification	No

Capability/Planning Mechanism		Yes/No
	Tree City USA	Yes
	Other (if any)	Keep Fremont Beautiful

Fremont Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited/Moderate
Staff/Expertise to Implement Projects	Moderate
Public Support to Implement Projects	Moderate/High
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

National Flood Insurance Program (NFIP)

Fremont is a member of the NFIP, having joined 2/1/1979, and the city's Floodplain Administrator oversees the commitments and requirements of the program. The Floodplain Administrator uses the FEMA Map Service Center, and the interactive maps on the FEMA and NeDNR website to determine if a development will be located in the floodplain. Floodplain permits are required for all development in the floodplain and elevation certificates are required for new construction. The city has a floodplain property maintenance permit that is used for minor repairs such as roof replacement or new siding to ensure compliance with the local floodplain regulations. Letters of Map Change are kept in a file. Fremont's floodplain regulations meets the State of Nebraska requirements.

Enforcement of the floodplain regulations is done through reviewing floodplain permits, elevation certificates, no-rise certificates, and inspecting construction in the floodplain. After a flood event, structures are inspected for damage and repair costs are estimated. Letters are sent to the property owners of structures believed to be substantially damaged. The information is then referenced when building permit applications are received. When identifying substantially improved structures, the cost of construction is compared to the county assessor's assessed valuation. If the construction costs are close to 50% of the assessed value, the city asks for an appraisal.

The local planning team has stated that Fremont will remain in good standing and be involved with the NFIP. According to the planning team, there have been no Community Assistance Visits or Contact in the last seven years, and there is not one scheduled in the near future. Major barriers to running the program effectively include limited staffing and resistance from community members. There are no known areas in the community with limited NFIP coverage. However, the southwestern portion of the community is low-income and has many renters. A large percentage of the population speaks Spanish, so language may be a barrier. Some property owners have shared they have dropped their flood insurance when they are no longer required to carry it due to the cost or they choose private flood insurance if it is cheaper. Fremont educates property owners and stakeholders about the importance of flood insurance through sending letters, providing information at the municipal building and library, hosting public meetings, and broadcasting videos in the municipal building.

As part of the hazard mitigation planning process, the City of Fremont partnered with JEO Consulting Group and UNL's Master of Community and Regional Planning students to host a Flood Risk Open House. The purpose of this open house was to educate the public about the city's risk of flooding and to obtain public input on problem areas and possible solutions.

Information about the Flood Risk Open House can be found in Appendix G: Fremont Flood Risk Open House. Additional NFIP information is given in the table below.

Fremont NFIP Information

NFIP Overview	
Date of NFIP Participation:	NFIP – 2/1/1979 CRS (Class 8) – 10/1/1991
Floodplain Administrator:	Jennifer Dam
Is Floodplain Administrator a Certified Floodplain Manager?	No
Is Floodplain Management an Auxiliary Function?	Yes
Number of NFIP Policies In-Force:	650
Total NFIP Premium ($):	$573,728
Total NFIP Coverage ($):	$137,420,000
Number of Claims Paid Out:	529
Total Amount of Claims Paid Out ($:)	$7,693,830
Number of Repetitive Loss Structures:	35
Number of Severe Repetitive Loss Structures:	5
Is the Community Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	No
FIRMs Digital or Paper?	Digital
Located in a RISK Map Area?	No

Buildings and Valuation in the Floodplain

The planning team acquired GIS parcel data from the County Assessor and Microsoft building footprint data to analyze the location, number, and value of buildings located in the 100-year and 500-year floodplains. A summary of the results of this analysis is provided in the following tables.

Fremont Buildings and Value in the 100-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
10,379	$2,396,943,091	1,518	$425,377,724	14.6%

Source: County Assessor, 2024; Microsoft, 2024

Fremont Buildings and Value in the 500-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
10,379	$2,396,943,091	8,889	$1,980,096,376	85.6%

Source: County Assessor, 2024; Microsoft, 2024

Plans and Studies

The City of Fremont has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When Fremont updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Building Codes
The building code sets standards for constructed buildings and structures. The city has adopted the 2018 International Building, Residential, Fire, Fuel Gas, Existing Building, Property Maintenance, and Energy Conservation Codes. Additionally, the city uses the 2010 Uniform Mechanical and Plumbing Code and the 2023 NFPA 70 National Electric Code. Enforcement of the codes is done through inspections and on a complaint basis. The hazard mitigation plan has not been integrated into the city building codes.

Capital Improvements Plan (2024)
The capital improvement plan (CIP) outlines projects the city would like to pursue and provides a planning schedule and financing options. Projects include stormwater improvements and upgrades, bridge improvements, installing new municipal wells, upsizing water distribution pipes, and updating electrical distribution systems. The CIP also includes constructing a new fire hall, new police headquarters, and a new water treatment facility. The hazard mitigation plan has not been integrated into the CIP.

Comprehensive Plan (2022)
The comprehensive plan is designed to guide the future actions and growth of the city. Hazards such as flooding is addressed in the comprehensive plan. The 2021 State Hazard Mitigation plan has been integrated into the local comprehensive plan by including flooding mitigation measures from the state plan. In the comprehensive plan, floodplain mitigation measures are included for development in the floodplain, encourages a separation between residential and industrial land uses, encourage infill development and the elevation of structures in the floodplain. At this time, there is no plan to update the comprehensive plan.

Dodge County Local Emergency Operations Plan (2021)
The Dodge County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. The hazard mitigation plan has been integrated with this plan and includes the top hazards that would affect the county and its populations. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines.

Floodplain Regulations (2017)
The city’s floodplain ordinance outlines requirements for structures and developments located in the 100-year floodplain. By having a floodplain ordinance, the city promotes public health, safety, and welfare by minimizing losses due to floods. It also helps to assure eligibility of purchasing flood insurance for property owners. The city requires permits and certificates for development to occur in the floodplain. The hazard mitigation plan has not been integrated into the floodplain regulations, but the city anticipates addressing the regulations in the future.

Missouri River East Community Wildfire Protection Plan (2022)
The purpose of the [regional wildfire area] Community Wildfire Protection Plan CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard

mitigation plan were included in the CWPP and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years.

Subdivision Regulations (2017)

The city's subdivision regulations govern the division of land from one or more larger parcels into smaller lots. The hazard mitigation plan has not been integrated into the subdivision regulations, but Fremont is in the process of updating the regulations.

Water System Emergency Response Plan (2025)

A water system emergency response plan serves as a guideline for water operators and the city to minimize the disruption of normal services to consumers and to provide public health protection during an emergency event. The document identifies several natural and human-caused events and discusses the water system's response during those events. The hazard mitigation plan has not been integrated with this plan. The water system emergency response plan is reviewed and updated annually.

Wellhead Protection Plan (2024)

The purpose of wellhead protection plans is to protect the public drinking water supply wells from contamination. It includes identifying potential sources of groundwater contamination in the area and managing the potential contaminant sources. The wellhead protection plan has not been integrated with the hazard mitigation plan.

Zoning Ordinance (2017)

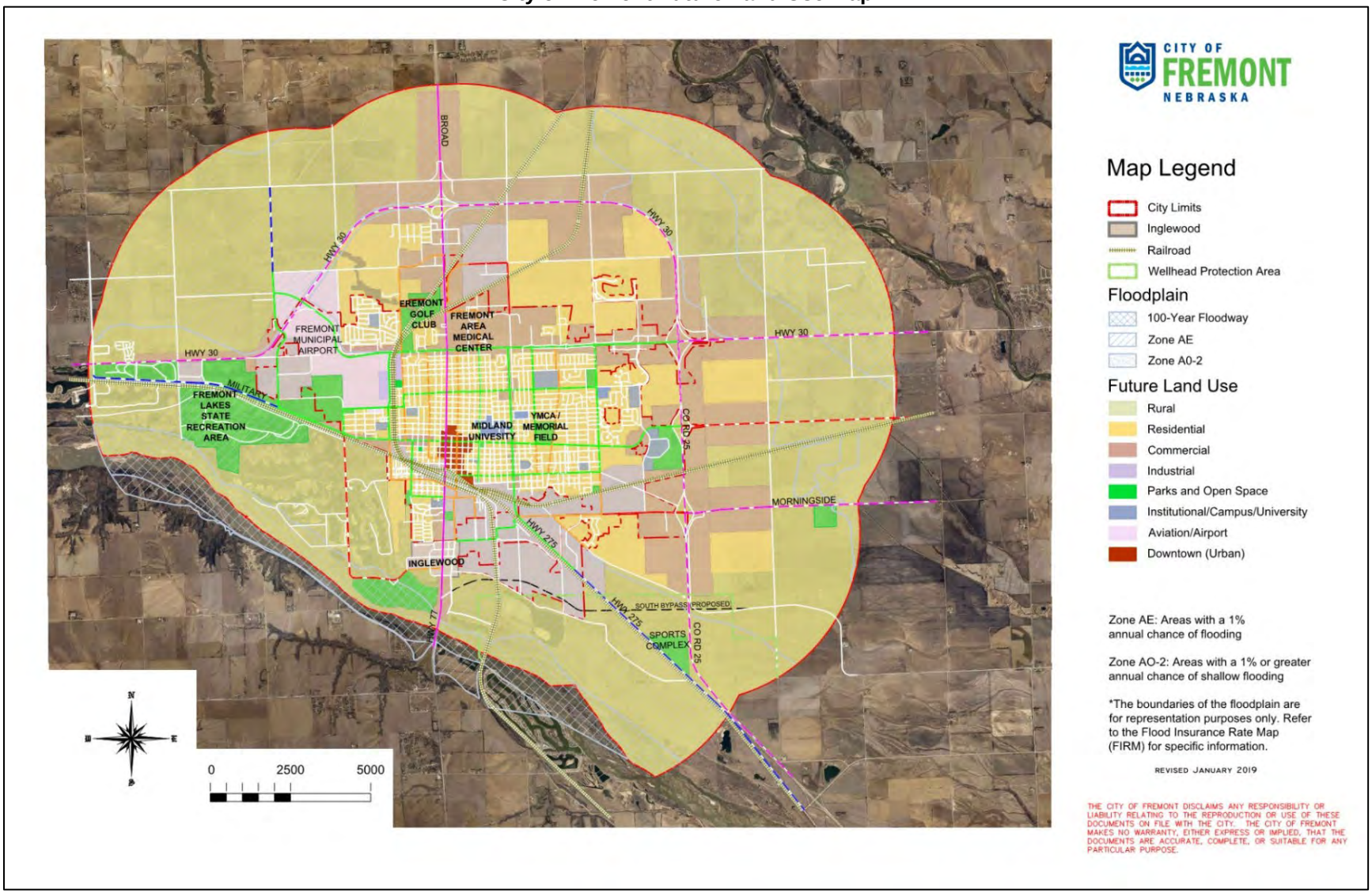
The village's zoning ordinance outlines where and how development should occur in the future. Fremont is in the process of updating its zoning regulations. Current regulations restrict development in hazard prone areas and include well setback requirements. The hazard mitigation plan has not been integrated into the city zoning ordinance.

Future Development Trends

Over the past five years, six new warning sirens were installed in growth areas in order to expand coverage in Fremont. The entire city is within a flood risk hazard area, so any current and future development is vulnerable to flooding. In the future, seven more alert sirens are planned to be installed throughout the community. By 2027, a new fleet building is planned to be built in the southeast area of the city, and a new police building is expected to be built in the south-central part of the community. The city is planning on drilling a new horizontal drinking well that will be equivalent to four vertical wells in the next three to five years. For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted. According to the local planning team no new developments occurred in any hazard locations except for the flood risk areas.

The future land use map below illustrates intended growth patterns for the city. Commercial, residential, and some industrial land use is anticipated with parks and open space in the west, south, and southeast of the community. Commercial areas are primarily around major transportation routes and used as a buffer for residential land uses.

City of Fremont Future Land Use Map



Community Lifelines

As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



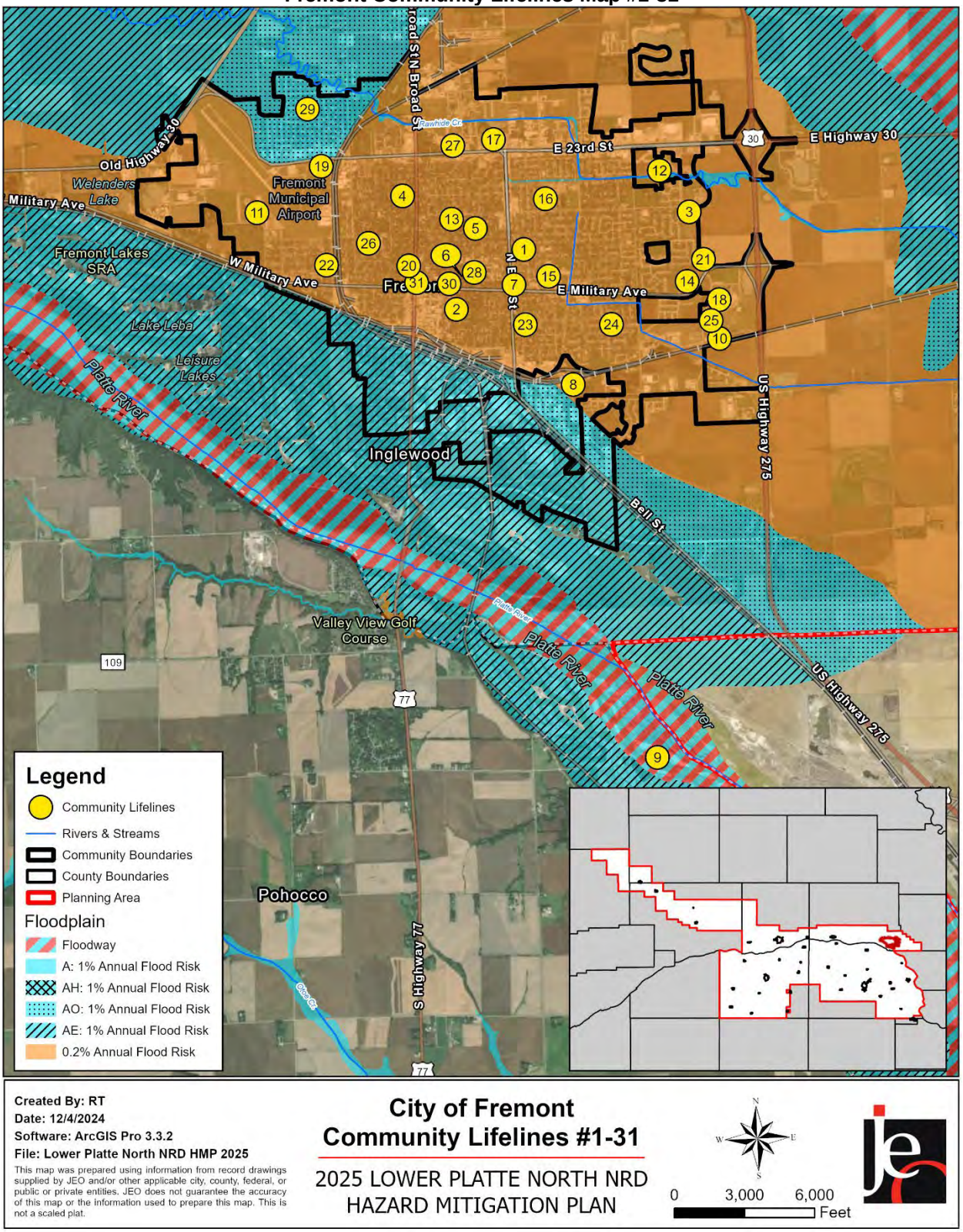
Fremont Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain
1	Bell Field Elementary School	Other	G	Y (0.2%)
2	Bergan Catholic School	Other	-	Y (0.2%)
3	Bergan Elementary School	Other	-	Y (0.2%)
4	City Well #1	Food, Water, Shelter	G*	Y (0.2%)
5	City Well #2	Food, Water, Shelter	G*	Y (0.2%)
6	City Well #3	Food, Water, Shelter	G*	Y (0.2%)
7	City Well #4	Food, Water, Shelter	G*	Y (0.2%)
8	City Well #5	Food, Water, Shelter	G*	Y (0.2%)
9	City Well Field	Food, Water, Shelter	G*	Y (Floodway)
10	Combustion Turbine	Energy	G	Y (0.2%)
11	Christensen Field	Other	-	Y (0.2%)
12	Deer Point Elementary	Other	G	Y (0.2%)
13	Fire Department	Safety and Security	G	Y (0.2%)
14	First Lutheran Church	Food, Water, Shelter	G,S	Y (0.2%)
15	Fremont Family YMCA	Other	-	Y (0.2%)
16	Fremont High School	Other	-	Y (0.2%)
17	Fremont Mall	Food, Water, Shelter	S	Y (0.2%)
18	Fremont Middle School	Other	G	Y (0.2%)
19	Fremont Municipal Airport	Transportation	-	Y (0.2%)
20	Fremont Municipal Auditorium	Safety and Security	-	Y (0.2%)
21	Fremont Nazarene Church	Food, Water, Shelter	S	Y (0.2%)
22	Fremont Public Schools - Administration	Other	-	Y (0.2%)
23	Grant Elementary School	Other	G	Y (0.2%)
24	Howard Elementary School	Other	G	Y (0.2%)
25	Johnson Crossing Academic Center	Other	G	Y (0.2%)
26	Linden Elementary School	Other	G	Y (0.2%)
27	Methodist Fremont Health	Health and Medical	G	Y (0.2%)
28	Midland University	Safety and Security	-	Y (0.2%)
29	Miliken Elementary School	Safety and Security	G	Y (1%)
30	Municipal Building	Safety and Security	G	Y (0.2%)
31	Police Department	Safety and Security	G	Y (0.2%)
32	Power Plant	Energy	G	Y (0.2%)
33	Presbyterian Church of Fremont	Food, Water, Shelter	S	Y (0.2%)
34	Salem Lutheran Church	Food, Water, Shelter	S	Y (0.2%)
35	Sewer Lift Station #1	Other	G*	Y (0.2%)

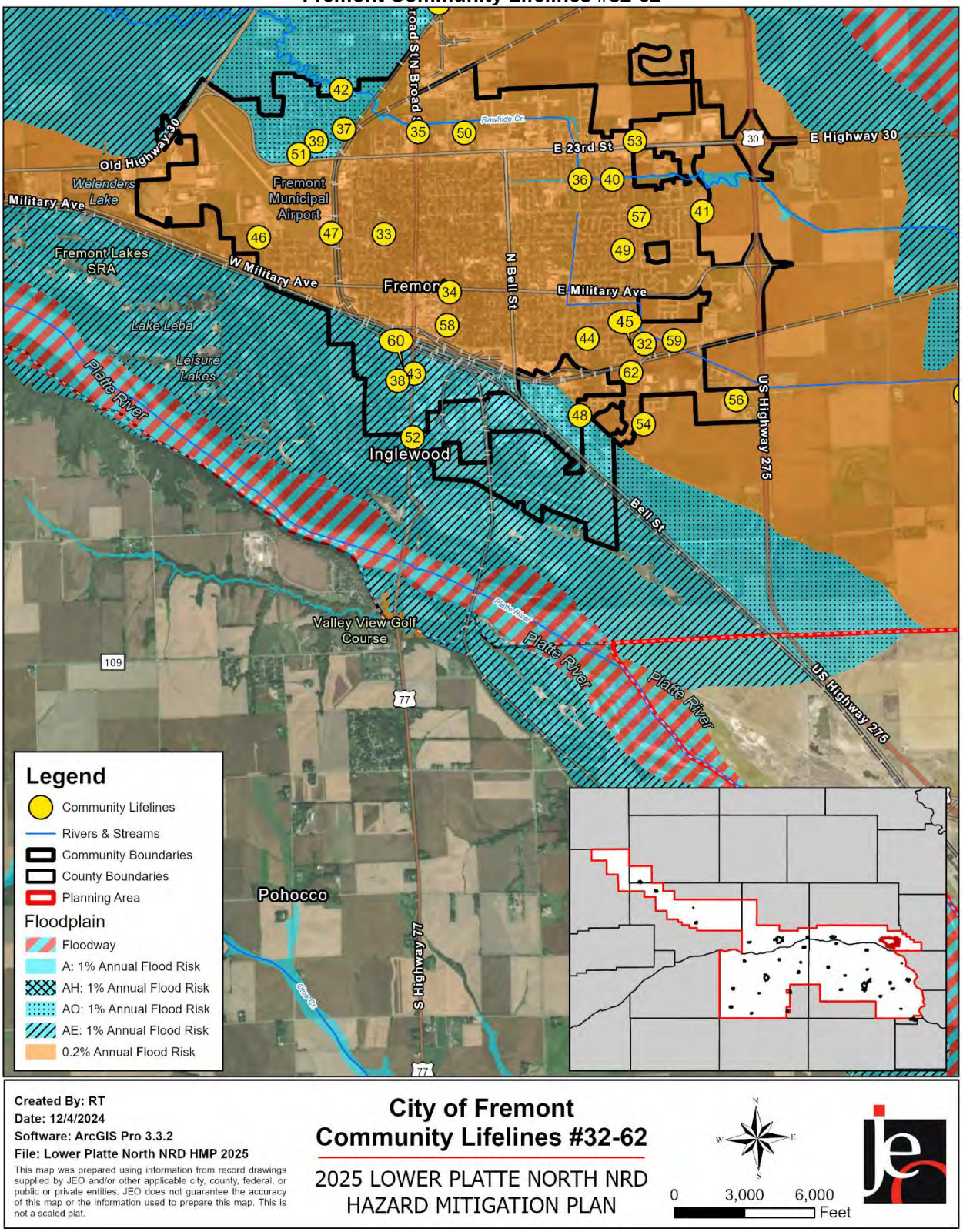
CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain
36	Sewer Lift Station #2	Other	G*	Y (0.2%)
37	Sewer Lift Station #3	Other	G*	Y (1%)
38	Sewer Lift Station #4	Other	G*	Y (1%)
39	Sewer Lift Station #5	Other	G*	Y (1%)
40	Sewer Lift Station #6	Other	G*	Y (0.2%)
41	Sewer Lift Station #7	Other	G*	Y (0.2%)
42	Sewer Lift Station #8	Other	G*	Y (1%)
43	Sewer Lift Station #9	Other	G*	Y (1%)
44	Sewer Lift Station #10	Other	G*	Y (0.2%)
45	Sewer Lift Station #11	Other	G*	Y (0.2%)
46	Sewer Lift Station #13	Other	G*	Y (0.2%)
47	Sewer Lift Station #14	Other	G*	Y (0.2%)
48	Sewer Lift Station #15	Other	G*	Y (1%)
49	Sewer Lift Station #16	Other	G*	Y (0.2%)
50	Sewer Lift Station #17	Other	G*	Y (0.2%)
51	Sewer Lift Station #18	Other	G*	Y (1%)
52	Sewer Lift Station #19	Other	G*	Y (1%)
53	Sewer Lift Station #20	Other	G*	Y (0.2%)
54	Sewer Lift Station #21	Other	G*	Y (0.2%)
55	Sewer Lift Station #22	Other	G*	Y (1%)
56	Sewer Lift Station #24	Other	G*	Y (0.2%)
57	Trinity Lutheran Church / Elementary School	Safety and Security	S	Y (0.2%)
58	Trinity Lutheran Elementary School West	Safety and Security	-	Y (0.2%)
59	Utility Service Center	Safety and Security	G	Y (0.2%)
60	Washington Elementary School	Other	G	Y (1%)
61	Wastewater Treatment Plant	Other	G	Y (0.2%)
62	Water Treatment Facility	Food, Water, Shelter	G	Y (0.2%)

*Indicates hookups to portable generator available

Fremont Community Lifelines Map #1-31



Fremont Community Lifelines #32-62



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Fremont which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the City of Fremont. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however Fremont has identified mitigation actions to reduce the impacts of the hazards. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Flooding

The 2020 Flood Insurance Study (FIS) for Dodge County and Fremont states that most floods along the Platte River occur from March to June. They are usually the result of rapid snowmelt accompanied by rainfall and aggravated by ice jams. Historical incidents have demonstrated that when ice jams are present, river stages can get sufficiently high enough to overtop existing levees like the Fremont Levee, even with flooding that is less than the 100-year floodplain. Future flooding from the Platte River due to ice blockage is highly probably, but also highly unpredictable as to the precise location of ice blockage and the resulting severity of flooding. It should be assumed that ice jams may form anywhere along the Platte River and where ice jams do occur, flooding is also likely to occur.

Fremont has longstanding drainage issues in the city because of its flat terrain. Especially south of the junction, near Rawhide Creek, in the Washington Heights housing subdivision, and on 19th Street near the high school. Several studies are currently being conducted to address the drainage issues including the Rawhide Creek Watershed Plan and Environmental Assessment for Flood Prevention, Storm Sewer Master Plan, and Platte Township/West Fremont Drainage Evacuation. These studies have found that flood conditions are much worse than what is shown on the FEMA floodplain maps. As seen above, the FEMA floodplain maps show the 100-year floodplain south of the railroad tracks, in northwest Fremont, and north of Highway 30. Most of the rest of Fremont is located in in the 500-year floodplain. As seen below, the new studies and models show the 100-year floodplain is much larger in the north parts of Fremont. This is significant because new development must only follow floodplain regulations in the FEMA 100-year floodplain. It is very likely that new developments in northern Fremont will have higher flood risks and more vulnerability because they may not mitigate for flooding.

During the March 2019 flood event heavy rains combined with frozen ground created excessive stormwater that funneled to the Platte River, Elkhorn River, and Rawhide Creek. These waterways were also clogged with ice which the additional water turned into ice jams. Flash flooding from heavy rains combined with poor stormwater drainage, riverine flooding, and levee failures flooded all transportation routes in and out of the city. Flooding also threatened the hospital and YMCA, requiring massive amounts of pumping to hold back the water. Fremont was an island from March 16th to March 20th. The National Guard escorted semi-trucks of food into the city when supplies began to run low. Highway 77 was clear of water after a few days, but Highway 30 east of Fremont was closed for months, causing economic impacts as workers struggled to commute to work in and out of the city. The well fields were also flooded, though the wells were not affected because they had been elevated to mitigate flood damage. The power plant was also unharmed even though it is in the floodplain. Evacuations were called for in Davenport, Deerfield, and south of the railroad junction. The Platte River had previously flooded in June 2016. It rose six to seven inches, flooding basements across the city and inundating the sewer plant because

the stormwater and sewer systems were overloaded with water. Most recently Fremont experienced flooding in May of 2024. Heavy rains overnight caused flooding of many roads throughout the city. Police asked people not to travel until flood waters went down in the afternoon. No properties were damaged from the event.

In response to the March 2019 flood, the city initiated several actions to reduce flood risk to the community. In coordination with the 2020 Hazard Mitigation Plan, a parcel-level flood risk assessment and flood risk reduction plan were completed. The overall purpose of this assessment and resulting plan was to identify and prioritize flood risk reduction alternatives on a property-by-property basis. The plan also identifies programmatic actions that can be taken by the community to reduce flood risks and insurance costs for all property owners with flood prone property. A Flood Emergency Action Plan was completed and describes procedures to be used in the event of a flood event. As mentioned earlier, several drainage studies are ongoing with each recommending various projects that could be undertaken to reduce flooding. Those projects have been added as mitigation actions in this plan.

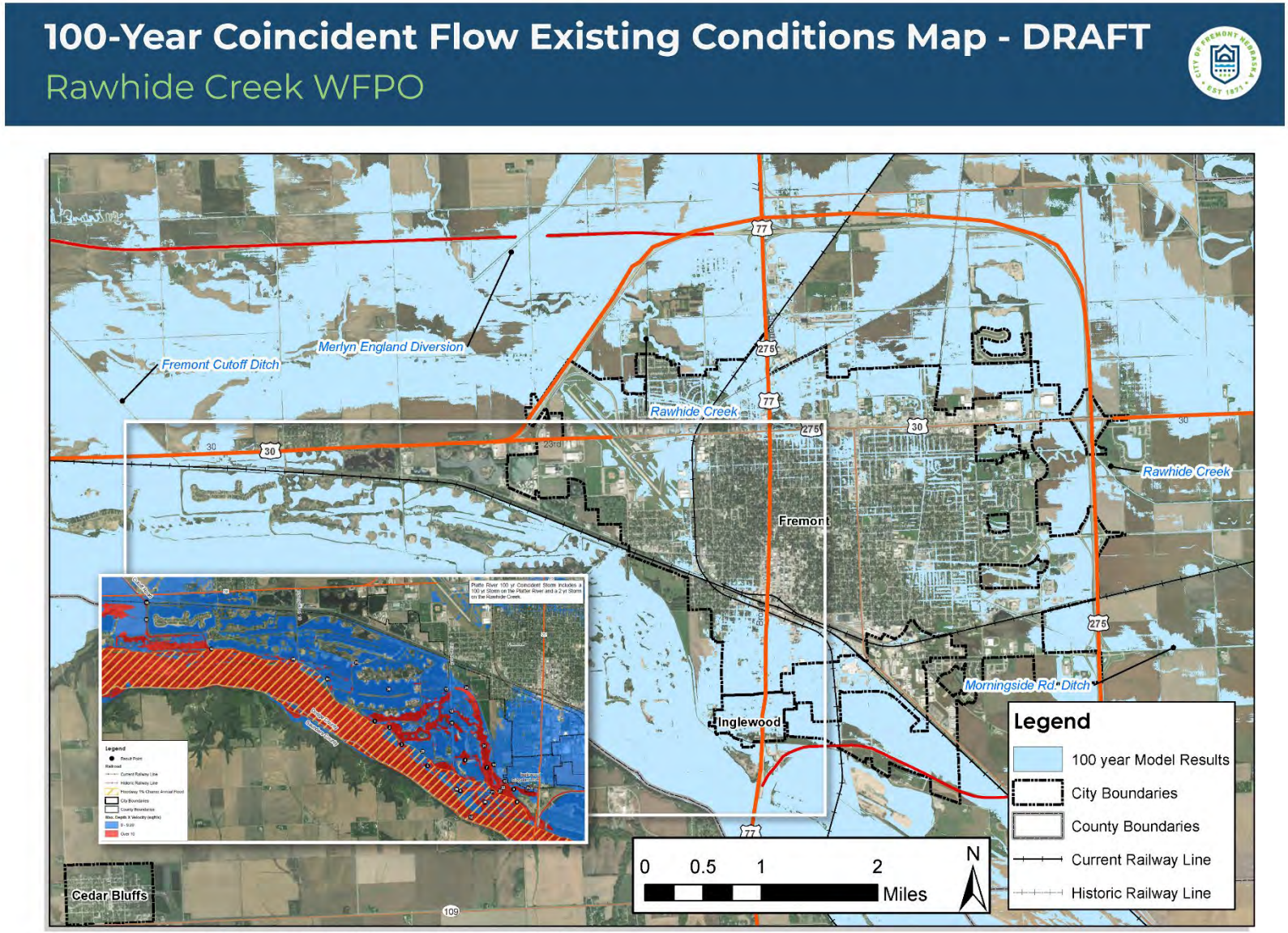
Methodist Fremont Health

The flooding in March of 2019 affected Methodist Fremont Health as all roads into Fremont were closed for several days. Blocked transportation routes could affect staff and emergency services. Impacts to vulnerable populations could occur, along with damage to critical infrastructure such as IT and patient records. Floodwaters can introduce contaminants, leading to potential infection risks and compromising sterility of medical environments. Supply chain and delivery of medical supplies and pharmaceuticals could be interrupted, affecting patient care. Flooding can impact staff morale, potentially leading to increased absenteeism. Flooding procedures have been integrated into the health system's Emergency Operations Plan. The facilities staff has enhanced water pumping measures to prevent water intrusion into the hospitals and has upgraded landscaping to ensure proper drainage and minimize water accumulation near the building. Additionally, Methodist Health has reviewed and updated the Fremont Health System's insurance coverage to ensure it adequately addresses flood damage and recovery needs. A future project the health system has identified is to conduct flood drills to ensure that staff are well-acquainted with the response plan and can respond promptly and effectively in an emergency.

CRS Activities Table

During the planning process, the local planning team met to discuss a wide-range of possible mitigation activities that the city could include in the HMP to be more resilient to flooding. As required for Activity 510 Floodplain Management Planning for consideration of CRS points, the discussion included activities that are currently implemented or ongoing, activities that should be added to the 2025 HMP, and also activities that were not selected because they were either not applicable for the community or not feasible. The following table provides a list of the discussed mitigation actions, whether the activity was selected or not selected, and reasons for the selection.

100-Year Floodplain Model Results



Both maps presented at this station are not finalized and should still be considered in draft formatting as of April 1, 2024.

CRS Activities Table

Flood Mitigation Action	Selected	Not Selected	Reason
Open Space Preservation		X	Minimal political support
Emergency Management Exercise		X	Works with County Emergency Management to conduct exercises as needed
Stream Bank Stabilization		X	Completed
Channel/Ditch Improvements	X		Ongoing priority
Community Rating System Strategy for Class Change		X	No discussions have taken place due to staff turnover
Create a Community-Wide Master Plan to Prioritize all Flood Related Projects (Flood Mitigation and Resiliency Plan)		X	Smaller watershed plans and studies have been prioritized
Detention Cells	X		Rawhide Creek WFPO currently under development. This plan will identify flood related projects.
Comprehensive Backflow Prevention	X		Not started
Drainage Study/Stormwater Master Plan	X		Under development
Improve Highway Drainage		X	Highway 30 has been removed
Emergency Response and Preparedness Plan		X	Completed by USACE following March 2019 floods
Update FIRM Maps for Regulatory Use		X	Not a priority
Flood Prone Property Acquisition	X		Not started
Flood Prone Property Elevation	X		Not started
Flood Warning System (River Monitoring)		X	Completed
Floodplain Regulation Enforcement and Updates	X		In progress
Levee Extension	X		Not started
Drainage Improvements	X		In progress
Flood Education	X		Headwaters GIS tool underdevelopment
Residential Flood Mitigation	X		Ongoing
Storm Sewer Cleaning	X		In progress
Substantial Damage Management Plan	X		Not started

Completed Mitigation and Strategic Actions

Action	River Monitoring
Description & Location	Evaluate current flood level alert warning system. Install and/or improve warning system. Install additional gauges as needed.
Hazard(s) Addressed	Flooding
Status	Completed. The city worked with the LPNNRD and Dodge County to install ten cameras and two river gauges on critical bridge sites.

Action	Stream Bank Stabilization / Grade Control Structures / Channel Improvements
Description & Location	Stabilization improvements, including rock rip rap, vegetative cover, j-hooks, boulder vanes, etc. to reestablish channel banks. Channel stabilization can protect structures, increase conveyance, and provide flooding benefits.
Hazard(s) Addressed	Flooding
Status	Completed. Rip rap issues have been fixed and vegetation was removed. Annual maintenance will be done.

Mitigation and Strategic Actions

Action	Ditch 4D and 4B Improvements and Diversion
Description & Location	Widen and create approximately 46,000 feet of ditch including the addition of a new outfall to the Elkhorn River. The proposed ditch alignment follows the existing Ditch 4B and Ditch 4D through the northeast section of the city. 14 bridges and culvert crossing structures would need to be replaced.
Hazard(s) Addressed	Flooding
Estimated Cost	$2,000,000
Local Funding	Public Works Budget, Cost Share with NRD and County
Timeline	10+ Years
Priority	Low
Lead Agency	Public Works Director, LPNNRD, Dodge County
Status	Not Started. This project will likely not occur until other flood related projects are completed.
Meets Expectations	Yes

Action	Drainage Improvements
Description & Location	Stabilization improvements, including rock rip rap, vegetative cover/natural-based solutions, j-hooks, boulder vanes, etc. to reestablish channel banks. Channel stabilization can protect structures, increase conveyance, and provide flooding benefits.
Hazard(s) Addressed	Flooding
Estimated Cost	$30,000
Local Funding	Public Works Budget
Timeline	2-5 Years
Priority	High
Lead Agency	Public Works
Status	In Progress.
Meets Expectations	Yes

Action	Channel/Ditch Improvements
Description & Location	Deepen and clean out channels and ditches to aid in stormwater management.
Hazard(s) Addressed	Flooding
Estimated Cost	$50,000+
Local Funding	Streets Budget
Timeline	2-5 Years
Priority	High
Lead Agency	Streets Department
Status	In Progress. Currently identifying areas in need through the Storm Sewer Master Plan that will be completed in 2026.
Meets Expectations	Yes

Action	Comprehensive Backflow Prevention for Homeowners
Description & Location	Educate homeowners on backflow prevention to prevent excess stormwater from backing up into home basements.
Hazard(s) Addressed	Flooding
Estimated Cost	$30,000
ocal Funding	General Budget
Timeline	Ongoing
Priority	Medium
Lead Agency	Floodplain Administrator
Status	Not Started
Meets Expectations	Yes

Action	Floodplain Regulation Updates
Description & Location	Update floodplain regulations to focus around management of higher risk flood impact regions of the Platte River. Educate building inspectors and floodplain managers on regulations.
Hazard(s) Addressed	Flooding
Estimated Cost	Staff Time
Local Funding	Staff Time
Timeline	2-5 Years
Priority	Medium
Lead Agency	Chief Building Inspector, Floodplain Administration
Status	In Progress. Draft language has been provided but not updated.
Meets Expectations	Yes

Action	Implement Projects Identified in the Headwaters Study
Description & Location	Create a flood risk awareness GIS tool that can be used for understanding new information on flood risks around the community.
Hazard(s) Addressed	Flooding
Estimated Cost	Unknown
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Building and Zoning
Status	New Action. Development of the tool is currently underway.
Meets Expectations	Yes

Action	Implement Projects Identified in the Rawhide Creek WFPO
Description & Location	Implement projects identified in the Rawhide Creek WFPO. Identified projects include, but are not limited to: additional detention storage west of the city and improvements to the Fremont Cutoff Ditch berms.
Hazard(s) Addressed	Flooding
Estimated Cost	$38,000,000
Local Funding	General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	City Council, Lower Platte North NRD
Status	New Action. Not Started. The Rawhide Creek WFPO is currently being finalized.
Meets Expectations	Yes

Action	Morningside Road Ditch Improvements and Detention
Description & Location	Widen and create approximately 17,000 feet of ditch including the installation of approximately 4,600 feet of storm sewer. The proposed ditch follows the existing Morningside Road Ditch from 5th Street and Luther Road southeast to 1st Street and Johnson Road and then east past Highway 275. A 400 acre-ft detention storage will be created. Seven bridges and culvert crossing structures would need to be replaced.
Hazard(s) Addressed	Flooding
Estimated Cost	$60,000,000
Local Funding	Public Works Budget, Cost Share with NRD and County
Timeline	5+ Years
Priority	High
Lead Agency	Public Works Director, LPNNRD, Dodge County
Status	In Progress. The city has started to implement parts of this project. Other larger portions are still being planned.
Meets Expectations	Yes

Action	Public Education
Description & Location	Continue community education program to increase awareness related to household level mitigation actions, especially focused on flooding.
Hazard(s) Addressed	Dam Failure, Flooding, Grass/Wildfires, Levee Failure, Severe Thunderstorms
Estimated Cost	Staff time
Local Funding	General Budget, Staff Time
Timeline	Ongoing
Priority	High
Lead Agency	Floodplain Administrator, Emergency Management
Status	Ongoing. The city currently sends NFIP information in utility statements, uses social media, and has educational slides on tv's in city buildings.
Meets Expectations	Yes

Action	Rawhide Creek Improvements
Description & Location	Widening approximately 34,000 feet of ditch. The proposed ditch alignment follows the existing old Rawhide Creek and existing Rawhide Creek through much of the city. 25 bridges and culvert crossing structures would need to be replaced as part of this project.
Hazard(s) Addressed	Flooding
Estimated Cost	$75,000,000
Local Funding	Public Works Budget, Cost Share with NRD and County
Timeline	5+ Years
Priority	High
Lead Agency	Public Works Director, LPNNRD, Dodge County
Status	Not Started. Looking for funding.
Meets Expectations	Yes

Action	Repetitive Loss and Severe Repetitive Loss Structure Mitigation
Description & Location	Work with property owners of repetitive loss and severe repetitive loss structures to mitigate structures. Options include structure elevation, relocation, demolition, property acquisition, and floodproofing.
Hazard(s) Addressed	Dam Failure, Flooding, Levee Failure
Estimated Cost	Varies by Project
Local Funding	General Budget, FMA Swift Current
Timeline	2-5 Years
Priority	Medium
Lead Agency	Floodplain Administrator
Status	New Action. Not Started.
Meets Expectations	Yes

Action	Residential Flood Mitigation
Description & Location	Through the Platte Township/West Fremont evaluation and the USACE Section 205 study, multiple areas of Fremont have been identified for possible residential flood risk reduction retrofitting projects. Reduce impacts of flooding through retrofitting structures and utilities such as propane tanks, decreasing the number of structures in the floodplain, raising structures, or purchasing repetitive loss structures to use as recreation fields, picnic areas, or other open spaces, etc.
Hazard(s) Addressed	Flooding
Estimated Cost	$5,000,000+
Local Funding	General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	Executive Assistant, Chief Building Inspector/Floodplain Administration
Status	Ongoing. One property has been demolished.
Meets Expectations	Yes

Action	Storm Sewer Cleaning
Description & Location	The City of Fremont is initiating an effort to hydraulically clean existing storm sewer pipes throughout the community. Along with the cleaning effort an updated CCTV inspection will be completed to evaluate the structural condition of the system. Findings of this effort will be referenced in the Fremont Storm Sewer Master Plan.
Hazard(s) Addressed	Dam Failure, Levee Failure, Flooding, Severe Thunderstorms
Estimated Cost	$500,000+
Local Funding	Public Works Budget
Timeline	2-5 Years
Priority	High
Lead Agency	Public Works
Status	New Action. In Progress. Work on this project has just started.
Meets Expectations	Yes

Action	Storm Sewer Master Plan Projects
Description & Location	Implement projects as identified in the Storm Sewer Master Plan that will be completed by the end of 2026.
Hazard(s) Addressed	Dam Failure, Flooding, Levee Failure, Severe Thunderstorms
Estimated Cost	Unknown
Local Funding	General Budget
Timeline	2-5 Years
Priority	High
Lead Agency	Public Works
Status	New Action. Not Started
Meets Expectations	Yes

Action	Substantial Damage Management Plan
Description & Location	Create a Substantial Damage Management Plan for how to identify and work with substantially damaged properties after a major flood or hazardous event.
Hazard(s) Addressed	Dam Failure, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$30,000
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Floodplain Administrator
Status	New Action. Not Started.
Meets Expectations	Yes

Removed Mitigation and Strategic Actions

Action	Community Rating System
Description & Location	Develop a strategy to lower Fremont's CRS Class from an 8 to a 6.
Hazard(s) Addressed	Flooding
Status	Removed. There has been no discussion of this in recent years due to staff turnover.

Action	Ditch 2A and Ditch 4 Improvements and Diversion
Description & Location	Widen and create approximately 47,000 feet of ditch including the addition of a new outfall to the Elkhorn River. The proposed ditch improvements include the existing Morningside Road Ditch, Ditch 2A, Ditch 6, Ditch 4, and Ditch 3. Ten bridges and culvert crossing structures would need to be replaced.
Hazard(s) Addressed	Flooding
Status	This project will be implemented by Dodge County.

Action	Dodge County Platte River Communities Flood Mitigation and Resiliency Plan
Description & Location	Develop a flood mitigation and resiliency plan to holistically look at local flood risks and measures to reduce them from North Bend to Fremont along the Platte River. The plan will include hydrologic and hydraulic analyses to assess the nature of the flood risks and evaluate flood risk reduction improvement projects. Structural and non-structural mitigation may be considered and prioritized. The conceptual flood risk reduction recommendations will serve to provide a path forward towards implementation and a reduction of further damage to structures and critical facilities.
Hazard(s) Addressed	Flooding
Status	Removed. This was an option immediately following the 2019 floods. However, other plans and studies have replaced it.

Action	Improve Highway Drainage
Description & Location	Construct culverts and improve the drainage system on the Highway 30 bypass.
Hazard(s) Addressed	Flooding
Status	Removed. Highway 30 has been moved.

Action	New Detention Cells
Description & Location	Construct new stormwater detention cells to aid in stormwater management.
Hazard(s) Addressed	Flooding
Status	Removed. More specific projects will replace this.

Hazardous Materials Release

The rail line is the transportation route of most concern in the community because of the large volume of chemicals it transports, including fracking oil and coal. In 2019 a train derailment between the Village of Valley and Fremont left coal all along the train tracks. The rail line travels through the southern portion of the city and a large spill could cause evacuation and interrupt traffic flow. There are some evacuation concerns due to several at grade railroad crossings in the city. There have been several transportation related chemical spills in the city but most have been small with minor damages. Anhydrous Ammonia pipelines running from Sioux City to the City of Blair to Fremont are also a concern. In February 2022, a worker in a building struck an anhydrous ammonia pipeline which caused a release into the room. There were three injuries reported, and the building was evacuated. Another anhydrous release in a building occurred in 2009, which caused the building to be evacuated. No injuries were reported. Another concern is the large grain elevators that are located near downtown Fremont. Response to a hazardous chemical spill is also a concern because the closest HazMat teams are in Omaha and Lincoln.

Methodist Fremont Health

Fremont is surrounded by farm and commercial agriculture industries. Methodist Fremont Health has managed several cases where patients were exposed to harsh chemicals and required decontamination. The health system has also handled a number of internal chemical spills without disrupting patient care. Patients arriving in the emergency department with hazardous chemicals pose significant concerns for our staff and potential exposure risks to others. A major spill could disrupt emergency services and pose inhalation hazards from toxic fumes, necessitating effective ventilation to mitigate these risks. Such incidents might also divert resources from routine patient care and increase the risk of contamination spreading to other areas of the hospital. Staff have received training on how to respond to and care for contaminated patients. Methodist Fremont Health has a hazardous waste spill policy that has recently been updated to enhance our response procedures. Conducting local drills would prepare staff to manage these situations effectively.

Mitigation and Strategic Actions

Action	HazMat Training
Description & Location	Ensure all fire department staff are trained to the general awareness level for hazardous materials releases. Perform a hazardous materials release tabletop exercise.
Hazard(s) Addressed	Hazardous Materials Release
Estimated Cost	$10,000+
Local Funding	Fire Department Budget
Timeline	2-5 Years
Priority	High
Lead Agency	Fire Department
Status	New Action. In Progress. Most fire department staff have been trained to the general awareness level.

Levee Failure

Ice jams that occurred during the March 2019 floods resulted in a series of levee failures along the Platte River. The location of these breaches, as outlined by the Joint Water Management Advisory Board, are shown in the figure below. The shredded bark on trees near the river indicated that the water rose ten feet in places. The farm levee north of the city was overtopped and destroyed and the Fremont levee failed in three places. Emergency protection measures were coordinated on Highway 30, 275, 277, and on Rawhide Creek. Levee failures were a major contributing factor to catastrophic flooding in and around the city. The Hormel Park boat ramp was lost to the flooding. Additionally, the levee at the Rod and Gun Club lake community west of Fremont was breached.

Since 2019, both the Fremont levee and Rod and Gun Club levee have been repaired. The Fremont levee has been regraded, had vegetation removed, and is now being regularly maintained. An extension of the levee has been designed to provide more flooding protection, however, funding has not been available for construction. The figure below shows the location of the levees that provide protection for Fremont. The Union levee protects the city's wellfield.

Completed Mitigation and Strategic Actions

Action	Levee/Floodwall Construction and/or Improvements
Description & Location	Construct and maintain a levee to protect critical facilities and residences. Repair existing levees to meet PL84-99 standards.
Hazard(s) Addressed	Levee Failure
Status	Completed

Mitigation and Strategic Actions

Action	Levee Extension
Description & Location	Extend the City of Fremont, Farmland, and Railroad Levee to provide more flooding projection to parts of the city.
Hazard(s) Addressed	Flooding, Levee Failure
Estimated Cost	$1,000,000+
Local Funding	General Budget, Cost Share
Timeline	5+ Years
Priority	Medium
Lead Agency	City Engineer
Status	New Action. Not Started. This project is stalled due to lack of funding options.
Meets Expectations	Yes

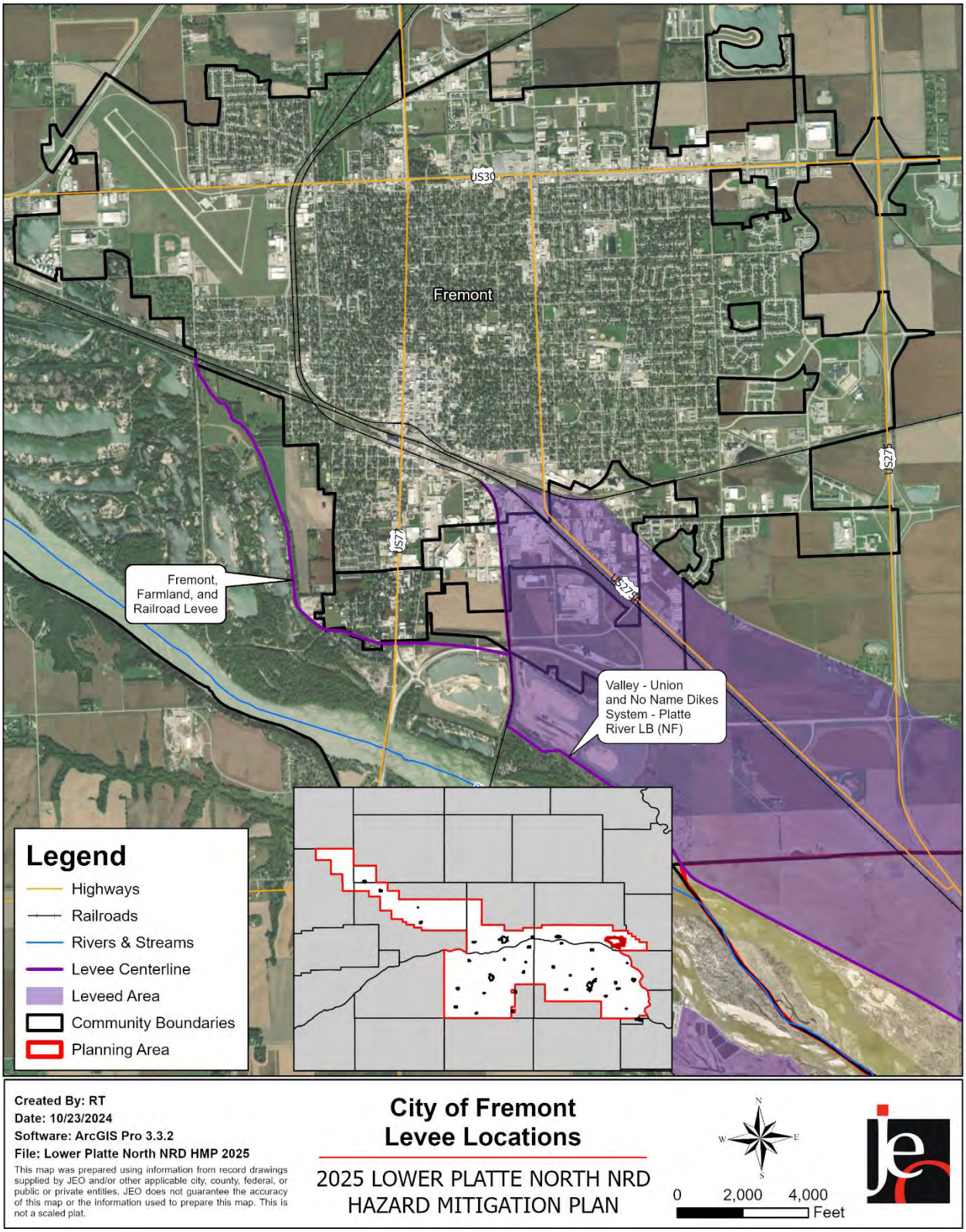
Severe Thunderstorms

The primary concern related to severe thunderstorms is hail. A hailstorm in 2008 caused extensive damage with hail 1.75 inches in diameter. So many properties were damaged that building materials and contractors were scarce, leading to delayed repairs. In May 2024 golf ball sized hail caused extensive damage to roofs and cars. Additionally, city building roofs, siding, vehicles, and skylights were damaged. Some panels at the solar fields were also damaged. Because of these events the city is planning on installing impact resistant shingles on city owned buildings that have asphalt roofs. No significant damage would occur should the power plant be hit by lightning. Brief power outages have occurred in the city but there is a good amount of power redundancies to protect the power infrastructure. Municipal records are protected with surge protectors on electronic devices but most city owned buildings do not have lightning protection. The city is planning on installing remote power readers to better monitor power outages.

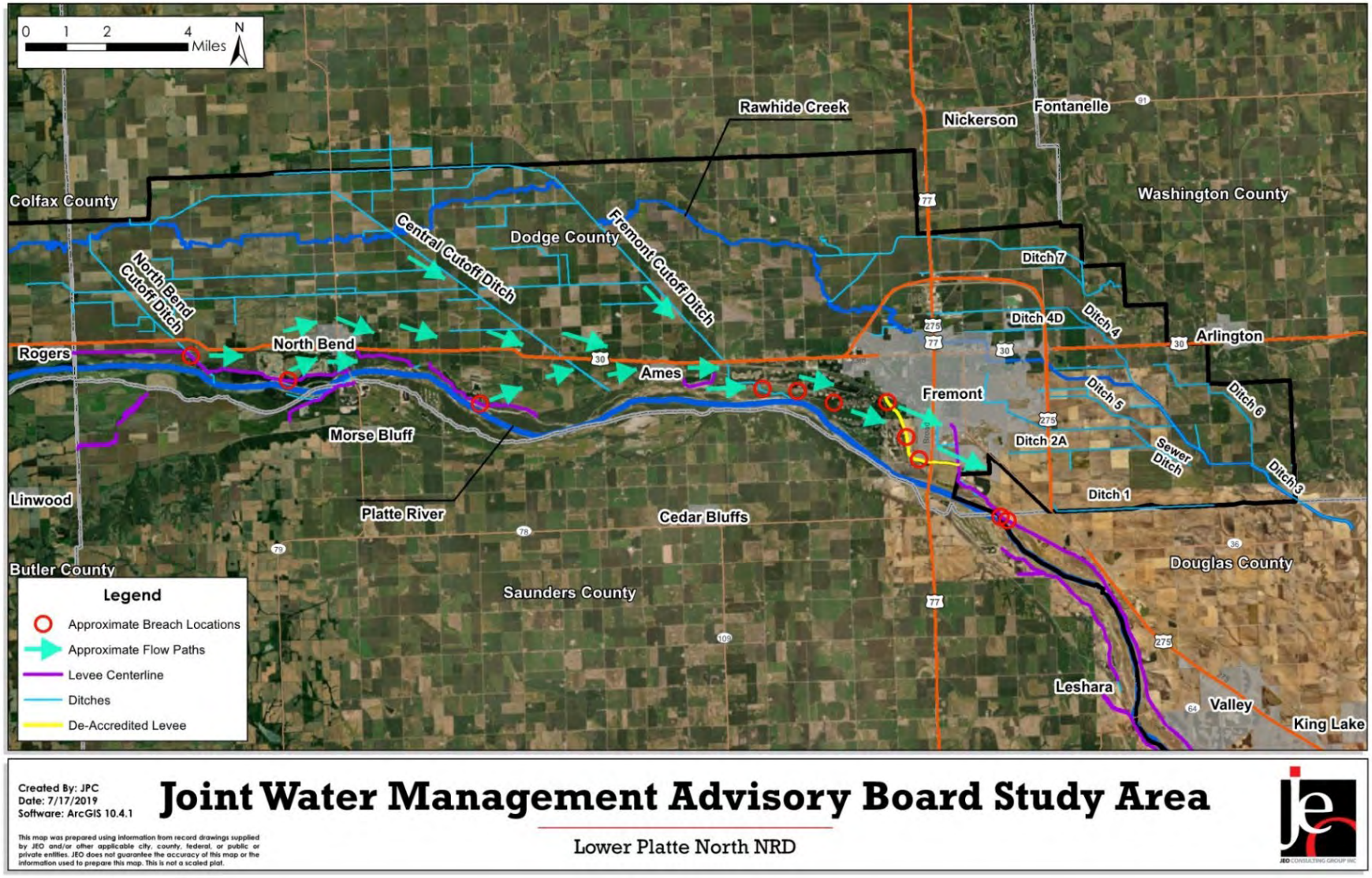
Mitigation and Strategic Actions

Action	Electrical Infrastructure Improvements
Description & Location	Make electrical infrastructure improvements throughout the community. Projects include grid resiliency, burying power lines, conductor replacements, pole testing, moving a transmission line, various redundancy projects, and solar panel installation.
Hazard(s) Addressed	Extreme Temperatures, Grass/Wildfire, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	Varies by Project
Local Funding	Utilities Budget
Timeline	Ongoing
Priority	High
Lead Agency	Utilities Department
Status	New Action. Ongoing. Projects are done as needed and funding arises.

Levee Locations in Fremont



March 2019 Levee Failures



Action	Replace Building Roofs
Description & Location	Replace the roofs of city buildings that are currently asphalt with impact resistant shingles.
Hazard(s) Addressed	Severe Thunderstorms
Estimated Cost	$200,000+
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Public Works
Status	New Action. Planning Phase.

Severe Winter Storms

Fremont experiences annual severe snow and ice storms. A blizzard in 2016 left ten inches of snow on the ground. There have been no large damaging sever winter storm events in the last five years. Ice storms are of most concern because of power outages and road closures. Snow removal is done by the Street Department. The city has agreements in place with large natural gas users in the community to reduce usage when needed. In the future the city would like to continue tree trimming, conductor replacements, and pole testing to help reduce power outages during winter storms.

Methodist Fremont Health

Major winter storms can potentially prevent employees from reaching work and hinder the health system's ability to reach patients during an emergency. In January of 2024, several storms disrupted staff commutes. Methodist Fremont Health is concerned about blocked transportation routes for both staff and emergency responders. The health system provides care to patients in their homes and severe winter weather could prevent staff from reaching those patients, particularly affecting vulnerable populations who may be snowed in. Plans have been put into place to provide on-site accommodations for staff during inclement weather. Additionally, the health system has adopted flexible scheduling to support those who are unable to reach work. Methodist Fremont Health needs to establish improved contracts with local hotels.

Mitigation and Strategic Actions

Action	Backup and Emergency Generators
Description & Location	Provide a portable or stationary backup generator to municipal wells, lift stations, shelters, and other community lifelines. Identify locations and purchase generators.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber Attack, Tornadoes and High Winds
Estimated Cost	$20,000+
Local Funding	Individual Department Budgets
Timeline	5+ Year
Priority	High
Lead Agency	Individual Department Heads
Status	The fire station recently had a backup generator installed. The new police building and fleet building will get backup generators. The city is currently in the process of identifying other locations that need backup generators.

Terrorism and Cyber Attack

Methodist Fremont Health

Hospitals nationwide have experienced an increasing amount of cyber attacks in recent years. Methodist Fremont Health is concerned about cyber failures and outages. The health system has experienced several IT disruptions with its local cable and phone provider, with one overnight disruption on July 25, 2024. Disruptions of services including interruption of critical operations, including patient care, electronic health records, and communication system are top concerns for Methodist Fremont Health. Data breaches and unauthorized access to sensitive patient information, potentially leading to privacy violations and identity theft are additional concerns. System outages can halt or severely impact hospital functions, including diagnostics, treatment processes, and administrative tasks. There are concerns of costs associating with responding to attack, such as potential ransom payments, system repairs, and legal fees. Erosion of public trust could affect patient confidence and future operations. The health system's IT department continuously updates security software and deploys intrusion detection systems to respond to threats in real time. A robust cyber-attack drill and scenario is a future project to help staff better respond and be aware of issues.

Mitigation and Strategic Actions

Action	NIMS Training
Description & Location	Provide incident management system or emergency response training such as NIMS to city officials.
Hazard(s) Addressed	Animal and Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$10,000
Local Funding	General Budget
Timeline	Ongoing
Priority	Medium
Lead Agency	All Departments
Status	Ongoing. New staff and council members go through NIMS training.

Tornadoes and High Winds

A high wind event in June 2017 caused significant tree damage across a one-mile-wide area. A tree dump was opened specifically to accommodate the large number of trees and limbs downed during this event. A tornado in 2014 passed from Midland University then the high school but caused little damage. More recently high winds in June 2021 and July 2024 caused power outages from downed lines and snapped poles. Since these events many poles have been replaced with steel poles.

Since the last plan, six new tornado sirens have been installed in new growth areas to extend coverage. Another seven sirens are planned to be replaced over the next two years. Tornado shelters are a need in the community. The local planning team identified the Meadowbrook Mobile Home Park, the Fremont State Lakes, and city parks as locations that need shelters. Additionally, many homes in the floodplain are in need of tornado shelters because they do not have basements. In case of a disaster, Mutual Aid Agreements are in place with surrounding communities. Fremont uses Everbridge to send out alert notifications during severe weather. All landlines are automatically included, but cellphones have to sign up for notifications.

Methodist Fremont Health

The year 2024 saw an exceptionally active severe weather season, with numerous tornado warnings affecting the counties the health system serves. The health system is concerned about potential injuries, blocked transportation routes for emergency responders, and disruptions to essential services such as power, phone lines, and internet. Tornado and high wind warnings necessitate relocating patients to interior hallways, which can disrupt patient services. The health system has implemented additional tornado drills to ensure staff are well-prepared and can respond swiftly in an emergency. This has been incorporated into the Emergency Operations Plan. To enhance safety, Med Sleds have been installed for efficient patient relocation to secure areas. Additionally, the health system has completed a post-tornado after-action report to assess and improve its response. Upcoming construction projects should incorporate wind-resistant building designs to enhance structural resilience. Emergency preparedness kits are also being developed which will provide staff with essential supplies during emergencies. The health system is improving its notification systems with desktop alerts and a more robust warning response to ensure timely communication with all staff.

Mitigation and Strategic Actions

Action	**Alert/Warning Sirens**
Description & Location	Perform an evaluation of existing alert sirens to determine which should be replaced or upgraded, then replace or upgrade them.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes and High Winds
Estimated Cost	$30,000
Local Funding	General Budget
Timeline	1 Year
Priority	High
Lead Agency	Executive Assistant, County Emergency Management
Status	In Progress. Six new warning sirens have been installed in new growth areas. Seven other sirens will be replaced. Orders have been placed for the seven new sirens.

Action	**Storm Shelter / Safe Room**
Description & Location	Construct storm shelters or safe rooms at Fremont Lakes State Recreation Area, city parks, and Meadowbrook Mobile Home Park. Work with individual homeowners who do not have basements due to the floodplain on residential safe rooms.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes and High Winds
Estimated Cost	$75,000+
Local Funding	General Budget
Timeline	2-5 Years
Priority	Low
Lead Agency	Public Works, City Administrator
Status	New Action. Not Started.

Other Mitigation and Strategic Actions

Completed Mitigation and Strategic Actions

Action	Comprehensive Disaster / Emergency Response Plan
Description & Location	Create an EPP to organize the city's response to disasters.
Hazard(s) Addressed	Animal & Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Status	Completed in 2023. This document will be reviewed and updated annually.

Action	Emergency Operations Center
Description & Location	Set up a permanent Emergency Operations Center.
Hazard(s) Addressed	Animal & Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Status	Completed

Mitigation and Strategic Actions

Action	Drought Monitoring
Description & Location	Increase drought monitoring at a local and regional level.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	Staff Time, General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	Public Works
Status	New action.

Action	Drought Ordinance
Description & Location	Create and pass a more robust drought ordinance. The NRD can work with local community leaders and water system operators to promote developing and updating local drought ordinances.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	Staff Time, General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Public Works, City Council
Status	Not started.

Action	New Drinking Water Well
Description & Location	The city plans to drill a new horizontal well that will have the capacity of four vertical wells.
Hazard(s) Addressed	Drought
Estimated Cost	$1,000,000+
Local Funding	Public Works Budget
Timeline	2-5 Years
Priority	High
Lead Agency	Public Works
Status	New Action. Planning Phase.

Action	Well Transducers
Description & Location	Install transducers on the Cristianson Park West wells to monitor water levels. Real-time groundwater level monitoring allows for early identification of declining water tables, helping to detect drought conditions earlier and track water levels over time. The NRD is currently working with interested community water systems to install the transducers in community wells at minimal cost to the community.
Hazard(s) Addressed	Drought
Estimated Cost	Unknown
Local Funding	Public Works Budget
Timeline	5+ Years
Priority	High
Lead Agency	Public Works
Status	New Action.

Community Profile

Village of Inglewood

Lower Platte North NRD
Hazard Mitigation Plan 2025

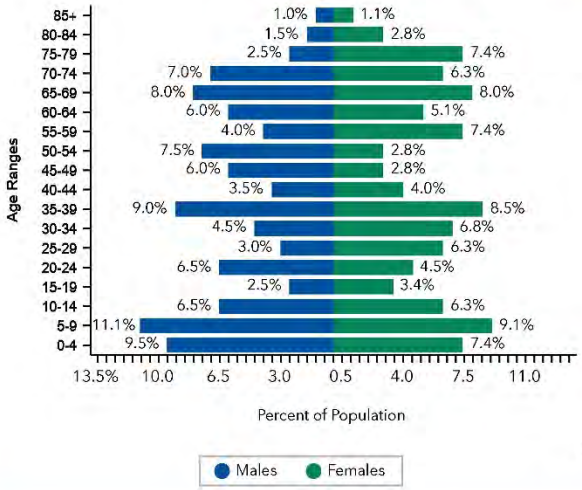
Community Fact Sheet

Community Summary Fact Sheet

Inglewood, NE
Lower Platte North NRD Hazard Mitigation Plan 2025

375	38.6	136	2.76	$125,000	$72,399
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID



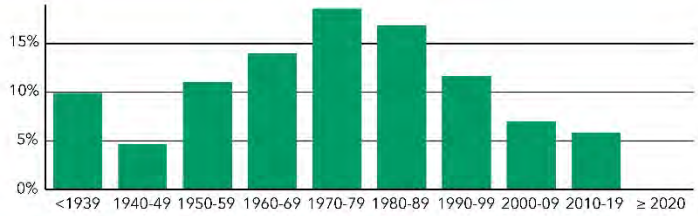
TOTAL POPULATION

2023 Total Population (Estimate)	375
2020 Total Population (U.S. Census)	380
2010 Total Population (U.S. Census)	344
2000 Total Population (U.S. Census)	325

AT RISK POPULATIONS

31	85	0	15%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

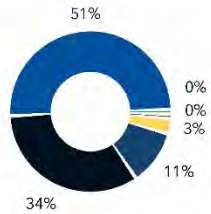
HOUSING: YEAR BUILT



EMPLOYMENT

16	3.4%
Total Businesses	Unemployment Rate

POPULATION BY RACE



- Black Population
- Asian Population
- American Indian Population
- Population of 2+ Races
- Other Race Population
- White Population

55% **of the Total Population is Hispanic**

HOUSING

43	26%
Vacant Housing Units	Mobile Homes

esri THE SCIENCE OF WHERE

Source: Esri, U.S. Census, Esri-Data Axle, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021.

Local Planning Team

Inglewood Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Albert Nielsen	Chairman	Village of Inglewood	Attended, Materials Development	-
Jerry Abrahamson	Vice Chairman	Village of Inglewood	Attended, Materials Development	-
Barbara Shelton	Treasurer/Clerk	Village of Inglewood	Attended, Materials Development	Attended, Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The Chairman, Vice Chairman, and Clerk/Treasurer will be responsible for reviewing and updating the community profile outside of the five-year update. Inglewood will review the plan every two years and the public will be notified on social media, village website, newspaper publications, and during public meetings.

Capability Assessment

The planning team assessed the Village of Inglewood's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Inglewood Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	Yes
	Economic Development Plan	Yes
	Emergency Operations Plan	Yes
	Floodplain Management Plan	Yes
	Storm Water Management Plan	Yes
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	Yes
	Building Codes	Yes
	Water System Emergency Response Plan	Yes
	Wellhead Protection Plan	No
	National Flood Insurance Program	Yes
	Community Rating System	Yes
	Community Wildfire Protection Plan	Yes (Regional)

Capability/Planning Mechanism		Yes/No
	Other (if any)	-
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administrator	Yes
	GIS Capabilities	Yes
	Chief Building Official	Yes
	Civil Engineering	Yes
	Grant Manager	Yes
	Mutual Aid Agreement	Yes
	Other (if any)	Joint Water Management Advisory Board - Member
Fiscal Capability	1- & 6-Year Plan	Yes
	Applied for Grants in the Past	Yes
	Awarded a Grant in the Past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric/Water/Sewer Service Fees	No
	Storm Water Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	No
	Ongoing Public Education or Information Program (e.g., Responsible Water Use, Fire Safety, Household Preparedness, Environmental Education)	Yes
	Natural Disaster or Safety Related School Programs	Yes
	StormReady Certification	Yes
	Firewise Communities Certification	No
	Tree City USA	Yes
	Other (if any)	-

Inglewood Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Limited
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

National Flood Insurance Program (NFIP)

Inglewood is a member of the NFIP, having joined on 5/4/2007, and the village's Board of Trustees and Building Inspector oversee the commitments and requirements of the NFIP. Inglewood's Building Inspector inspects properties to ensure floodplain regulations are enforced, and the review and approval process for plans and projects are brought to the village Board of Trustees. The village's Building Inspector identifies substantially damaged and improved structures after a flood event.

The local planning team stated that Inglewood will continue to be involved with the NFIP. One barrier to running the program effectively is the lack of funding and a full-time employee to conduct the duties. There are no known areas in the community with limited NFIP coverage. All prospective builders and owners are required to come before the Board of Trustees, where they are educated about the importance of flood insurance. Additional NFIP information is given in the table below.

Inglewood NFIP Information

NFIP Overview	
Date of NFIP Participation:	5/4/2007
Floodplain Administrator:	Albert Nielsen
Is Floodplain Administrator a Certified Floodplain Manager?	No
Is Floodplain Management an Auxiliary Function?	Yes
Number of NFIP Policies In-Force:	28
Total NFIP Premium ($):	$33,016
Total NFIP Coverage ($):	$4,010,000
Number of Claims Paid Out:	19
Total Amount of Claims Paid Out ($:)	$335,056
Number of Repetitive Loss Structures:	0
Number of Severe Repetitive Loss Structures:	0
Is the Community Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	No
FIRMs Digital or Paper?	Digital
Located in a RISK Map Area?	No

Buildings and Valuation in the Floodplain

The planning team acquired GIS parcel data from the County Assessor and Microsoft building footprint data to analyze the location, number, and value of buildings located in the 100-year and 500-year floodplains. A summary of the results of this analysis is provided in the following tables.

Inglewood Buildings and Value in the 100-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
179	$23,075,287	179	$23,075,287	100%

Source: County Assessor, 2024; Microsoft, 2024

Inglewood Buildings and Value in the 500-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
179	$23,075,287	0	$0	0%

Source: County Assessor, 2024; Microsoft, 2024

Plans and Studies

The Village of Inglewood has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the village updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Building Code (2020)

The building code sets standards for constructed buildings and structures. Inglewood building codes are based on the 2019 International Building Codes with no amendments made. Enforcement of the building code is contracted out to an independent building inspector. The hazard mitigation plan has not been integrated with the building code.

Capital Improvement Plan (2020)

The capital improvement plan outlines projects the city would like to pursue and provides a planning schedule and financing options. Projects include relocating the sanitary sewer line to address future drainage problems from flooding. The capital improvement plan can include several mitigation plans and projects. Inglewood's capital improvement plan will be updated by the end of 2025.

Comprehensive Plan (2024)

The comprehensive plan is designed to guide the future actions and growth of the village. Future expansion areas to the east of Inglewood and further development of the Hidden Meadows subdivision are included in the comprehensive plan. In 2024, a new comprehensive plan was completed for the village. The hazard mitigation plan has not been integrated with the plan.

Dodge County Emergency Operations Plan (2020)

The Dodge County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. The hazard mitigation plan has been integrated with this plan and includes the top hazards that would affect the county and its populations. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines.

Floodplain Ordinance (2020)

The village's floodplain ordinance outlines requirements for structures and developments located in the 100-year floodplain. By having a floodplain ordinance, the village promotes public health, safety, and welfare by minimizing losses due to floods. It also helps to assure eligibility of purchasing flood insurance for property owners. One foot of elevation above the Base Flood Elevations is required in the floodplain. The floodplain ordinance restricts or prohibits development in the floodplain, limits population density in the floodplain, and requires uses vulnerable to floods have flood protection at the time of construction. The hazard mitigation plan has not been integrated with the floodplain ordinance.

Missouri River East Community Wildfire Protection Plan (2022)

The purpose of the Missouri River East Community Wildfire Protection Plan CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years.

Subdivision Regulations (2020)

Subdivision regulations in Inglewood govern the division of land from one or more larger parcels into smaller lots. The hazard mitigation plan has not been integrated with the subdivision regulations.

Water System Emergency Response Plan (2020)

A water system emergency response plan serves as a guideline for water operators and village board to minimize the disruption of normal services to consumers and to provide public health protection during an emergency event. The document identifies several natural and human-caused events and discusses the water system's response during those events. Inglewood's water system is owned and operated by the City of Fremont through an agreement and the emergency response is guided by Fremont.

Zoning Ordinance (2020)

The zoning ordinance regulates how and where future development should occur in Inglewood. The village zoning ordinance discourages housing and vulnerable populations near chemical storage sites. The hazard mitigation plan has not been integrated with the village zoning ordinance.

Future Development Trends

Over the past five years, the Village of Inglewood has added a new wine, beer, and spirits business south of the community along a major roadway. Inglewood has annexed land to the east of its jurisdiction. The Hidden Meadows subdivision in the northern part of town is being built with 16 new homes planned. Additionally, new drain lines on the east of Park Street from Boulevard to Cloverly Street, along with a new concrete street on Park Street from Boulevard to Cloverly Street in front of the fire station, were installed recently, reducing flooding vulnerability. A house on James Drive was demolished, reducing the vulnerability of fires. No new structures were built in hazardous areas such as the wildland urban interface or near chemical sites. Shell gas station on Broad Street is expected to expand by adding new diesel pumps. The addition is not planned in any hazardous areas other than the floodplain.

For hazards like drought, extreme temperatures, flooding, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted regardless of where they are located in Inglewood. According to the local planning team, any new and future development is not likely to occur in any other known hazard locations.

Community Lifelines

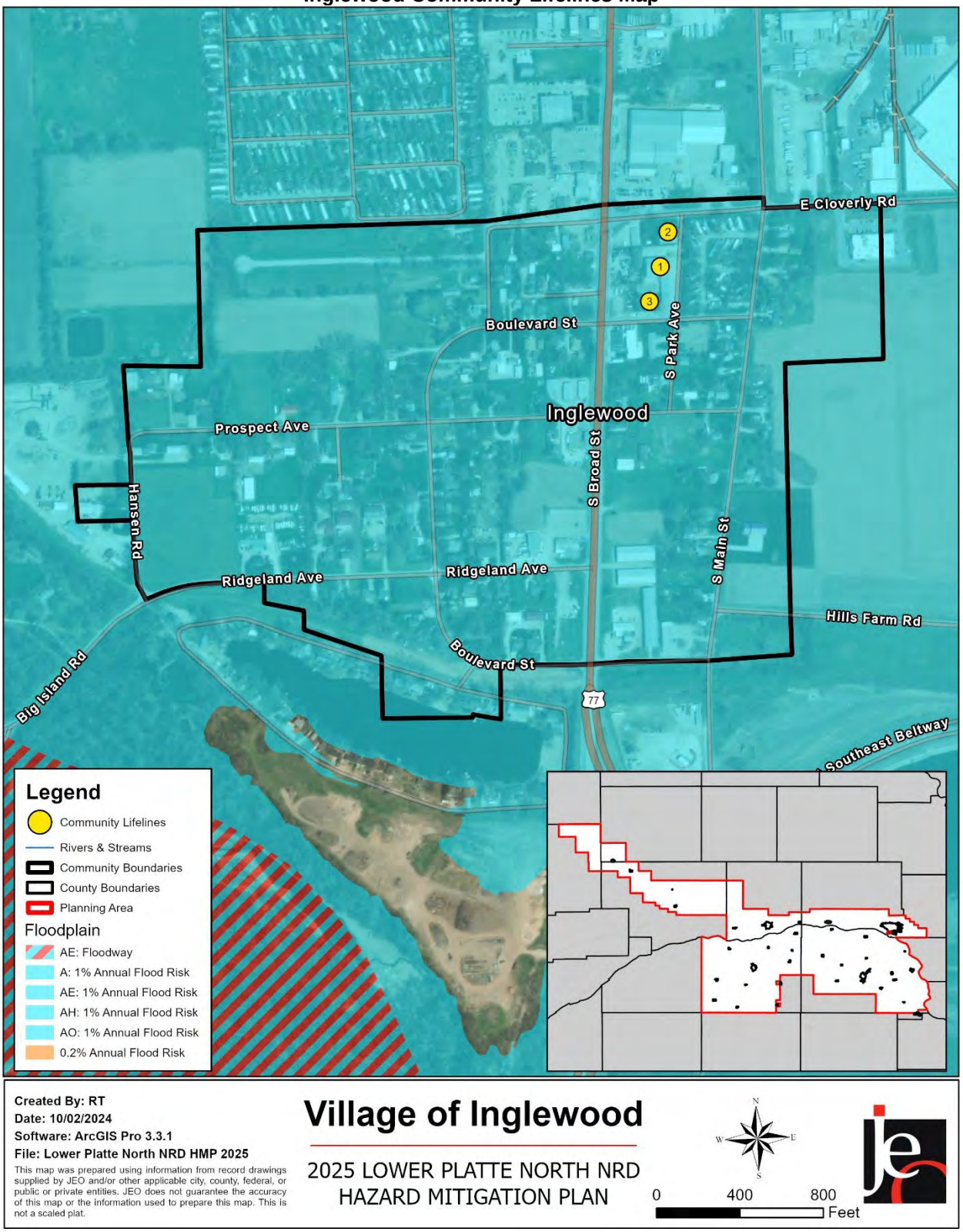
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Inglewood Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Rural Fire Department	Safety and Security	G	Y (1%)
2	Sanitary Sewer Lift Station	Food, Shelter, Water	-	Y (1%)
3	Village Hall	Safety and Security	-	Y (1%)

Inglewood Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Inglewood which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Village of Inglewood. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however Inglewood has identified mitigation actions to reduce the impacts of the hazards. Dam Failure has been omitted from this profile as there are no high hazard dams upstream of the community according to NeDNR data. Therefore, no mitigation actions have been identified for that hazard. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Flooding

The March 2019 floods led to a voluntary evacuation in Inglewood and road closures in and out of the village. The damage was extensive, though the exact loss amounts are still to be determined, with the village hall among the community lifelines damaged. The entire village is prone to flooding because of its elevation and poor stormwater drainage. Fremont has taken ownership of the levee south of Inglewood and has done repairs after the flood damage. In response to the March 2019 flood, the Village of Inglewood, along with other communities and diking and drainage districts in southern Dodge County along the Platte River, formed the Dodge County Joint Water Management Advisory Board. They have partnered together to develop a comprehensive flood risk reduction and mitigation strategy along the Platte River. The Board is currently looking for funding alternatives to develop a Flood Mitigation and Flood Resiliency Plan to identify, evaluate, and prioritize flood mitigation alternatives to improve flood resiliency along the Platte River. The entire community of Inglewood is located within the 1 percent annual chance flood risk area. The village plans to clean the drainage ditch by Hormel Park to improve the flow of possible flood waters and to look at how the impact of the new lake housing divisions has changed how flood waters will be redirected toward Inglewood.

Mitigation and Strategic Actions

Action	Dodge County Platte River Communities Flood Mitigation and Resiliency Plan
Description & Location	Develop a flood mitigation and resiliency plan to holistically look at local flood risks and measures to reduce them from North Bend to Fremont along the Platte River. The plan will include hydrologic and hydraulic analyses to assess the nature of the flood risks and evaluate flood risk reduction improvement projects. Structural and non-structural mitigation may be considered and prioritized. The conceptual flood risk reduction recommendations will serve to provide a path forward toward implementation and a reduction of further damage to structures and community lifelines.
Hazard(s) Addressed	Flooding, Levee Failure
Estimated Cost	$1,000,000
Local Funding	General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Joint Water Advisory Board (Inglewood is a partner), Village Board
Status	Not started.

Action	Stormwater System Improvements
Description & Location	Stormwater system improvements may include pipe upsizing and additional inlets. Retention and detention facilities may also be implemented to decrease runoff rates while also decreasing the need for other stormwater system improvements. Install storm sewer lines on Boulevard Street from Prospect Street to just south of Ridgeland intersection and on Main Street from Cloverly Street to just south of the Sherman property on Main Street.
Hazard(s) Addressed	Flooding
Estimated Cost	Varies
Local Funding	Bond Fund
Timeline	1 Year
Priority	High
Lead Agency	Village Engineer
Status	Bids for this project will go out spring of 2025.

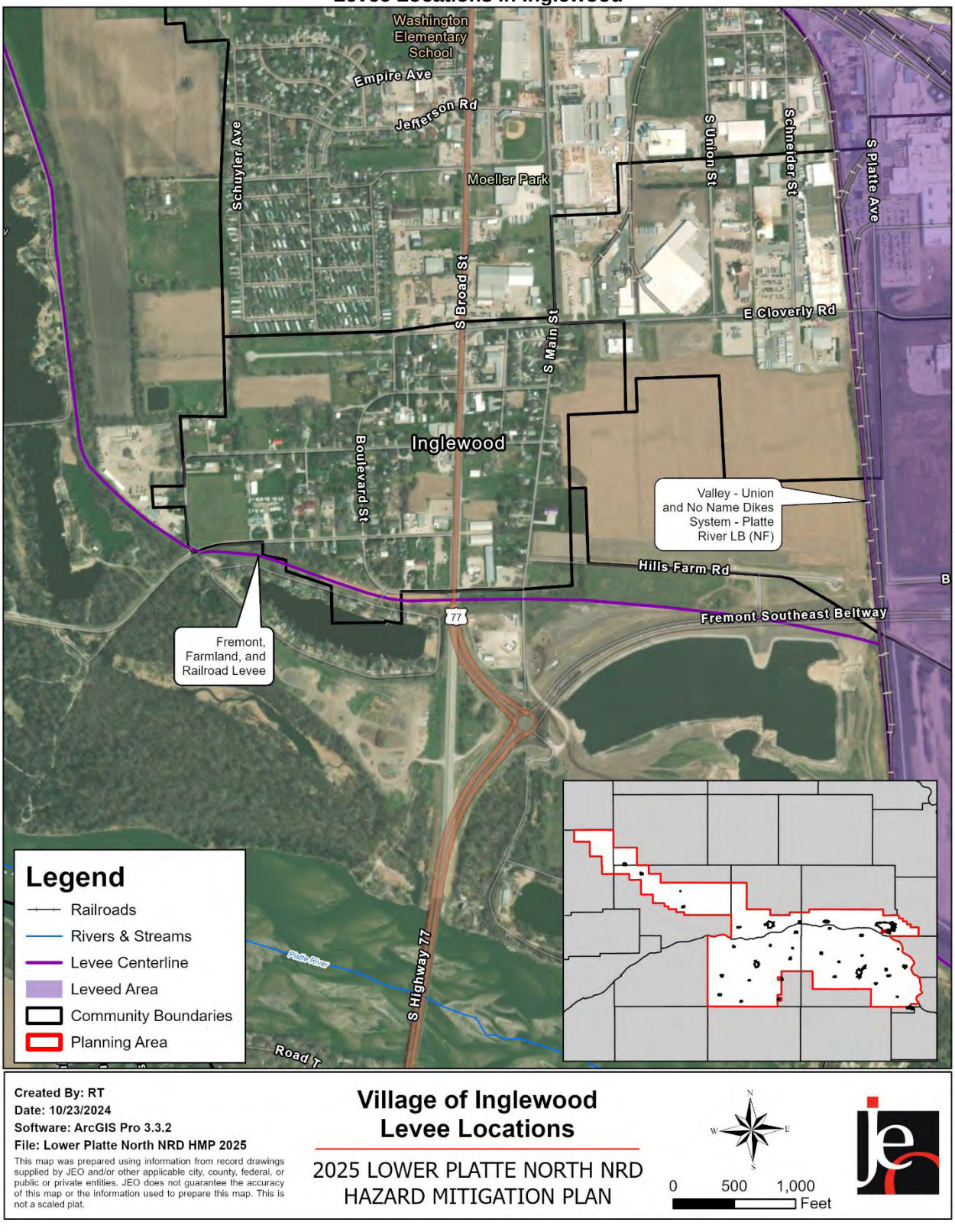
Levee Failure

The Fremont Diking and Drainage District, owned by the City of Fremont, runs along the south edge of the village. Only some of the levees in the district are FEMA certified, but they all provide 1-percent annual chance of flood protection. Three of these dikes were breached in the March 2019 floods. The entire village is impacted by levee failures. The Valley – Union and No Name Dikes System shown below protects 1,747 buildings, 3,040 people, and an estimated $600 million in property value according to the 2023 USACE National Structure Inventory. There have been no historical occurrences of overtopping. The levee system is not FEMA accredited but does have an active status in the USACE Public Law 84-99 program. Levee failures are mitigated through agreements with Fremont to repair and upgrade the levees in the Fremont Diking and Drainage District. Once Fremont took ownership of the levee, trees were removed, and other updates were completed to help shore up the levee. Future projects to reduce the risk of levee failure is to clean out the drainage ditch by Hormel Park to improve the flow of possible flood waters. Another is to look at how the impact of the new lake housing divisions has changed how flood waters will be redirected toward Inglewood.

Mitigation and Strategic Actions

Action	Culvert Upsizing and Cleaning
Description & Location	Deepen drainage ditches and clean out culverts that were damaged and silted in from the 2019 flood. Clean out ditches and culverts along Ridgeland Avenue, Prospect Avenue, Main Street, Boulevard Street, Park Street, and Cloverly Street. The drainage ditch by Hormel Park also needs to be cleaned out.
Hazard(s) Addressed	Flooding, Levee Failure
Estimated Cost	Varies
Local Funding	General Budget
Timeline	1 Year
Priority	Medium
Lead Agency	Village Maintenance
Status	Planning this for 2025.

Levee Locations in Inglewood



Severe Thunderstorms

The village is concerned about the possible impacts of severe thunderstorms, particularly damage to village and residential properties. Community lifelines have not been damaged by severe thunderstorms in the past, though they are insured for hail damage for potential future occurrences. No community lifelines have generators, except for the Fremont Rural Fire Station, since generators are not necessary for these facilities. Power is provided through the City of Fremont, so it is not considered vulnerable to severe storms though most power lines are not buried. A local tree board monitors hazardous trees.

Mitigation and Strategic Actions

Action	Drainage Improvements
Description & Location	Install a drain on the south side of Ridgeland and on the west end of the village to help prevent flooding.
Hazard(s) Addressed	Flooding, Severe Thunderstorms
Estimated Cost	$5,000+
Local Funding	General Budget
Timeline	1 Year
Priority	Medium
Lead Agency	Village Board
Status	New action. In the planning phase.

Severe Winter Storms

Severe winter storms are a regular occurrence in the village, but there have been no particularly significant events recently. These storms are a concern because they could cause village and residential property damage. Most power lines are also overhead and vulnerable to outages from damage during severe storms. Power outages are not a concern because the City of Fremont provides power to the village. Snow removal is contracted to a private company, but the village also has loaders, graders, a sander, and de-icers to aid snow removal. Streets are cleared after two inches or greater snowfall.

Mitigation and Strategic Actions

Action	Backup and Emergency Generators
Description & Location	Identify and evaluate current backup and emergency generator. Obtain additional generators based on identification and evaluation. Provide portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations and other community lifelines and shelters. Purchase and install a 16k watt emergency backup generator to the village hall.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber Attack, Tornadoes and High Winds
Estimated Cost	$30,000-$50,000
Local Funding	Village Keno Budget/Community Improvements
Timeline	5+ Years
Priority	Low
Lead Agency	Village Maintenance
Status	No current plans to purchase and install a generator. The village is waiting for grant applications proceed.

Tornadoes and High Winds

No tornadoes or high winds events have occurred in Inglewood, but a future occurrence could be catastrophic. Municipal records are protected with a data backup system in case of a disaster. Dodge County and the City of Fremont activate the village's warning siren. Dodge County Emergency Management also offers emergency text alerts. There are no FEMA-certified safe rooms in Inglewood, but community members can seek shelter in the village hall if necessary. The village website and Facebook page provide outreach to the community on the appropriate response to hazardous conditions. Inglewood holds a mutual aid agreement with the City of Fremont in the event of a disaster.

Mitigation and Strategic Actions

Action	Installing New Siren Programming
Description & Location	Install a new warning siren programming for extreme weather events and ensure it is working efficiently.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Flooding, Severe Thunderstorms, Tornadoes and High Winds
Estimated Cost	Varies by programming
Local Funding	General Budget
Timeline	2-5 Years
Priority	Low
Lead Agency	Fremont Rural Fire Department
Status	New action. In the planning phase.

Other Mitigation and Strategic Actions

Action	Emergency Radios
Description & Location	Purchase and install new emergency radios to integrate into the Dodge County system. Ensure radios broadcast notifications and updates about regional animal and plant diseases and drought conditions
Hazard(s) Addressed	Animal & Plant Disease, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$50 per unit
Local Funding	Keno Funds/Community Improvements
Timeline	2-5 Years
Priority	Medium
Lead Agency	Fremont Rural Fire Department
Status	New action. In the planning phase.

Action	Public Education
Description & Location	Through activities such as outreach projects, distribution of maps and environmental education to increase public awareness of natural and technical hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property, especially during a drought. Also, educate citizens on water conservation methods and encourage the public to engage with the County Emergency Management Agency on emergency exercises for drought conditions.
Hazard(s) Addressed	Drought, Extreme Temperatures, Grass/Wildfires
Estimated Cost	$500, Staff Time
Local Funding	General Budget, Staff Time
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	New action. Not started.

Community Profile

City of North Bend

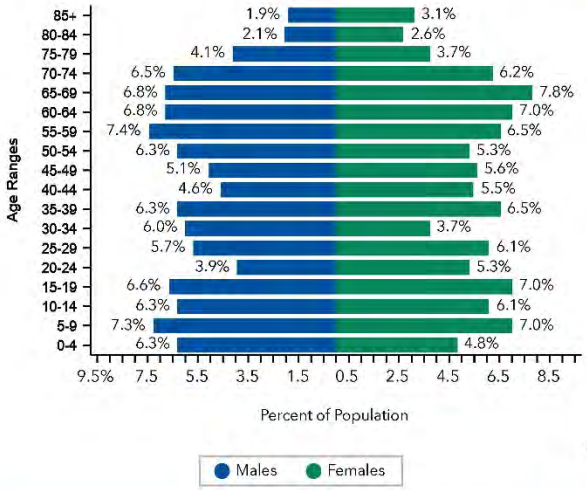
Community Fact Sheet

Community Summary Fact Sheet

North Bend, NE
Lower Platte North NRD Hazard Mitigation Plan 2025

1,275	42.5	484	2.63	$301,695	$83,780
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID



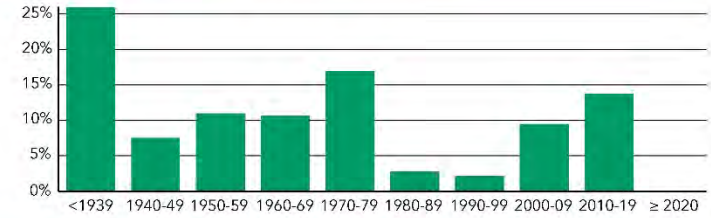
TOTAL POPULATION

2023 Total Population (Estimate)	1,275
2020 Total Population (U.S. Census)	1,279
2010 Total Population (U.S. Census)	1,186
2000 Total Population (U.S. Census)	1,208

AT RISK POPULATIONS

132	286	6	12%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

HOUSING: YEAR BUILT



EMPLOYMENT

60	1.6%
Total Businesses	Unemployment Rate

POPULATION BY RACE



- Black Population
- American Indian Population
- Asian Population
- Other Race Population
- Population of 2+ Races
- White Population

6% **of the Total Population is Hispanic**

HOUSING

104	2%
Vacant Housing Units	Mobile Homes

esri THE SCIENCE OF WHERE

Source: Esri, U.S. Census, Esri-Data Axle, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021.

Local Planning Team

North Bend Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Theresa Busse	Clerk/Floodplain Administrator	City of North Bend	Attended, Materials Development	Attended, Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The City Clerk, Mayor, and Council Members will be responsible for reviewing and updating the community profile outside of the five-year update. North Bend will review the plan annually and the public will be notified at council meetings.

Capability Assessment

The planning team assessed the City of North Bend's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

North Bend Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operations Plan	Yes
	Floodplain Management Plan	Yes
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	Yes
	Building Codes	Yes
	Water System Emergency Response Plan	Yes
	Wellhead Protection Plan	Yes
	National Flood Insurance Program	Yes
	Community Rating System	No
	Community Wildfire Protection Plan	Yes (Regional)
	Other (if any)	-
Administrative & Technical	Planning Commission	Yes
	Floodplain Administrator	Yes
	GIS Capabilities	Yes

Capability/Planning Mechanism		Yes/No
Capability	Chief Building Official	Yes
	Civil Engineering	Yes
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	Joint Water Management Advisory Board – Member
Fiscal Capability	1- & 6-Year Plan	Yes
	Applied for Grants in the Past	Yes
	Awarded a Grant in the Past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric/Water/Sewer Service Fees	Yes (Water, Sewer)
	Storm Water Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	Yes
	Ongoing Public Education or Information Program (e.g., Responsible Water Use, Fire Safety, Household Preparedness, Environmental Education)	Yes
	Natural Disaster or Safety Related School Programs	Yes
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	Yes

North Bend Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Limited
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

National Flood Insurance Program (NFIP)

North Bend is a member of the NFIP, having joined on 3/18/1980, and the village's Floodplain Administrator oversees the commitments and requirements of the program. The entire community is within the 1% annual flood risk zone. All permits are done at city hall by the Clerk/Floodplain

Administrator. The city requires elevation certification from all new buildings and documentation of vents in sheds once a project is complete. Structures built in the floodplain must be elevated or floodproofed at least one foot above Base Flood Elevation. The community is able to identify substantially damaged structures after a flood event. After the 2019 floods, FEMA representatives assisted the community regarding substantially damaged properties. Improvements are not allowed if the structure does not follow FEMA regulations. Otherwise, the 50% rule is implemented and based on the assessed value of the home. Any improvement must be under that by a reasonable amount. The village's floodplain regulations exceed the State of Nebraska requirements as it requires an initial statement that the property owner will follow FEMA regulations for development. Letters of Map Change are saved on a computer with the elevation certification information. There are also physical copies of the LOMCs.

The local planning team has stated that North Bend will remain in good standing and be involved with the NFIP. One barrier to running the program effectively is getting people to conform to the regulations when the planning team discovers the property was built inadequately. The planning team is not aware of areas in the community that have limited NFIP Policy Coverage. Discussions about the importance of flood insurance are done with every permit, along with the rules and why the developer needs to insure if they are getting a loan. Additional NFIP information is given in the table below.

North Bend NFIP Information

NFIP Overview	
Date of NFIP Participation:	3/18/1980
Floodplain Administrator:	Theresa Busse
Is Floodplain Administrator a Certified Floodplain Manager?	No
Is Floodplain Management an Auxiliary Function?	Yes
Number of NFIP Policies In-Force:	166
Total NFIP Premium ($):	$97,779
Total NFIP Coverage ($):	$27,802,000
Number of Claims Paid Out:	85
Total Amount of Claims Paid Out ($:)	$1,058,845
Number of Repetitive Loss Structures:	0
Number of Severe Repetitive Loss Structures:	0
Is the Community Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	Yes
FIRMs Digital or Paper?	Digital
Located in a RISK Map Area?	No

Buildings and Valuation in the Floodplain

The planning team acquired GIS parcel data from the County Assessor and Microsoft building footprint data to analyze the location, number, and value of buildings located in the 100-year and 500-year floodplains. A summary of the results of this analysis is provided in the following tables.

North Bend Buildings and Value in the 100-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
703	$73,565,975	703	$73,565,975	100%

Source: County Assessor, 2024; Microsoft, 2024

North Bend Buildings and Value in the 500-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
703	$73,565,975	0	$0	0%

Source: County Assessor, 2024; Microsoft, 2024

Plans and Studies

The City of North Bend has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the city updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Building Code (2012)

The building code sets standards for constructed buildings and structures. The city has adopted the 2012 International Building Code with no amendments made. However, the city's Zoning Board of Adjustment can issue a variance if necessary. There is an interlocal agreement with the Dodge County Inspector on the enforcement of the code. The hazard mitigation plan has not been integrated into the city's building code, but the city is aware of where to allow projects.

Comprehensive Plan (2010)

The comprehensive plan is designed to guide the future actions and growth of the city. The hazard mitigation plan has not been integrated with the plan. North Bend's comprehensive plan contains goals and objectives aimed at Safe Growth. Additionally, the plan directs development away from the floodplain or encourages structure elevation located in the floodplain. The plan directs housing away from chemical storage facilities. There is no timeline to update the plan.

Dodge County Local Emergency Operations Plan (2021)

The Dodge County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. The hazard mitigation plan has been integrated with this plan and includes the top hazards that would affect the county and its populations. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines.

Floodplain Ordinance (2016)

The city's floodplain ordinance outlines requirements for structures and developments located in the 100-year floodplain. By having a floodplain ordinance, the city promotes public health, safety, and welfare by minimizing losses due to floods. It also helps to assure eligibility of purchasing flood insurance for property owners. The hazard mitigation plan has not been integrated with the floodplain ordinance. However, the ordinance restricts development in hazard prone areas and prohibits development in the floodplain unless the structures are elevated more than one foot above Base Flood Elevation. The document discourages housing and vulnerable populations

near chemical storage sites, includes well setback requirements, and includes the ability to implement water restrictions.

Missouri River East Wildfire Protection Plan (2022)

The purpose of the Missouri River East Community Wildfire Protection Plan CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years.

Subdivision Regulations (1998)

The city's subdivision regulations govern the division of land from one or more larger parcels into smaller lots. North Bend's subdivision regulations contain rules for preliminary and final plats, lot splits, minimum design standards, and required improvements. The hazard mitigation plan has not been integrated into North Bend's subdivision ordinance.

Water System Emergency Response Plan (2000)

A water system emergency response plan serves as a guideline for water operators and the city to minimize the disruption of normal services to consumers and to provide public health protection during an emergency event. The document identifies several natural and human-caused events and discusses the water system's response during those events. The hazard mitigation plan has not been integrated with this plan.

Wellhead Protection Plan (2003)

The purpose of wellhead protection plans is to protect the public drinking water supply wells from contamination. It includes identifying potential sources of groundwater contamination in the area and managing the potential contaminant sources. The wellhead protection plan has not been integrated with the hazard mitigation plan due to the age of the plan.

Zoning Ordinance (2010)

The city's zoning ordinance outlines where and how development should occur in the future. The hazard mitigation plan has not been integrated with this document. Included in the zoning ordinance is the FF/FW Flood Plain District (Overlay District). This outlines specific requirements for new and existing structures that fall within Substantial Damage and Substantial Improvement qualification located in the floodplain.

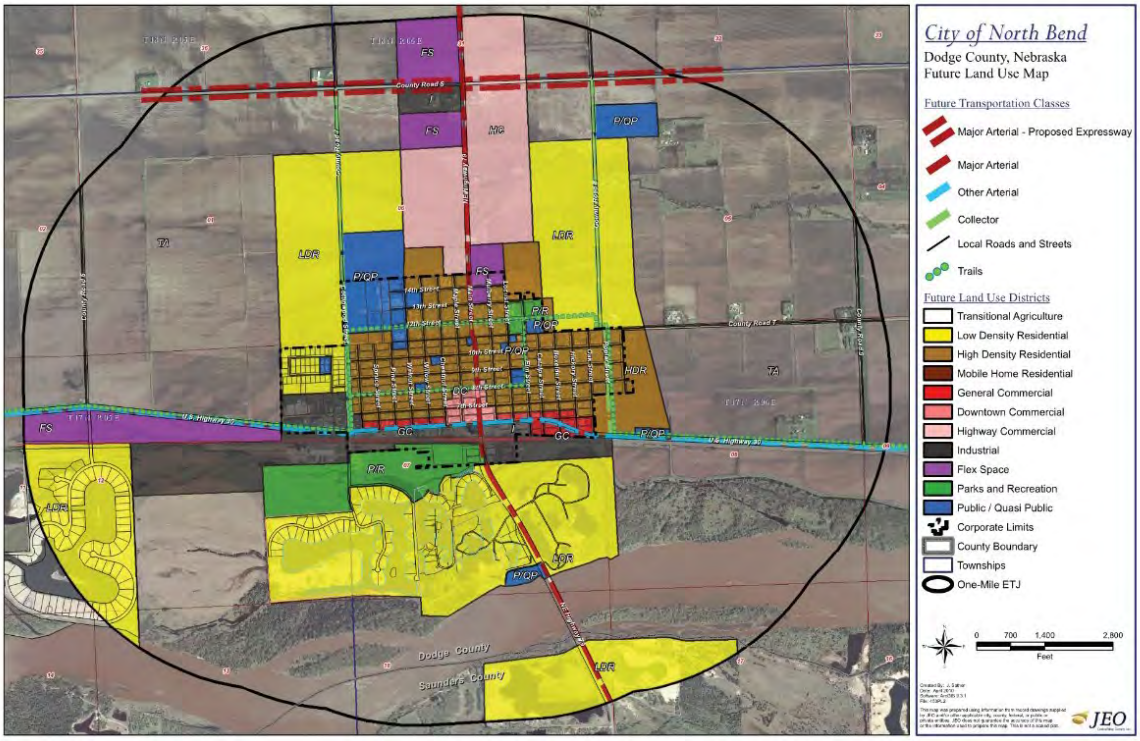
Future Development Trends

The City of North Bend annexed 11 acres west of Cottonwood Street along Highway 30 on the south side to store campers and boats. The Old Settlers Estates to the north of East 13th Street is a new development project that is in progress. The Birchwood Manor long-term care facility on 11th and Walnut Street was removed and a Carquest auto shop opened in a building previously owned by Johnson Farm Equipment on 6th East Street. The entire community is located within the 1% annual flood risk zone and may be vulnerable to future flooding. For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted regardless of where they are located.

According to the local planning team any new and future development is not likely to occur in any other known hazard locations.

The figure below is the future land use map for North Bend. Residential districts are expected to be developed in the northeast, northwest, southern and western parts of the city. Highway commercial and flex space land uses are planned along Highway 79 to the north of the city. Parks and recreational land use is anticipated to the south of North Bend along the Platte River.

Future Land Use Map



Community Lifelines

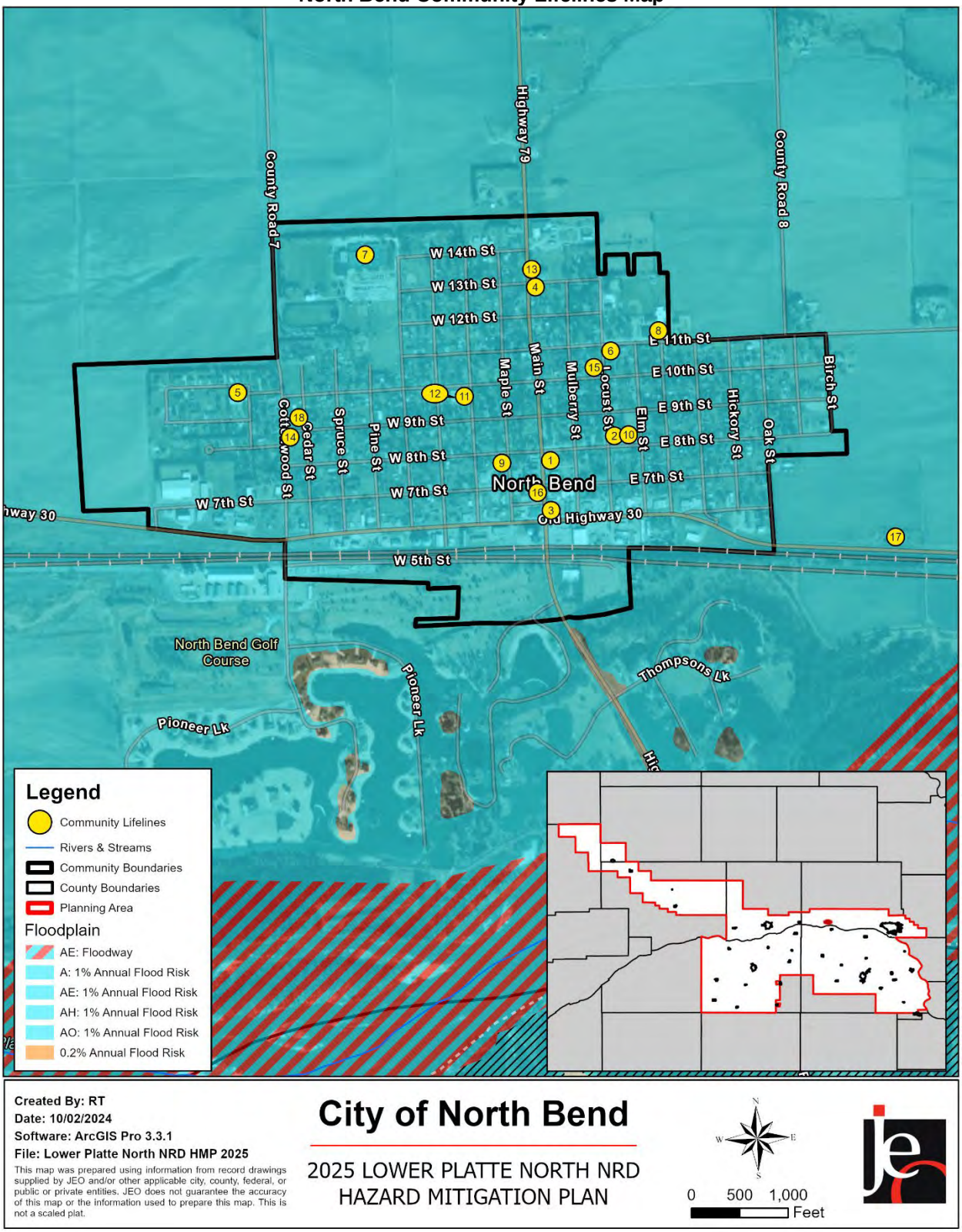
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



North Bend Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain
1	Auditorium	Other	-	Y (1%)
2	Catholic Church	Other	-	Y (1%)
3	City Hall	Safety and Security	-	Y (1%)
4	Library	Safety and Security	-	Y (1%)
5	Lutheran Church	Other	S	Y (1%)
6	Masonic Lodge	Other	-	Y (1%)
7	North Bend Central High School	Safety and Security	-	Y (1%)
8	North Bend Elementary School	Safety and Security	-	Y (1%)
9	OPPD	Energy	-	Y (1%)
10	Parish Center	Other	-	Y (1%)
11	Presbyterian Church	Other	-	Y (1%)
12	Presbyterian Home	Health and Medical	-	Y (1%)
13	Sanitary Lift Station	Food, Water, Shelter	G	Y (1%)
14	Sanitary Lift Station		-	Y (1%)
15	Senior Center	Health and Medical	-	Y (1%)
16	VFW	Other	-	Y (1%)
17	Wastewater Treatment Plant	Food Water, Shelter	G	Y (1%)
18	Water Plant	Food, Water, Shelter	G	Y (1%)

North Bend Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for North Bend which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the City of North Bend. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however North Bend has identified mitigation actions to reduce the impacts of the hazards. Dam Failure has been omitted from this profile as there are no high hazard dams upstream of the community according to NeDNR data. Therefore, no mitigation actions have been identified for that hazard. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Flooding

North Bend experienced severe flooding in the March 2019 floods. After a levee three miles west of the city breached, every street in town flooded within two hours. Though most were elevated enough to avoid it, about a third of homes and businesses across the city were damaged because of flood, groundwater inundating basements, and sewer backups. The wastewater plant was also damaged, resulting in sewer restrictions. Area schools were closed for two weeks. The water was around 18 inches deep in the downtown region of the city during the peak flood. The Fire Station, Medical Clinic, Pharmacy, Post Office, newspaper office, and city auditorium were all damaged in the flood. Since the flood the city replaced all the manhole lids in the city so that water will not be allowed to run in. Water meters were also replaced. The city worked with FEMA to add granite rock along the river to repair the dike. During periods of high rainfall, the water table levels become high, streets and Highway 79 flood, and basement pumps are constantly running. At one point when North Bend received seven inches of rain, the sewer plant flooded. The city generally has poor stormwater drainage.

Additionally, in response to the March 2019 flood, the City of North Bend along with other communities and diking and drainage districts in southern Dodge County along the Platte River formed the Dodge County Joint Water Management Advisory Board. They've partnered together to develop a comprehensive flood risk reduction and mitigation strategy along the Platte River. The Board is currently looking for funding alternatives to develop a Flood Mitigation and Flood Resiliency Plan to identify, evaluate, and prioritize flood mitigation alternatives to improve flood resiliency along the Platte River. North Bend has gotten easements on the levee from the Platte River Bridge since constant maintenance of the levee is needed to reduce the risk of flooding. They also plan to build a new sewer lagoon so that the current plant will not flood from the rain. Adding more storm drains in the jurisdiction to send water when it rains is another project needed for future mitigation. The entire community of North Bend is located within the 1 percent annual chance flood risk area.

Mitigation and Strategic Actions

Action	Drainage Study/Stormwater Master Plan
Description & Location	Drainage studies can be conducted to identify and prioritize improvements to address site-specific localized flooding/ drainage problems. Stormwater master plans can be conducted to perform a community-wide stormwater evaluation, identifying multiple problem areas and potentially multiple drainage improvements for each.
Hazard(s) Addressed	Flooding, Severe Thunderstorms
Estimated Cost	Varies
Local Funding	General Budget
Timeline	1 Year
Priority	High
Lead Agency	Streets Department (JEO)
Status	Installed two new culverts on 5th St that were plugged and rusted out. A new culvert was installed at the sewer plant. The Platte River Road ditch was cleaned. Farmers are working together to possibly clean the Rawhide ditch north of the city, where a lot of the water runs; this ditch needs to be cleaned for several miles.

Completed Mitigation and Strategic Actions

Action	Flood Damage Repair
Description & Location	Repair flood damage to the dike and streets from March 2019 floods.
Hazard(s) Addressed	Flooding
Status	Completed.

Action	Upgrade Water Meters
Description & Location	Replace water meters throughout the community that were damaged in the 2019 flood. New water meters are floodproof and have automatic readers.
Hazard(s) Addressed	Flooding
Status	Completed in 2019 after the flood destroyed meters.

Levee Failure

North Bend is protected from the Platte River flooding by Platte River Levee 1 and 3. Failed levees affect the entirety of the city and the surrounding lake communities. According to the city, these levees are expected to provide 100-year flood protection but the actual level of protection is not known. Platte River Levee 3 protects 131 buildings, 46 people, and an estimated $80 million in property value according to the 2023 USACE National Structure Inventory. Neither levee systems are accredited through FEMA or are enrolled in the USACE Public Law 84-99 program. During the March 2019 floods, the North Bend Cutoff Ditch bank to the west of the city was breached, causing most of the flooding in the city. The breach was approximately 300 to 400 feet long. Flooding from the breach led to property damage, roadway damage, and sewer system backups. That area has been repaired and will need to continuously be repaired to reduce the risk of future floods. The drainage district is working on a plan with NEMA and FEMA.

Mitigation and Strategic Actions

Action	Dodge County Platte River Communities Flood Mitigation and Resiliency Plan
Description & Location	Develop a flood mitigation and resiliency plan to holistically look at local flood risks and measures to reduce them from North Bend to Fremont along the Platte River. The plan will include hydrologic and hydraulic analyses to assess the nature of the flood risks and evaluate flood risk reduction improvement projects. Structural and non-structural mitigation may be considered and prioritized. The conceptual flood risk reduction recommendations will provide a path forward toward implementation and a reduction of further damage to structures and community lifelines.
Hazard(s) Addressed	Levee Failure, Flooding
Estimated Cost	$1,000,000
Local Funding	General Budget, North Bend Drainage District General Budget
Timeline	1 Year
Priority	High
Lead Agency	Joint Water Advisory Board (North Bend is a partner), City Administrator
Status	Ongoing. Plans for North Bend Drainage District and FEMA to raise the drainage ditch dike west of the city 18 inches on the east side.

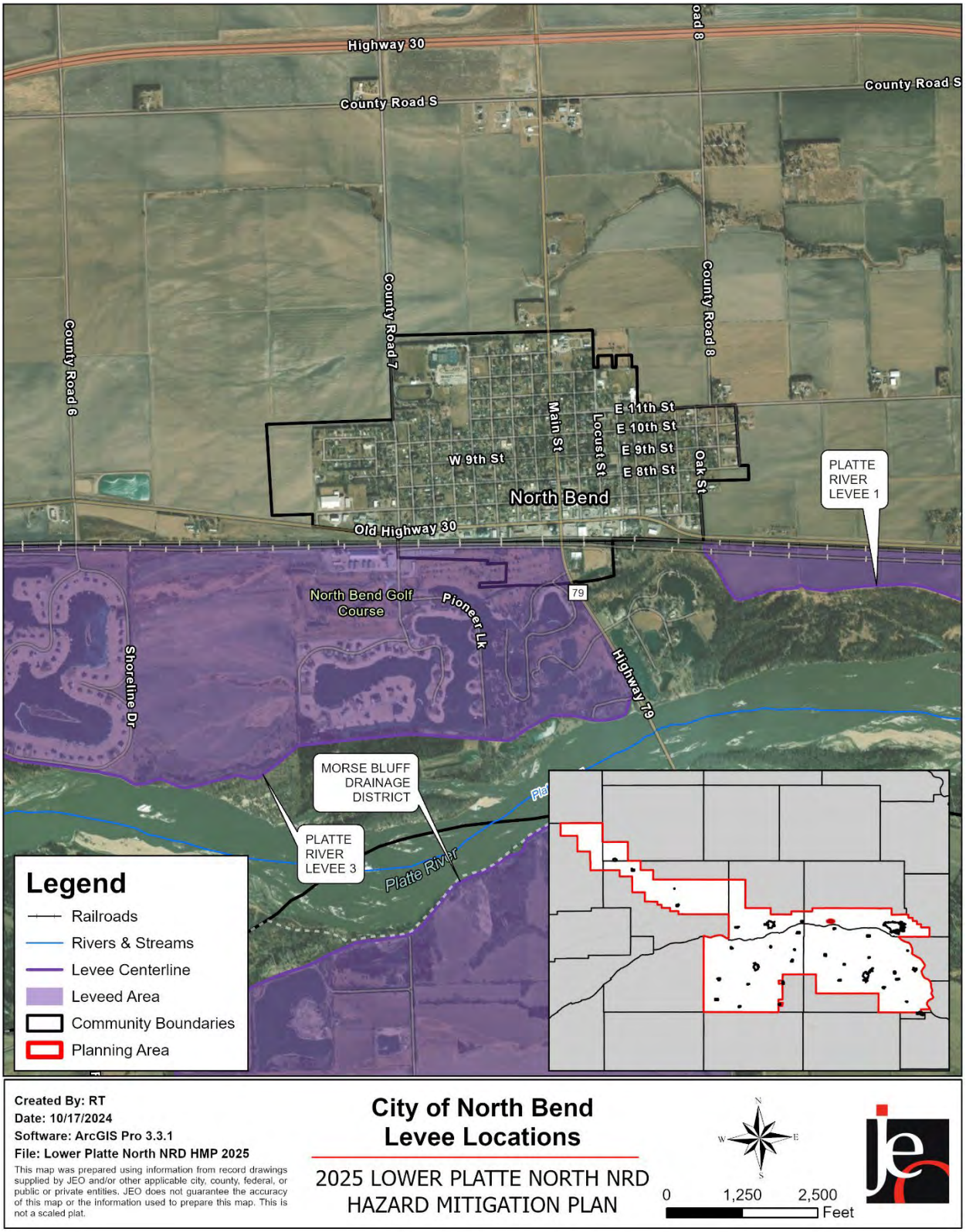
Severe Thunderstorms

Loss of power and poor stormwater drainage during heavy rains are the most concerning impacts of severe thunderstorms. Several high wind and heavy rain events have occurred in the city. Municipal records are protected from lightning storms with surge protectors on electronic devices. In case of a power outage, the water and sewer plant each have a generator. None of the power lines in the city are buried, making them vulnerable to a severe storm. North Bend is contentious about hazardous tree removal to mitigate tree and power line damage during storms.

Mitigation and Strategic Actions

Action	Stormwater System Improvements
Description & Location	Stormwater system improvements may include pipe upsizing and additional inlets. Retention and detention facilities may also be implemented to decrease runoff rates while also decreasing the need for other stormwater system improvements.
Hazard(s) Addressed	Flooding, Severe Thunderstorms
Estimated Cost	Varies
Local Funding	Developer/Privately Funded
Timeline	2-5 Years
Priority	High
Lead Agency	Streets Department
Status	Old Settlers Estates, a new residential development, plans to include retention areas on the outside edges of the development and in backyards that back up to each other.

Levee Locations in North Bend



Severe Winter Storms

North Bend experiences annual severe snowstorms with high winds. Severe winter storms are a concern because of power outages, snow removal, and rapid snow melts that cause flooding. The sewer plant has been damaged in the past from ice buildup on equipment. Most power lines in North Bend are not buried, making them vulnerable during severe winter storms. Snow removal is done by a contracted company; the city does not own snow removal equipment except for a small tractor with a bucket and a skid loader. Snow routes are in place on Walnut Street, Maple Street, and 10th Street throughout the city and downtown to aid in snow removal. North Bend hires contractors with two snowplows on pickup trucks, one skid loader, and one maintainer for snow removal. These resources are sufficient for the city's snow removal needs.

Mitigation and Strategic Actions

Action	Backup and Emergency Generators
Description & Location	Identify and evaluate current backup and emergency generators. Obtain additional generators based on identification and evacuation. Provide portable or stationary sources of backup power to redundant power supplies, lift stations, community lifelines, and future shelter locations.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfire, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$125,000
Local Funding	General Budget
Timeline	1 Year
Priority	Medium
Lead Agency	City Council
Status	New Action. The city will be purchasing a generator as a part of its new sewer lagoon project that will be used at the two lift stations.

Tornadoes and High Winds

One EF1 tornado and two funnel clouds have occurred in North Bend, damaging homes, trees, and power lines. The 1999 tornado damaged 14 houses in North Bend, two heavily. Municipal records have a backup system to protect them in case of a disaster. The fire department and the Fremont dispatch can activate the city's two warning sirens. The sirens do not cover the surrounding lake communities, including Pioneer Lake, which has been annexed into the city. County Emergency Management does offer text alerts. The city does not offer education on tornado preparedness and response. There are no FEMA certified safe rooms in the community so in case of a severe weather event community members can seek shelter in their basements. In case of a disaster the fire department has Mutual Aid Agreements with each community in Dodge and Saunders Counties.

Mitigation and Strategic Actions

Action	Safe Rooms and Storm Shelters
Description & Location	Design and construct storm shelters and safe rooms in highly vulnerable areas such as churches, schools, and other locations.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack. Tornadoes and High Winds
Estimated Cost	Varies by location and size
Local Funding	Forestry Service Grant
Timeline	2-5 Years
Priority	Low
Lead Agency	Health and Safety Department, Fire Department
Status	Resourcing with the school. The fire department is hoping to build a new station that would have a storm shelter for members.

Other Mitigation and Strategic Actions

Action	Drought Monitoring
Description & Location	Increase drought monitoring at a local and regional level.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	Staff Time, General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	Water Department
Status	Not started.

Action	Drought Ordinance
Description & Location	Create and pass a more robust drought ordinance. The NRD can work with local community leaders and water system operators to promote developing and updating local drought ordinances.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	Staff Time, General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Water Department, City Council
Status	Not started.

Action	Monitoring Wells
Description & Location	Work with the LPN NRD on possibly adding groundwater monitoring wells near the community.
Hazard(s) Addressed	Drought
Estimated Cost	Unknown
Local Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Water Operator, City Council
Status	New action. Not started.

Action	New Municipal Well
Description & Location	Drill a new well to replace Well 2.
Hazard(s) Addressed	Drought
Estimated Cost	Varies; $500,000 - $1,000,000
Local Funding	General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	Water Department, City Council
Status	New action. Not started.

Action	Public Education
Description & Location	Through activities such as outreach projects, distribution of maps and environmental education to increase public awareness of natural and technical hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property, especially on animal and plant diseases and drought. Also, educate citizens on water conservation methods, biosecurity plans, etc. and encourage the public to engage with the County Emergency Management Agency on emergency exercises for agricultural disease and drought conditions.
Hazard(s) Addressed	Animal & Plant Disease, Drought
Estimated Cost	$500+
Local Funding	General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	Health and Safety Department, Fire Department
Status	The Fire Department tests sirens monthly. Community members can sign up for Everbridge for mass notifications and alerts. Dodge County has an ongoing action of conducting emergency exercises for agricultural disease outbreaks.

Action	Update Comprehensive Plan
Description & Location	Update comprehensive plan. Integrate plan with Hazard Mitigation Plan components.
Hazard(s) Addressed	Animal & Plant Disease, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$15,000+
Local Funding	General Budget
Timeline	2-5 Years
Priority	Low
Lead Agency	Planning Commission
Status	Ongoing. Need funding to complete.

Action	Water System Improvements
Description & Location	Add a new filter to the water treatment plant and expand the plant.
Hazard(s) Addressed	Drought
Estimated Cost	Unknown
Local Funding	General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	Water Department, City Council
Status	New action. Not started.

Action	Well Transducers
Description & Location	Install transducers on wells to monitor water levels. The real-time groundwater level monitoring allows for early identification of declining water tables, helping to detect drought conditions earlier and track water levels over time. The NRD is currently working with interested community water systems to install the transducers in community wells at minimal cost to the community.
Hazard(s) Addressed	Drought
Estimated Cost	Unknown
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Water Department, City Council
Status	Not started.

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County Profile

Saunders County

Lower Platte North NRD
Hazard Mitigation Plan 2025

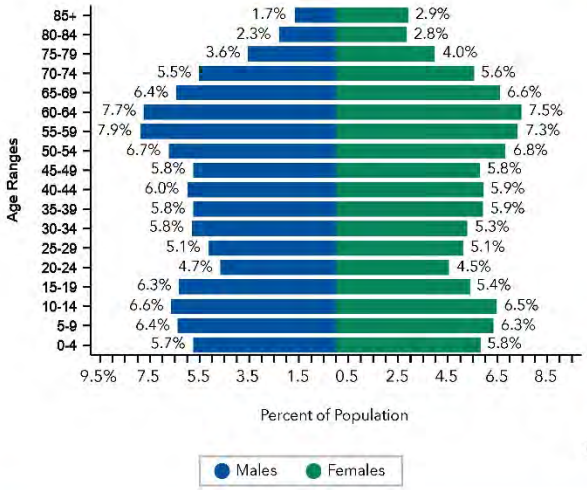
County Fact Sheet

Community Summary Fact Sheet

Saunders County, NE
Lower Platte North NRD Hazard Mitigation Plan 2025

22,926	43.7	8,989	2.52	$211,502	$74,322
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID



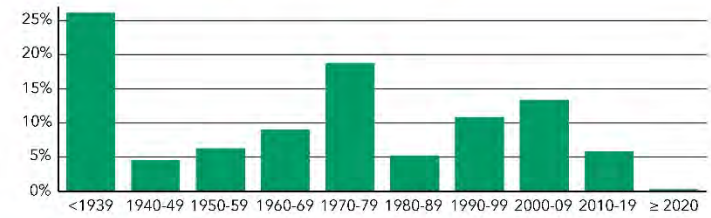
TOTAL POPULATION

2023 Total Population (Estimate)	22,926
2020 Total Population (U.S. Census)	22,278
2010 Total Population (U.S. Census)	20,780
2000 Total Population (U.S. Census)	19,830

AT RISK POPULATIONS

2,224	4,737	306	7%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

HOUSING: YEAR BUILT



EMPLOYMENT

859	1.9%
Total Businesses	Unemployment Rate

POPULATION BY RACE



- Black Population
- American Indian Population
- Asian Population
- Other Race Population
- Population of 2+ Races
- White Population

3% **of the Total Population is Hispanic**

HOUSING

1,231	4%
Vacant Housing Units	Mobile Homes

esri THE SCIENCE OF WHERE

Source: Esri, U.S. Census, Esri-Data Axle, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021.

Local Planning Team

Saunders County Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Terry Miller	Emergency Manager	Saunders County	Attended, Materials Development	Attended, Materials Development
Mitch Polacek	Floodplain Administrator	Saunders County	Materials Development	Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The Emergency Manager Director and the Floodplain Administrator will be responsible for reviewing and updating the community profile outside of the five-year update. Saunders County will review the plan every six months and the public will be notified through public notices.

Capability Assessment

The planning team assessed Saunders County's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	No
	Economic Development Plan	Yes
	Emergency Operations Plan	Yes
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	Yes
	Building Codes	Yes
	Wellhead Protection Plan	No
	Water System Emergency Response Plan	No
	National Flood Insurance Program	Yes
	Community Rating System	No
	Community Wildfire Protection Plan	Yes (Regional)
	Other (if any)	-
	Planning Commission	Yes

Capability/Planning Mechanism		Yes/No
Administrative & Technical Capability	Floodplain Administrator	Yes
	GIS Capabilities	No
	Chief Building Official	Yes
	Civil Engineering	Yes
	Grant Manager	Yes (DHS)
	Mutual Aid Agreement	Yes
	Other (if any)	-
Fiscal Capability	1- & 6-Year Plan	Yes (Highway Department)
	Applied for Grants in the Past	Yes
	Awarded a Grant in the Past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric/Water/Sewer Service Fees	No
	Storm Water Service Fees	No
	Development Impact Fees	Yes
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	Yes, CERT and Long-Term Recovery
	Ongoing Public Education or Information Program (e.g., Responsible Water Use, Fire Safety, Household Preparedness, Environmental Education)	Yes
	Natural Disaster or Safety Related School Programs	No
	StormReady Certification	Yes
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	-

Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Moderate
Public Support to Implement Projects	Moderate
Time to Devote to Hazard Mitigation	Moderate
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Moderate

National Flood Insurance Program (NFIP)

Saunders County is a member of the NFIP, having joined 12/1/1978, and the Floodplain Administrator oversees the commitments and requirements of the program. The Floodplain Administrator uses GWorks to determine if a development will be located in the floodplain. A floodplain application must be submitted along with a paid fee for development in the floodplain to occur. The Floodplain Administrator checks the location to determine if elevation or flood openings would be the best method. If improvements are possible, then a permit is issued. Building permits are not issued if a floodplain permit is not issued. Violations of the floodplain regulations are handled through the county attorney. After a flood event, the county implements substantial improvement and substantial damage provisions by reviewing the restoration bid and determining if it crosses the 50% threshold. Saunders County's floodplain regulations do not exceed the State of Nebraska requirements. Letters of Map Change are kept on file in the office of the floodplain administrator.

The local planning tram has stated that Saunders County will remain in good standing and be involved with the NFIP. Currently, the county has no barriers when running the program. There are not known areas in the county with limited NFIP coverage. The county presently uses no educational materials for the floodplain. Additional NFIP information is given in the table below.

Saunders County NFIP Information

NFIP Overview	
Date of NFIP Participation:	12/1/1978
Floodplain Administrator:	Mitch Polacek
Is Floodplain Administrator a Certified Floodplain Manager?	No
Is Floodplain Management an Auxiliary Function?	Yes
Number of NFIP Policies In-Force:	342
Total NFIP Premium ($):	$250,958
Total NFIP Coverage ($):	$97,109,000
Number of Claims Paid Out:	207
Total Amount of Claims Paid Out ($:)	$3,882,316
Number of Repetitive Loss Structures:	18
Number of Severe Repetitive Loss Structures:	2
Is the County Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	No
FIRMs Digital or Paper?	Digital
Located in a RISK Map Area?	No

Buildings and Valuation in the Floodplain

The planning team acquired GIS parcel data from the County Assessor and Microsoft building footprint data to analyze the location, number, and value of buildings located in the 100-year and 500-year floodplains. A summary of the results of this analysis is provided in the following tables.

Saunders County Buildings and Value in the 100-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
19,723	$4,342,892,822	1,642	$355,445,689	8.3%

Source: County Assessor, 2024; Microsoft, 2024

Saunders County Buildings and Value in the 500-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
19,723	$4,342,892,822	171	$40,421,868	0.9%

Source: County Assessor, 2024; Microsoft, 2024

Plans and Studies

Saunders County has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the county updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Building Code (2003)

The building code sets standards for constructed buildings and structures. The Saunders County building codes are based on the 2003 International Building Codes. There have not been any amendments made to the codes. Enforcement of the building codes is done through an inspector. The hazard mitigation plan has not been integrated with the building codes but all structures in the floodplain must be elevated or converted.

Comprehensive Plan (2004)

The comprehensive plan is designed to guide the future actions and growth of the county. The hazard mitigation plan has not been integrated with the comprehensive plan, but the document does discuss flooding as a natural hazard. The current plan directs development away from the floodplain, directs housing away from chemical storage facilities, directs housing and vulnerable populations away from major transportation routes, encourages infill development, and encourages elevation of structures in the floodplain. There is a plan to update the comprehensive plan in 2025, and the update will include goals and objectives aimed at Safe Growth.

East Central Planning, Exercise and Training Region Threat and Hazard Identification and Risk Assessment (2024)

The Threat and Hazard Identification and Risk Assessment (THIRA) is a three-step process for communities and regions to understand and address their risks and capabilities. Counties in the East Central Planning, Exercise and Training (PET) Region were asked what threats and hazards affected their counties and communities, what impacts those threats and hazards would have if they occurred, and what capabilities they should have based on those impacts. Updates to the THIRA are made every three years. Due to the sensitive nature of the THIRA document, it is not included as an annex to the hazard mitigation plan. However, the NRD and all counties have copies of the THIRA. Findings from the THIRA process were integrated into the hazard mitigation plan in the hazard risk assessments and mitigation alternatives.

Floodplain Regulations (2004)

The county's floodplain regulations outline requirements for structures and developments located in the 1-percent annual chance floodplain. By having floodplain regulations, the county promotes public health, safety, and welfare by minimizing losses due to floods. It also helps to assure eligibility of purchasing flood insurance for property owners. The floodplain regulations limit population density in the floodplain. The county plans on updating the floodplain regulations in 2025.

Lower Platte North NRD Drought Risk and Resiliency Report (2025)

The purpose of the Lower Platte North NRD Drought Risk and Resiliency Report is to better understand drought risks on community water systems within the NRD and establish proactive measures to reduce impacts from drought throughout the NRD. The report includes the development of drought mitigation strategies based on the outcomes of the drought risk analysis and meetings with communities. Also included with the report is a community engagement materials kit and sample drought ordinances for communities to utilize and update to fit their needs. Outcomes have been integrated into community profiles and the drought risk profile in this hazard mitigation plan. The Drought Risk and Resiliency Report is included as an annex to the hazard mitigation plan.

Saunders County Local Emergency Operations Plan (2021)

The Saunders County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. The hazard mitigation plan has been integrated with this plan and includes the top hazards that would affect the county and its populations. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines.

Southeast Nebraska Community Wildfire Protection Plan (2020)

The purpose of the Southeast Nebraska Community Wildfire Protection Plan CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years.

Subdivision Regulations (2004)

The county's subdivision regulations govern the division of land from one or more larger parcels into smaller lots. The hazard mitigation plan has not been integrated with the subdivision regulations. However, development is restricted in hazard prone areas. The subdivision regulations are expected to be updated in 2025.

Zoning Ordinance (2004)

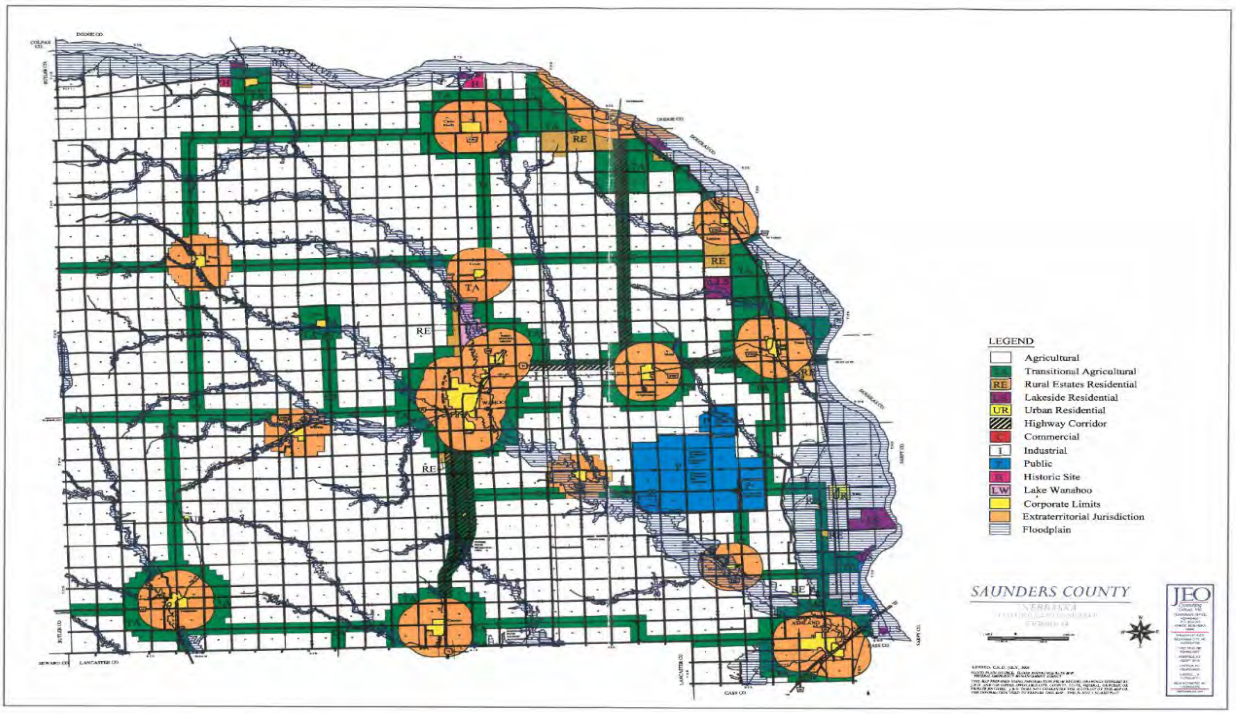
The county's zoning ordinance outlines where and how development should occur in the future. The hazard mitigation plan has not been integrated with the zoning ordinance. Housing and vulnerable populations are discouraged near chemical storage sites. There is a plan to update the zoning ordinance in 2025.

Future Development Trends

Over the past five years, new structures have been developed along lakesides in Saunders County. These structures were either elevated or used flood openings as mitigation strategies. A large subdivision has been added near Yutan called Estates Provence and is anticipated to be developed in the near future. For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted regardless of where they are located.

The Future Land Use map below indicates intended growth areas in Saunders County over time. Transitional agricultural land use is designated along major highway corridors and surrounding the extraterritorial jurisdictional land uses for many communities. A large public land use area is designated in the southeast portion of the county south of Mead and Yutan. Lakeside residential development is primarily on the east of the county along the Platte River. Some of the lakeside development land use is located within the floodplain.

Future Land Use Map



Community Lifelines

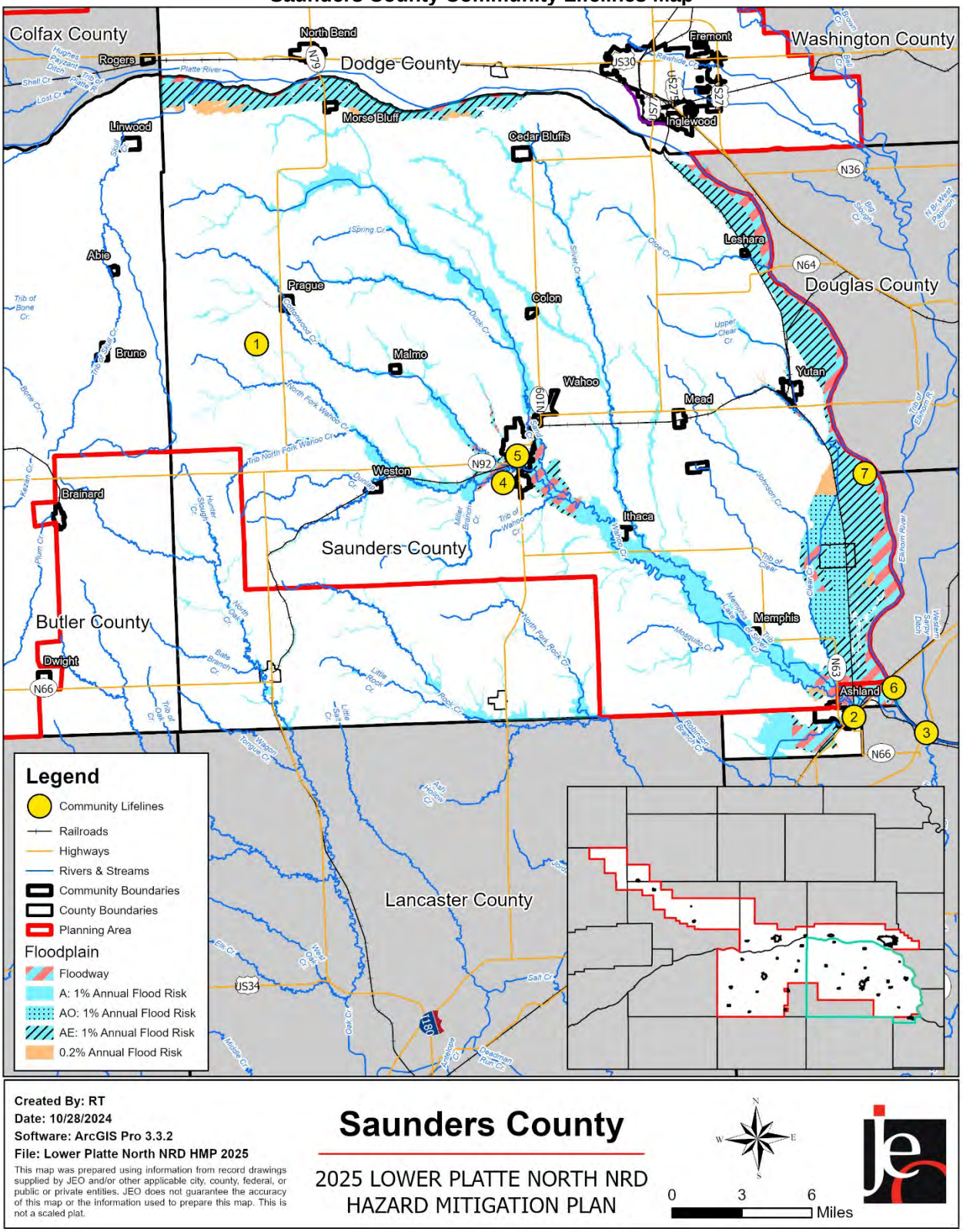
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Saunders County Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	911 Tower	Communications	G	N
2	Lincoln Water System Plant	Food, Water, Shelter	-	N
3	Platte River Bridge	Transportation	-	Y (Floodway)
4	Saunders County Community Hospital	Health and Medical	G	N
5	Saunders County District Courthouse	Safety and Security	G	N
6	City of Lincoln Water Wells	Food, Water, Shelter	-	Y (Floodway)
7	MUD Water Wells	Food, Water, Shelter	-	Y (1%)

Saunders County Community Lifelines Map



Hazard Historical Occurrences

Saunders County Hazard Loss History

Hazard Type		Count	Property Damage	Crop Damage[2]
Animal & Plant Disease	Animal Disease[1]	28	154 Animals	N/A
	Plant Disease[2]	18	N/A	$182,485
Dam Failure[5]		0	$0	N/A
Drought[6]		518 out of 1,548 Months	$55,000	$59,421,413
Extreme Temperatures	Extreme Heat[7]	Avg. 6 Days a Year	N/A	$6,683,608
	Extreme Cold[7]	Avg. 31 Days a Year	$0	$96,815
Flooding[8]	Flash Flood	24	$266,500	$1,131,798
	Flood	51	$55,389,000	
Grass/Wildfires[9] *1 Injury, 2 Fatalities*		432	3,372 Acres Burned	$11,308
Hazardous Materials Release	Fixed Site[3]	4	$0	N/A
	Transportation[4]	5	$57,407	N/A
Levee Failure[11]		1	$9,200,000	N/A
Severe Thunderstorms[8]	Hail Range: 0.75-3 Inches Average: 1.1 Inches	211	$250,000	$10,950,205
	Thunderstorm Wind Range: 50-100 mph Average: 57 mph	148	$700,000	$9,100,994
	Heavy Rain	4	$0	
	Lightning	2	$103,000	
Severe Winter Storms[8]	Blizzard	9	$0	$352,977
	Heavy Snow	7	$2,000,000	
	Ice Storm	4	$0	
	Winter Storm	52	$0	
	Winter Weather	16	$0	
Terrorism & Cyber-Attack[10]		0	$0	N/A
Tornadoes and High Winds[8]	High Winds Range: 35-57 mph Average: 47 mph	22	$0	$2,848,535
	Tornadoes Range: EF0-EF1 Average: EF0	17	$365,000	$1,985
Total		**1,055**	**$8,385,907**	**$90,782,123**

N/A: Data not available
1 – NDA, 2014 – 2023
2 - USDA RMA, 2000 –2023
3 – NRC, 1990 – December 2023
4 – PHSMA, 1971 – June 2024
5 – Stanford University NPDP, December 2023
6 – NOAA, 1895 – December 2023
7 – NOAA Regional Climate Center, 1893 – 2024
8 – NCEI, 1996 - December 2023
9 – NFS, 2000 - 2023
10 – University of Maryland, 1970 – 2017
11 – USACE, 2019-2021

Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Saunders County which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by Saunders County. d their vulnerability to all other hazards to be of secondary concern, however Saunders County has identified mitigation actions to reduce the impacts of the hazards. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Animal & Plant Disease

The agricultural industry in Saunders County is a major segment of the county's economy. A major outbreak in animals or plants would have a devastating economic effect on the local economy. The primary concern related to this hazard is possible contamination and spread during the County Fair when animals from around the county are in close contact with one another. The County Fair has a policy that all market class animals be sold at the fair. Cattle are the animal population of greatest concern due to the feedlots in the county. There have been no large widespread disease outbreaks in the past. Response to an outbreak would involve local, state, and other entities as no single agency has full authority to deal with a large-scale situation. Limited resources in some areas of the county may decrease response time to this hazard. Continuing education about animal and plant disease is a strategy to reduce the risks and impacts of this hazard.

Mitigation and Strategic Actions

Action	Public Education
Description & Location	Through activities such as outreach projects, distribution of maps and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards. Also educate citizens on water conservation methods, evacuation plans, etc. Coordinate with Nebraska Extension services on educational and outreach efforts for agricultural and natural hazards.
Hazard(s) Addressed	Animal & Plant Disease, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$1,000
Local Funding	General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	County Emergency Management
Status	Ongoing. Saunders County encourages residents to be aware of potential hazards and concerns.

Dam Failure

Lake Wanahoo Dam is the dam of most concern for the county due to the possible impacts on the City of Wahoo should it fail. Other high hazard dams in the planning area include Cottonwood Creek 21-A and Cottonwood Creek 7-A. These dams are located near the Village of Prague and the Village of Malmo. Each high hazard dam has a response plan and an emergency action plan. The county adopted a dam breach map from the Lower Platte North NRD about six years ago that extends the floodplain downstream of dams. There have been no historical dam failures in

Saunders County. The NRD has an inspection schedule for dams and levees which is a strategy the planning team has identified to continue to do to reduce the risks and impacts of this hazard. The figure below shows all the dams located in Saunders County with the three high hazard dams as red triangles.

Mitigation and Strategic Actions

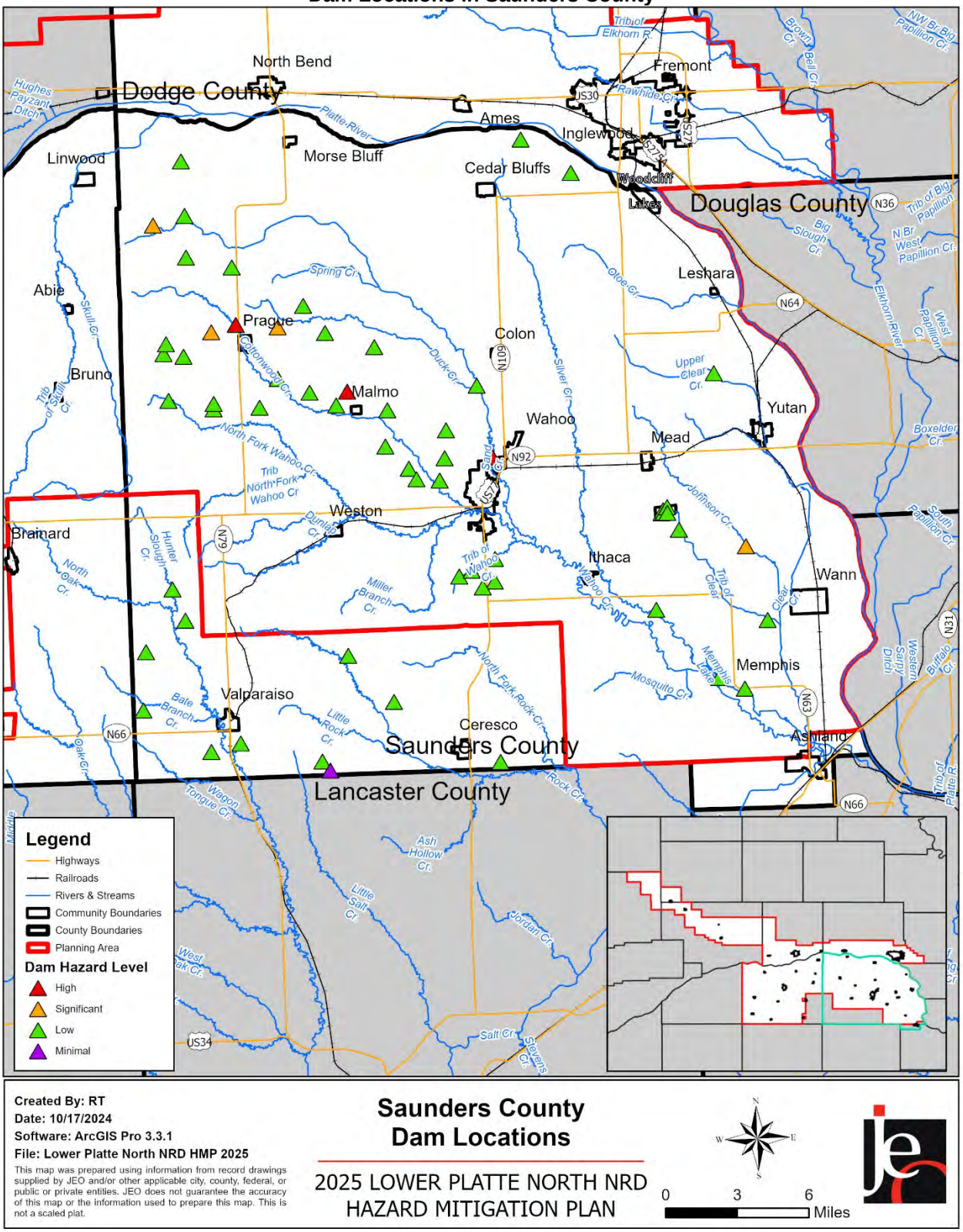
Action	Acquire High Risk Flooding Property
Description & Location	Voluntary acquisition and demolition of properties prone to flooding will reduce the general threat of flooding for communities. Additionally, this can provide flood insurance benefits to those communities within the NFIP. Repetitive loss structures are typically highest priority.
Hazard(s) Addressed	Dam Failure, Flooding, Levee Failure
Estimated Cost	Varies by number of properties
Local Funding	General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	County Emergency Management, Local Jurisdictions
Status	On hold.

Action	Facilities for Vulnerable Populations
Description & Location	Evaluate vulnerable populations or placement of vulnerable populations throughout the community. Ensure facilities which house vulnerable populations are placed in the least vulnerable areas of the community. Reinforce existing facilities housing vulnerable populations if unable to relocate.
Hazard(s) Addressed	Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	Varies
Local Funding	General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Building, Planning/Zoning
Status	Ongoing. Saunders County LEOP has mass care facilities located in Mead, Wahoo, and Yutan for post-disaster emergencies.

Flooding

Flooding is an annual occurrence in the county. The March 2019 floods proved to be the costliest. Fifty NFIP claims were submitted from the flooding event resulting in $2,001,435 in total net payments for Saunders County alone. This does not account for the costs for the levee repair projects. Lincoln Waterworks well fields were also damaged in the 2019 floods which caused voluntary water restrictions in the City of Lincoln. To mitigate impacts from future flooding, all structures within the floodplain must be elevated at least one foot above Base Flood Elevation. Continued inspections and repairs of dams and levees have been identified to reduce the risks and impacts of flooding. Bodies of water most likely to flood include the Platte River, Salt Creek, and Wahoo Creek.

Dam Locations in Saunders County



Mitigation and Strategic Actions

Action	Drainage Study/Stormwater Master Plan
Description & Location	Drainage studies can be conducted to identify and prioritize improvements to address a site-specific localized flooding/ drainage problem. Stormwater master plans can be conducted to perform a community-wide stormwater evaluation, identifying multiple problem areas, and potentially multiple drainage improvements for each.
Hazard(s) Addressed	Flooding
Estimated Cost	$15,000+
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Planning and Zoning Department, Community Zoning Departments
Status	Ongoing. The Wahoo Creek Watershed Plan approved in 2022 identifies and prioritizes improvements on flood control needs in parts of the county.

Action	Flood Prone Property Mitigation
Description & Location	Decrease the number of structures in the floodplain or at risk to flooding by raising structures or filling in basements.
Hazard(s) Addressed	Dam Failure, Flooding, Levee Failure
Estimated Cost	Varies by number of properties
Local Funding	General Budget
Timeline	Ongoing
Priority	Medium
Lead Agency	County Emergency Management, Local Jurisdictions
Status	Ongoing. Floodplain regulations help limit or retrofit structures.

Action	Stormwater System Improvements
Description & Location	Based on Saunders County's flooding problems, the county is planning to upsize culverts across the county. Culverts are not presently fitted large enough.
Hazard(s) Addressed	Flooding
Estimated Cost	Varies by project
Local Funding	General Budget
Timeline	Ongoing.5+ Years
Priority	Medium
Lead Agency	Department of Roads
Status	Ongoing. Some jurisdictions in Saunders County are working on improving their stormwater and drainage systems and continuing proper maintenance of those systems.

Action	Stream Bank Stabilization Grade Control Structures/Channel Improvements
Description & Location	Stabilization improvements including rock rip rap, vegetative cover, j-hooks, boulder vanes, etc. can be implemented to reestablish the channel banks. Channel stabilization can protect structures, increase conveyance and provide flooding benefits.
Hazard(s) Addressed	Flooding
Estimated Cost	Unknown
Local Funding	General Budget
Timeline	Ongoing/5+ Years
Priority	High
Lead Agency	Department of Roads, townships, Drainage Districts, Private Entities
Status	Ongoing. A project has been identified for flood control in the Upper Wahoo Creek Watershed Plan.

Action	Stream Gauges
Description & Location	Add stream gauges across the county, above the dam at Salt Creek, below the dam on Wahoo Creek, and on Cotton Creek.
Hazard(s) Addressed	Flooding
Estimated Cost	$35,000
Local Funding	General Budget
Timeline	2-5 Years
Priority	High
Lead Agency	County Emergency Management
Status	Ongoing.

Levee Failure

The figure below shows the location and names of all the levees identified in the National Levee Database. All of the levees are non-accredited by FEMA and provide less than a 1 percent annual chance of flood protection. During the March 2019 flood event four levees in the county breached, flooding areas along the Platte River. Roads, farmland, and residential structures were all damaged due to the levee breaches. Clean up and repair are still ongoing across the county. Levees of most concern include the Leshara Drainage District Levee and the Platte Valley Drainage District Levee. Both were damaged during the flooding and repairs have yet to occur due to low budget. The county has encouraged levee owners to inspect their levees on a regular basis. Continued inspections and conducting needed repairs have been identified as strategies to reduce the risks and impacts of levee failure. The local planning team noted that external assistance is needed to reduce the risks and impacts to this hazard.

Mitigation and Strategic Actions

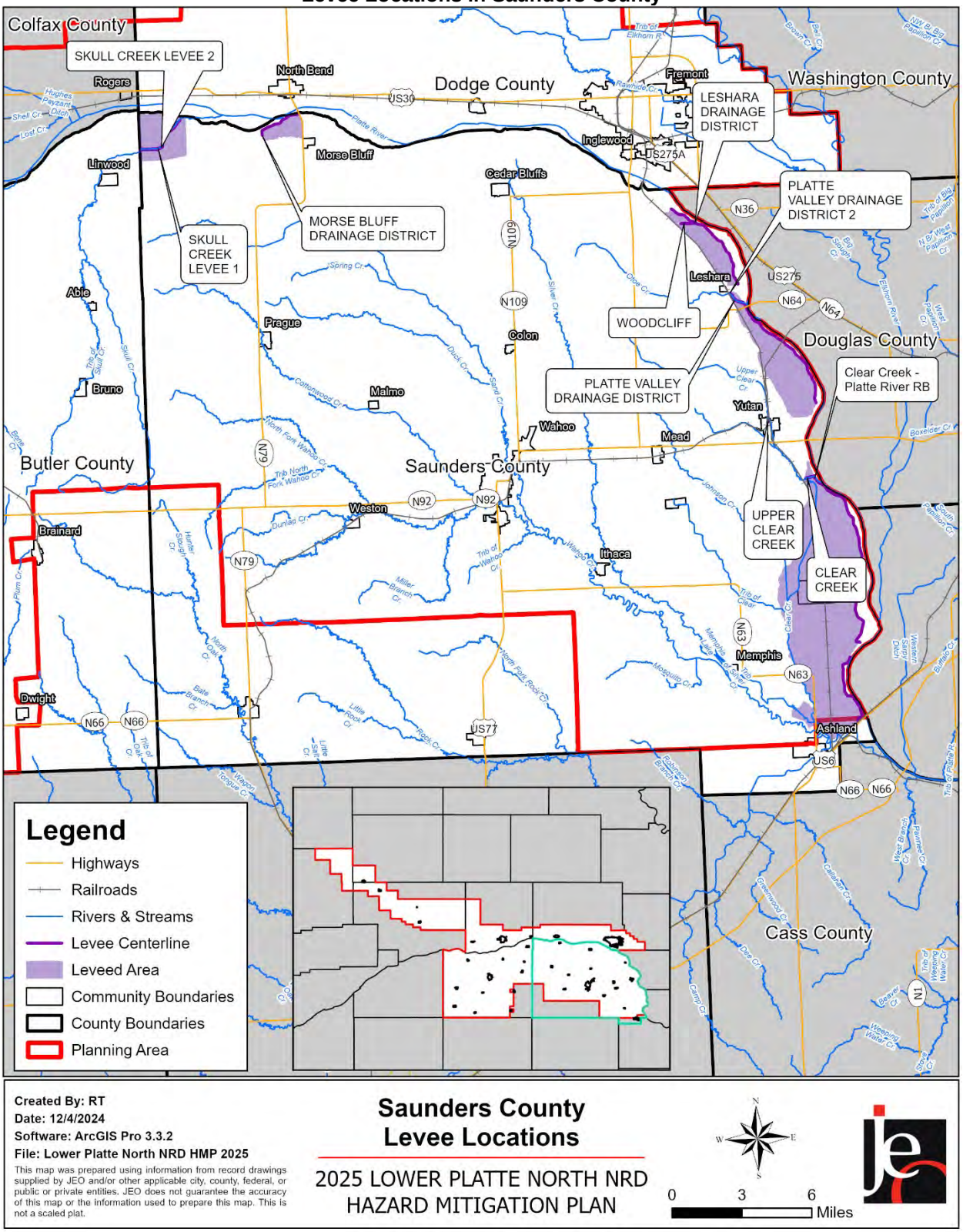
Action	Develop Weather Alert Protocol
Description & Location	In collaboration with the National Weather Service, develop a warning protocol for severe weather and integrate event cancelation notification procedures during hazardous events.
Hazard(s) Addressed	Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$5,000 annually
Local Funding	General Budget
Timeline	1 Year
Priority	High
Lead Agency	County Emergency Management
Status	Ongoing. The county emergency manager uses Alert Sense for mass notification and submitted a Notice of Intent for this action and has received contact with NEMA to verify if funding was still needed.

Action	Infrastructure Assessment Study
Description & Location	Conduct an assessment of bridges and infrastructure in potential areas of concern.
Hazard(s) Addressed	Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	Staff Time
Local Funding	Staff Time
Timeline	5+ Years/Ongoing
Priority	High
Lead Agency	Roads Department
Status	Ongoing. The Roads Department hires a contractor for transportation infrastructure.

Removed Mitigation and Strategic Actions

Action	Event Cancelation and Notification Procedures
Description & Location	Develop and/or update event cancelation notification procedures during hazardous events.
Hazard(s) Addressed	Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Status	Removed and merged with *Develop Weather Alert Protocol* action.

Levee Locations in Saunders County



Severe Thunderstorms

Severe thunderstorms are an annual occurrence across the county. The costliest thunderstorm for Saunders County occurred on September 13, 2010, that caused an estimated $750,000 in damages. The primary concern related to severe thunderstorms is getting residents and businesses proper notification that a storm will occur or is occurring. County residents are urged to sign up for the mass notification system through Alert Sense and have applications on their phone to local media outlets. However, these are voluntary and not all residents have signed up. Past impacts include 911 equipment failure when a lightning strike hit the courthouse roof. County Emergency Management and the National Weather Service have provided weather radios to all the schools in the county. Saunders County has mitigated the risks from severe thunderstorms by promoting citizens to have situational awareness, continuing to monitor local media and forecast, and enforcing buildings codes. Continued education and enforcing building codes have been identified as strategies to reduce future risks to this hazard.

Mitigation and Strategic Actions

Action	First Aid Training
Description & Location	Promote first aid training for all residents and staff.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$100 per person
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	County Emergency Management
Status	Ongoing. First Aid/CPR certification needs to be renewed every 2 years.

Action	Improve Construction Standards and Building Survivability
Description & Location	Evaluate building standards/codes/requirements. Implement new or improved building standards/codes/requirements. Promote use of higher codes and standards, such as fortified for Safer Living Standard, in order to provide greater protection for any new construction or building retrofits.
Hazard(s) Addressed	Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	Staff Time
Local Funding	Staff Time
Timeline	2-5 Years
Priority	Medium
Lead Agency	Building, Planning/Zoning
Status	Ongoing. Building code should be reviewed.

Action	Infrastructure Hardening
Description & Location	Harden community lifelines to withstand high winds, hail, heavy snow, etc. by hardening roofs, hail resistant barriers to HVAC systems, shatter-proofing windows, building tie-downs and anchors, flood walls, and other architectural designs that reduce damage.
Hazard(s) Addressed	Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	Varies
Local Funding	General Budget
Timeline	Ongoing
Priority	Medium
Lead Agency	County Emergency Management
Status	Ongoing. Projects identified and managed as needed.

Action	Safe Rooms and Storm Shelters
Description & Location	Design and construct storm shelters and safe rooms in highly vulnerable areas such as churches, schools, and other areas.
Hazard(s) Addressed	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	Varies by size
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Emergency Management
Status	Ongoing. Some communities in the county have a safe room or are in the process of constructing a storm shelter.

Other Mitigation and Strategic Actions

Action	Capacity Building
Description & Location	Small communities require more EMT personnel.
Hazard(s) Addressed	Animal & Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	Varies by project
Local Funding	General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	County Emergency Management, Local Fire Departments
Status	Ongoing. Volunteer fire departments are still trying to recruit members.

Action	Comprehensive Disaster / Emergency Response Plan
Description & Location	Develop and/or update a Comprehensive Disaster and Emergency Response Plan.
Hazard(s) Addressed	Animal & Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$15,000
Local Funding	General Budget
Timeline	2-5 Years
Priority	Low
Lead Agency	County Emergency Management, Planning/Zoning
Status	Ongoing. LEOP is updated every five years.

Action	Continuity Planning
Description & Location	Develop continuity plans for critical community services. Develop continuity plans for critical services in order to increase resiliency after a hazardous event. Encourage businesses to develop continuity plans.
Hazard(s) Addressed	Animal & Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$10,000
Local Funding	General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	County Emergency Management
Status	Ongoing. Some information found in the county LEOP.

Action	Database of Vulnerable Population
Description & Location	Work with stakeholders to develop a database of vulnerable populations and the organizations which support them.
Hazard(s) Addressed	Animal & Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	Staff Time
Local Funding	Staff Time
Timeline	5+ Years
Priority	Low
Lead Agency	County Emergency Management
Status	Ongoing. Some jurisdictions have contact information of all residents in their community. Local and regional plans and studies have information on high-risk areas.

Community Profile

Village of Cedar Bluffs



Lower Platte North NRD
Hazard Mitigation Plan 2025

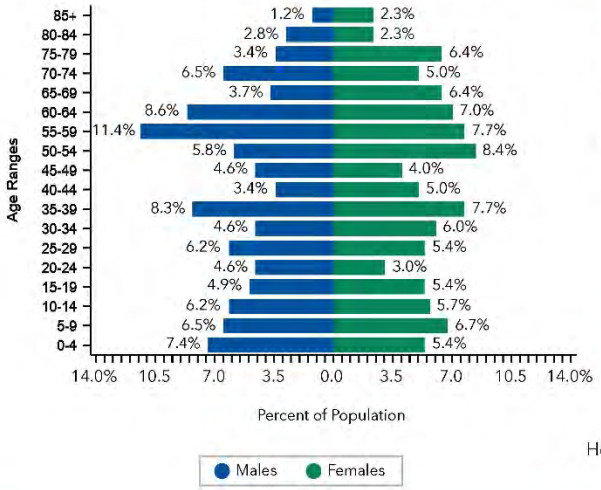
Community Fact Sheet

Community Summary Fact Sheet

Cedar Bluffs, NE
Lower Platte North NRD Hazard Mitigation Plan 2025

623	43.6	240	2.60	$163,889	$72,178
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID



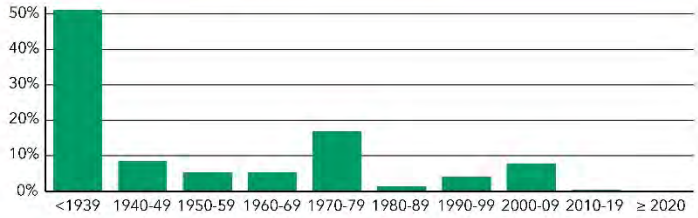
TOTAL POPULATION

2023 Total Population (Estimate)	623
2020 Total Population (U.S. Census)	615
2010 Total Population (U.S. Census)	598
2000 Total Population (U.S. Census)	623

AT RISK POPULATIONS

63	124	4	10%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

HOUSING: YEAR BUILT



EMPLOYMENT

22	1.8%
Total Businesses	Unemployment Rate

POPULATION BY RACE



- Asian Population
- Black Population
- Other Race Population
- American Indian Population
- Population of 2+ Races
- White Population

2% **of the Total Population is Hispanic**

HOUSING

31	2%
Vacant Housing Units	Mobile Homes

esri THE SCIENCE OF WHERE

Source: Esri, U.S. Census, Esri-Data Axle, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021.

Local Planning Team

Cedar Bluffs Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Kimberly Shanahan	Board Chairperson	Village of Cedar Bluffs	Attended	-
McKenzie McCarter	Village Clerk	Village of Cedar Bluffs	-	Materials Development
Andy Nelson	Utilities Supervisor	Village of Cedar Bluffs	-	Attended

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The Village Clerk, Utilities Supervisor, and Board of Trustees will be responsible for reviewing and updating the community profile outside of the five-year update. Cedar Bluffs will review the plan annually and the public will be notified at public board meetings.

Capability Assessment

The planning team assessed the Village of Cedar Bluffs' hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Cedar Bluffs Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	Yes
	Economic Development Plan	No
	Emergency Operations Plan	Yes
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	Yes
	Building Codes	Yes
	Water System Emergency Response Plan	Yes
	Wellhead Protection Plan	No
	National Flood Insurance Program	Yes
	Community Rating System	No
	Community Wildfire Protection Plan	Yes (Regional)
	Other (if any)	-

Capability/Planning Mechanism		Yes/No
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administrator	Yes
	GIS Capabilities	Yes
	Chief Building Official	Yes
	Civil Engineering	Yes
	Grant Manager	No
	Mutual Aid Agreement	No
	Other (if any)	-
Fiscal Capability	1- & 6-Year Plan	Yes
	Applied for Grants in the Past	Yes
	Awarded a Grant in the Past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric/Water/Sewer Service Fees	Yes (Water, Sewer)
	Storm Water Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	No
	Ongoing Public Education or Information Program (e.g., Responsible Water Use, Fire Safety, Household Preparedness, Environmental Education)	Yes
	Natural Disaster or Safety Related School Programs	Yes
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	-

Cedar Bluffs Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Limited
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

National Flood Insurance Program (NFIP)

Cedar Bluffs is a member of the NFIP, having joined on 9/24/1984, and the Village Board and Planning and Zoning Administrator oversee the commitments and requirements of the program. The Floodplain Administrator and designated parties use the Nebraska DNR interactive floodplain maps to determine if a development will be located in the floodplain. Floodplain permits are required and reviewed by the village board. The board reviews the floodplain ordinance, comprehensive plan, and the zoning address on how to proceed. Development is not approved until the board has reviewed all information in accordance with the ordinance and zoning regulations. After a flood event, the Village Board, Planning Commission, and Zoning Administrator identify substantially damaged and substantially improved structures. The village's floodplain regulations do not exceed the State of Nebraska requirements.

The local planning team has stated that Cedar Bluffs will remain in good standing and be involved with the NFIP. One barrier to running the program effectively is the change in staff. There are currently no known areas in the community with limited NFIP coverage. The village educates community members about the importance of flood insurance by identifying flood zones and updating flood zone maps and areas. Additional NFIP information is given in the table below.

Cedar Bluffs NFIP Information

NFIP Overview	
Date of NFIP Participation:	9/24/1984
Floodplain Administrator:	Kyle Block
Is Floodplain Administrator a Certified Floodplain Manager?	No
Is Floodplain Management an Auxiliary Function?	Yes
Number of NFIP Policies In-Force:	1
Total NFIP Premium ($):	$428
Total NFIP Coverage ($):	$140,000
Number of Claims Paid Out:	8
Total Amount of Claims Paid Out ($:)	$6,326
Number of Repetitive Loss Structures:	0
Number of Severe Repetitive Loss Structures:	0
Is the Community Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	No
FIRMs Digital or Paper?	Digital
Located in a RISK Map Area?	No

Buildings and Valuation in the Floodplain

The planning team acquired GIS parcel data from the County Assessor and Microsoft building footprint data to analyze the location, number, and value of buildings located in the 100-year and 500-year floodplains. A summary of the results of this analysis is provided in the following tables.

Cedar Bluffs Buildings and Value in the 100-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
338	$38,487,118	10	$977,224	3.0%

Source: County Assessor, 2024; Microsoft, 2024

Cedar Bluffs Buildings and Value in the 500-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
338	$38,487,118	0	$0	0%

Source: County Assessor, 2024; Microsoft, 2024

Plans and Studies

The Village of Cedar Bluffs has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When Cedar Bluffs updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Building Code

The building code sets standards for constructed buildings and structures. Enforcement of the building code is done by the village board and the Zoning Administrator. An ordinance in 2010 integrates hazard mitigation in the building code.

Comprehensive Plan (2003)

The comprehensive plan is designed to guide the future actions and growth of the village. Goals aimed at Safe Growth techniques are included in the comprehensive plan. The plan also directs development away from the floodplain and chemical storage facilities. Infill development and elevating structures located in the floodplain are recommended in the comprehensive plan. The hazard mitigation plan has not been integrated into the village's comprehensive plan, but Cedar Bluffs plans to update its comprehensive plan between 2025 and 2026.

Floodplain Ordinance (2010)

The village's floodplain ordinance outlines requirements for structures and developments located in the 100-year floodplain. By having a floodplain ordinance, the village promotes public health, safety, and welfare by minimizing losses due to floods. It also helps to assure eligibility of purchasing flood insurance for property owners. The floodplain regulations discourage development and limit population density in the floodplain. More than one foot of elevation above the Base Flood Elevation is required for structures in the floodplain. Cedar Bluffs plans on updating the floodplain ordinance between 2025 and 2026.

Saunders County Local Emergency Operations Plan (2021)

The Saunders County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. The hazard mitigation plan has been integrated with this plan and includes the top hazards that would affect the county and its populations. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines.

Southeast Nebraska Community Wildfire Protection Plan (2020)
The purpose of the Southeast Nebraska Community Wildfire Protection Plan CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years.

Stormwater Management Plan (2009)
The stormwater management plan prioritizes design improvements to address localized flooding and drainage issues. The hazard mitigation plan has not been integrated into this plan.

Subdivision Regulations (2003)
The village's subdivision regulations govern the division of land from one or more larger parcels into smaller lots. The subdivision regulations has restrictions on the subdivision of land within or adjacent to the floodplain. The hazard mitigation plan has not been integrated in the subdivision regulations, but there is a plan to update the regulations between 2025 and 2026.

Water System Emergency Response Plan (2024)
A water system emergency response plan serves as a guideline for water operators and village board to minimize the disruption of normal services to consumers and to provide public health protection during an emergency event. The document identifies several natural and human-caused events and discusses the water system's response during those events.

Wellhead Protection Plan (1996)
The purpose of wellhead protection plans is to protect the public drinking water supply wells from contamination. It includes identifying potential sources of groundwater contamination in the area and managing the potential contaminant sources. The hazard mitigation has not been integrated in the wellhead protection plan.

Zoning Ordinance (2003)
The village's zoning ordinance outlines where and how development should occur in the future. The zoning ordinance restricts development in hazard prone areas, includes well setback requirements, and includes the ability to implement water restrictions. Placement of housing and vulnerable populations near chemical storage sites is discouraged in the zoning ordinance. The zoning ordinance also takes into consideration wildfire and the wildland urban interface.

Future Development Trends
Over the past five years, new residential properties have been developed, and one house was removed within the village. One property was constructed in a new area, another on a vacated lot, and the remaining new houses were on existing lots. For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted. According to the local planning team no new developments occurred in any known hazard locations.

A subdivision in the community is expected to expand in the northeast corner of town, and part of the development is in the floodplain. A new municipal well is needed before the subdivision begins

development. Three residential lots and a commercial area are planned in the southeast portion of Cedar Bluffs. Part of this area is within the 1 percent annual flood risk zone. The identified future development in the community could increase the community's vulnerability to flooding due to portions of the properties being located in flood risk areas. There are discussions about development occurring in the northwest area of the village, which is not within a flood risk area.

Community Lifelines

As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.

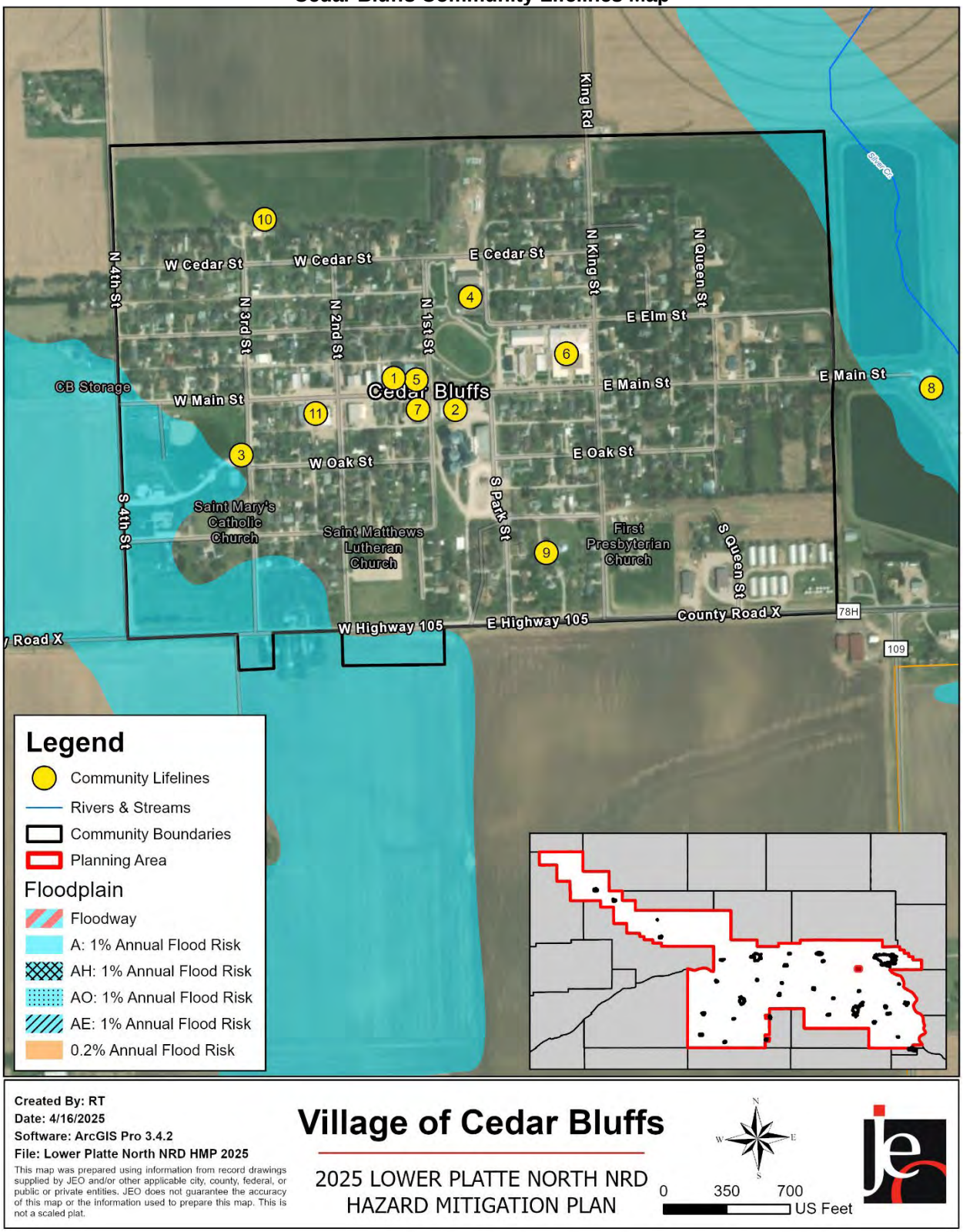


Cedar Bluffs Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain
1	Auditorium	Other	-	N
2	Fire Station	Safety and Security	G	N
3	Lift Station	Food, Water, Shelter	G	N
4	Miown Fuel Co	Hazardous Materials	-	N
5	Miown Gas Station	Energy	-	N
6	School	Safety and Security	-	N
7	Village Hall	Safety and Security	G	N
8	Wastewater Treatment, Lagoons, and Lift Station	Food, Water, Shelter	G	Y (1%)
9	Water Tower	Food, Water, Shelter	-*	N
10	Well Head #3	Food, Water, Shelter	-*	N
11	Well Head #5	Food, Water, Shelter	G	N

**A portable generator is available.*

Cedar Bluffs Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Cedar Bluffs which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Village of Cedar Bluffs. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however Cedar Bluffs has identified mitigation actions to reduce the impacts of the hazards. Dam Failure and Levee Failure have been omitted from this profile as there are no high hazard dams upstream or any levee protected areas near the community according to NeDNR and USACE data. Therefore, no mitigation actions have been identified for those two hazards. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Drought

Drought is a concern for the village because there are arsenic issues with both wells. Currently, the village has to blend both wells to meet standards. New well sites are being explored along with the possibility of constructing a water treatment facility. A new subdivision is planned in the community, but it will not occur without a new well to expand capacity. The village has a 150,000-gallon water tower and water use is metered. In the near future, the village will have a preliminary engineering report completed for the water system.

As part of the NRD's Drought Risk and Resiliency Report, the NRD met with the clerk and water operator to discuss the water system's vulnerability to drought. The table below was created based off of those conversations and water system documents provided by Cedar Bluffs. Low categories included water quantity, water quality, capabilities (ordinances & plans), regional drought monitoring, and emergency water supply. The village does not have a drought ordinance and does not do any regional drought monitoring. They also do not have any agreements or MOUs in place for emergency water.

Cedar Bluffs Drought Risk Matrix

Risk Category	Rating
Water Quantity	Low
Water Quality	Low
Capabilities (Ordinances & Plans)	Low
Capabilities (Staff)	Medium
Local Drought Monitoring	Medium
Regional Drought Monitoring	Low
Emergency Supply	Low
Local Funding Ability	High

Mitigation and Strategic Actions

Action	Drought Monitoring
Description & Location	Increase drought monitoring at a local and regional level.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	Staff Time, General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board
Status	Not started.

Action	Drought Ordinance
Description & Location	Create and pass a more robust drought ordinance. The NRD can work with local community leaders and water system operators to promote developing and updating local drought ordinances.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	Staff Time, General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not started.

Action	New Municipal Well
Description & Location	Get a new well to deal with arsenic issues within a year. In 2-5 years, get a second well or remediate current wells.
Hazard(s) Addressed	Drought
Estimated Cost	Unknown; will be done with PER
Local Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board, Clerk, Utilities Supervisor
Status	Planning Phase.

Action	New Treatment Facility
Description & Location	Construct a water treatment facility if a new well is not possible due to arsenic issues.
Hazard(s) Addressed	Drought
Estimated Cost	$5 million+
Local Funding	General Fund
Timeline	2-5 Years
Priority	Low
Lead Agency	Village Board
Status	Not Started

Action	Well Transducers
Description & Location	Install transducers on wells to monitor water levels. The real-time groundwater level monitoring allows for early identification of declining water tables, helping to detect drought conditions earlier and track water levels over time. The NRD is currently working with interested community water systems to install the transducers in community wells at minimal cost to the community.
Hazard(s) Addressed	Drought
Estimated Cost	Unknown
Local Funding	General Fund
Timeline	2-5 Years
Priority	Low
Lead Agency	Village Board
Status	Not Started

Flooding

In 2024, the community experienced flooding at S 4th and County Road X/Highway 109. There was a significant amount of standing water in that area, and it is slated for development in the near future. During heavy rain events, N King Street in front of the Cedar Bluffs Public Schools floods because it overwhelms the capacity of the storm sewer. No homes have been flooded but the water does encroach on a few properties. These events usually occur two to three times per year. Each time the road is closed for about an hour while the flooding subsides. The village wants to conduct a Preliminary Engineering Report (PER) on its water and wastewater systems and expects many recommendations and will better understand future projects once the report is complete.

Mitigation and Strategic Actions

Action	Preliminary Engineering Report
Description & Location	Conduct a PER for potential water and wastewater to address flooding related issue and ensure the local water system is not compromised.
Hazard(s) Addressed	Drought, Flooding
Estimated Cost	$30,000 - $100,000 per report
Local Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	Village Board
Status	Planning Phase. Currently, looking for funding.

Severe Thunderstorms

Severe thunderstorms are a frequent occurrence. There is usually tree damage in the community particularly in the community park, which has been the case after the most recent storms in 2024. The village hall and sewer lagoon building (roofing and gutters) were also damaged in 2024 due to the severe thunderstorms that occurred. Park structures and the splash pad have been damaged by strong thunderstorm winds. The utility supervisor works on trimming trees to reduce impacts and the village is working on replacing older trees with new trees. Community lifelines have been impacted by power outages caused by thunderstorms in the past. The village hall, well #5 and lift station have a generator. There is a portable generator for the water tower, well #3 and miscellaneous needs, but dedicated backup power supplies could be used at well #3. Most power lines in the village are not buried, making the village vulnerable to power outages.

Mitigation and Strategic Actions

Action	Backup and Emergency Generators
Description & Location	Identify and evaluate current backup and emergency generators. Obtain additional generators based on identification and evaluation. The village needs a generator for the auditorium, which could also be used as a warming site. A generator is also needed for Well #3.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Terrorism & Cyber-Attack, Tornadoes and High Winds
Estimated Cost	Varies by size
Local Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board
Status	Not Started

Severe Winter Storms

Severe winter storms occur frequently in Cedar Bluffs and have resulted in prolonged loss of power. The most recent winter storms in March 2025 caused the community to lose power for four days. The fire station was opened to the public for use as a charging and warming shelter. In 2024, a winter storm caused a pipe burst at the village hall, which led to water damage. Since then, the village has started to maintain the generator at the Village Hall so that it works correctly. Not many power lines are buried in the village, making them vulnerable to severe storms. Ice often builds up on power lines or along transmission lines.

Snow removal is aided by the use of snow routes along King Street, Main Street from King Street to 4th Street, and 2nd Street from Main Street to Highway 109. The village maintenance person is responsible for snow removal in Cedar Bluffs using a backhoe with a blade; a surplus dump truck with plow, sander, and liquid deicer; a backhoe with a blade; a pickup with a blade; and snow blowers. Members of the board also volunteer to help with snow removal. During large events the village is also able to contract out snow removal. Getting to the village during winter storms can be challenging due to blowing snow on the highways. Future actions to reduce risks include installing backup generators at the auditorium and well #3 and re-installing snow fences.

Mitigation and Strategic Actions

Action	Structure Removal and Rehab
Description & Location	A structure on Main Street is on the verge of collapse and will cause significant damage to surrounding properties if it collapses. The village might assess the building, potentially condemning and tearing it down.
Hazard(s) Addressed	Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$100,000+
Local Funding	General Budget
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board
Status	In Progress. The village has started working with a lawyer and an on-call engineer on next steps to get the building assessed and condemned.

Tornadoes and High Winds

No tornadoes have occurred in Cedar Bluffs to date, but a future event could be catastrophic. The village experiences multiple power surges from high wind events. In the past they have immobilized the wells. In March 2025, a power surge damaged a well and caused it to go down for three days. At their worst, high wind events cause damage to trees and power lines. Recent storms have damaged trees in the park and the splash pad and caused power outages. In the case of a tornado, the emergency siren is activated by the Saunders County Sheriff's Office or by hand at the local fire hall. Municipal records are protected with a backup system where records are kept at offsite locations and computers are backed up multiple times in a day. There is no storm shelter in the community; however, community members can seek shelter in their basements. The local school has been approved for a safe room that the public can use once it is constructed. Tornado and high wind education is done with tips and posts on the village's Facebook page and website.

Mitigation and Strategic Actions

Action	Alert/Warning Sirens
Description & Location	Perform an evaluation of existing alert sirens in order to determine sirens which should be replaced or upgraded. Install new sirens where lacking with remote activation options.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes and High Winds
Estimated Cost	$5,000+
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	Not Started

Other Mitigation and Strategic Actions

Action	Public Education
Description & Location	Educate staff, residents, and visitors on their risks to all hazards that could impact the community, how to get information and emergency notifications, mitigation actions that can be taken, and preparedness actions to keep themselves safe, especially regarding agricultural disease and hazardous materials from the chemical sites in the community. Coordinate outreach and education projects and materials with Saunders County, the chemical site, farmers, and other project partners. Use the community social media page for outreach on Red Cross information, generators, OPPD information, emergency routes, etc.
Hazard(s) Addressed	Animal & Plant Disease, Hazardous Materials Release
Estimated Cost	$500+
Local Funding	General Fund
Timeline	Ongoing
Priority	Medium
Lead Agency	Village Clerk
Status	Ongoing. The village is currently working on creating a website for education that will be able to send out email and text message notifications for emergency alerts.

Community Profile

Village of Colon



Lower Platte North NRD
Hazard Mitigation Plan 2025

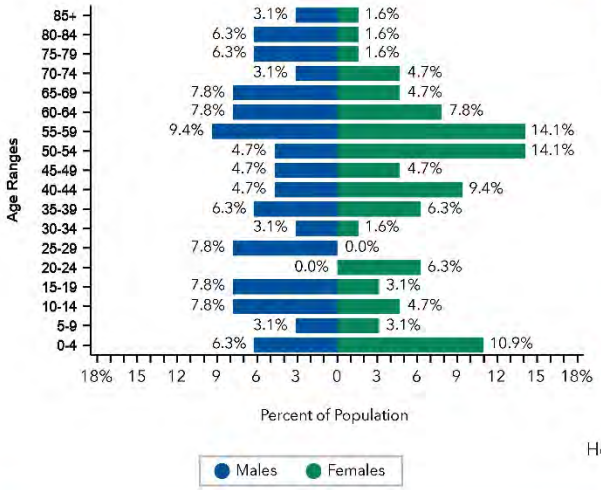
Community Fact Sheet

Community Summary Fact Sheet

Colon, NE
Lower Platte North NRD Hazard Mitigation Plan 2025

128	49.2	51	2.51	$206,250	$102,899
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID



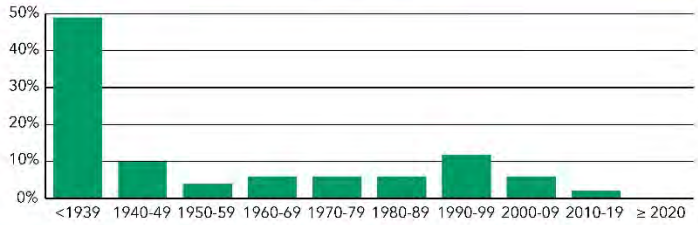
TOTAL POPULATION

2023 Total Population (Estimate)	128
2020 Total Population (U.S. Census)	107
2010 Total Population (U.S. Census)	99
2000 Total Population (U.S. Census)	98

AT RISK POPULATIONS

11	26	0	2%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

HOUSING: YEAR BUILT



EMPLOYMENT

8	1.3%
Total Businesses	Unemployment Rate

POPULATION BY RACE



- Asian Population
- American Indian Population
- Black Population
- Other Race Population
- Population of 2+ Races
- White Population

5% **of the Total Population is Hispanic**

HOUSING

2	6%
Vacant Housing Units	Mobile Homes

esri THE SCIENCE OF WHERE

Source: Esri, U.S. Census, Esri-Data Axle, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021.

Local Planning Team

Colon Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Cynthia Ourada	Village Clerk/Treasurer	Village of Colon	Attended, Materials Development	Attended, Materials Development
Viv Novotny	Floodplain Administrator	Village of Colon	-	Materials Development
Doug Novotny	Board Chair	Village of Colon	-	Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The Village Clerk, Chair, and Floodplain Administrator will be responsible for reviewing and updating the community profile outside of the five-year update. Colon will review the plan annually and the public will be notified in the newspaper, board meeting minutes, and can be posted on the town bulletin near the post office.

Capability Assessment

The planning team assessed the Village of Colon's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Colon Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes (2003)
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operations Plan	No
	Floodplain Management Plan	Yes
	Storm Water Management Plan	Yes
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	Yes
	Building Codes	Yes
	Water System Emergency Response Plan	No (owned by LPNNRD)
	Wellhead Protection Plan	Yes
	National Flood Insurance Program	Yes
	Community Rating System	No
	Community Wildfire Protection Plan	Yes (Regional)

Capability/Planning Mechanism		Yes/No
	Other (if any)	-
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administrator	Yes
	GIS Capabilities	No
	Chief Building Official	No
	Civil Engineering	Yes
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	-
Fiscal Capability	1- & 6-Year Plan	Yes
	Applied for Grants in the Past	Yes
	Awarded a Grant in the Past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric/Water/Sewer Service Fees	Yes (Sewer) (Water - LPNNRD)
	Storm Water Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes (USDA RD Revenue Sewer Bond)
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	No
	Ongoing Public Education or Information Program (e.g., Responsible Water Use, Fire Safety, Household Preparedness, Environmental Education)	No/In Progress
	Natural Disaster or Safety Related School Programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	-

Colon Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Limited
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

National Flood Insurance Program (NFIP)

Colon has been a participant in the National Flood Insurance Program since 9/21/2010, and the Floodplain Administrator with assistance from the Clerk and Village Board oversee the commitments and requirements of the program. Floodplain regulations in Colon meet FEMA and the State of Nebraska's requirements. The permitting process generally begins when a resident comes to the planning commission for a building permit. If the property is in the floodplain, the village requires them to get the land surveyed as most properties have high enough elevation. If the land is not high enough, additional information is given to the property owner. Floodplain regulations are enforced by having the chairman check on construction progress or checking with the contractor. Significant flooding does not occur in Colon; therefore, identifying substantially damaged and substantially improved structures has not occurred. The floodplain administrator reaches out to the Nebraska Department of Natural Resources for more information on the floodplain.

The planning team has stated that Colon will remain in good standing and be involved with the NFIP. No barriers to running the program have been identified. There are no areas of flood risk in Colon that have limited NFIP coverage. Most residents in Colon are not in the floodplain; the properties that are in the floodplain either can or cannot afford flood insurance. LOMC can be found on the FEMA Flood Map Service Center website.

Colon NFIP Information

NFIP Overview	
Date of NFIP Participation:	9/21/2010
Floodplain Administrator:	Viv Novotny
Is Floodplain Administrator a Certified Floodplain Manager?	No
Is Floodplain Management an Auxiliary Function?	Yes
Number of NFIP Policies In-Force:	3
Total NFIP Premium ($):	$1,587
Total NFIP Coverage ($):	$630,000
Number of Claims Paid Out:	0
Total Amount of Claims Paid Out ($:)	$0
Number of Repetitive Loss Structures:	0
Number of Severe Repetitive Loss Structures:	0
Is the Community Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	No
FIRMs Digital or Paper?	Digital
Located in a RISK Map Area?	No

Buildings and Valuation in the Floodplain

The planning team acquired GIS parcel data from the County Assessor and Microsoft building footprint data to analyze the location, number, and value of buildings located in the 100-year and 500-year floodplains. A summary of the results of this analysis is provided in the following tables.

Colon Buildings and Value in the 100-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
109	$12,023,032	22	$2,763,044	20.2%

Source: County Assessor, 2024; Microsoft, 2024

Colon Buildings and Value in the 500-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
109	$12,023,032	0	$0	0%

Source: County Assessor, 2024; Microsoft, 2024

Plans and Studies

The Village of Colon has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When Colon updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Building Code (2018)

The building code sets standards for constructed buildings and structures. Colon has adopted the 2018 International Building Code. The hazard mitigation plan has not been integrated with the building code. Amendments and updates need to be made to the current building code. All building and zoning permit applications are reviewed by the Planning Commission, after which they give the Board of Trustees their recommendation for approval or not. Then, the Board of Trustees does a review and will potentially approve the application. If needed, the village contacts JEO Consulting Group for advice before proceeding.

Comprehensive Plan (2003)

The comprehensive plan is designed to guide the future actions and growth of the village. The hazard mitigation plan is not integrated with the comprehensive plan. Colon's comprehensive plan contains goals and objectives aimed at Safe Growth, directs development away from the floodplain, housing away from chemical storage facilities, and housing and vulnerable populations away from major transportation routes. The plan also encourages infill development and elevating structures located in the floodplain. There is a plan to update the comprehensive plan when funding and resources are available. Future updates to the plan will identify areas that need emergency shelters.

Floodplain Regulations (2003)

The village's floodplain ordinance outlines requirements for structures and developments located in the 100-year floodplain. By having a floodplain ordinance, the city promotes public health, safety, and welfare by minimizing losses due to floods. It also helps to ensure eligibility for purchasing flood insurance for property owners. The floodplain ordinance discourages development in the floodplain and restricts development in hazard-prone areas. Colon revised its FIRM maps in 2016, reviewed the floodplain ordinances in 2023, verified the Community Corporate Boundary in 2023, and updated the Extraterritorial One-Mile Jurisdiction Boundary in 2023. Future updates to the regulations will prohibit development and limit population density in the floodplain.

Saunders County Local Emergency Operations Plan (2021)

The Saunders County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information,

evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. The hazard mitigation plan has been integrated with this plan and includes the top hazards that would affect the county and its populations. Flooding, dam failure, and mass shelter information from the LEOP were used to inform hazard prioritization and community lifelines.

Southeast Nebraska Community Wildfire Protection Plan (2020)

The Southeast Nebraska Community Wildfire Protection Plan CWPP aims to help effectively manage wildfires and increase collaboration and communication among organizations that manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP, and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years.

Subdivision Regulations (2003)

The village's subdivision regulations govern the division of land from one or more larger parcels into smaller lots. The hazard mitigation plan has not been integrated with the local subdivision regulations. Colon plans to update the subdivision regulations once funding and resources are available. Future updates to the regulations will restrict subdividing land within or adjacent to the floodplain.

Zoning Ordinance (2003)

The village's zoning ordinance outlines where and how development should occur in the future. The hazard mitigation plan has not been integrated with the zoning ordinance. The zoning ordinance discourages housing and vulnerable populations near chemical storage sites. Colon plans to update its zoning ordinances once funding and resources are available. Future updates to the ordinance will consider wildfire and the wildland-urban interface and will include the ability to implement water restrictions.

Future Development Trends

Over the past five years, a new home and storage addition structure have been developed within the village corporate limits. Two home additions, a new home, and a new storage structure have been built within the extraterritorial jurisdiction. The storage structure was built in a floodplain, which can increase risks to flooding. One home within the corporate limits had an addition to their property. The new storage structure is in a floodplain zone, which has an elevated foundation and flood vents incorporated.

The previous Fire Meeting Hall has been converted into two apartments, and the previous Fire District building has been converted into a private event and storage space. The village has a new truck service and repair business. North of Colon, the Novus Ag chemical business has added a building, built onto its offices, and added a truck scale. The business is partially located in a 1% annual flood risk area.

Although Colon does not have a formal capital improvement plan, they do have plans for stormwater/sewer system improvements and upgrading culverts and drainage structures. The village has discussed plans on constructing a new (town hall) public works facility incorporating an emergency storm shelter with an emergency generator for community lifelines.

There are two areas in Colon with vacant lots owned by two people who have expressed interest in developing the parcels into new homes or duplexes. The areas currently lack water accessibility and construction of the water mains is expensive. The vacant areas are not in a floodplain or hazardous area and have the potential to have about eight to ten single-family homes built. Colon could work with Lower Platte North Natural Resource District to add water distribution mains, since they own the water system.

For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted regardless of where they are located. According to the local planning team any new and future development is not likely to occur in any other known hazard locations.

Community Lifelines

As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.

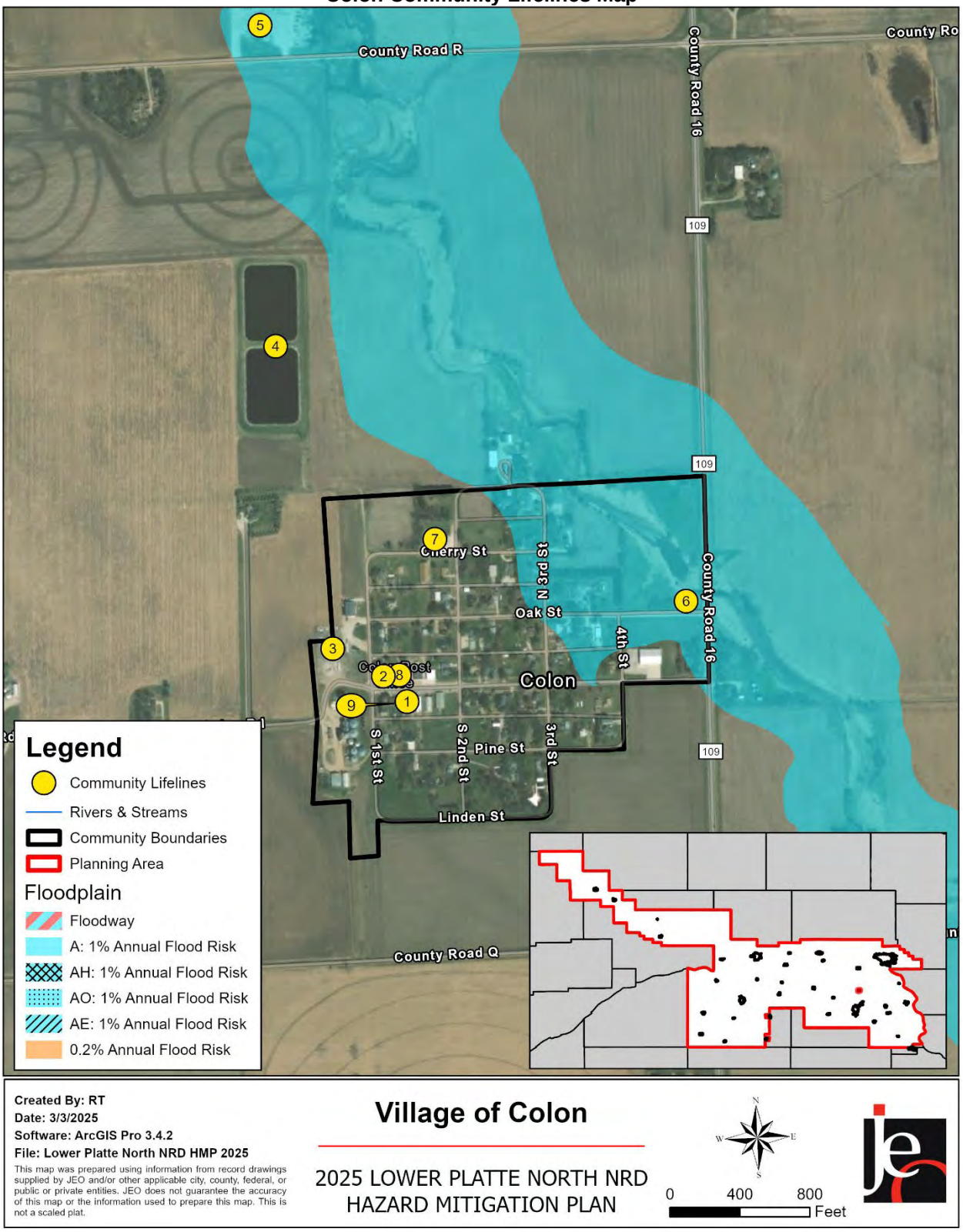


Colon Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Cedar Township Building/Equipment Storage	Other	-	N
2	Colon Community State Bank	Communications	Unknown	N
3	Colon Rural Fire District #9	Safety and Security	G	N
4	Frontier Inc. Anhydrous	Hazardous Materials	-	N
5	Lagoons	Other	-	N
6	Novus Ag Services	Hazardous Materials	G	Y (1%)
7	Sewer Lift Station & Pumps	Other	G	Y (1%)
8	St. Joseph's Church	Other	Unknown	N
9	Colon Rural Fire District Meeting Hall/Records	Safety and Security	Unknown	N
10	Village/Street Maintenance, Snowplow & Tractor Storage	Safety and Security	-	N
-*	LPNNRD, Water Utilities	Food, Water, Shelter	G	-

**Not mapped.*

Colon Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Colon which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Village of Colon. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however Colon has identified mitigation actions to reduce the impacts of the hazard. Dam Failure and Levee Failure have been omitted from this profile as there are no high hazard dams upstream or any levee protected areas near the community. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Flooding

The primary flood risk to the community stems from the high water table, which frequently causes basements to flood. Issues started to occur when nearby Lake Wanahoo was filled. After heavy rains or snow melt, basements face flooding issues. Elderly residents are not able to solve drainage and flooding issues if they occur on their property. The east and north sides of town typically see more flooding than other areas. The creek on the northeast side of town creates a floodplain; however, most of the houses have been elevated out of the floodplain; therefore, damages are typically minimal. In 2017 and during the 2019 floods, the village lagoon filled too quickly and had to be pumped to prevent it from overtopping. No community buildings were damaged, but individual homes did sustain damage. Stormwater drainage is also an issue, with ditches filling up quickly and becoming clogged with silt. During high rainfall events, the sewer/wastewater system is overwhelmed due to damaged sewer mains that have allowed infiltration of stormwater. Colon has applied for and received a Hazard Mitigation Grant Program in 2024 for a permanent pumping station at the wastewater lagoons. The project is underway and will be completed in 2025. The pumps at the sewer lift station failed prematurely and were replaced. The previous pumps at the sewer lift station and the lagoon were damaged, which caused concern if the excess water could compromise the nearby levee. Costs to replace the two pumps were $13,000 and $11,000. In 2017, Colon began repairing its sewer mains and repaired a quarter of them; the village has recently received notice that it is on the priority list to be awarded a grant through EPA/NDEE to repair the remaining sewer/wastewater mains and possibly funds for drainage improvements. Colon has also been awarded a Hazard Mitigation Grant to install a permanent wastewater lagoon effluent pump that will be completed in 2025. The village has cleaned the more severe culverts and drainage ditches to improve stormwater drainage. Additional cleaning of culverts and drainage ditches is a continuous effort to decrease flooding risks. Resident participation in installing gutters and ensuring gutters and downspouts are free from debris is another action needed to reduce future risks.

Mitigation and Strategic Actions:

Action	Culvert Upsizing and Cleaning
Description & Location	Deepen drainage ditches and clean out culverts. Repaired sewer mains.
Hazard(s) Addressed	Flooding (sewer backups, stormwater drainage)
Estimated Cost	$300,000+
Local Funding	EPA Overflow and Stormwater Grant, General Budget
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board
Status	Some ditches and culverts have been cleaned. The village will do more as funds are available. Residents experience drainage issues in their basements after heavy rainfall. Colon recently received notice that they are on the priority list to be awarded a grant through EPA/NDEE to repair the remaining Sewer/Wastewater Mains, CIPP repair to sewer mains, and possibly funds for drainage improvements

Action	Floodplain Regulations
Description & Location	Review and possibly update current floodplain regulations, adopt written procedures, to provide clear information that state the requirements and regulations for development within the floodplain. Then integrate the Floodplain Management Ordinance and the Written Procedures into the Comprehensive Plan and Zoning/Development Regulations book. This would provide a single, easily accessible resource for the Village Board, the Planning Commission, and staff for guidance. Floodplain permitting currently begins when a developer asks for a building permit at the planning commission, then based on the location, it will be determined if additional building requirements are needed.
Hazard(s) Addressed	Flooding
Estimated Cost	Staff Time
Local Funding	Staff Time
Timeline	1-2 Years
Priority	Medium
Lead Agency	Floodplain Administrator and Clerk
Status	Not started. Current floodplain regulations are limited. Firm Maps were revised in 2016 and reviewed in 2023.

Tornadoes and High Winds

There are no shelters within the community, and very few homes have basements due to the high water table. This leaves several residents without a proper place to go during a tornado. There is also a high elderly population that may struggle to find shelter. During previous severe weather, the clerk has received phone calls from residents asking for places to seek shelter. There have been no historic tornado events; however, in 2019, there was a high wind and hail event, which damaged lots of trees and roofs. A tornado siren was installed in 2012 and can reach all community areas. In the event of power loss, records are backed up on two computers and paper copies are kept. The village removes hazardous trees and limbs as necessary and has removed all accessible dead tree branches and limbs in 2024. Reminders are sent to residents to maintain their trees and remove dead branches. Colon plans to create a village website to keep residents informed and develop better communication. The village has posted contact phone numbers to all utility offices and has asked residents to make sure their addresses are visible on their property so emergency services can locate them easily. The planning team has identified constructing a village office with a storm shelter and generator available for residents who do not have a basement or storm shelter as a future action to reduce risks from tornadoes and high wind events.

Mitigation and Strategic Actions:

Action	Backup and Emergency Generators
Description & Location	Provide portable or stationary energy source or backup power at community lifelines. The generator can be located at a potential village hall/office that can also be used as a storm shelter for residents without power.
Hazard(s) Addressed	Extreme Temperatures, Flooding. Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	Varies by size
Local Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board
Status	Not started. During a prolonged power outage, a backup generator could be available for residents to recharge communication devices. A potential location for a generator could be at a village office/storm shelter if constructed.

Action	Safe Rooms and Storm Shelters
Description & Location	Design and construct a village hall with a storm shelter or safe room in the basement for elderly and vulnerable populations to use if they do not have access to a shelter. The building can be equipped with a backup generator for residents to recharge devices if power is lost in the community.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes and High Winds
Estimated Cost	$350+ per square foot
Local Funding	General Fund, CDBG
Timeline	5+ Years
Priority	High
Lead Agency	Village Board
Status	Colon does not have a village office, nor does it currently own land to construct a shelter or office. If the village applied for and received funding, a storm shelter could be planned, designed, and available for residents at the office.

Other Mitigation and Strategic Actions

Action	Comprehensive Disaster / Emergency Response Plan
Description & Location	Develop a Comprehensive Disaster and Emergency Response Plan. Develop an Emergency Communication Action plan. The plan should establish inner-operable communications.
Hazard(s) Addressed	Animal & Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$15,000
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Planning Commission
Status	The village posts contact information to all utility offices and plans on establishing a website to communicate with residents on emergencies. The planning team has indicated that a drought plan is also needed for the community. Additional funding is needed to pursue this action.

Action	Update Comprehensive Development Plan
Description & Location	Update the 2003 Colon Comprehensive Development Plan with updated building regulations and integrate Floodplain regulations and requirements. Integrate the Hazard Mitigation Plan with the comprehensive plan, zoning ordinances, and building codes. Create an emergency plan, especially for the older residents who may need assistance.
Hazard(s) Addressed	Animal & Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$15,000+
Local Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Planning Commission
Status	Colon needs to apply for funding assistance as there are no resources to complete this. Updating the comprehensive plan is on the needs list for the village. The current comprehensive plan is from 2003 and needs to be updated. The future land use map is also outdated.

Completed Mitigation and Strategic Actions:

Action	Install Permanent Effluent Pumping Station
Description & Location	Purchase and install a permanent effluent pumping station at the village's north lagoon cell so that the village can discharge when wastewater levels in the lagoon reach unsafe levels.
Hazard(s) Addressed	Flooding
Status	Completed (2025) – Awarded a Hazard Mitigation Grant (90% funded)

Action	Relocate Municipal Infrastructure
Description & Location	Identify and evaluate current placement and vulnerability of municipal infrastructure. Relocate infrastructure identified at risk. The community's meeting hall and storage site of documents is currently being sold. A new space to store documents is needed.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Status	Completed – Colon has rented a storage space on an annual basis.

Community Profile

Village of Leshara

Lower Platte North NRD
Hazard Mitigation Plan 2025

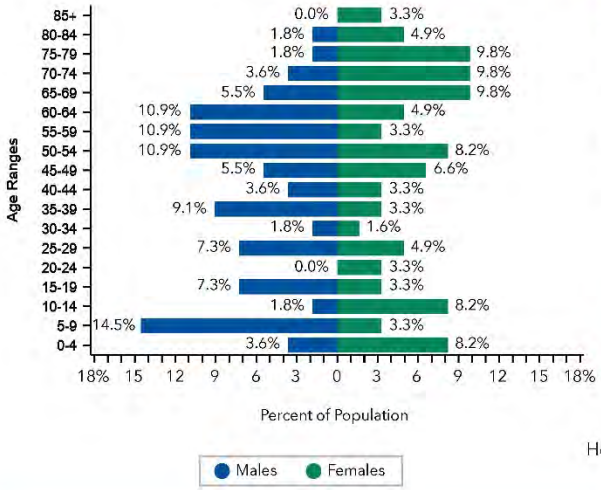
Community Fact Sheet

Community Summary Fact Sheet

Leshara, NE
Lower Platte North NRD Hazard Mitigation Plan 2025

116	50.0	49	2.37	$182,353	$110,928
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID

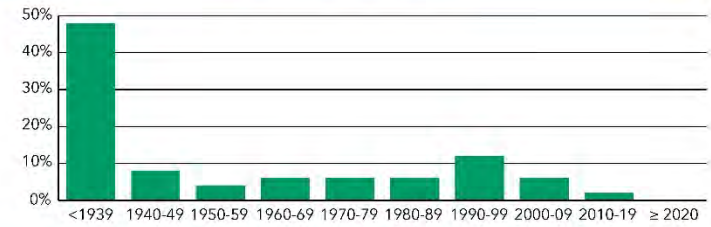


TOTAL POPULATION	
2023 Total Population (Estimate)	116
2020 Total Population (U.S. Census)	108
2010 Total Population (U.S. Census)	100
2000 Total Population (U.S. Census)	99

AT RISK POPULATIONS

10	30	0	2%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

HOUSING: YEAR BUILT



EMPLOYMENT

0	1.6%
Total Businesses	Unemployment Rate

POPULATION BY RACE



- Black Population
- American Indian Population
- Other Race Population
- Asian Population
- Population of 2+ Races
- White Population

1% **of the Total Population is Hispanic**

HOUSING

2	6%
Vacant Housing Units	Mobile Homes

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Source: Esri, U.S. Census, Esri-Data Axle, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021.

Local Planning Team

Leshara Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Mel Ruhe-Langfeldt	Board Chairperson/Floodplain Administrator	Village of Leshara	Attended, Materials Development	Materials Development
Paula Wagner	Village Clerk	Village of Leshara	Materials Development	Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The Village Board and Clerk will be responsible for reviewing and updating the community profile outside of the five-year update. Leshara will review the plan annually and the public will be notified in a post at the local mailbox and during board meetings.

Capability Assessment

The planning team assessed the Village of Leshara's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Leshara Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	In Process
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operations Plan	Yes (County)
	Floodplain Management Plan	Yes
	Storm Water Management Plan	Yes
	Zoning Ordinance	In Process
	Subdivision Regulation/Ordinance	No
	Floodplain Ordinance	Yes
	Building Codes	In Process
	Water System Emergency Response Plan	No
	Wellhead Protection Plan	No
	National Flood Insurance Program	Yes
	Community Rating System	No
	Community Wildfire Protection Plan	Yes (Regional)
	Other (if any)	-

Capability/Planning Mechanism		Yes/No
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administrator	Yes
	GIS Capabilities	No
	Chief Building Official	No
	Civil Engineering	Yes
	Grant Manager	Yes
	Mutual Aid Agreement	No
	Other (if any)	-
Fiscal Capability	1- & 6-Year Plan	Yes
	Applied for Grants in the Past	Yes
	Awarded a Grant in the Past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric/Water/Sewer Service Fees	No
	Storm Water Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	No
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	Yes
	Ongoing Public Education or Information Program (e.g., Responsible Water Use, Fire Safety, Household Preparedness, Environmental Education)	No
	Natural Disaster or Safety Related School Programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	-

Leshara Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Limited
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

National Flood Insurance Program (NFIP)

Leshara is a member of the NFIP, having joined on 4/5/2010, and the village Floodplain Administrator oversees the commitments and requirements of the program. Interactive floodplain maps are available on the NeDNR website and other floodplain information is available on the FEMA Map Service Center for the Floodplain Administrator to use to determine if a development will be located in the floodplain. Enforcement of the floodplain regulations can happen at the permitting process. Letters of Map Change can be found on the FEMA Map Service Center website.

Leshara will remain in good standing and be involved with the NFIP. No known barriers have been identified when it comes to running the program effectively. Educational materials on flood insurance can be found online and can be dispersed to the community through other educational outreach efforts from Butler County. Additional NFIP information is given in the table below.

Leshara NFIP Information

NFIP Overview	
Date of NFIP Participation:	4/05/2010
Floodplain Administrator:	Melvina Ruhe-Langfeldt
Is Floodplain Administrator a Certified Floodplain Manager?	No
Is Floodplain Management an Auxiliary Function?	Yes
Number of NFIP Policies In-Force:	4
Total NFIP Premium ($):	$2,086
Total NFIP Coverage ($):	$742,000
Number of Claims Paid Out:	0
Total Amount of Claims Paid Out ($:)	0
Number of Repetitive Loss Structures:	0
Number of Severe Repetitive Loss Structures:	0
Is the Community Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	No
FIRMs Digital or Paper?	Digital
Located in a RISK Map Area?	No

Buildings and Valuation in the Floodplain

The planning team acquired GIS parcel data from the County Assessor and Microsoft building footprint data to analyze the location, number, and value of buildings located in the 100-year and 500-year floodplains. A summary of the results of this analysis is provided in the following tables.

Leshara Parcel Improvements and Value in the 100-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
79	$6,316,381	16	$1,050,983	20.3%

Source: County Assessor, 2024; Microsoft, 2024

Leshara Parcel Improvements and Value in the 500-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
79	$6,316,381	0	$0	0%

Source: County Assessor, 2024; Microsoft, 2024

Plans and Studies

The Village of Leshara has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the village updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Building Code (2018)

The building code sets standards for constructed buildings and structures in Leshara. Leshara has adopted the 2018 International Building Code. Code enforcement is handled by the code enforcement officer and the village attorney if necessary. There are no plans of updating the building code or integrating the hazard mitigation plan with the code.

Comprehensive Plan

The comprehensive plan for Leshara is designed to guide future development and growth for the village. The hazard mitigation plan has not been integrated with the plan and there is not a set plan or timeline to update the comprehensive plan. There currently is no plan or timeline to update the comprehensive plan.

Floodplain Ordinance

The village's floodplain ordinance outlines where and how development should occur in the future regarding the floodplain. Development is restricted in hazard prone areas. The floodplain ordinance discourages, prohibits, and limits population density in the floodplain. The hazard mitigation plan has not been integrated into Leshara's floodplain ordinance.

Saunders County Local Emergency Operations Plan (2021)

The Saunders County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. The hazard mitigation plan has been integrated with this plan and includes the top hazards that would affect the county and its populations. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines.

Southeast Nebraska Community Wildfire Protection Plan (2020)

The purpose of the Southeast Nebraska Community Wildfire Protection Plan CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years.

Zoning Ordinance

The zoning ordinance details the type of development that should occur within the village. Housing and vulnerable populations near chemical storages sites is discouraged in Leshara's zoning ordinance. The zoning ordinance also includes well setback requirements. The hazard mitigation plan has not been integrated with the zoning ordinance. The board and planning commission discussed updating the ordinance in 2022 and developing subdivision regulations.

Future Development Trends

Over the past five years, Leshara has received grant funding to improve its stormwater drainage system within city limits. The village has also applied for funding for a new tornado siren. Both improvements likely decreases the community's vulnerability to flooding and tornado and high wind events. For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted. According to the local planning team no new developments occurred in any known hazard locations.

Community Lifelines

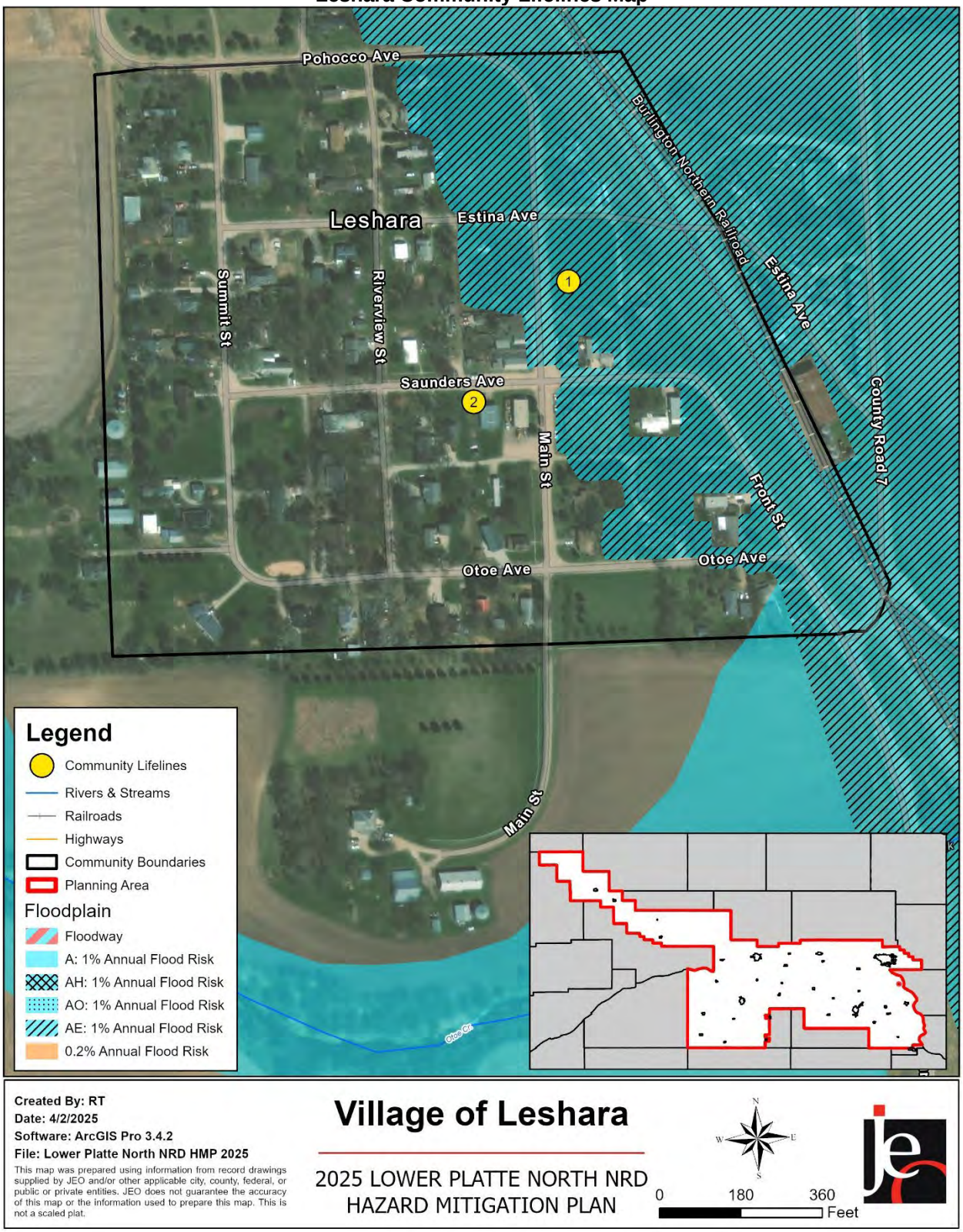
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Leshara Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Fire Well	Safety & Security	-	Y
2	Warning Siren	Communications	-	N

Leshara Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Leshara which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Village of Leshara. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however Leshara has identified mitigation actions to reduce the impacts of the hazards. Dam Failure has been omitted from this profile as there are no high hazard dams upstream of the community according to NeDNR data. Therefore, no mitigation actions have been identified for that hazard. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Flooding

The 2019 floods caused frost boils, surface road gravel loss, and road base damage. The river gage at Leshara peaked at over 12 feet by the morning of March 15th. In May 2024, heavy rainfall caused significant riverine flooding that impacted the community. Homes and businesses were flooded, and emergency response had to use boats to access residents during safety checks. Flooding events are usually flash floods that affect the eastern third of the village, further compounded by the village's poor stormwater drainage on the majority of the roads. The Platte River and Otoe Creek are most likely to threaten the community. Leshara has received funding to improve its stormwater drainage system through CDBG funds.

Mitigation and Strategic Actions

Action	Culvert Upsizing and Cleaning
Description & Location	Improve the drainage on gravel roadways by deepening ditches and adding culverts.
Hazard(s) Addressed	Flooding, Levee Failure
Estimated Cost	$50,000
Local Funding	General Fund, CDBG
Timeline	1 Year
Priority	High
Lead Agency	Village Board
Status	Ongoing. CDBG funding has been awarded for the next phase of Leshara's stormwater drainage system.

Completed Mitigation and Strategic Actions

Action	Enroll in the National Flood Insurance Program
Description & Location	Enroll in the National Flood Insurance Program.
Hazard(s) Addressed	Flooding
Status	Completed. Leshara is a participant as of 4/5/2010.

Levee Failure

While not identified as a prioritized hazard by the local planning team, Leshara is protected by the Leshara Drainage District levee to the north of the community. There is no data available of the levee overtopping, but news reports from the March 2019 flooding indicate that floodwaters broke through the levee. The Leshara Drainage District protects 32 buildings, 33 people, and an estimated $18 million in property value from potential flooding according to the 2023 USACE

National Structure Inventory. The map below illustrates the levee's location in proximity to Leshara. The village should continue to clean and maintain its culverts and drainage systems to lower vulnerabilities from a levee failure.

Mitigation and Strategic Actions
See the *Culvert Upsizing and Cleaning* action under Flooding.

Severe Thunderstorms

Severe thunderstorms occur frequently in Leshara. Loss of power is the most concerning impact. Several high wind and heavy rain events have occurred in the village. In April 2022, a severe thunderstorm produced 1.5-inch hail in Leshara. None of the power lines in the village are buried, making them vulnerable to a severe storm. Community lifelines do not have weather radios to alert them to severe weather. Residents can voluntarily sign up for the Saunders County Alert Sense system that notifies them of hazards in the area.

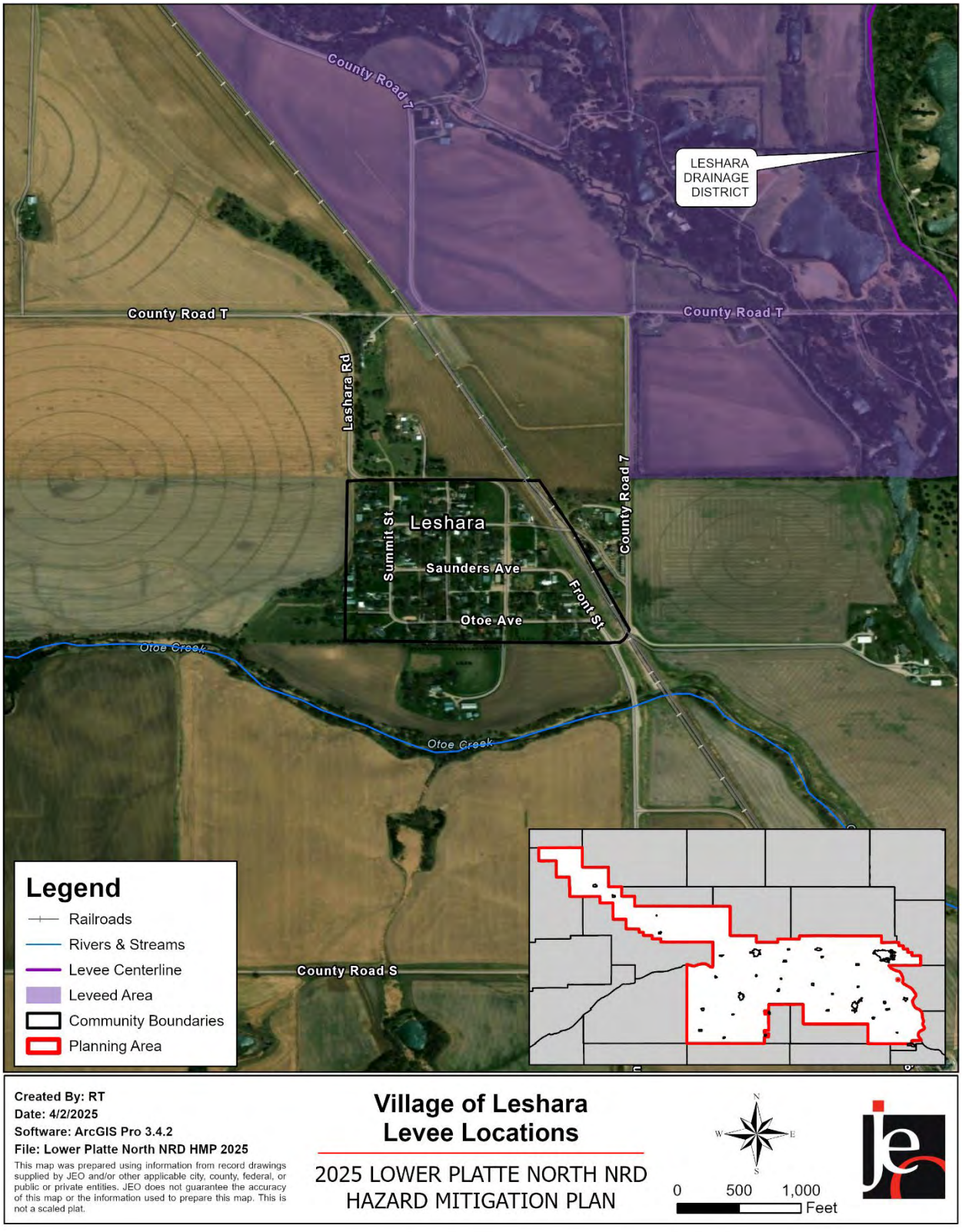
Mitigation and Strategic Actions

Action	Backup and Emergency Generators
Description & Location	Provide a portable or stationary source of backup power to municipal wells, lift stations, shelters, and other critical facilities. The new community building will need a backup generator.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	Varies by size
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	Not started.

Severe Winter Storms

Rapid thaw events, such as those that caused the March 2019 floods, are the village's biggest concern regarding severe winter storms. The 2019 rapid thaw caused frost boils, surface road gravel loss, and road base damage. Loss of power is another major concern. Most power lines in Leshara are not buried, making them vulnerable during severe winter storms. Snow removal is done by a contractor; Leshara does not own any snow removal equipment. Snow removal by the contractor is sufficient for the village's snow removal needs at this time.

Leshara Levee Locations



Mitigation and Strategic Actions

Action	Power, Service, and Electrical Lines
Description & Location	Communities can work with their local Public Power District to identify vulnerable transmission and distribution lines and plan to bury lines underground or retrofit existing structures to be less vulnerable to storm events. Electrical utilities shall be required to use underground construction methods where possible for future installation of power lines. Communities should also work with their water providers to ensure that distribution strategies are protected against natural disasters.
Hazard(s) Addressed	Extreme Temperatures, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	Varies
Local Funding	General Budget, OPPD
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board, OPPD
Status	The need for a distribution line system has been identified. Power is distributed through Omaha Public Power; coordination will need to occur with them.

Tornadoes and High Winds

Leshara has experienced several high wind events, usually resulting in downed tree limbs that damaged property and power lines. Municipal records have a backup system to protect them during power outages. In case of a severe weather event community members can seek shelter in their basements. The County Emergency Manager offers emergency text alerts but otherwise no outreach is done on high winds with community members.

Mitigation and Strategic Actions

Action	Alert/Warning Sirens
Description & Location	Perform an evaluation of existing alert sirens in order to determine sirens which should be replaced or upgraded. Install new sirens where lacking with remote activation options. Location will be by the new community building.
Hazard(s) Addressed	Levee Failure, Flooding, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$40,000
Local Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board
Status	Application for repairing or replacing the tornado siren was discussed during board meetings. Need grant funding.

Action	Safe Rooms and Storm Shelters
Description & Location	Design and construct storm shelters and safe rooms in highly vulnerable areas such as churches and schools.
Hazard(s) Addressed	Extreme Temperatures, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$350 per square foot
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	Not started.

Other Mitigation and Strategic Actions

Action	Public Education
Description & Location	Through activities such as outreach projects, distribution of maps and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards. Focus should be on the spread of EAB in the county and protection from materials transported along the BNSF railway that goes through the community. Also, educate citizens on water conservation methods during drought and dry seasons. Use postings at the local mailbox for public awareness education materials.
Hazard(s) Addressed	Animal & Plant Disease, Drought, Hazardous Materials Release
Estimated Cost	$500+
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	Not started.

Action	Improve Emergency Text Warning System
Description & Location	Improve cable TV interrupt warning system and implement telephone interrupt system such as Reverse911, emergency text message warning system, etc.
Hazard(s) Addressed	Animal & Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	Varies
Local Funding	Staff Time
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	Ongoing. Need to encourage residents to enroll in countywide program.

Action	Update Comprehensive Plan
Description & Location	Update comprehensive plan. Integrate plan with Hazard Mitigation Plan components.
Hazard(s) Addressed	Animal & Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$15,000+
Local Funding	Tax Levy
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not started.

Community Profile

Village of Malmo



Lower Platte North NRD
Hazard Mitigation Plan 2025

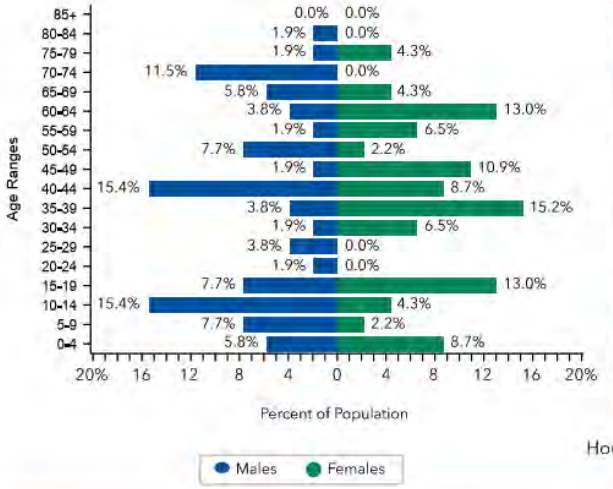
Community Fact Sheet

Community Summary Fact Sheet

Malmo, NE
Lower Platte North NRD Hazard Mitigation Plan 2025

98	40.4	44	2.23	$154,000	$79,309
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID

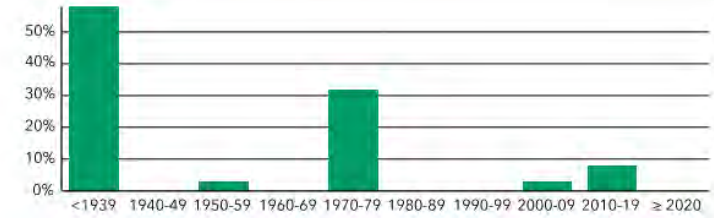


TOTAL POPULATION	
2023 Total Population (Estimate)	98
2020 Total Population (U.S. Census)	94
2010 Total Population (U.S. Census)	98
2000 Total Population (U.S. Census)	80

AT RISK POPULATIONS

6	15	0	0%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

HOUSING: YEAR BUILT



EMPLOYMENT

7	0.0%
Total Businesses	Unemployment Rate

POPULATION BY RACE



- Black Population
- Asian Population
- American Indian Population
- Other Race Population
- Population of 2+ Races
- White Population

0% of the Total Population is Hispanic

HOUSING

13	0%
Vacant Housing Units	Mobile Homes

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Source: Esri, U.S. Census, Esri-Data Axle, ACS, Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021, Local Planning Team

Local Planning Team

Malmo Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Gary L. Swartz	Clerk, Floodplain Administrator	Village of Malmo	Attended, Materials Development	Attended, Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The Clerk and Board Chairman will review and update this participant profile outside of the five-year update. The Village of Malmo will review the plan annually, and the public will be notified of any updates during public board meetings.

Capability Assessment

The planning team assessed the Village of Malmo's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Malmo Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operations Plan	Yes (County)
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	Yes
	Building Codes	Yes
	Water System Emergency Response Plan	No
	Wellhead Protection Plan	No
	National Flood Insurance Program	Yes
	Community Rating System	No
	Community Wildfire Protection Plan	Yes (Regional)
	Other (if any)	-
Administrative & Technical	Planning Commission	Yes
	Floodplain Administrator	Yes
	GIS Capabilities	No

Capability/Planning Mechanism		Yes/No
Capability	Chief Building Official	No
	Civil Engineering	No
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	-
Fiscal Capability	1- & 6-Year Plan	Yes
	Applied for Grants in the Past	Yes
	Awarded a Grant in the Past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	No
	Gas/Electric/Water/Sewer Service Fees	Yes (Water, Sewer)
	Storm Water Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	No
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	No
	Ongoing Public Education or Information Program (e.g., Responsible Water Use, Fire Safety, Household Preparedness, Environmental Education)	No
	Natural Disaster or Safety Related School Programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	-

Malmo Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Moderate
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

National Flood Insurance Program (NFIP)

Malmo is a member of the NFIP, having joined on 9/4/1986, and the village's Floodplain Administrator oversees the commitments and requirements of the NFIP. The floodplain administrator uses the Nebraska Department of Natural Resources interactive floodplain map to determine if a development will be located in the floodplain. A floodplain permit is required for any new construction or substantial improvements in the floodplain. Enforcement is done using the village's floodplain ordinance. After a flood event, the community implements substantial improvement and substantial damage provisions as outlined in the Substantial Damage Assessment Handbook from the Nebraska Department of Natural Resources, which can be found here: https://dnr.nebraska.gov/sites/dnr.nebraska.gov/files/doc/floodplain/resources/20220301_eSDAHandbook_FINAL.pdf. The village's floodplain regulations do not exceed the State of Nebraska requirements. The village would work with the Nebraska Department of Natural Resources and FEMA on any Letters of Map Change.

The local planning team has stated that Malmo will remain in good standing and be involved with the NFIP. Currently, the village has no barriers when running the NFIP program. There are no known areas in the community with limited NFIP coverage. The village presently uses no educational materials for the floodplain, as only a small portion of land is in the floodplain. Additional NFIP information is given in the table below.

Malmo NFIP Information

NFIP Overview	
Date of NFIP Participation:	9/4/1986
Floodplain Administrator:	Gary Swartz
Is Floodplain Administrator a Certified Floodplain Manager?	No
Is Floodplain Management an Auxiliary Function?	Yes
Number of NFIP Policies In-Force:	0
Total NFIP Premium ($):	$0
Total NFIP Coverage ($):	$0
Number of Claims Paid Out:	0
Total Amount of Claims Paid Out ($:)	$0
Number of Repetitive Loss Structures:	0
Number of Severe Repetitive Loss Structures:	0
Is the Community Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	No
FIRMs Digital or Paper?	Digital
Located in a RISK Map Area?	No

Buildings and Valuation in the Floodplain

The planning team acquired GIS parcel data from the County Assessor and Microsoft building footprint data to analyze the location, number, and value of buildings located in the 100-year and 500-year floodplains. A summary of the results of this analysis is provided in the following tables.

Malmo Buildings and Value in the 100-Year Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
95	$6,806,559	0	$0	0%

Source: County Assessor, 2024; Microsoft, 2024

Malmo Buildings and Value in the 500-Year Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
95	$6,806,559	0	$0	0%

Source: County Assessor, 2024; Microsoft, 2024

Plans and Studies

The Village of Malmo has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below, along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the village updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Building Code (2008)

Building codes set standards for constructed buildings and structures. The building code is not based on the International Building Codes, and the hazard mitigation plan has not been integrated into the code. The building code is enforced by the village board.

Comprehensive Plan (2008)

The comprehensive plan is designed to guide the future actions and growth of the village. The hazard mitigation plan has not been integrated with the plan, but the plan does discuss natural hazards like rain and wind and contains goals aimed at Safe Growth. There are no current plans to update the comprehensive plan.

Floodplain Ordinance (2008)

The village's floodplain ordinance outlines requirements for structures and developments in the 100-year floodplain. By having a floodplain ordinance, the city promotes public health, safety, and welfare by minimizing losses due to floods. It also helps to ensure property owners' eligibility for purchasing flood insurance. Development in the floodplain requires a floodplain permit, and the village limits the population density in the floodplain. Structures must be built more than one foot above the Base Flood Elevation in the floodplain. The hazard mitigation plan has not been integrated with Malmo's floodplain ordinance.

Saunders County Local Emergency Operations Plan (2021)

The Saunders County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. The hazard mitigation plan has been integrated with this plan and includes the top hazards that would affect the county and its populations. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines.

Southeast Nebraska Community Wildfire Protection Plan (2020)

The purpose of the Southeast Nebraska Community Wildfire Protection Plan CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations

that manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP, and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years.

Subdivision Regulations (2008)

The village's subdivision regulations govern the division of land from one or more larger parcels into smaller lots. The subdivision regulations do not discuss flooding or other hazards. The hazard mitigation plan has not been integrated with Malmo's subdivision regulations. There is no current plan or timeline for updating the subdivision regulations.

Zoning Ordinance (2008)

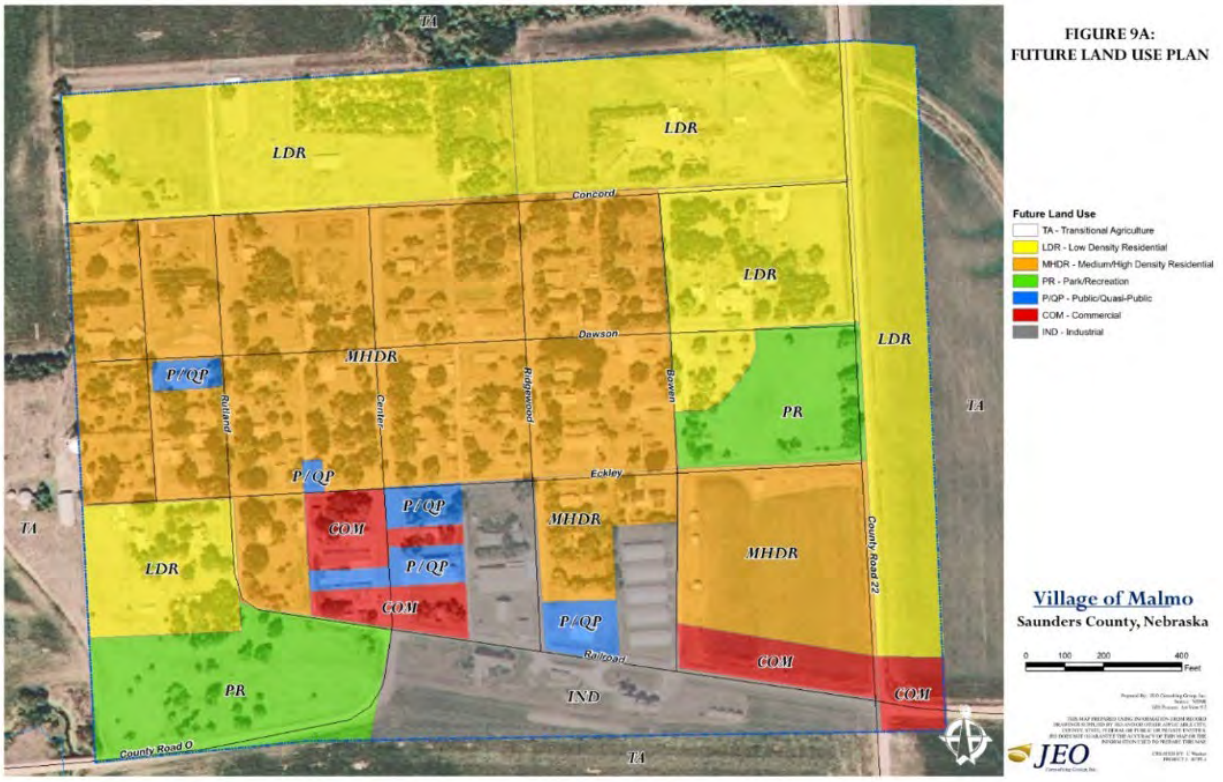
The village zoning ordinance outlines where and how development should occur in the future. The hazard mitigation plan has not been integrated with Malmo's zoning ordinance. There is no current plan or timeline to update the zoning ordinance.

Future Development Trends

There have been no changes in the Village of Malmo over the past five years, and no new structures have been developed in the floodplain or any hazardous areas. The future land use map anticipates low, medium, and high-density residential development concentrated in the northern parts of the village and public/quasi-public to the south. Commercial and industrial land use is designated to the south of Malmo along the existing railroad. Parks and recreational land use is to the southwest near Cottonwood Creek and in the eastern portion of the village between low-density and medium/high-density residential land uses.

For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes, and high winds, all new and future developments could be impacted regardless of where they are located. According to the local planning team any new and future development is not likely to occur in any other known hazard locations; therefore, vulnerability has likely remained the same in the community and is anticipated to remain the same in the near future.

Future Land Use Map



Community Lifelines

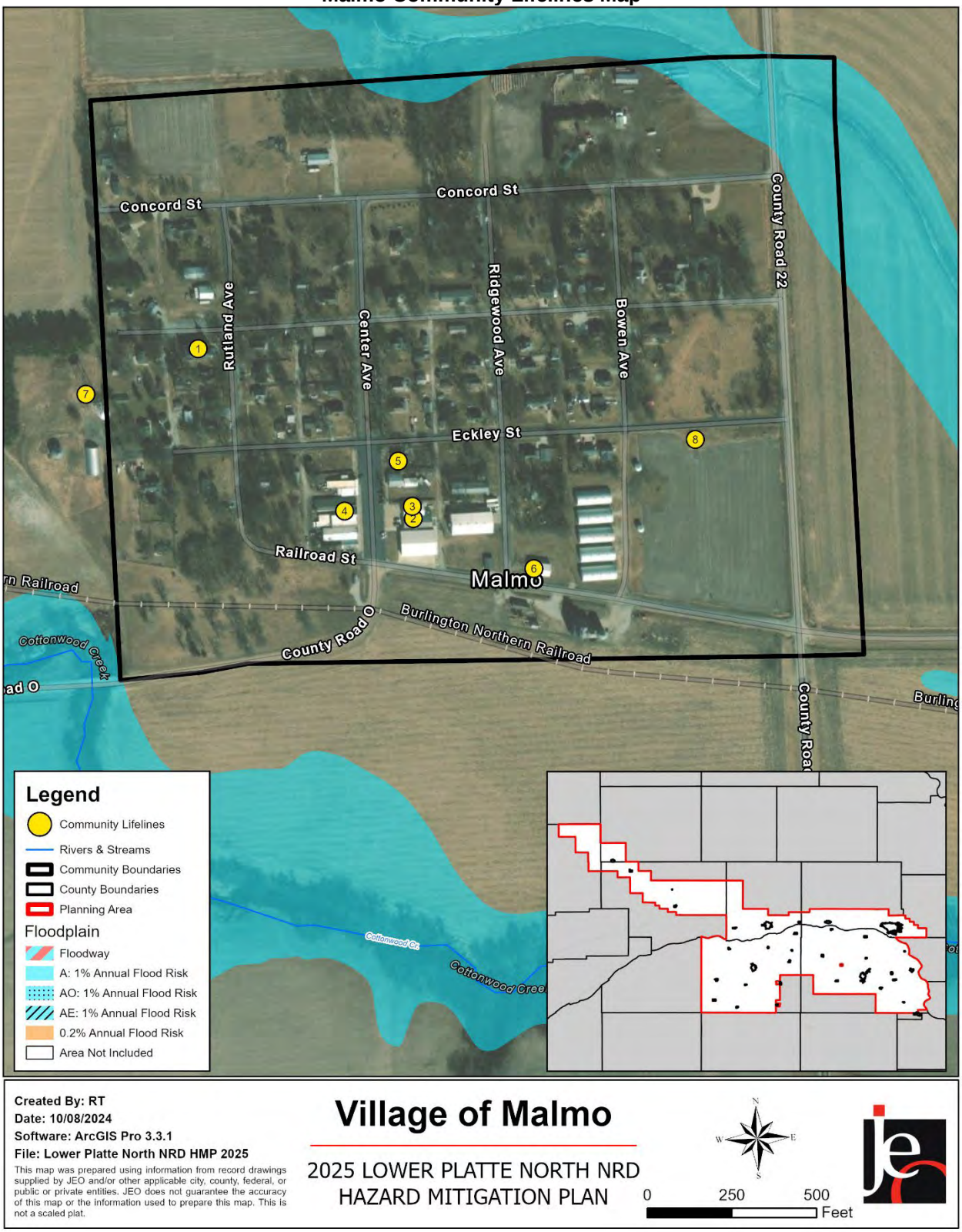
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Malmo Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Edensburg Lutheran Church	Other	-	N
2	Fire Department Building #1	Safety and Security	-	N
3	Fire Department Building #2	Safety and Security	G	N
4	Legion Hall	Other	-	N
5	Post office	Safety and Security	-	N
6	Township Shed	Other	-	N
7	Water Tower & Well	Food, Water, Shelter	-	N
8	Well/Sanitary Lift Station	Food, Water, Shelter	-	N

Malmo Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards that pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Malmo, which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Village of Malmo. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however Malmo has identified mitigation actions to reduce the impacts of the hazards. Levee Failure has been omitted from this profile as there are no levee protected areas near the community according to USACE data. Therefore, no mitigation actions have been identified for that hazard. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Dam Failure

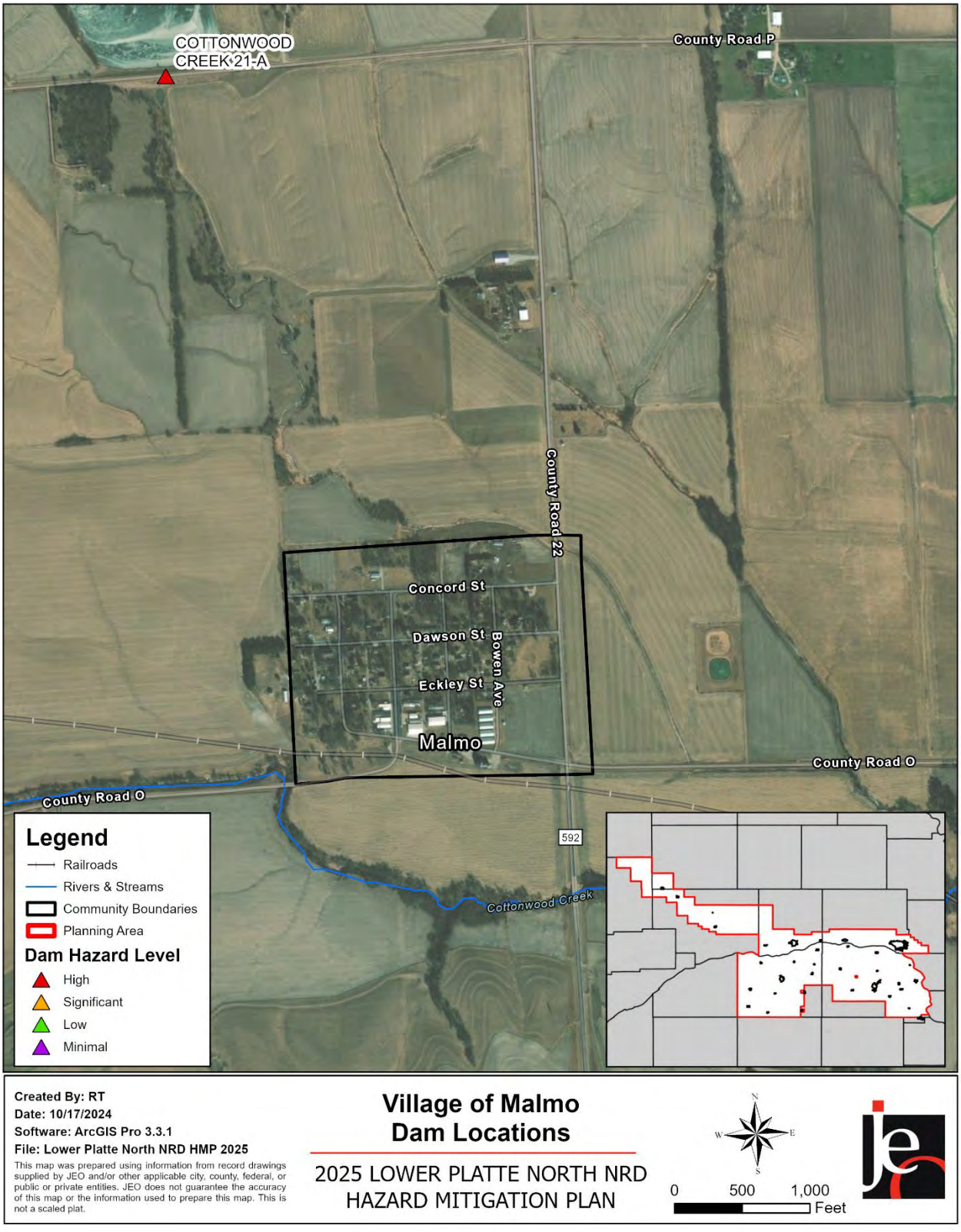
While not identified as a prioritized hazard by the local planning team, the village is protected by the Cottonwood Creek 21-A dam about one mile north of the community. The Cottonwood Creek 21-A dam is categorized as a high hazard dam, and there would be large impacts on the village if it were to fail. The dam does not have a history of failure. The Lower Platte North NRD is in the process of developing a supplemental watershed plan and environmental assessment to rehabilitate the dam.

Mitigation and Strategic Actions

Action	Dam Inundation Mapping
Description & Location	Work with the Lower Platte North NRD to map the Cottonwood Creek Dam inundation area and share it with board members.
Hazard(s) Addressed	Dam Failure, Flooding
Estimated Cost	Staff Time
Local Funding	Staff Time
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board, Lower Platte North NRD
Status	New Action. Not Started.

Action	Drainage Study/Stormwater Master Plan
Description & Location	Drainage studies can be conducted to identify and prioritize improvements to address site specific localized flooding/drainage problems. Stormwater master plans can be conducted to perform a community-wide stormwater evaluation, identifying multiple problem areas and potentially multiple drainage improvements for each problem area.
Hazard(s) Addressed	Dam Failure, Flooding
Estimated Cost	$5,000 - $10,000
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	Not Started.

Dam Locations in Malmo



Severe Thunderstorms

Fifteen severe thunderstorms occurred in Malmo between 1996 and 2023. The water tower and building roofs were damaged by a large hailstorm in September 2010. In June of 2014, Malmo had a hailstorm that produced two-and-a-half-inch diameter hailstones, the largest to fall in the village. Severe thunderstorms are a concern for Malmo because of power outages from damaged power lines—less than 10% of the village's power lines are buried. Community lifelines are not fitted with hail-resistant building material, though they are insured against hail damage. The fire department is the only community lifeline in the village that has a backup generator. It is portable, so the community can use it when needed.

Mitigation and Strategic Actions

Action	Hazardous Tree Removal
Description & Location	Conduct tree inventory. Develop and implement tree maintenance and trimming program to remove hazardous limbs and trees. Work with private landowners to remove trees on private property.
Hazard(s) Addressed	Animal & Plant Disease, Drought, Extreme Temperatures, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$200 per tree
Local Funding	General Fund
Timeline	Ongoing
Priority	Medium
Lead Agency	Village Board
Status	Ongoing. Trees are removed as issues are identified and funds are available.

Removed Mitigation and Strategic Actions

Action	Backup and Emergency Generators
Description & Location	Identify and evaluate current backup and emergency generators. Obtain additional generators based on identification and evacuation. Provide portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations, and community lifelines and shelters. The village would like a generator for the wells.
Hazard(s) Addressed	Dam Failure, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber Attack, Tornadoes and High Winds
Status	Removed. The fire department has a portable generator that the village can use if needed.

Severe Winter Storms

Severe winter storms are a common occurrence in the village, often resulting in delayed travel. In January of 2024, wind chills in Malmo reached negative 42 degrees, the coldest recorded wind chill in Saunders County. Another significant winter event in recent history occurred in October 1994, resulting in a power outage across the village that lasted several days. Power losses are the biggest concern regarding winter weather, with less than 10 percent of the village's power lines buried, making them vulnerable to heavy snow and ice storms. The fire department has a portable generator that the village can use if needed. Malmo's hired contractor is sufficient to move all the snow. No snow routes or fences are used.

Mitigation and Strategic Actions
See *Hazardous Tree Removal* action under Severe Thunderstorms.

Tornadoes and High Winds

No significant tornado events have occurred locally, but the village experienced high winds in the 1990s that caused property damage. Future tornadoes and high wind events could be catastrophic. Tornadoes and high winds have the potential to damage trees and power lines. The village does not have certified safe rooms or options available for community members without basements, there are no Mutual Aid Agreements in place for response, and characteristics of the water tower and sewer system make them particularly vulnerable to an event. Their municipal records, kept on paper, are not backed up. The village is protected by a siren that is activated by the Saunders County dispatch team, and a new siren has been added within its jurisdiction.

Mitigation and Strategic Actions
See the *Hazardous Tree Removal* action under Severe Thunderstorms.

Other Mitigation and Strategic Actions

Action	Drought Monitoring
Description & Location	Increase drought monitoring at a local and regional level.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	Staff Time, General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board
Status	Not started.

Action	Drought Ordinance
Description & Location	Create and pass a more robust drought ordinance. The NRD can work with local community leaders and water system operators to promote developing and updating local drought ordinances.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	Staff Time, General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not started.

Action	Identify New Water Source
Description & Location	Identify alternative or locate new emergency water sources.
Hazard(s) Addressed	Drought
Estimated Cost	Varies by project
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not started.

Action	MOU for Emergency Water Supplies
Description & Location	Collaborate and develop agreements or memorandums of understanding with regional jurisdictions and organizations in the case of an emergency.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	Staff Time, General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	New Action. Not started.

Action	Public Education
Description & Location	Educate staff, residents, and visitors on their risks to all hazards that could impact the community, how to get information and emergency notifications, mitigation actions that can be taken, and preparedness actions to keep themselves safe. Coordinate outreach and education projects and materials with Saunders County and other project partners. Malmo will amplify and expand on education and outreach strategies created by Saunders County.
Hazard(s) Addressed	Hazardous Materials Release, Terrorism and Cyber-Attack
Estimated Cost	$500+
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board, Saunders County Emergency Management
Status	New Action. Not Started.

Action	Well Transducers
Description & Location	Install transducers on wells to monitor water levels. Real-time groundwater level monitoring allows for early identification of declining water tables, helping to detect drought conditions earlier and track water levels over time. The NRD is currently working with interested community water systems to install the transducers in community wells at minimal cost to the community.
Hazard(s) Addressed	Drought
Estimated Cost	Unknown
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not started.

Community Profile

Village of Mead

Lower Platte North NRD
Hazard Mitigation Plan 2025

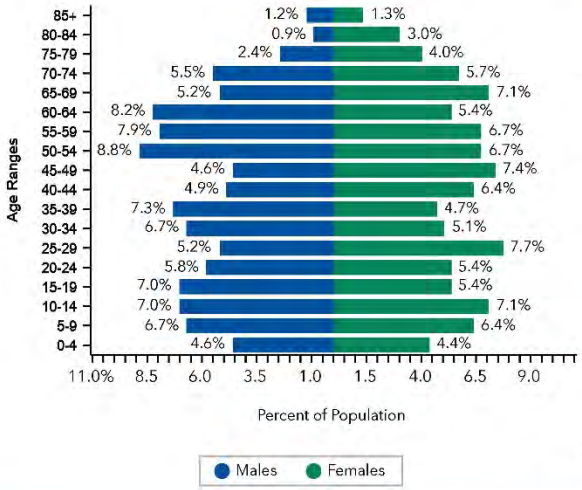
Community Fact Sheet

Community Summary Fact Sheet

Mead, NE
Lower Platte North NRD Hazard Mitigation Plan 2025

625	41.5	238	2.63	$215,000	$57,589
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID



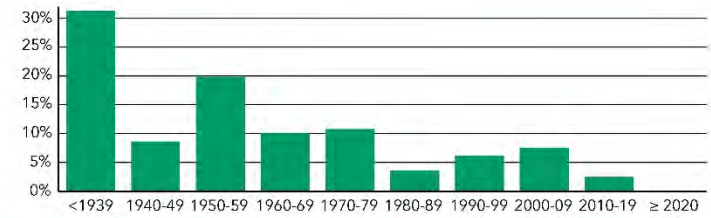
TOTAL POPULATION

2023 Total Population (Estimate)	625
2020 Total Population (U.S. Census)	617
2010 Total Population (U.S. Census)	566
2000 Total Population (U.S. Census)	562

AT RISK POPULATIONS

43	113	12	7%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

HOUSING: YEAR BUILT



EMPLOYMENT

24	2.2%
Total Businesses	Unemployment Rate

POPULATION BY RACE



- Black Population
- Asian Population
- American Indian Population
- Other Race Population
- Population of 2+ Races
- White Population

4% **of the Total Population is Hispanic**

HOUSING

19	5%
Vacant Housing Units	Mobile Homes

esri THE SCIENCE OF WHERE

Source: Esri, U.S. Census, Esri-Data Axle, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021.

Local Planning Team

Mead Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
June Moline	Clerk/Treasurer	Village of Mead	Attended, Materials Development	Attended, Materials Development
William Thorson	Board Chairperson	Village of Mead	Materials Development	-

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or before other funding opportunity cycles start.

The Clerk/Treasurer, Village Board, and Utilities Superintendent will review and update this participant profile outside of the five-year update. The Village of Mead will review the plan bi-annually, and the public will be notified using postings at the post office, bank, and village office.

Capability Assessment

The planning team assessed the Village of Mead's hazard mitigation capabilities by reviewing planning and regulatory, administrative, technical, fiscal, and education and outreach capabilities.

Mead Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operations Plan	Yes
	Floodplain Management Plan	Yes
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	Yes
	Building Codes	Yes
	Water System Emergency Response Plan	Yes
	Wellhead Protection Plan	Yes
	National Flood Insurance Program	Yes
	Community Rating System	No
	Community Wildfire Protection Plan	Yes (Regional)
	Other (if any)	-
Administrative &	Planning Commission	Yes
	Floodplain Administrator	Yes

Capability/Planning Mechanism		Yes/No
Technical Capability	GIS Capabilities	Yes
	Chief Building Official	Yes
	Civil Engineering	Yes
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	-
Fiscal Capability	1- & 6-Year Plan	Yes
	Applied for Grants in the Past	Yes
	Awarded a Grant in the Past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	No
	Gas/Electric/Water/Sewer Service Fees	Yes (Water, Sewer)
	Storm Water Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	No
	Ongoing Public Education or Information Program (e.g., Responsible Water Use, Fire Safety, Household Preparedness, Environmental Education)	Yes
	Natural Disaster or Safety Related School Programs	Yes
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	-

Mead Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Moderate
Staff/Expertise to Implement Projects	Moderate
Public Support to Implement Projects	Moderate
Time to Devote to Hazard Mitigation	High
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Moderate

National Flood Insurance Program (NFIP)

Mead is a member of the NFIP, having joined on 9/24/1984, and the village's Floodplain Administrator oversees the commitments and requirements of the NFIP. The floodplain administrator uses the FEMA Map Service Center and National Flood Hazard Layer to determine if a development will be located in the floodplain. A floodplain permit is required for any new construction or substantial improvements in the floodplain. Enforcement is done using the village's floodplain ordinance. After a flood event, the community implements substantial improvement and substantial damage provisions as outlined in the Substantial Damage Assessment Handbook from the Nebraska Department of Natural Resources, which can be found here: https://dnr.nebraska.gov/sites/dnr.nebraska.gov/files/doc/floodplain/resources/20220301_eSDA Handbook_FINAL.pdf. The village's floodplain regulations do not exceed the State of Nebraska requirements. The village would work with the Nebraska Department of Natural Resources and FEMA on any Letters of Map Change.

The local planning team has stated that Mead will remain in good standing and be involved with the NFIP. Currently, the village has no barriers when running the NFIP program. There are no known areas in the community with limited NFIP coverage. The village presently uses no educational materials for the floodplain, as only a small portion of farmland in the extraterritorial jurisdiction is in the floodplain. Additional NFIP information is given in the table below.

Mead NFIP Information

NFIP Overview	
Date of NFIP Participation:	9/24/1984
Floodplain Administrator:	June Moline
Is Floodplain Administrator a Certified Floodplain Manager?	No
Is Floodplain Management an Auxiliary Function?	Yes
Number of NFIP Policies In-Force:	0
Total NFIP Premium ($):	$0
Total NFIP Coverage ($):	$0
Number of Claims Paid Out:	0
Total Amount of Claims Paid Out ($:)	$0
Number of Repetitive Loss Structures:	0
Number of Severe Repetitive Loss Structures:	0
Is the Community Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	No
FIRMs Digital or Paper?	Digital
Located in a RISK Map Area?	No

Buildings and Valuation in the Floodplain

The planning team acquired GIS parcel data from the County Assessor and Microsoft building footprint data to analyze buildings' location, number, and value in the 100-year and 500-year floodplains. A summary of the results of this analysis is provided in the following tables.

Mead Buildings and Value in the 100-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
339	$58,709,962	0	$0	0%

Source: County Assessor, 2024; Microsoft, 2024

Mead Buildings and Value in the 500-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
339	$58,709,962	0	$0	0%

Source: County Assessor, 2024; Microsoft, 2024

Plans and Studies

The Village of Mead has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below, along with a description of how it is integrated with the hazard mitigation plan or contains hazard mitigation principles. When the village updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Building Code (2022)

Mead's building code sets standards for constructed buildings and structures within the village. The code is based on the 2018 International Building Code; no amendments have been made. Inspection, approval, and enforcement of the building code are done by the Village Zoning Administrator/Building Inspector. The hazard mitigation plan has not been integrated into the village's building code.

Capital Improvement Plan (2024)

The capital improvement plan outlines projects the village would like to pursue and provides a planning schedule and financing options. The capital improvement plan includes stormwater projects and installing water meters for residential structures as needed. Upsizing water distribution prices and installing emergency generators at community lifelines are projects to be included in future updates. Updates are determined after the annual budget review for future needs. New municipal wells and a new water treatment facility have recently been completed from the village's capital improvement plan. The hazard mitigation plan has not been integrated with the capital improvement plan.

Comprehensive Plan (2024)

The comprehensive plan is designed to guide the future actions and growth of the village. The hazard mitigation plan has not been integrated with the comprehensive plan. Goals and objectives aimed at Safe Growth and areas that need emergency shelters are identified in the comprehensive plan. The plan also directs development away from the floodplain, housing away from chemical storage facilities, and housing vulnerable populations away from major transportation routes. Infill development and the elevation of structures in the floodplain are encouraged in the plan.

Drought Ordinance Plan (2006)

Mead's drought ordinance outlines the conservation management plan to minimize the effects of water shortage and control the municipal water supply during periods of high demand. The village will enact action depending on the severity of the circumstance. The village board implements, declares, and enforces the ordinance. The hazard mitigation plan has not been integrated with the drought ordinance plan.

Floodplain Ordinance (2016)

The village's floodplain ordinance outlines requirements for structures and developments in the 100-year floodplain. By having a floodplain ordinance, the city promotes public health, safety, and welfare by minimizing losses due to floods. It also helps to ensure property owners' eligibility for purchasing flood insurance. Development in the floodplain is restricted, and the village limits the population density in the floodplain. Structures must be built more than one foot above the Base Flood Elevation in the floodplain. The hazard mitigation plan has not been integrated with Mead's floodplain ordinance. The floodplain ordinance is planned to be updated soon.

Saunders County Local Emergency Operations Plan (2021)

The Saunders County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. The hazard mitigation plan has been integrated with this plan and includes the top hazards that would affect the county and its populations. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines.

Southeast Nebraska Community Wildfire Protection Plan (2020)

The Southeast Nebraska Community Wildfire Protection Plan CWPP aims to help effectively manage wildfires and increase collaboration and communication among organizations that manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP, and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years.

Subdivision Regulations (2024)

Mead's subdivision regulations govern dividing land from one or more larger parcels into smaller lots. Subdivision of land is restricted within or adjacent to the floodplain. The subdivision regulations also detail the development and required improvements to roadways, electrical power, natural gas, telecom, storm sewer, sanitary sewers, and water mains for subdivisions. Setback requirements are included in Mead's subdivision regulations. The hazard mitigation plan has not been integrated with the subdivision regulations.

Water System Emergency Response Plan (2024)

A water system emergency response plan is a guideline for water operators and village board to minimize the disruption of regular consumer services and provide public health protection during an emergency. The document identifies several natural and human-caused events and discusses the water system's response during those events. The hazard mitigation plan has not been integrated with Mead's Water System Emergency Response Plan.

Wellhead Protection Plan (2001)

The purpose of wellhead protection plans is to protect the public drinking water supply wells from contamination. It includes identifying potential sources of groundwater contamination in the area and managing the potential contaminant sources. The hazard mitigation plan has not been integrated with Mead's Wellhead Protection Plan.

Zoning Ordinance (2024)

The zoning ordinance was completed in April of 2024 and regulates future land use development in Mead. Development in hazard-prone areas is restricted under the village's zoning ordinance. Population density is limited, and development is discouraged in the floodplain. The zoning ordinance requires more than one foot above Base Flood Elevation. Housing and vulnerable populations are discouraged from being near chemical storage sites. The zoning ordinance takes into consideration wildfire and wildland interface. The village's zoning ordinance includes well setback requirements and the ability to implement water restrictions. The hazard mitigation plan has not been integrated with the zoning ordinance.

Future Development Trends

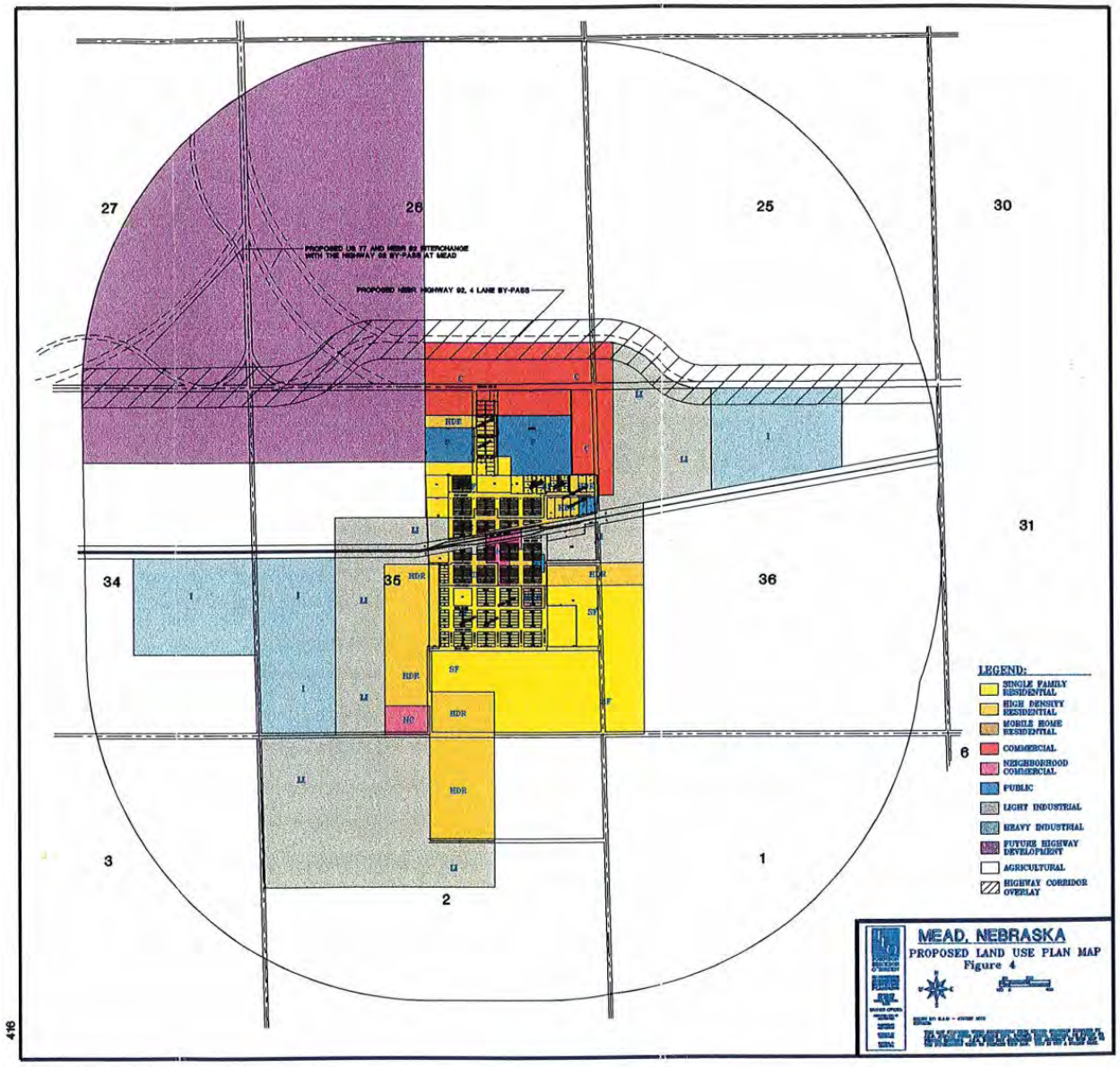
Over the past five years, the Village of Mead has paved North Oak Street, East First Street, and Pine Street. The village removed its old water tower and constructed a new water tower, water treatment plant, and two new wells at 309 West Second Street. These improvements in the community likely reduce vulnerability by increasing accessibility, and reducing potential complications with the local water system. The village purchased the maintenance shop at 309 West Second Street.

Frontier Cooperative added concrete and metal bins at 410 East Third Street. A concrete grain elevator owned by Frontier Cooperative was removed on 3rd and Vine. New businesses and homes were added within the village limits. No new structures were developed in the floodplain or any hazardous areas. Mead does not anticipate new housing or business and industry developments in the near future. The village has noted an abandoned well at 100 North Elm Street.

Mead has a future land use map indicating future highway development northwest of the village, commercial to the north, and industrial use to the northeast and southwest. Residential development will continue to the south, separate from the potential highway development in the northeast.

All new and future developments could be impacted, regardless of where they are located, by hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds. According to the local planning team any new and future development is not likely to occur in any other known hazard locations.

Future Land Use Map



Community Lifelines

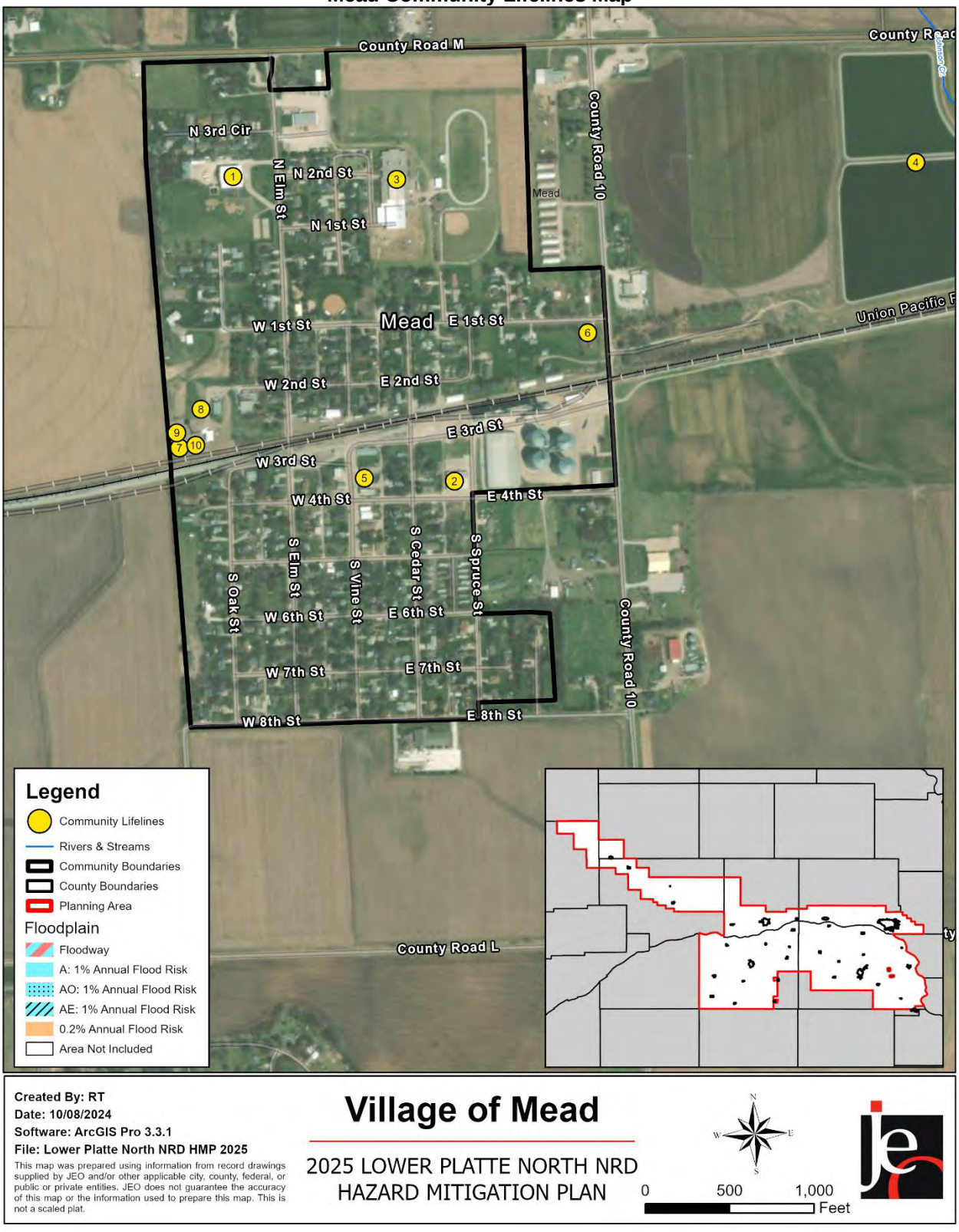
As listed in the following table, each participating jurisdiction identified community lifelines vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Mead Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Elementary School	Safety and Security	S	N
2	Fire Station/Community Hall	Safety and Security	G, S	N
3	High School	Safety and Security	S	N
4	Lagoon	Food, Water, Shelter	-	N
5	Village Office	Safety and Security	S	N
6	Lift Station	Food, Water, Shelter	G	N
7	Water Tower	Food, Water, Shelter	-	N
8	Water Treatment Facility	Food, Water, Shelter	G	N
9	Well	Food, Water, Shelter	G	N
10	Well	Food, Water, Shelter	G	N

Mead Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards that pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Mead, which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards the Village of Mead identified. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however Mead has identified mitigation actions to reduce the impacts of the hazards. Dam Failure and Levee Failure have been omitted from this profile as there are no high hazard dams upstream or any levee protected areas near the community according to NeDNR and USACE data. Therefore, no mitigation actions have been identified for those two hazards. Please see *Section Five* and *Appendix A* for a review and analysis of other regional hazards.

Extreme Temperatures

Excessive heat with high dew points caused temperatures to rise in the mid-90s and low 100s during July and August 2023. Extreme heat is a concern for the village when it leads to drought or loss of electricity. Some residents require medical equipment at all times and could be at risk of health complications if a severe weather event causes electricity loss. There is a public cooling center at the Fire Hall for potential extreme heat events. Public meetings and event cancelations from extreme weather events are posted on Mead's webpage and social media.

Mitigation and Strategic Actions

Action	Backup and Emergency Generators
Description & Location	Identify and evaluate current backup and emergency generators. Obtain additional generators based on identification and evaluation. The village would like backup generators on the new wells and the lift station.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Terrorism & Cyber-Attack, Tornadoes & High Winds
Estimated Cost	$40,000 per generator
Local Funding	General Budget
Timeline	5+ Years
Priority	High
Lead Agency	Utility Superintendent
Status	Not Started

Severe Thunderstorms

A severe thunderstorm on May 11, 2022, produced golf ball-sized hail in Mead. The village's concerns regarding severe thunderstorms are power outages, downed trees, and property damage. Surge protectors and backup protocols protect municipal records from power surges. Community lifelines are protected from power outages with backup generators. Approximately 20% of power lines are buried. Hazardous trees around the wells, lagoon system, fire station, and some personal property could be removed. The village has removed several trees at their local park. All community lifelines have weather radios.

Mitigation and Strategic Actions

Action	Backup Records
Description & Location	Develop protocol for backing up critical records onto a portable storage device or service. Maintain routine backup of records. Old ordinances and minutes dating back several decades need to be digitized. Hire a company to scan copies of documents.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Terrorism & Cyber-Attack, Tornadoes & High Winds
Estimated Cost	$5,000+
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Utility Superintendent
Status	Not Started

Severe Winter Storms

The 2009-2010 and 2010-2011 winters were particularly severe, with significant snow removal needs and prolonged power outages. Power outages and blocked transportation routes are of most concern to the community. Approximately 20% of power lines are buried. Every road in the village is considered a snow route, so vehicles must be moved from the streets after two inches of snow. Fire and Rescue assists stranded motorists and provides medical care, food, and shelter. Residents also donate food, blankets, and other supplies. Local churches and private homes offer food and shelter if needed. Utility maintenance personnel, equipped with a truck and blade, are responsible for snow removal. A tractor with a scoop and a dump trailer is also available for particularly heavy snow events. These snow removal resources are sufficient for Mead's needs.

Mitigation and Strategic Actions

See *Backup and Emergency Generators* action under extreme temperatures.

Terrorism and Cyber-Attack

No terrorism or cyber-attacks have occurred in Mead to date. This hazard is a concern for the future as technology and internet use become more integral to daily use. The village has added additional protection measures to their computers to reduce the risk of this hazard.

Mitigation and Strategic Actions

Action	Tabletop Exercise – Cyber-Attack
Description & Location	Work with Saunders County emergency management to conduct a tabletop exercise on cyber-attacks.
Hazard(s) Addressed	Terrorism and Cyber-Attack
Estimated Cost	Staff Time
Local Funding	Staff Time, General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	New Action. Not Started

Tornadoes and High Winds

Tornadoes and high winds concern the village because they cause power outages and property damage. One EF0 tornadic event occurred in Mead in March 2006, causing $50,000 in property damage. High wind events have caused a consistent loss of electricity in the last few years. Hazardous trees are located on personal property, around the wells, and around the lagoon that could be removed. Several homeowners have removed old trees on their properties. Municipal records are protected with a backup protocol on thumb drives and CDs. Community lifelines have backup generators. Approximately 20% of power lines are buried. The County Sheriff's Department activates warning sirens in the community. A siren in northern Mead would benefit the community. FEMA-certified safe rooms are located at the Mead Community Building/Fire Station. The Alma Lutheran Church basement is also open for community members seeking safe shelter. Postings and newsletters have informed the community of the church basement saferoom. County Emergency Management offers text alerts for severe weather events. Community tornado drills educate community members on property tornado response. Mutual Aid Agreements between local fire departments are in place in case of a disaster. A siren is needed on the north side of the village to warn residents of a severe weather event in the future.

Mitigation and Strategic Actions

Action	Alert/Warning Sirens
Description & Location	Evaluate existing alert sirens to determine which should be replaced or upgraded. Install new sirens where lacking with remote activation options. A new alert siren may be needed on the north side of the village.
Hazard(s) Addressed	Extreme Temperatures, Grass/Wildfires, Hazardous Materials Release, Severe Thunderstorms, Severe Winter Storms, Tornadoes & High Winds
Estimated Cost	$25,000+
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Utility Superintendent
Status	Not Started

Other Mitigation and Strategic Actions

Action	Codify Code Book
Description & Location	The village recently updated its ordinances in the code book, but a company must codify it professionally.
Hazard(s) Addressed	Drought, Flooding
Estimated Cost	$30,000
Local Funding	General Budget
Timeline	2-5 Years
Priority	Low
Lead Agency	Clerk
Status	New Action. Not Started.

Action	Drought Monitoring
Description & Location	Increase drought monitoring at a local and regional level.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	Staff Time, General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board
Status	Not started.

Action	MOU for Emergency Water Supplies
Description & Location	Collaborate and develop agreements or memorandums of understanding with regional jurisdictions and organizations in the case of an emergency.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	Staff Time, General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	New Action. Not started.

Action	Public Education
Description & Location	Educate staff, residents, and visitors on their risks to all hazards that could impact the community, how to get information and emergency notifications, mitigation actions that can be taken, and preparedness actions to keep themselves safe, especially regarding the spread of animal and plant disease. Coordinate outreach and education projects and materials with Saunders County, Department of Agriculture, and other project partners. Mead will amplify and expand on education and outreach strategies created by Saunders County and engage in countywide continuity planning efforts.
Hazard(s) Addressed	Animal & Plant Disease
Estimated Cost	$5,000+
Local Funding	General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	New Action. Not Started.

Completed Mitigation and Strategic Actions

Action	Expand Water Storage Capacity
Description & Location	Complete construction on a new water tower that accommodates 100,000 gallons of water.
Hazard(s) Addressed	Drought
Status	Completed

Action	Update Comprehensive Plan
Description & Location	Update comprehensive plan. Integrate the plan with Hazard Mitigation Plan components.
Hazard(s) Addressed	Animal & Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Status	Completed

Action	Well Improvements
Description & Location	Complete construction on two new wells at 309 W Second St and decommission the other two wells.
Hazard(s) Addressed	Drought
Status	Completed

Community Profile

Village of Morse Bluff

Lower Platte North NRD
Hazard Mitigation Plan 2025

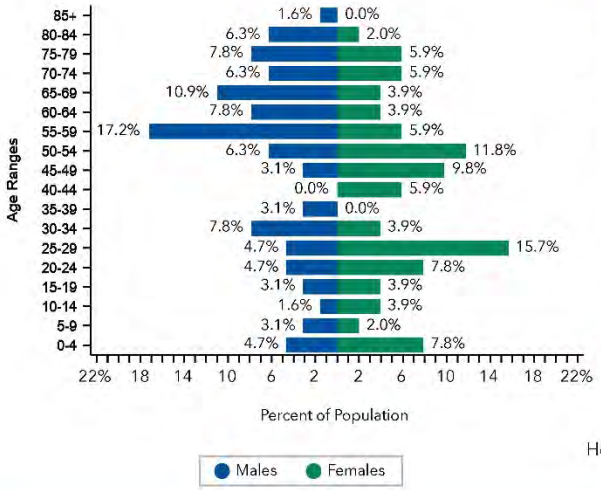
Community Fact Sheet

Community Summary Fact Sheet

Morse Bluff, NE
Lower Platte North NRD Hazard Mitigation Plan 2025

115	51.8	52	2.21	$158,333	$50,000
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID



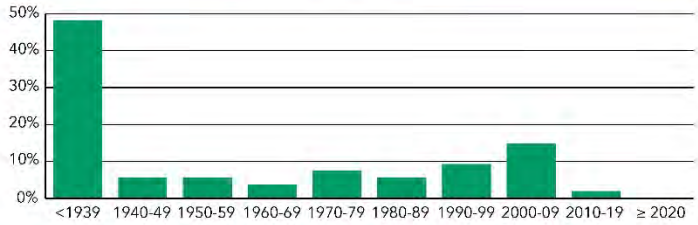
TOTAL POPULATION

2023 Total Population (Estimate)	115
2020 Total Population (U.S. Census)	117
2010 Total Population (U.S. Census)	125
2000 Total Population (U.S. Census)	131

AT RISK POPULATIONS

7	30	2	9%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

HOUSING: YEAR BUILT



EMPLOYMENT

11	0.0%
Total Businesses	Unemployment Rate

POPULATION BY RACE



- Black Population
- Asian Population
- American Indian Population
- Other Race Population
- Population of 2+ Races
- White Population

2% **of the Total Population is Hispanic**

HOUSING

19	4%
Vacant Housing Units	Mobile Homes

esri THE SCIENCE OF WHERE

Source: Esri, U.S. Census, Esri-Data Axle, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021.

Local Planning Team

Morse Bluff Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Kevin Vyhlidal	Utility Superintendent	Village of Morse Bluff	Attended, Materials Development	Attended, Materials Development
Stephanie Gabel	Village Clerk	Village of Morse Bluff	-	Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The Clerk and Board members will be responsible for reviewing and updating the community profile outside of the five-year update. Morse Bluff will review the plan annually and the public will be notified through public postings and board meetings.

Capability Assessment

The planning team assessed the Village of Morse Bluff's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Morse Bluff Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	No
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operations Plan	Yes (County)
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	No
	Subdivision Regulation/Ordinance	No
	Floodplain Ordinance	No
	Building Codes	No
	Water System Emergency Response Plan	Yes
	Wellhead Protection Plan	No
	National Flood Insurance Program	No
	Community Rating System	No
	Community Wildfire Protection Plan	Yes (Regional)
	Other (if any)	-
	Planning Commission	No

Capability/Planning Mechanism		Yes/No
Administrative & Technical Capability	Floodplain Administrator	No
	GIS Capabilities	No
	Chief Building Official	No
	Civil Engineering	No
	Grant Manager	No
	Mutual Aid Agreement	No
	Other (if any)	-
Fiscal Capability	1- & 6-Year Plan	No
	Applied for Grants in the Past	Yes
	Awarded a Grant in the Past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric/Water/Sewer Service Fees	Yes (Water, Sewer)
	Storm Water Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	No
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	No
	Ongoing Public Education or Information Program (e.g., Responsible Water Use, Fire Safety, Household Preparedness, Environmental Education)	No
	Natural Disaster or Safety Related School Programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	-

Morse Bluff Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Limited
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

National Flood Insurance Program (NFIP)

Morse Bluff does not participate in the National Flood Insurance Program. the majority of the village is not within a flood risk area, and there is no interest to participate in the program at this time.

Morse Bluff NFIP Information

NFIP Overview	
Date of NFIP Participation:	N/A
Floodplain Administrator:	N/A
Is Floodplain Administrator a Certified Floodplain Manager?	N/A
Is Floodplain Management an Auxiliary Function?	N/A
Number of NFIP Policies In-Force:	N/A
Total NFIP Premium ($):	N/A
Total NFIP Coverage ($):	N/A
Number of Claims Paid Out:	N/A
Total Amount of Claims Paid Out ($:)	N/A
Number of Repetitive Loss Structures:	N/A
Number of Severe Repetitive Loss Structures:	N/A
Is the Community Currently Suspended from the NFIP?	N/A
Any Outstanding Compliance Issues?	N/A
FIRMs Digital or Paper?	Digital
Located in a RISK Map Area?	No

Buildings and Valuation in the Floodplain

The planning team acquired GIS parcel data from the County Assessor and Microsoft building footprint data to analyze the location, number, and value of buildings located in the 100-year and 500-year floodplains. A summary of the results of this analysis is provided in the following tables.

Morse Bluff Buildings and Value in the 100-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
109	$9,544,640	4	$233,205	3.7%

Source: County Assessor, 2024; Microsoft, 2024

Morse Bluff Buildings and Value in the 500-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
109	$9,544,640	0	$0	0%

Source: County Assessor, 2024; Microsoft, 2024

Plans and Studies

The Village of Morse Bluff is part of several planning documents that discuss or relate to hazard mitigation. Each plan is listed below, along with a description of how it is integrated with the hazard mitigation plan or contains hazard mitigation principles. When the village updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Building Code
The building code sets standards for constructed buildings and structures. Enforcement of the building code is done in the permitting process. Minor amendments have been made to the building code regarding acceptable rood materials. The hazard mitigation has not bee integrated into the village building code.

Saunders County Emergency Operations Plan (2021)
The Saunders County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. The hazard mitigation plan has been integrated with this plan and includes the top hazards that would affect the county and its populations. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines.

Southeast Nebraska Community Wildfire Protection Plan (2020)
The Southeast Nebraska Community Wildfire Protection Plan CWPP aims to help effectively manage wildfires and increase collaboration and communication among organizations that manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP, and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years.

Water System Emergency Response Plan (2024)
A water system emergency response plan is a guideline for water operators and village board to minimize the disruption of regular consumer services and provide public health protection during an emergency. The document identifies several natural and human-caused events and discusses the water system's response during those events. The hazard mitigation plan has not been integrated with Morse Bluff's Water System Emergency Response Plan.

Future Development Trends
Over the past five years, Morse Bluff has made road improvements throughout the community. Recently, the village improved 2nd Street by filling potholes. In the future, improvements to the culvert along 1st and Ann Street, and the road condition of Rose Street need to be assessed to further reduce vulnerabilities in the event of severe weather or incident. For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted. According to the local planning team no new developments occurred in any known hazard locations.

Community Lifelines
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction’s functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline

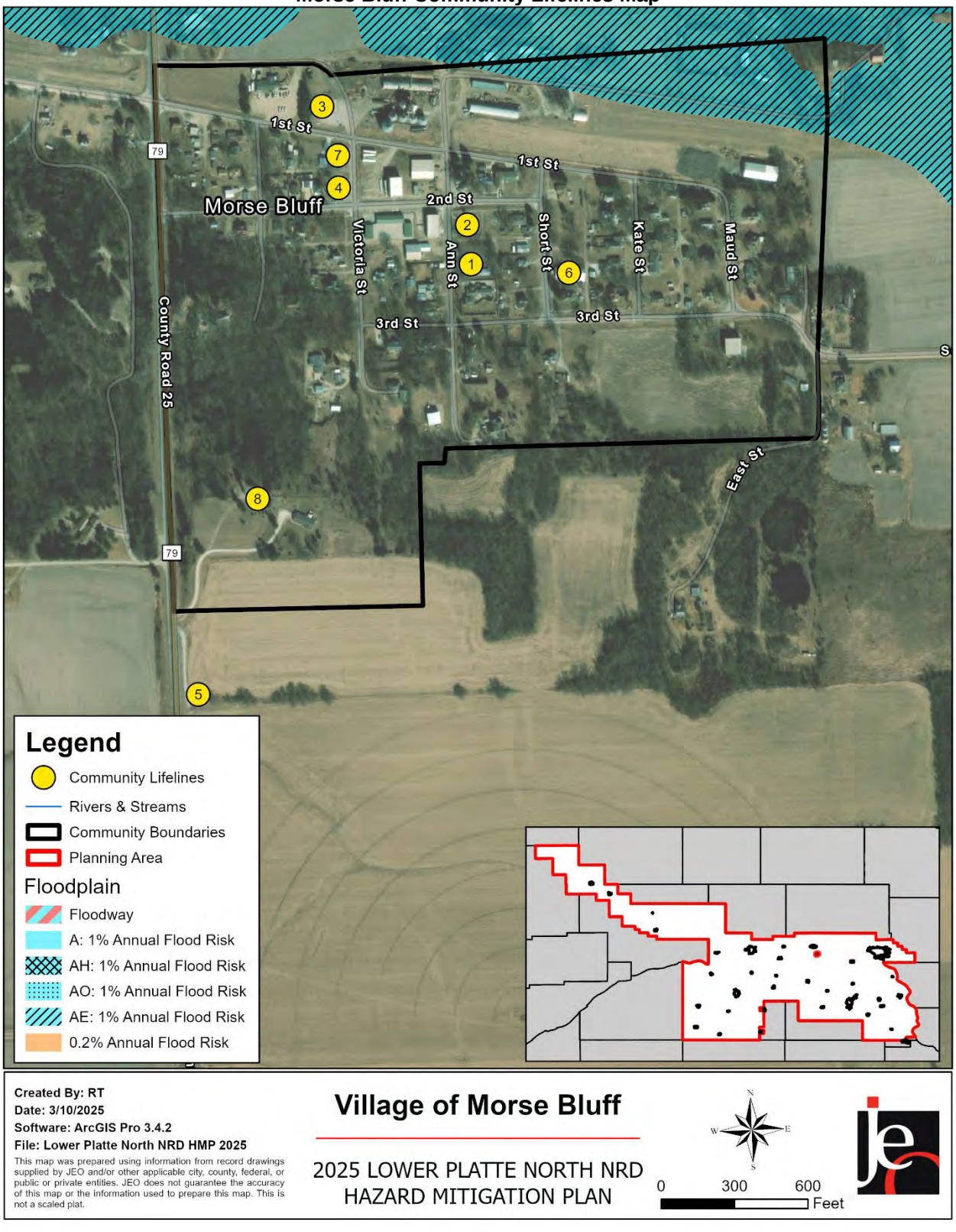
categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Morse Bluff Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	American Legion	Other	-	N
2	Centennial Park	Other	-	N
3	Fire Hall	Safety and Security	-	N
4	Post Office	Safety and Security	-	N
5	Pump House	Food, Water, Shelter	G	N
6	St. George Church	Other	-	N
7	Village Hall	Safety and Security	-	N
8	Water Tower	Food, Water, Shelter	-	N

Morse Bluff Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Morse Bluff which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Village of Morse Bluff. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however Morse Bluff has identified mitigation actions to reduce the impacts of the hazards. Dam Failure has been omitted from this profile as there are no high hazard dams upstream of the community according to NeDNR data. Therefore, no mitigation actions have been identified for that hazard. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Flooding

Morse Bluff experienced some transportation impacts from the March 2019 floods, with flood waters from the Platte River traveling within a half mile north of the village. Highway 79 was closed for a couple of days until floodwaters went down. With the Platte River so close, riverine flooding is the biggest flooding concern for the southern portion of the village, though the north quarter also floods occasionally.

Mitigation and Strategic Actions

Action	New Collection System
Description & Location	This item was included in the Morse Bluff CWSRF Needs Survey for the Nebraska Department of Environment and Energy.
Hazard(s) Addressed	Flooding
Estimated Cost	Unknown
Local Funding	General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started

Action	Update Lagoon
Description & Location	This item was included in the Morse Bluff CWSRF Needs Survey for the Nebraska Department of Environment and Energy.
Hazard(s) Addressed	Flooding
Estimated Cost	$25,000+
Local Funding	General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board
Status	Not Started

Levee Failure

While not identified as a prioritized hazard by the local planning team, Morse Bluff is protected by the Morse Bluff Drainage District levee system. The Morse Bluff Drainage District levee protects 29 buildings, 21 people, and an estimated $14 million in property value. There is no history of this levee system overtopping.

Mitigation and Strategic Actions

Action	Public Education
Description & Location	Educate staff, residents, and visitors on their risks to animal and plant disease (especially concerning the spread of EAB), drought and dry conditions, and levee failure. Also educate the public on how to get information and emergency notifications if the Morse Bluff levee were to fail. Inform the public on what mitigation actions can be taken for agricultural disease, drought and levee failure, and preparedness actions to keep themselves safe. Coordinate outreach and education projects and materials with Saunders County and other project partners.
Hazard(s) Addressed	Animal & Plant Disease, Drought, Levee Failure
Estimated Cost	Staff Time, $500+
Local Funding	General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board, Saunders County EMA
Status	New action.

Severe Thunderstorms

Thunderstorms have damaged trees throughout the community during several storms in the past. Home and tree damage are the largest concerns in the community regarding severe thunderstorms. Most power lines are not buried, so power loss is also a concern. Both municipal wells need a generator in case of a power outage. It is the responsibility of property owners to maintain their own trees. Community lifelines are fitted with hail resistant building materials and are insured against hail damage.

Mitigation and Strategic Actions

Action	Backup Records
Description & Location	Develop protocol for backing up critical records onto a portable storage device or service. Maintain routine backup of records.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	Staff Time
Local Funding	General Budget
Timeline	1 Year
Priority	High
Lead Agency	Village Clerk
Status	Not Started

Severe Winter Storms

Power outages are the largest concern regarding severe winter storms in Morse Bluff. Almost none of the power lines in the village are buried, making them vulnerable to severe storms. Both municipal wells need a generator in case of a power outage. There are no designated snow routes or snow fences in the village. Snow removal is done by a private contractor.

Mitigation and Strategic Actions

Action	Backup and Emergency Generators
Description & Location	Purchase and install backup generators for the municipal wells (Well 2014-1) and pump house.
Hazard(s) Addressed	Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$40,000+
Local Funding	General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Utility Superintendent
Status	New Action. Not Started.

Other Mitigation and Strategic Actions

Action	Drought Monitoring
Description & Location	Increase drought monitoring at a local and regional level.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	Staff Time, General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board
Status	Not started.

Action	Well Transducers
Description & Location	Install transducers on wells to monitor water levels. Real-time groundwater level monitoring allows for early identification of declining water tables, helping to detect drought conditions earlier and track water levels over time. The NRD is currently working with interested community water systems to install the transducers in community wells at minimal cost to the community.
Hazard(s) Addressed	Drought
Estimated Cost	Unknown
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not started.

Completed Mitigation and Strategic Actions

Action	New Municipal Well
Description & Location	Communities can evaluate the need to install a new well to provide a safe backup water supply for the community, replace existing wells affected by drought, and additional water for fire protection
Hazard(s) Addressed	Drought, Grass/Wildfire
Status	A new well was installed in 2019.

Community Profile

Village of Prague



Lower Platte North NRD
Hazard Mitigation Plan 2025

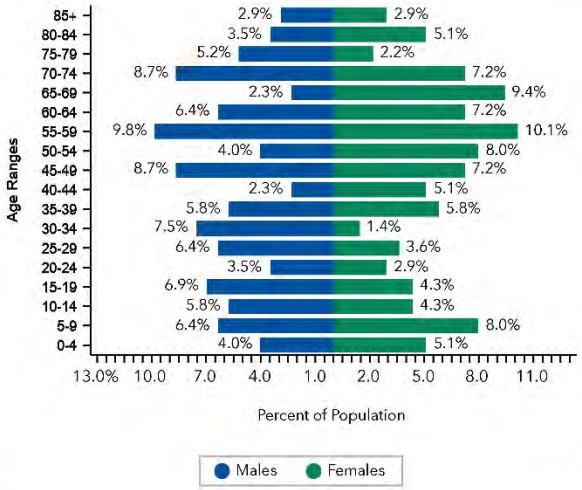
Community Fact Sheet

Community Summary Fact Sheet

Prague, NE
Lower Platte North NRD Hazard Mitigation Plan 2025

311	48.1	124	2.51	$145,833	$50,000
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID



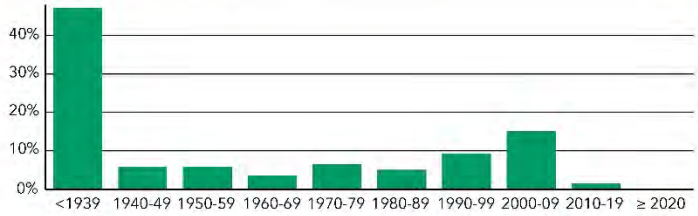
TOTAL POPULATION

2023 Total Population (Estimate)	311
2020 Total Population (U.S. Census)	291
2010 Total Population (U.S. Census)	310
2000 Total Population (U.S. Census)	326

AT RISK POPULATIONS

16	76	3	11%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

HOUSING: YEAR BUILT



EMPLOYMENT

18	1.6%
Total Businesses	Unemployment Rate

POPULATION BY RACE



- Black Population
- American Indian Population
- Asian Population
- Other Race Population
- Population of 2+ Races
- White Population

0% **of the Total Population is Hispanic**

HOUSING

48	4%
Vacant Housing Units	Mobile Homes

esri THE SCIENCE OF WHERE

Source: Esri, U.S. Census, Esri-Data Axle, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021.

Local Planning Team

Prague Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Jeremy Stanislav	Board Member	Village of Prague	Attended, Materials Development	-
Debi Wade	Board Member	Village of Prague	Attended, Materials Development	Attended, Materials Development
Jason Muessel	Chairman	Village of Prague	-	Materials Development
Matthew Muessigmann	Board Member	Village of Prague	-	Materials Development
Marlene Wade	Board Member	Village of Prague	-	Attended, Materials Development
Rhonda Bergman	Board Member	Village of Prague	-	Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The Village Board and Clerk will be responsible for reviewing and updating the community profile outside of the five-year update. Prague will review the plan annually and the public will be notified during board meetings.

Capability Assessment

The planning team assessed the Village of Prague's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Prague Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operations Plan	Yes
	Floodplain Management Plan	Yes
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	Yes
	Building Codes	No
	Water System Emergency Response Plan	Yes

Capability/Planning Mechanism		Yes/No
	Wellhead Protection Plan	Yes (Map only)
	National Flood Insurance Program	Yes
	Community Rating System	No
	Community Wildfire Protection Plan	Yes (Regional)
	Other (if any)	-
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administrator	Yes
	GIS Capabilities	No
	Chief Building Official	Yes
	Civil Engineering	Yes
	Grant Manager	Yes
	Mutual Aid Agreement	Yes
	Other (if any)	-
Fiscal Capability	1- & 6-Year Plan	Yes
	Applied for Grants in the Past	Yes
	Awarded a Grant in the Past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric/Water/Sewer Service Fees	Yes
	Storm Water Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	No
	Ongoing Public Education or Information Program (e.g., Responsible Water Use, Fire Safety, Household Preparedness, Environmental Education)	Yes
	Natural Disaster or Safety Related School Programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	-

Prague Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited

Capability	Limited/Moderate/High
Public Support to Implement Projects	Moderate
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

National Flood Insurance Program (NFIP)

Prague is a member of the NFIP, having joined on 12/29/2000, and the village's Floodplain Administrator oversees the commitments and requirements of the program. The floodplain administrator uses FEMA's National Flood Hazard Layer Viewer and local zoning to determine if a development will be located in the floodplain. The zoning permit process includes a review of every project in the floodplain. If a processed project is in the floodplain, then a floodplain development permit is required according to the village's 2010 Floodway and Flood Fringe Ordinance #321. After a flood event, the county emergency management helps identify substantially damaged structures. Substantially improved structures are identified through the zoning permit process. The zoning permit process also tracks and compiles Letters of Map Change. The village's floodplain regulations do not exceed the State of Nebraska requirements, but Prague does have a Floodwater Retarding Dam Breach Overlay district to limit damage from high hazard dams.

The local planning team has stated that Prague will remain in good standing and be involved with the NFIP. Currently, the village has no barriers when running the program. There are no known areas in the community with limited NFIP coverage. The village presently uses no educational materials for the floodplain. Additional NFIP information is given in the table below.

Prague NFIP Information

NFIP Overview	
Date of NFIP Participation:	12/29/2000
Floodplain Administrator:	Jeff Ray
Is Floodplain Administrator a Certified Floodplain Manager?	No
Is Floodplain Management an Auxiliary Function?	Yes
Number of NFIP Policies In-Force:	0
Total NFIP Premium ($):	$0
Total NFIP Coverage ($):	$0
Number of Claims Paid Out:	0
Total Amount of Claims Paid Out ($:)	$0
Number of Repetitive Loss Structures:	0
Number of Severe Repetitive Loss Structures:	0
Is the Community Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	No
FIRMs Digital or Paper?	Digital
Located in a RISK Map Area?	No

Buildings and Valuation in the Floodplain

The planning team acquired GIS parcel data from the County Assessor and Microsoft building footprint data to analyze the location, number, and value of buildings located in the 100-year and 500-year floodplains. A summary of the results of this analysis is provided in the following tables.

Prague Buildings and Value in the 100-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
224	$19,369,074	1	$126,235	0.4%

Source: County Assessor, 2024; Microsoft, 2024

Prague Buildings and Value in the 500-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
224	$19,369,074	5	$662,276	2.2%

Source: County Assessor, 2024; Microsoft, 2024

Plans and Studies

The Village of Prague has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the village updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Comprehensive Plan (2019)

The comprehensive plan is designed to guide the future actions and growth of the city. The hazard mitigation plan has been integrated into the plan by discussing severe storms, tornadoes, cyber-attacks, hazardous materials, and drought. Development is directed away from the floodplain and housing is directed aware from chemical storage facilities. Housing and vulnerable populations are directed away from major transportation routes. The plan encourages infill development and identifies areas that need emergency shelters. Schuyler updates the plan as needed and anticipates a full document update in 2025 that includes goals and objectives aimed at Safe Growth and encourages elevation of structures located in the floodplain.

Drought Ordinance (2006)

Prague's drought ordinance outlines the conservation management plan to minimize the effects of water shortage and control the municipal water supply during periods of high demand. The hazard mitigation plan has not been integrated into the village's drought ordinance. Water conservation measures are determined by the declaration of a water supply watch, warning, or emergency announced by the village board.

Floodplain Ordinance (2010)

The village's floodplain ordinance outlines requirements for structures and developments located in the 100-year floodplain. By having a floodplain ordinance, the village promotes public health, safety, and welfare by minimizing losses due to floods. It also helps to assure eligibility of purchasing flood insurance for property owners. Prague's floodplain ordinance prohibits development within the floodplain, limits population density in the floodplain, and requires structures be one foot above Base Flood Elevation in the floodplain. The hazard mitigation plan has not been integrated with the floodplain ordinance, but updates to the floodplain ordinance are done as needed.

Saunders County Local Emergency Operations Plan (2021)

The Saunders County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines. The hazard mitigation plan has not been integrated into the LEOP.

Southeast Nebraska Community Wildfire Protection Plan (2020)

The purpose of the Southeast Nebraska Community Wildfire Protection Plan CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years.

Subdivision Regulations (1999)

The village's subdivision regulations govern the division of land from one or more larger parcels into smaller lots. The subdivision regulations restrict the subdivision of land within or adjacent to the floodplain. The hazard mitigation plan has not been integrated into the subdivision regulations.

Water System Emergency Response Plan (2022)

A water system emergency response plan serves as a guideline for water operators and village board to minimize the disruption of normal services to consumers and to provide public health protection during an emergency event. The document identifies several natural and human-caused events and discusses the water system's response during those events. The hazard mitigation plan has not been integrated with this plan.

Wellhead Protection Plan (2014)

The purpose of wellhead protection plans is to protect the public drinking water supply wells from contamination. It includes identifying potential sources of groundwater contamination in the area and managing the potential contaminant sources. The wellhead protection plan has not been integrated with the hazard mitigation plan.

Zoning Ordinance (2019)

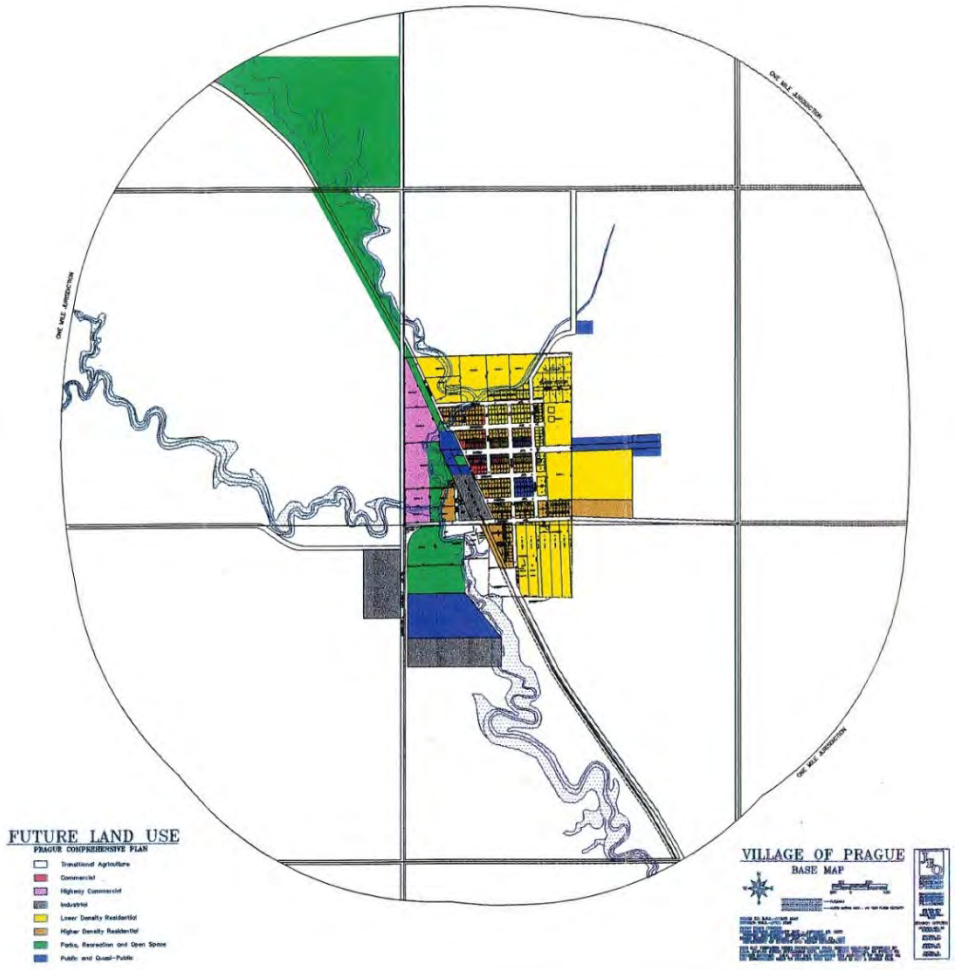
The village's zoning ordinance outlines where and how development should occur in the future. Updates to the zoning ordinance are done on an as-needed basis. The hazard mitigation plan has not been integrated into the zoning ordinance. The zoning ordinance restricts development in hazard prone areas, discourages housing and vulnerable populations near chemical storage sites, and considers wildfire and the wildland urban interface. Well setback requirements and the ability to implement water restrictions are included in the ordinance. Included in the zoning regulations is a Floodwater Retarding Dam Breach Overlay District. The overlay district protects certain areas of the village that may be at substantial risk of flooding from dam failures. In the overlay district, only uses having low flood damage potential and not obstructing flood flows are permitted.

Future Development Trends

Between 2022 and 2023, Prague resurfaced three blocks of highway avenue. Since 2023, the village replaced three blocks of sewer main on the east side as well as lined and made repairs to four blocks of sewer main along Highway Avenue. These developments likely reduce vulnerability in the community by improving accessibility and reducing the risk of flooding. There have not been any new structures developed in the floodplain or hazardous areas over the past five years. The village does not anticipate new housing or business developments in the next five years. For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted regardless of where they are located. According to the local planning team any new and future development is not likely to occur in any other known hazard locations; therefore, vulnerability is likely to remain the same.

Prague has a future land use map that identifies potential land uses as the village grows. The future land uses are in line with the current zoning of the village with residential to the north and east, recreational and open space along Cottonwood Creek to the northwest and south, and commercial and industrial concentrated in the western part of Prague. Future industrial is also located in the southernmost and westernmost part of the village, away from residential development.

Prague Future Land Use Map



Community Lifelines

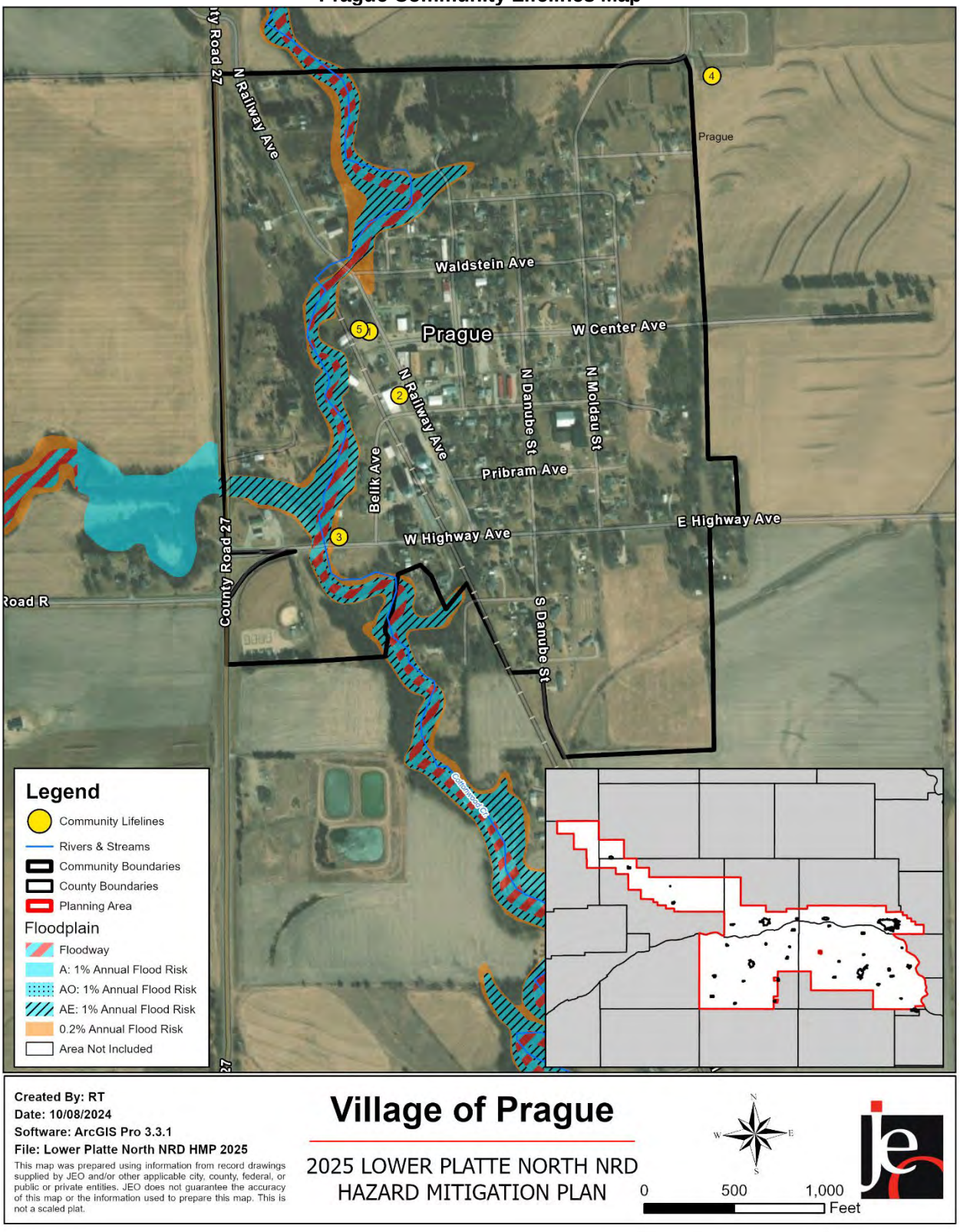
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Prague Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	City Hall	Safety and Security	-	N
2	Fire Hall	Safety and Security	G	N
3	Sanitary Lift Station	Food, Water, Shelter	G	Y (0.2%)
4	Water Tower	Food, Water, Shelter	-	N
5	Water Treatment Facility	Food, Water, Shelter	G	N

Prague Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Prague which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Village of Prague. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however Prague has identified mitigation actions to reduce the impacts of the hazards. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Dam Failure

The Cottonwood Creek 7-A Dam, located just north of Prague, would have large impacts on the village if it were to fail. It is a high hazard dam that forms Czechland Lake and could have a large impact on the community if it failed. The dam does not have a history of failure. The Lower Platte North Natural Resources District is responsible for maintaining the dam, including an EAP in case of dam failure. The village passed Ordinance #366, Floodwater Retarding Dam Breach Overlay District, which protects certain areas of the village that may be at risk of substantial flooding from dam failure.

Mitigation and Strategic Actions

Action	Emergency Exercise: Dam Failure
Description & Location	Conduct a tabletop exercise with Lower Platte North NRD to determine the response scenarios in the event of a dam failure.
Hazard(s) Addressed	Dam Failure
Estimated Cost	$8,000+
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board, LPNNRD
Status	New Action.

Drought

Drought is a concern for Prague because it could place stress on their water system. During a drought in 2011 water usage in the village increased significantly, though the water supply was still sufficient. Prague is supplied by two wells that are monitored with monthly drawdown checks and logs of daily water use. A new treatment plant and well may be needed in the next five years. The residential water supply is metered. A water drought and emergency ordinance, along with an ordinance to implement water restrictions are in place to respond to future drought events. There are also landscape ordinances in place that establish irrigation limits. The village plans to continue to monitor well levels and water production to reduce the intensity of future droughts.

As part of the NRD's Drought Risk and Resiliency Report, the NRD met with community representatives to discuss the water system's vulnerability to drought. The table below was created based off of those conversations and water system documents provided by Prague. The only category that was identified as low was regional drought monitoring because the village does not do any regional drought monitoring.

Prague Drought Risk Matrix

Risk Category	Rating
Water Quantity	Medium
Water Quality	Medium
Capabilities (Ordinances & Plans)	Medium
Capabilities (Staff)	High
Local Drought Monitoring	Medium
Regional Drought Monitoring	Low
Emergency Supply	Medium
Local Funding Ability	Medium

Mitigation and Strategic Actions

Action	Construct a Water Treatment Plant
Description & Location	If water quality does not improve, construct a water treatment plant.
Hazard(s) Addressed	Drought
Estimated Cost	Varies by need and size
Local Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board
Status	Not started.

Action	Drought Monitoring
Description & Location	Increase drought monitoring at a local and regional level.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	Staff Time, General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	Utility Superintendent, Village Board
Status	Not started.

Action	Evaluate Water Supply
Description & Location	Evaluate and locate new sources of ground and/or surface water to ensure adequate supplies to support the existing community and any additional growth which may occur.
Hazard(s) Addressed	Drought
Estimated Cost	$500,000
Local Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	Utility Superintendent, Village Board
Status	Ongoing. The village will refer to the drought ordinance if needed and plans to drill for a new municipal well.

Action	Gather Historical Water Levels and Trends
Description & Location	Store historical consumption and water level information electronically.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	Staff Time, General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Utility Superintendent, Village Board
Status	Not started.

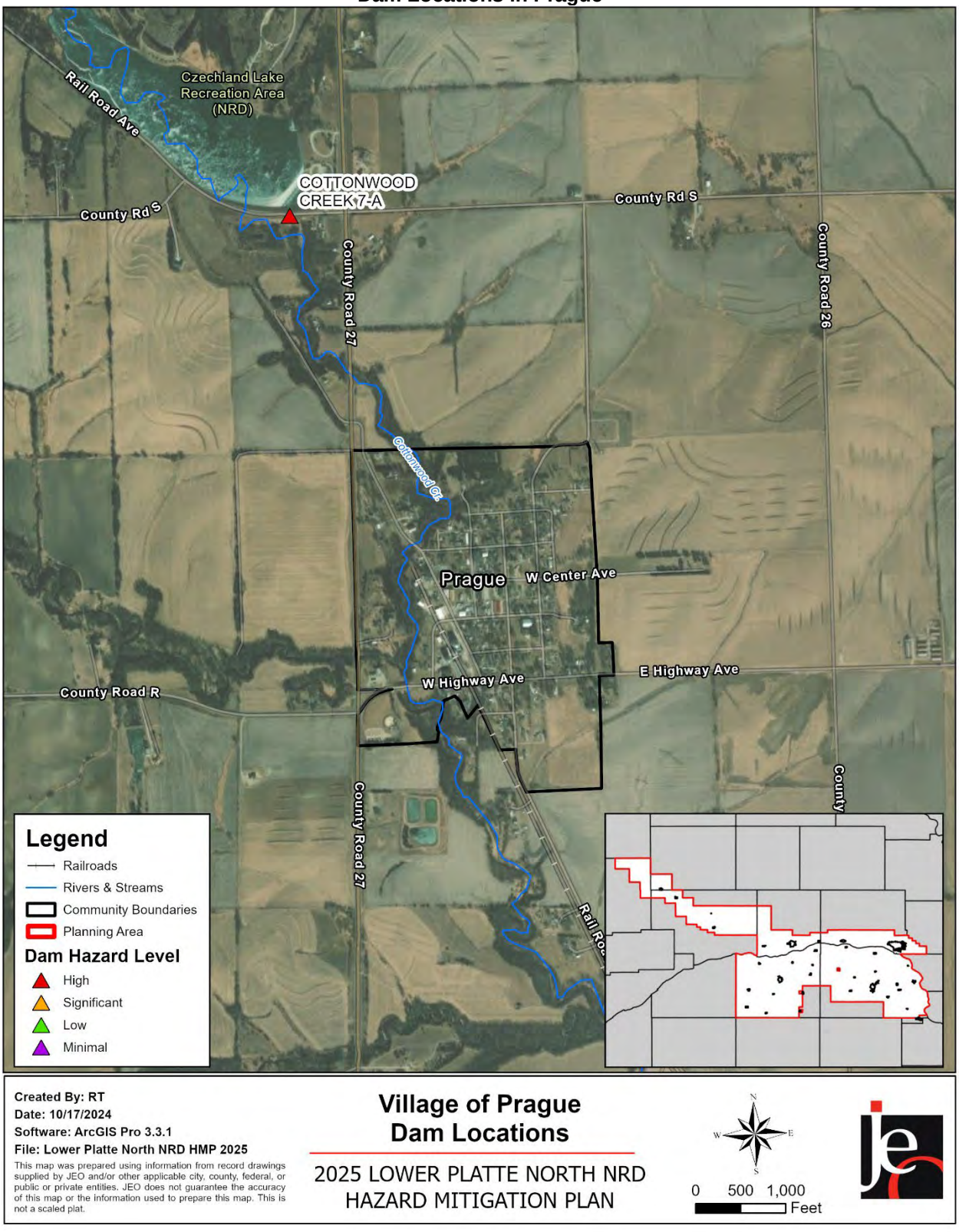
Action	New Municipal Well
Description & Location	Drill for a new municipal well or potentially hook up to rural water.
Hazard(s) Addressed	Drought
Estimated Cost	Varies by project
Local Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	Utility Superintendent, Village Board
Status	New action. The village has two wells and one municipal well needs to be replaced. Researching for a new well.

Action	Well Transducers
Description & Location	Install transducers on wells to monitor water levels. Real-time groundwater level monitoring allows for early identification of declining water tables, helping to detect drought conditions earlier and track water levels over time. The NRD is currently working with interested community water systems to install the transducers in community wells at minimal cost to the community.
Hazard(s) Addressed	Drought
Estimated Cost	Unknown
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Utility Superintendent, Village Board
Status	Not started.

Flooding

Prague is a member of the National Flood Insurance Program. A special flood hazard area is delineated, which puts the community at risk of riverine flooding. Currently, there are 16 parcel improvements located within the floodplain totaling over $1 million. Prague did not experience damage from the 2019 floods. The passage of Ordinance #366 helps protect parts of Prague from flooding as a result of dam failure. No damages have been done since the installation of the dam.

Dam Locations in Prague



Mitigation and Strategic Actions

Action	Alert Siren
Description & Location	Perform an evaluation of existing alert sirens in order to determine sirens which should be replaced or upgraded. Install new sirens where lacking with remote activation options.
Hazard(s) Addressed	Dam Failure, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$5,000+, Varies by scope
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	New Action.

Severe Thunderstorms

A storm in June 2002 downed trees and blew the roofs off several grain bins located east of Prague. High winds and lightning, which can cause power outages and power surges, are the most significant impacts of severe thunderstorms. In 2007 a thunderstorm with wind gusts estimated as high as 75+ mph blew entire trees down and caused damage to homes in Prague. In 2008 a thunderstorm with hail caused damage to buildings, siding and roofs in Prague. In 2018 a thunderstorm with a cold front settled into the area and triggered severe storms during the afternoon hours with hail causing damage to buildings, siding and roofs – also impacted were crops located near Prague. In 2023 severe thunderstorms developed in the afternoon that caused damage to buildings, siding and roofs. Municipal records are protected from power outages and surges with a surge protector are backed up. The water system and wastewater lift station have backup generators to reduce their vulnerability to power outages. Approximately 5% of power lines are buried. Prague has trimmed trees and removed trees identified as at risk. Electric poles have been replaced and street cleaning equipment has been updated to keep debris from clogging storm drains. The village will continue to clean up streets to prevent potential storm drain obstruction.

Mitigation and Strategic Actions

Action	Stormwater System Improvements
Description & Location	Stormwater system improvements may include pipe upsizing and additional inlets. Retention and detention facilities may also be implemented to decrease runoff rates while also decreasing the need for other stormwater system improvements. During high rain events, sewer seepage may become a problem.
Hazard(s) Addressed	Flooding, Severe Thunderstorms
Estimated Cost	Varies
Local Funding	General Fund, Bond
Timeline	5+ Years
Priority	Low
Lead Agency	Utilities Department
Status	Debris was removed at the box culvert near the gas station along Cottonwood Creek. The village is researching widening ditches, clearing box culverts from tree debris, and general maintenance.

Severe Winter Storms

Power outages and road closures from high winds, ice, and heavy snow are the largest concern regarding severe winter storms in Prague. Approximately 5% of power lines are buried. There are designated snow routes in town on Highway Avenue, Railway Street, and Center Avenue. The Utilities Superintendent is responsible for removing snow using a pickup with a blade, a dump truck with a blade, a tractor with a loader and a blade, and a tractor with a loader and a 12-foot pusher. The village has and will continue to maintain its snow removal equipment to remove snow as effectively as possible.

Mitigation and Strategic Actions

Action	Capacity Building
Description & Location	Improve emergency rescue and response equipment and facilities by providing additional, or updating existing equipment. Prague needs to update snow removal equipment.
Hazard(s) Addressed	Extreme Temperatures, Severe Winter Storms
Estimated Cost	Varies by project
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Utilities Superintendent
Status	New Action. Investigating a tabletop exercise for severe winter storms and developing a snow emergency plan.

Action	Improve and Revise Snow/Ice Removal Program
Description & Location	As needed, continue to revise and improve the snow and ice removal program for streets. Revisions should address situations such as plowing snow, ice removal, parking during snow and ice removal, removal of associated storm debris, and rescuing those stranded during winter weather events.
Hazard(s) Addressed	Extreme Temperatures, Severe Winter Storms
Estimated Cost	Varies by project
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Utilities Superintendent
Status	New Action.

Terrorism and Cyber-Attack

There have been no terroristic or cyber-attack events in Prague to date, although the chance of one occurring is a concern for the village. Prague has identified the water treatment plant and standpipe as infrastructure that could be compromised during an attack. To prevent future threats such as ransomware, the village has updated the computer operating system, utilized antivirus software and firewalls, and currently provides education for personnel on reducing risks. Prague will continue to practice these safety measures to reduce potential terrorism and cyber-attacks.

Mitigation and Strategic Actions

Action	Emergency Exercise: Cyber-Attack
Description & Location	Develop and facilitate an emergency management exercise for potential security threats with Saunders County to review current planning efforts and to identify areas in need of improvement or gaps in planning.
Hazard(s) Addressed	Terrorism and Cyber-Attack
Estimated Cost	$5,000+
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board, County Emergency Management
Status	New Action.

Tornadoes and High Winds

The last recorded tornado in Prague occurred in June 1996. Another touched down in Prague in 1979. Both tornadoes caused minimal impacts. A thunderstorm on the Fourth of July in 2023 reported wind gusts of up to 60 mph. Fallen trees and broken tree branches that cause power outages are the largest concern regarding high winds. Critical municipal records are protected from disasters with an off-site backup system. There are no public safe rooms in the village, but community members can seek shelter in the basements or cellars. County emergency management offers severe weather alerts. No outreach activities are done to educate community members on severe weather preparation and response. In the event of a disaster, the Prague Volunteer Fire Department has mutual aid agreements with all of the other fire departments in Saunders County, the electric system has a mutual aid agreement with the Nebraska Public Power District, and the water and wastewater system has a mutual aid agreement with the communities in the Nebraska Water/Wastewater Response Network. The village conducts tornado siren tests and maintains their equipment for clean up in the case of a tornado or high wind event.

Mitigation and Strategic Actions

Action	Safe Room and Storm Shelters
Description & Location	Design and construct storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, schools, and other areas.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes and High Winds
Estimated Cost	$350+ per square foot
Local Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	Village Board, Fire Department
Status	A safe room was added to the bathrooms at the park. Prague Improvement Maintenance Project (PIMP) has the capacity to support.

Other Mitigation and Strategic Actions

Action	Public Education
Description & Location	Through activities such as outreach projects, distribution of maps and environmental education increase public awareness of hazards to both public and private property owners, renters, businesses, and local officials about hazards, especially regarding animal and plant disease (such as the spread of EAB) and hazardous materials release from the local co-op or along major transportation routes. Coordinate outreach and education projects and materials with Saunders County, Nebraska Department of Environment and Energy, Department of Agriculture, and other project partners. Prague will amplify and expand on education and outreach strategies created by Saunders County.
Hazard(s) Addressed	Animal & Plant Disease, Hazardous Materials Release
Estimated Cost	$500+
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Fire Department
Status	Ongoing. Researching.

Removed Mitigation and Strategic Actions

Action	Improve Emergency Text Warning System
Description & Location	Improve city cable TV interrupt warning system and implement telephone interrupt system such as reverse 911, emergency text messaging warning system, etc.
Hazard(s) Addressed	Animal & Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Status	Removed.

Action	Weather Radios
Description & Location	Conduct an inventory of weather radios at schools and other critical facilities and provide new radios as needed. Radios are needed in the city hall, fire department, parish hall, and the apartments.
Hazard(s) Addressed	Drought, Extreme Temperatures, Flooding, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Status	Removed.

Community Profile

City of Wahoo

Lower Platte North NRD
Hazard Mitigation Plan 2025

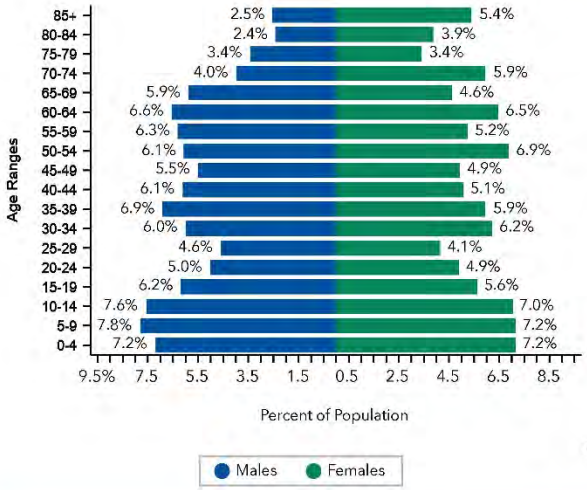
Community Fact Sheet

Community Summary Fact Sheet

Wahoo, NE
Lower Platte North NRD Hazard Mitigation Plan 2025

5,045	40.3	1,939	2.48	$181,679	$65,945
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID



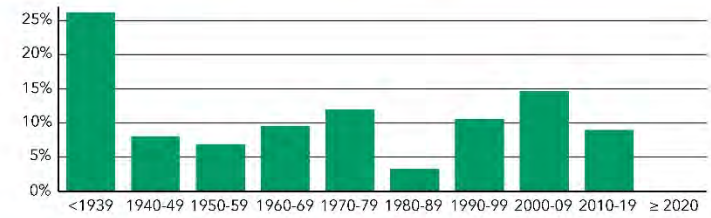
TOTAL POPULATION

2023 Total Population (Estimate)	5,045
2020 Total Population (U.S. Census)	4,818
2010 Total Population (U.S. Census)	4,526
2000 Total Population (U.S. Census)	4,130

AT RISK POPULATIONS

516	1,047	84	11%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

HOUSING: YEAR BUILT



EMPLOYMENT

285	1.4%
Total Businesses	Unemployment Rate

POPULATION BY RACE



- Asian Population
- Black Population
- American Indian Population
- Other Race Population
- Population of 2+ Races
- White Population

4% **of the Total Population is Hispanic**

HOUSING

126	0%
Vacant Housing Units	Mobile Homes

esri THE SCIENCE OF WHERE

Source: Esri, U.S. Census, Esri-Data Axle, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021.

Local Planning Team

Wahoo Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Melissa Harrell	City Administrator	City of Wahoo	Attended, Materials Development	Recording, Materials Development
Ryan Hurst	Utility General Manager	City of Wahoo	-	Materials Development
Dave Henke	Project Manager	City of Wahoo	-	Materials Development
Travis Beavers	Floodplain Administrator	City of Wahoo	-	Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The Local Planning Team listed above will be responsible for reviewing and updating the community profile outside of the five-year update. Wahoo will review the plan annually and the public can be notified through public notices.

Capability Assessment

The planning team assessed the City of Wahoo's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Wahoo Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operations Plan	Yes
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	Yes
	Building Codes	Yes
	Water System Emergency Response Plan	Yes (Informal)
	Wellhead Protection Plan	Yes (2022)
	National Flood Insurance Program	Yes

Capability/Planning Mechanism		Yes/No
	Community Rating System	No
	Community Wildfire Protection Plan	Yes (Regional)
	Other (if any)	-
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administrator	Yes
	GIS Capabilities	Yes
	Chief Building Official	Yes
	Civil Engineering	Yes
	Grant Manager	Yes
	Mutual Aid Agreement	Yes
	Other (if any)	-
Fiscal Capability	1- & 6-Year Plan	Yes (Roads)
	Applied for Grants in the Past	Yes
	Awarded a Grant in the Past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric/Water/Sewer Service Fees	Yes
	Storm Water Service Fees	No
	Development Impact Fees	Yes
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	Yes
	Ongoing Public Education or Information Program (e.g., Responsible Water Use, Fire Safety, Household Preparedness, Environmental Education)	No
	Natural Disaster or Safety Related School Programs	Yes
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	Yes
	Other (if any)	-

Wahoo Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Moderate
Staff/Expertise to Implement Projects	High
Public Support to Implement Projects	High
Time to Devote to Hazard Mitigation	Low/Moderate
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Moderate

National Flood Insurance Program (NFIP)

Wahoo is a member of the NFIP, having joined 12/1/1977, and the city's Floodplain Administrator oversees the commitments and requirements of the program. The Floodplain Administrator uses GIS and interactive maps to determine if a development will be located in the floodplain. A floodplain development permit is required, and the Floodplain Administrator ais responsible for approval or denial of the application. Inspections are done throughout the project to ensure regulations are followed. Enforcement of the regulations are done through the inspections by the CFM randomly. The Nebraska Department of Natural Resources (NeDNR) is used as a resource for additional assistance. After a flood event, substantial damage assessment worksheets and calculation sheets are provided by NeDNR, which can be found here: https://dnr.nebraska.gov/sites/dnr.nebraska.gov/files/doc/floodplain/resources/20220301_eSDA Handbook_FINAL.pdf. Physical inspections during and after flood events and utilizing the Substantial Damage Estimator tool are additional resources to assess substantially damaged structures. The city identifies substantially improved structures through the building permitting process and if the improvements equal 50% or more of the property assessment value or appraisal or contractor bids. The city's floodplain regulations do not exceed the State of Nebraska requirements. Letters of Map Change are stored in the folders of properties.

The local planning team has stated that Wahoo will remain in good standing and be involved with the program. Major barriers to running the program effectively includes public cooperation or resident knowledge of floodplain regulations. There are no known areas in the community with limited NFIP coverage. The city presently uses no educational materials regarding the floodplain or flood insurance. Additional NFIP information is given in the table below.

Wahoo NFIP Information

NFIP Overview	
Date of NFIP Participation:	12/1/1977
Floodplain Administrator:	Travis Beavers
Is Floodplain Administrator a Certified Floodplain Manager?	Yes
Is Floodplain Management an Auxiliary Function?	Yes
Number of NFIP Policies In-Force:	4
Total NFIP Premium ($):	$6,366
Total NFIP Coverage ($):	$1,515,000
Number of Claims Paid Out:	3
Total Amount of Claims Paid Out ($:)	$3,600
Number of Repetitive Loss Structures:	0
Number of Severe Repetitive Loss Structures:	0
Is the Community Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	No
FIRMs Digital or Paper?	Digital
Located in a RISK Map Area?	No

Buildings and Valuation in the Floodplain

The planning team acquired GIS parcel data from the County Assessor and Microsoft building footprint data to analyze the location, number, and value of buildings located in the 100-year and 500-year floodplains. A summary of the results of this analysis is provided in the following tables.

Wahoo Buildings and Value in the 100-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
2,105	$412,811,695	80	$9,400,932	3.8%

Source: County Assessor, 2024; Microsoft, 2024

Wahoo Buildings and Value in the 500-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
2,105	$412,811,695	36	$2,959,857	1.7%

Source: County Assessor, 2024; Microsoft, 2024

Plans and Studies

The City of Wahoo has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When Wahoo updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Annexation Plan (2024)

Wahoo's Annexation Plan designated priority areas within the ETJ to be annexed for future development. Areas are then scored to determine which areas are the most appropriate to annex. The hazard mitigation plan has not been integrated into the annexation plan; however, land use considerations were integrated into the overall scoring of areas.

Building Code (2009)

The building code sets standards for constructed buildings and structures. Wahoo has adopted the 2009 International Building Code. The city has a Building Inspector/Zoning Administrator on staff full-time to enforce the building code. The city issues building, plumbing, electrical, and mechanical permits, which include an inspection process throughout the development and when the work is completed. The hazard mitigation plan has not been integrated with the building code.

Comprehensive Plan (2017)

The comprehensive plan is designed to guide the future actions and growth of the city. The hazard mitigation plan has been integrated into the plan. The plan discusses a goal the community has identified to reduce or prevent property damage or serious injury through hazard mitigation strategies with three specific objectives identified to help reach that goal. The comprehensive plan also directs development away from the floodplain, encourages infill development, and encourages the elevation of structures in the floodplain. Flooding is specifically discussed in the comprehensive plan. The city plans to have a comprehensive plan update completed by the end of 2026.

Floodplain Ordinance (2024)
The city's floodplain ordinance outlines requirements for structures and developments located in the 100-year floodplain. By having a floodplain ordinance, the city promotes public health, safety, and welfare by minimizing losses due to floods. It also helps to assure eligibility of purchasing flood insurance for property owners. The hazard mitigation plan has not been integrated into the floodplain ordinance. However, the floodplain ordinance discourages and can prohibit development in the floodplain, and limits population density in the floodplain.

Housing Study (2024)
The housing study provides an outline for housing growth and development in Wahoo. Demographics, existing housing conditions, economic characteristics, future projections, and implementation strategies are included in the plan. The hazard mitigation plan has not been integrated into the housing study. The plan does recommend conducting a new housing study by the next Decennial Census in 2030.

Infrastructure Standards and Specifications (2012)
The infrastructure standards and specifications plan ensures conformance of subdivision plans with capital improvement programs in Wahoo and provides procedures and standards for subdividers, the Planning Commission, and City Council. The hazard mitigation plan has not been integrated into the infrastructure standards and specifications plan.

Parks and Recreation Master Plan (2009)
Wahoo's Parks and Recreation Master Plan sets priorities for the city of improvements on existing recreational facilities and the expansion of its park systems. The hazard mitigation plan has not been integrated into the master plan. The plan includes the conditions of existing parks and facilities, recommendations of current and future space recommendations, and an action plan.

Saunders County Local Emergency Operations Plan (2020)
The Saunders County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. The hazard mitigation plan has been integrated with this plan and includes the top hazards that would affect the county and its populations. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines.

Southeast Nebraska Community Wildfire Protection Plan (2020)
The purpose of the Southeast Nebraska Community Wildfire Protection Plan CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years.

Subdivision Regulations (2024)
The city's subdivision regulations govern the division of land from one or more larger parcels into smaller lots. The hazard mitigation plan has not been integrated into the subdivision regulations. However, subdivision regulations in Wahoo limit development in the floodplain or flood-prone lands.

Transportation Corridor Design Standards (2019)
Wahoo's transportation corridor design standards provide guidelines for buildings and sites along Highway 77, Chestnut Street, and 1st Street. The hazard mitigation plan has not been integrated into the transportation corridor design standards document. However, all applicable projects in the corridor areas must comply with the zoning regulations which include the floodplain ordinance.

Urban Forest Management Plan (2022)
The urban forest management plan helps manage the city's urban forest by conducting a tree inventory and assessment, providing recommendations, and outlining a budget for maintenance requirements. The hazard mitigation plan has not been integrated into the urban forest management plan; however, the plan does discuss natural hazards such as animal and plant disease and the impacts the urban forest has on stormwater, energy, and air quality.

Water System Risk and Resiliency Assessment and Emergency Response Plan
Wahoo has completed a risk and resiliency assessment and an emergency response plan for their community water system. The risk and resiliency assessment includes a risk assessment for several human- and natural-caused hazards and how they will impact water system assets. A water system emergency response plan serves as a guideline for water operators and city administration to minimize the disruption of normal services to consumers and to provide public health protection during an emergency event. The document identifies several natural and human-caused events and discusses the water system's response during those events. It also contains water system information, communication and messaging, roles and responsibilities, and mitigation alternatives. The hazard mitigation plan has been integrated with these plans.

Wellhead Protection Plan (2022)
The purpose of wellhead protection plans is to protect the public drinking water supply wells from contamination. It includes identifying potential sources of groundwater contamination in the area and managing the potential contaminant sources. The hazard mitigation plan has been integrated into the wellhead protection plan and mentions the hazard mitigation goal and its objectives from the comprehensive plan.

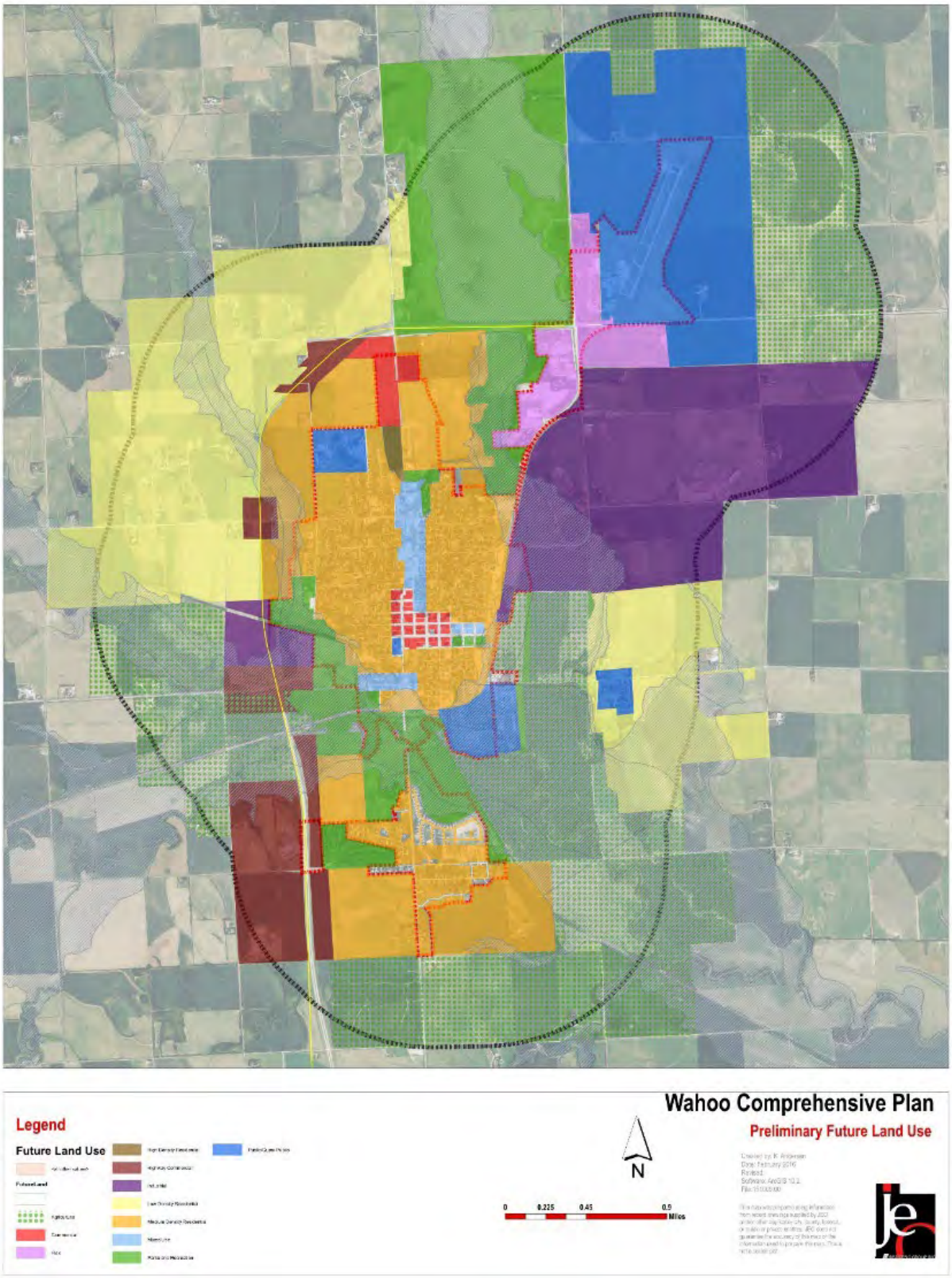
Zoning Ordinance (2024)
The city's zoning ordinance outlines where and how development should occur in the future. The hazard mitigation plan has not been integrated into the zoning ordinance. The zoning ordinance restricts development in hazard-prone areas. Included in the zoning regulations is a Floodwater Retarding Dam Breach Overlay District. The overlay district protects certain areas of Wahoo that may be at substantial risk of flooding from dam failures. In the overlay district, only uses having low flood damage potential and not obstructing flood flows are permitted.

Future Development Trends

In the past five years, several changes have occurred in the City of Wahoo. Starting on the west side of town, a subdivision with two commercial lots was developed along the inside of the Expressway and one of those lots is now home to a new Casey's business. Additional development to the south of this is expected in the near future. Along north Chestnut, at approximately 20th Street, a new JEO Office building was constructed, and development is planned for commercial properties just north of that building. North of 23rd Street between Chestnut Street and the water tower, there is a new residential development (North Highlands) with 90 new home lots. The majority of these are single-family lots. East of Chestnut Street on the north and south sides of 23rd Street, there is a new residential development (Wilmer Ridge) containing 72 new residential lots and one large commercial lot along Chestnut Street. A new daycare (100 children) is planned for the northeast corner of 23rd and Chestnut in that lot. North of the Expressway near Lake Wanahoo, the Lower Platte North NRD is constructing a new office building. This project has expedited the city's plan for extending electricity and natural gas services to that location. In addition, with the need created by the Wilmer Ridge Subdivision and the Lower Platte North NRD building, a sanitary sewer extension (Sand Creek Sewer) was extended along the west edge of the Sand Creek floodplain to the north. On the southwest side of Wahoo, a significant addition was made to the Sid Dillon car dealership, and Saunders Medical Center is planning for an addition to their facility west of the Expressway. The Saunders County Ag Society constructed livestock facilities in the floodplain for the Saunders County Fair. A permit was issued for a metal accessory structure at 357 S Pine Street. This site was elevated to meet floodplain requirements. For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted regardless of where they are located. According to the local planning team, any new and future development is not likely to occur in any other known hazard locations.

The future land use map below illustrates intended land use development within the ETJ of Wahoo in the coming years. Residential development is expected to increase to the northwest and south areas of city limits. Commercial development is expected to expand along N Chestnut Street, and highway commercial land use is anticipated to the west of Wahoo along Highway 77. Industrial use is designated to the east of Wahoo. Floodplain areas are primarily designated as parks and recreation or agricultural land use.

Future Land Use Map



Community Lifelines

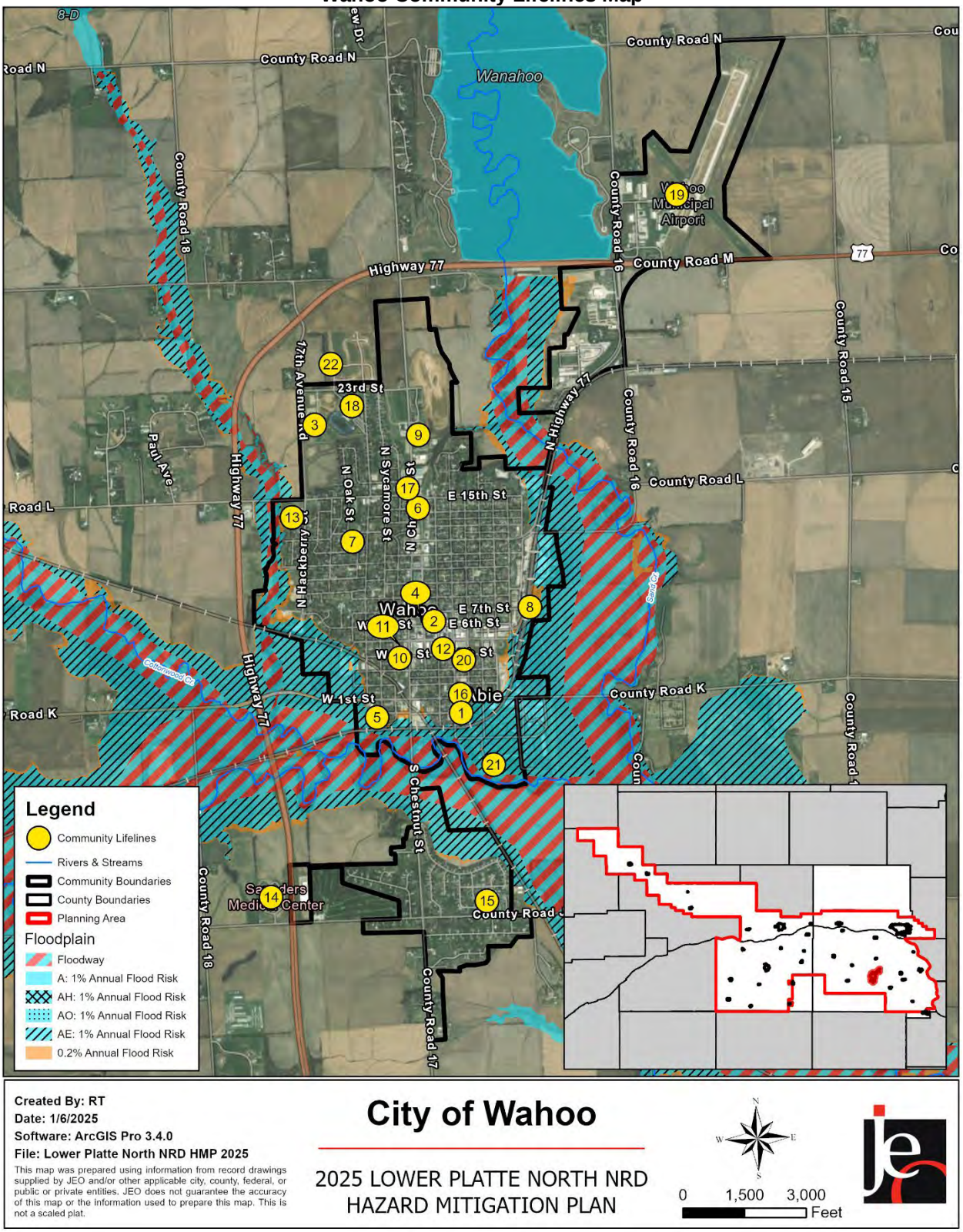
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Wahoo Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Bishop Neumann High School	Safety and Security	-	N
2	City Hall and Wahoo Police Department	Safety and Security	G, S	N
3	Elementary School	Safety and Security		N
4	Fire Department	Safety and Security	G	N
5	Half Pints Childcare & Preschool	Safety and Security	-	N
6	Happy Hearts Daycare & Preschool	Safety and Security	-	N
7	Liberty House Assisted Living	Health and Medical	-	N
8	Municipal Light & Water Plant	Food, Water, Shelter	G	N
9	Region V Services	Health and Medical	-	N
10	Saunders County Correctional Facility	Safety and Security	G	N
11	Saunders County Courthouse and Saunders County Sheriff's Department/EOC	Safety and Security	G	N
12	Saunders County Public Transportation Department	Transportation	-	N
13	Saunders House Assisted Living	Health and Medical	G	N
14	Saunders Medical Center and Nursing Home	Health and Medical	G	N
15	South Haven Nursing Home	Health and Medical	G	N
16	St. Wenceslaus Parochial School	Safety and Security		N
17	US Army National Guard Armory	Safety and Security	G	N
18	Wahoo Middle & High School	Safety and Security	G	N
19	Wahoo Municipal Airport	Transportation	-	N
20	Wahoo Senior Center and Civic Center	Other	S	N
21	Wastewater Treatment Plant	Food, Water, Shelter	G	Y (1%)
22	Water Tower	Food, Water, Shelter	G	N

Wahoo Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Wahoo which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the City of Wahoo. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however Wahoo has identified mitigation actions to reduce the impacts of the hazards. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

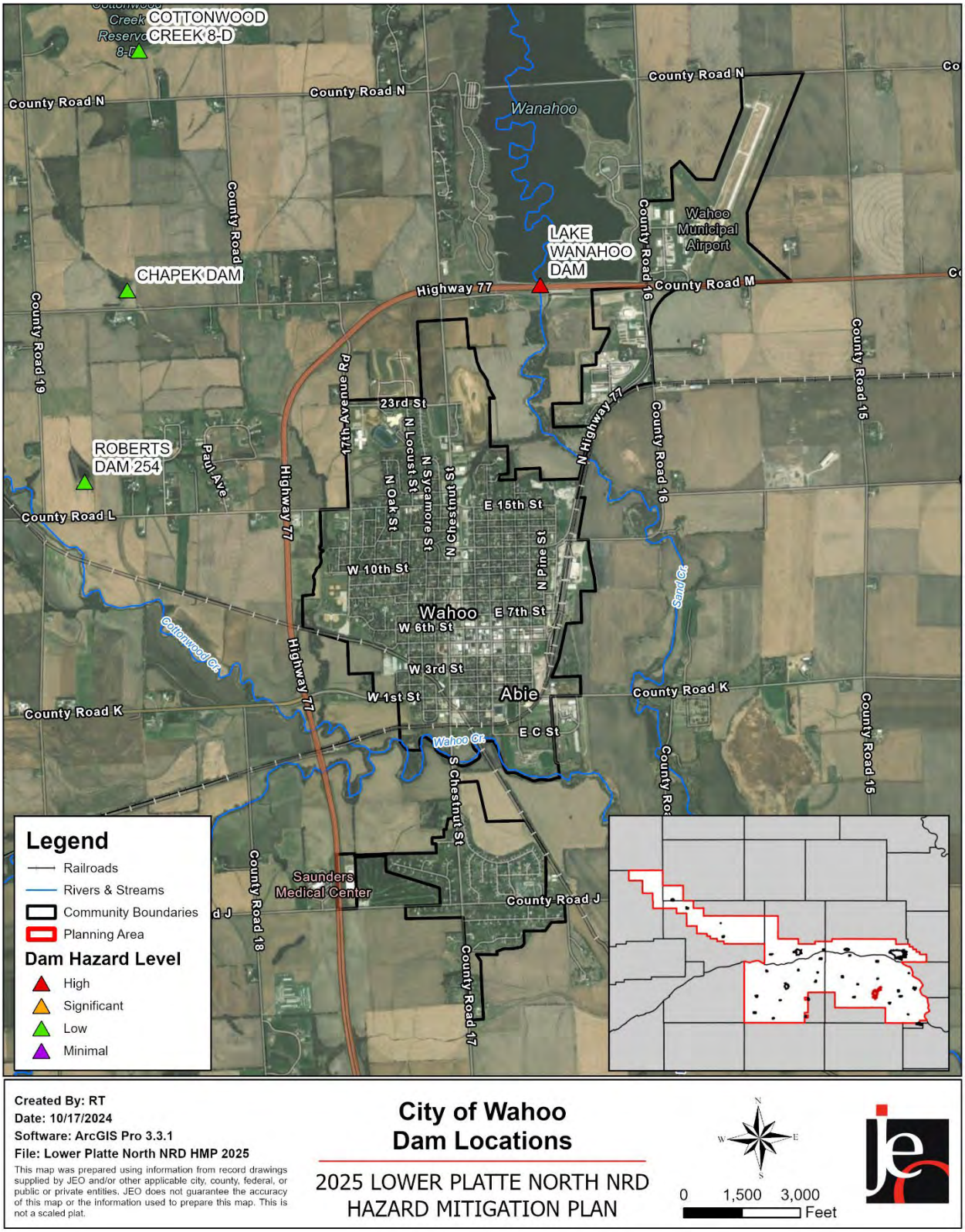
Dam Failure

The Lake Wanahoo Dam, located just north of Wahoo, would have large impacts on the community if it were to fail. The high hazard dam, shown in the following map, was completed in 2010 and provides flood risk reduction on Sand Creek for Wahoo, Ashland, and Ithaca. The dam does not have a history of failure. However, the May 2024 rain event was very close to an overtopping of the dam. LPNNRD is responsible for maintaining the dam, including an EAP in case of dam failure. The planning team has noted this as a concern and become better educated on and how the notification of this risk is communicated and what that means to the community. In addition to Lake Wanahoo Dam, there are several smaller dam structures being constructed in the Wahoo Creek Watershed. The City of Wahoo has adopted amendments to its floodplain map which put in place additional restrictions on structure construction in the inundation zones for each of those dams.

Mitigation and Strategic Actions

Action	Additional Personnel for Emergency Response
Description & Location	Identify and train personnel and citizens for emergency response. Plan for redundancy for every emergency position.
Hazard(s) Addressed	Animal and Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$50,000
Local Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	City Administrator, City Emergency Coordinator
Status	In the planning stages; more staff training and public awareness, especially on dam failure.

Dam Locations in Wahoo



Created By: RT
Date: 10/17/2024
Software: ArcGIS Pro 3.3.1
File: Lower Platte North NRD HMP 2025

This map was prepared using information from record drawings supplied by JEO and/or other applicable city, county, federal, or public or private entities. JEO does not guarantee the accuracy of this map or the information used to prepare this map. This is not a scaled plat.

City of Wahoo
Dam Locations

2025 LOWER PLATTE NORTH NRD HAZARD MITIGATION PLAN

0 1,500 3,000 Feet

Flooding

The floodplain for the city is primarily located along Sand Creek and Wahoo Creek. In 2019 flooding occurred on trails and scouring occurred on the bridge over Wahoo Creek. Highway 92 east and west of the four-way stop light was shut down until flood waters receded. No major flood damage occurred to homes or businesses as very few structures are located in the floodplain. Most businesses in the floodplain have either been elevated or have some protection. Flooding from the May 2024 rain caused more significant impacts to Wahoo than the 2019 event. Water entered homes causing damage, some past the 50% value mark. In the heat of the flash flooding, the main area of Wahoo was cut off from access to Saunders Medical Center. In many areas, water overtopped the highway and access to roads into Wahoo. During this, the wastewater treatment plant functioned as anticipated even though it is located in the floodplain area. The Lower Platte North NRD is planning a series of dams along Wahoo Creek, which should reduce the floodplain in the future. Evaluation of access points for Wahoo to get to the medical facility must be conducted and addressed to eliminate or significantly reduce the risk.

May 2024 Flooding in Wahoo



Completed Mitigation and Strategic Actions

Action	Sewer System Master Plan
Description & Location	Complete a sewer system master plan to prioritize areas of improvement in the city.
Hazard(s) Addressed	Flooding
Status	A sanitary sewer master plan has been completed and projects identified. A maintenance program has been implemented including re-lining existing sewer lines where possible.

Mitigation and Strategic Actions

Action	Acquire High Risk Flooding Property
Description & Location	Voluntary acquisition and demolition of properties prone to flooding will reduce the general threat of flooding for communities. Additionally, this can provide flood insurance benefits to those communities within the NFIP. Repetitive loss structures are typically highest priority.
Hazard(s) Addressed	Flooding
Estimated Cost	Varies by number of properties
Local Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	City Administrator, Building and Zoning
Status	This project remains important but has not been well received by the public in conversations.

Action	Community Rating System
Description & Location	Pursue participation in the National Flood Insurance Program's Community Rating System program to mitigate flooding and reduce flood insurance premiums in the city.
Hazard(s) Addressed	Flooding
Estimated Cost	Staff Time
Local Funding	Staff Time
Timeline	2-5 Years
Priority	Medium
Lead Agency	City Administrator, Zoning Administrator
Status	No action taken.

Action	Review and Update Security Procedure and Equipment
Description & Location	Install flood protection barriers where appropriate, renovate buildings for strength and safety, and otherwise protect critical facilities.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Severe Thunderstorms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	Varies, as needed
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Board of Public Works
Status	No action taken.

Action	Stormwater Drainage Study and Improvements
Description & Location	Perform a stormwater drainage study to identify and prioritize drainage and flood mitigation projects then improve areas identified by the study, such as the ditch near Chestnut Street and the railroad.
Hazard(s) Addressed	Flooding
Estimated Cost	Study and design about $75,000; construction costs depend on the study's findings
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	City Administrator, City Council, Streets Department
Status	Three of the approximately six watershed areas have been/are being studied as projects identified. Projects are being done as funding and other project impacts allow.

Severe Thunderstorms

Severe thunderstorms occur annually in the region, with impacts ranging from downed trees to hail damage to power outages. There have been several hail events in the community. Hail events are a concern because of the potential for property damage and the resulting low availability of repair materials, contractors, and supervisory staff for contracted repair work. The city is also concerned about educating the public on lightning safety, heavy rain and driver education, and the protection of electronic response and notification systems from severe thunderstorm damage. In 2011 golf ball-sized hail, 1.75 inches in diameter, caused tree and property damage throughout town. The city had several instances of roof damage to city facilities from a storm in August 2021 that produced 1.5-inch hail. Another hail event in April 2022 produced one-inch sized hail, but no damages were reported according to the NCEI. The damages caused by natural disasters nationwide have caused insurance premiums to increase, and there is an industry trend of significant increases in deductibles for wind and hail losses. None of the community's community

lifelines are fitted with hail-resistant building materials though they are all insured against hail damage. A lightning strike in 2007 set fire to a house, causing $100,000 in property damage, and in 2021 a lightning strike set fire to a house which was then fueled by high winds resulting in a total loss of the home. An additional strike occurred to a home southwest of Wahoo causing smoke damage, but no fire damage. Critical municipal records are protected from power surges with surge protectors on electronic devices. Approximately 85% of power lines are not buried, making them vulnerable during severe storms. A local tree board monitors the condition of trees in the city to mitigate tree damage during storms. Though a nuisance notification process is in place to help eliminate hazardous trees, some trimming and maintenance need to be done around power lines in the city. An effective mass notification system also needs to be in place to reduce risks.

Mitigation and Strategic Actions

Action	Power, Service, and Electrical Lines
Description & Location	Implement a plan for burying a percentage of overhead power lines each year to reduce the loss of power incurred from downed lines. Electrical utilities shall be required to use underground construction methods where possible for future installation of power lines.
Hazard(s) Addressed	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$5,000,000
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Utility General Manager, City Council, Board of Public Works
Status	All new electrical distribution and service lines are installed underground. There are some overhead lines that are not possible to bury due to the size of the line, voltage, and space. Service lines to businesses and residences are completed per request by the owner.

Action	Tree Planting and Maintenance Plan
Description & Location	Develop an orderly system of tree planting and maintenance.
Hazard(s) Addressed	Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$4,000/year
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	City Administrator, Parks and Recreation Department Director, Streets Department
Status	The city works to utilize tree grants wherever possible to replace trees on public properties, but this continues to be a need in the community.

Severe Winter Storms

Severe winter storms occur yearly in the region, with storms resulting in six to 12 inches of snowfall in a night occurring every two to three years. Extremely cold winter conditions can also overload power systems, cause pipes to freeze, and add stress to natural gas and sanitary sewer systems. In January 2009, near blizzard conditions, strong winds, and drifting snow caused a 14-vehicle pile-up east of Wahoo resulting in two injuries. In another severe storm in December 2009, eight to 12 inches of snow fell in the region, closing Highways 77 and 92 near Wahoo. In February 2021, Wahoo experienced extreme cold weather from Winter Storm Uri that caused issues with

electrical usage. Rolling blackouts were implemented nationally and about half of Wahoo experienced a two-hour outage. The outage was directed by NPPD, where Wahoo purchases its wholesale power. The polar vortex between January 9-21, 2024 also caused stress to the local utility systems and in March 2025, the city experienced power outages after a severe winter storm came through the region. The city maintains a power plant, but the plant does not have the capacity to keep up with demand during an extremely cold weather event. Wahoo Utilities has procured a study to evaluate the costs of adding generation capacity to the power plant since the 2021 event. The Board of Public Works established a cash reserve to assist customers for a short period in the event of significant increases in the natural gas market. Another concern regarding winter storms in Wahoo is maintaining safe transportation routes in and around the city for travelers and first responders on rescue calls, particularly on Highways 77 and 92. The city uses designated snow routes and snow fences to aid snow removal in the community. The Wahoo Street Department, with assistance from Wahoo Utilities employees, is responsible for snow removal in the community using six dump trucks with plows and sander, a snow blower, a bi-directional loader, a motor grader, a front-end loader, and a skid loader. The city has been able to upgrade some of the equipment in recent years, but it has been with used equipment. Some of the equipment is significantly aged and needs replacement. The Nebraska Department of Transportation removes snow on Highways 77, 92, and 109. Other roads outside of the city limits are maintained by Saunders County. A mass notification system requesting conservation efforts and a capital improvement plan to address aging equipment are strategies to help reduce risks.

Mitigation and Strategic Actions

Action	**Backup and Emergency Generators**
Description & Location	Identify and evaluate current backup and emergency generators. Obtain additional generators based on identification and evaluation. Generators are needed. Portable generators are needed for schools, nursing homes, and other critical facilities.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfire, Hazardous Materials Release, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	Varies by size
Local Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	Utility General Manager, Board of Public Works, City Administrator
Status	A generator at city hall/fire hall was installed but a need remains (civic center).

Action	Capacity Building
Description & Location	Provide additional equipment to respond to hazards and emergencies, such as ATVs.
Hazard(s) Addressed	Animal and Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$50,000; varies depending on the equipment needed
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	City Council, Wahoo Police Department, Wahoo Fire and Rescue, Airport Authority
Status	The Fire Department has acquired a piece of equipment for use during snow events (with track mobility), but additional devices would be useful for the Police Department and the Utilities Department.

Tornadoes and High Winds

There have been no tornadoes or severe high wind events in Wahoo, but a future event could be catastrophic, particularly because there are no public safe rooms. High winds are a concern for the city because of their potential to down power lines and damage homes, buildings, and trees. High winds reaching 74 mph in July 2021 caused tree damage and several power outages. Residents seeking shelter can go to the basement of the Wahoo Public Library, the Wahoo City Hall, the Wahoo Civic Center, or in their homes. There are four sirens in Wahoo, which cover the entire city except for the Lake Wanahoo Recreation Area. The sirens are activated by the Saunders County Dispatch. However, many people do not realize that the sirens are only meant to warn those outdoors of a possible tornado. County Emergency Management offers emergency and severe weather text alerts though this system has not been well implemented. The various weather alert apps. In case of a disaster, all critical digital municipal records have a backup system, but some paper records have not been duplicated or backed up. In case of a power outage, there is a data backup system for digital municipal records. Mutual Aid Agreements are in place with the Nebraska Municipal Power Pool, area fire and rescue departments, and the Nebraska Water and Wastewater Agency Response Network. Education on high wind safety, a public safe room, an effective mass notification system are needed to mitigate this hazard.

Mitigation and Strategic Actions

Action	Improve Emergency Text Warning System
Description & Location	Conduct a public outreach campaign in partnership with county emergency management to promote the AlertSense emergency text service to improve communication to residents and businesses during and following emergencies. Add Reverse911 capabilities.
Hazard(s) Addressed	Flooding, Grass/Wildfires, Hazardous Materials Release, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Wind
Estimated Cost	$5,000
Local Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	City Council, Saunders County Emergency Management, Wahoo Emergency Coordinator
Status	No action taken, but this is a high priority.

Action	Public Education
Description & Location	Develop a week-long program on tornado safety for the schools and purchase weather radios for schools without them.
Hazard(s) Addressed	Tornadoes and High Winds
Estimated Cost	$3,000
Local Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	City staff, Wahoo Fire and Rescue
Status	No action taken.

Action	Safe Rooms and Storm Shelters
Description & Location	Identify current structures that could be retrofitted to include a storm shelter and identify areas where new storm shelters would be beneficial, such as the Wahoo Municipal Airport.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes and High Winds
Estimated Cost	$1,000/person capacity
Local Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	City Emergency Coordinator
Status	No action taken.

Other Mitigation and Strategic Actions

Completed Mitigation and Strategic Actions

Action	Assessment of all Utility Poles in the City
Description & Location	An evaluation of the condition of all the utility poles in the city needs to be done in order to identify weak poles that may be more likely to be impacted during a severe weather event.
Hazard(s) Addressed	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Status	This project was completed using local funding.

Action	Gas Infrastructure GPS
Description & Location	GPS/geocode the locations of gas infrastructure as required by new federal regulations.
Hazard(s) Addressed	Hazardous Materials Release
Status	Completed.

Action	Electric Distribution System Master Plan
Description & Location	This plan will evaluate Wahoo's current electric distribution system, primarily focusing on the circuitry and improvements that could be made to ensure as much redundancy of service as possible. Part of the plan may incorporate some other projects like evaluation of the condition of poles or identification of those areas of lines that should be placed underground. It will likely identify locations where switching gear can be installed that will allow the city to feed an area if there was a damaged line or power outage.
Hazard(s) Addressed	Extreme Temperatures, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Status	An Electric System Master Plan was created with several projects identified. Many of the projects have been completed. A large project of increasing resiliency and redundancy of the system is in the works. The city started accepting bids in Spring 2025.

Current Mitigation and Strategic Actions

Action	Capital Improvements Program (CIP)
Description & Location	Create a CIP to designate funding to priority projects such as hazard mitigation.
Hazard(s) Addressed	Animal and Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	Staff time
Local Funding	General Fund
Timeline	1 Year
Priority	Medium
Lead Agency	City Administrator, Utilities General Manager
Status	A CIP Plan structure has been identified. Implementation is in progress.

Action	Comprehensive Disaster / Emergency Response Plan
Description & Location	Use the HMP and its findings to revise and improve the Wahoo Comprehensive Disaster and Emergency Response Plan, including providing necessary services during flooding. Develop a schedule for updating the plan.
Hazard(s) Addressed	Animal and Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$10,000
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	City Administrator, City Council, Mayor, other departments as needed
Status	No action taken.

Action	Drought Monitoring
Description & Location	Increase drought monitoring at a local and regional level.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	Staff Time, General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	Board of Public Works, Utilities General Manager
Status	Not started.

Action	Groundwater Monitoring Wells
Description & Location	Work with the LPN NRD on possibly adding groundwater monitoring wells near the community.
Hazard(s) Addressed	Drought
Estimated Cost	Unknown
Local Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Board of Public Works, Utilities General Manager
Status	New action. Not started.

Action	Identify Potential New Water Source
Description & Location	Identify alternative solutions or locate new water sources for emergencies.
Hazard(s) Addressed	Drought
Estimated Cost	Varies by project
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Board of Public Works, Utilities General Manager
Status	Not started.

Action	Implement Drought Water Conservation Regulations
Description & Location	Research and develop a program or potentially an ordinance to conserve water use during drought. Water use restrictions could limit lawn watering, car washing, or water outsourcing.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	Staff Time
Timeline	2-5 Years
Priority	Medium
Lead Agency	Board of Public Works
Status	No action taken.

Action	Mutual Aid
Description & Location	Build and maintain interlocal agreements with other communities to provide mutual aid during disasters and to meet participation requirements for the National Incident Management System.
Hazard(s) Addressed	Animal and Plant Disease, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	Staff Time
Local Funding	Staff Time
Timeline	2-5 Years
Priority	Medium
Lead Agency	Utility General Manager
Status	Some successful agreements are in place, but the City wants to keep this action item for new interlocal agreements to be considered as opportunities arise.

Action	Redundant Gas and Utility System
Description & Location	Construct additional gas utility mains to provide redundant gas supply to the city.
Hazard(s) Addressed	Extreme Temperatures, Hazardous Materials Release
Estimated Cost	$4,000,000
Local Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	Board of Public Works, Utilities General Manager
Status	Currently using grant funding through PHMSA for this project. Construction is expected in 2025. A redundancy project is also expected for construction in 2025/2026.

Community Profile

City of Yutan

Lower Platte North NRD
Hazard Mitigation Plan 2025

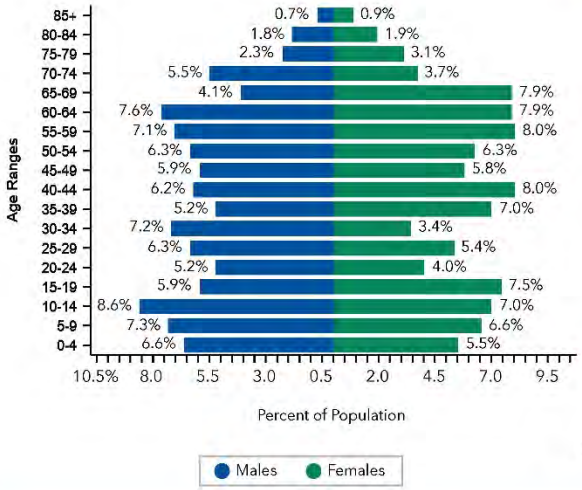
Community Fact Sheet

Community Summary Fact Sheet

Yutan, NE
Lower Platte North NRD Hazard Mitigation Plan 2025

1,380	40.4	542	2.55	$217,241	$74,467
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID



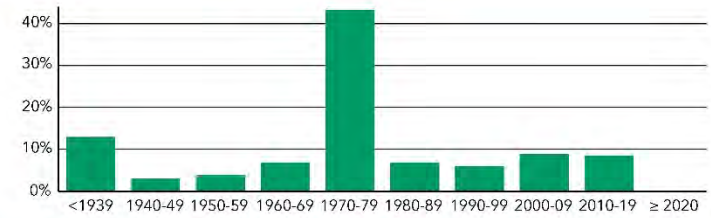
TOTAL POPULATION

2023 Total Population (Estimate)	1,380
2020 Total Population (U.S. Census)	1,347
2010 Total Population (U.S. Census)	1,153
2000 Total Population (U.S. Census)	1,143

AT RISK POPULATIONS

123	220	3	2%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

HOUSING: YEAR BUILT



EMPLOYMENT

23	3.3%
Total Businesses	Unemployment Rate

POPULATION BY RACE



- American Indian Population
- Asian Population
- Other Race Population
- Black Population
- Population of 2+ Races
- White Population

2% **of the Total Population is Hispanic**

HOUSING

14	0%
Vacant Housing Units	Mobile Homes

esri THE SCIENCE OF WHERE

Source: Esri, U.S. Census, Esri-Data Axle, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021.

Local Planning Team

Yutan Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Matt Thompson	Mayor	City of Yutan	Materials Development	Materials Development
Bob Oliva	City Administrator	City of Yutan	Materials Development	-
Robert Costa	Community Planner	City of Yutan	Attended, Materials Development	Attended, Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The community planner and city administrator will be responsible for reviewing and updating the community profile outside of the five-year update. Yutan will review the plan bi-annually or more and the public will be notified at public meetings.

Capability Assessment

The planning team assessed the City of Yutan's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Yutan Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	Yes
	Economic Development Plan	No
	Emergency Operations Plan	Yes
	Floodplain Management Plan	Yes
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	Yes
	Building Codes	Yes
	Water System Emergency Response Plan	Yes
	Wellhead Protection Plan	Yes
	National Flood Insurance Program	Yes
	Community Rating System	No
	Community Wildfire Protection Plan	Yes (Regional)
	Other (if any)	-

Capability/Planning Mechanism		Yes/No
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administrator	Yes
	GIS Capabilities	Yes
	Chief Building Official	Yes
	Civil Engineering	Yes
	Grant Manager	Yes: City Administrator
	Mutual Aid Agreement	Yes: Fire Department
	Other (if any)	-
Fiscal Capability	1- & 6-Year Plan	Yes, Adopted 9/17/2024
	Applied for Grants in the Past	Yes
	Awarded a Grant in the Past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric/Water/Sewer Service Fees	Yes (Water, Sewer)
	Storm Water Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	No
	Ongoing Public Education or Information Program (e.g., Responsible Water Use, Fire Safety, Household Preparedness, Environmental Education)	No
	Natural Disaster or Safety Related School Programs	Yes
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	-

Yutan Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Moderate
Staff/Expertise to Implement Projects	Moderate
Public Support to Implement Projects	Moderate
Time to Devote to Hazard Mitigation	Moderate
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Moderate

National Flood Insurance Program (NFIP)

Yutan is a member of the NFIP, having joined on 4/4/1983, and the village's Floodplain Administrator oversees the commitments and requirements of the program. The floodplain administrator and city staff members use adopted FIRM data, FEMA Map Service Center, zoning map, and data provided by a surveyor to identify the Base Flood Elevation and determine if a development will be located in the floodplain. Floodplain permits are reviewed by staff for compliance with local floodplain management provisions; staff consult with NeDNR on specifics. If a development is code compliant and all other agency permits are issued, a permit is granted to the applicant. Enforcement and compliance of the floodplain regulations are done through allowed violation/penalty provisions, and cooperating with NeDNR, FEMA, and all other agencies involved. After a flood event, the community conducts in-person inspections of substantially damaged and improved structures and consult with appropriate agencies on next steps. The city's floodplain regulations do not exceed the State of Nebraska requirements. Letters of Map Change are reviewed and approved by the Floodplain Administrator and filed into city records.

The local planning team has stated that Yutan will remain in good standing and be involved with the NFIP. Currently, the city has no barriers when running the program. There are no known areas in the community with limited NFIP coverage. The city educates property owners and other stakeholders about the importance of flood insurance through conversations with the floodplain administrator. Additional NFIP information is given in the table below.

Yutan NFIP Information

NFIP Overview	
Date of NFIP Participation:	4/4/1983
Floodplain Administrator:	Robert Costa
Is Floodplain Administrator a Certified Floodplain Manager?	No
Is Floodplain Management an Auxiliary Function?	No
Number of NFIP Policies In-Force:	2
Total NFIP Premium ($):	$2,862
Total NFIP Coverage ($):	$850,000
Number of Claims Paid Out:	0
Total Amount of Claims Paid Out ($:)	$0
Number of Repetitive Loss Structures:	0
Number of Severe Repetitive Loss Structures:	0
Is the Community Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	No
FIRMs Digital or Paper?	Digital
Located in a RISK Map Area?	No

Buildings and Valuation in the Floodplain

The planning team acquired GIS parcel data from the County Assessor and Microsoft building footprint data to analyze the location, number, and value of buildings located in the 100-year and 500-year floodplains. A summary of the results of this analysis is provided in the following tables.

Yutan Buildings and Value in the 100-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
574	$82,828,049	12	$237,511	2.1%

Source: County Assessor, 2024; Microsoft, 2024

Yutan Buildings and Value in the 500-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
574	$82,828,049	21	$2,960,636	3.7%

Source: County Assessor, 2024; Microsoft, 2024

Plans and Studies

The City of Yutan has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the city updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Building Code (2017)

The building code sets standards for constructed buildings and structures. Residential construction is under 2021 IRC standards. An amendment to the code was made to remove the requirement for fire sprinklers in one- and two-family homes. Yutan's other nonresidential building codes are under the 2015 ICC standards. The hazard mitigation plan has not been integrated with the city's building code.

Capital Improvement Plan (2023)

The capital improvement plan outlines projects the city would like to pursue and provides a planning schedule and financing options. Completed projects include installing water meters for residential structures and constructing a new fire hall. There is no plan or timeline to update the capital improvement plan. The hazard mitigation plan has not been integrated with Yutan's capital improvement plan.

Comprehensive Plan (2023)

The comprehensive plan is designed to guide the future actions and growth of the city. The hazard mitigation plan has not been integrated with the comprehensive plan, but flooding is mentioned in the document. In the comprehensive plan, development is directed away from the floodplain and structures located in the floodplain are encouraged to be elevated. The city does not have a plan or timeline to update the comprehensive plan.

Floodplain Ordinance (2016/2017)

The city's floodplain ordinance outlines requirements for structures and developments located in the 100-year floodplain. By having a floodplain ordinance, the city promotes public health, safety, and welfare by minimizing losses due to floods. It also helps to assure eligibility of purchasing flood insurance for property owners. Development is prohibited only within the floodway zone. The floodplain ordinance is scheduled to be updated in the summer or fall of 2025. The hazard mitigation plan has not been integrated into the floodplain ordinance.

Saunders County Local Emergency Operations Plan (2021)

The Saunders County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective

shelters, and resource management. This plan is updated every five years. The hazard mitigation plan has been integrated with this plan and includes the top hazards that would affect the county and its populations. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines.

Southeast Nebraska Community Wildfire Protection Plan (2020)

The purpose of the Southeast Nebraska Community Wildfire Protection Plan CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years.

Subdivision Regulations (2017)

The city's subdivision regulations govern the division of land from one or more larger parcels into smaller lots. Future updates to the subdivision regulations will restrict subdivision of land within or adjacent to the floodplain. The subdivision regulations are scheduled to be reviewed for updates in 2025 or 2026. The hazard mitigation plan has not been integrated into the subdivision regulations.

Water System Emergency Response Plan (2019)

A water system emergency response plan serves as a guideline for water operators and city council to minimize the disruption of normal services to consumers and to provide public health protection during an emergency event. The document identifies several natural and human-caused events and discusses the water system's response during those events. The hazard mitigation plan has not been integrated into the water system emergency response plan.

Wellhead Protection Ordinance (2023)

The purpose of a wellhead protection ordinance is to protect the public drinking water supply wells from contamination. It includes identifying potential sources of groundwater contamination in the area and managing the potential contaminant sources. Yutan's wellhead protection ordinance can be found in its municipal code (Chapter 7, Article 2). The hazard mitigation plan has not been integrated into the wellhead protection ordinance.

Zoning Ordinance (2023)

The city's zoning ordinance outlines where and how development should occur in the future. According to Yutan's zoning ordinance, development is restricted in hazard-prone areas. The zoning ordinance is scheduled to be updated in the summer or fall of 2025. The hazard mitigation plan has not been integrated into the zoning ordinance.

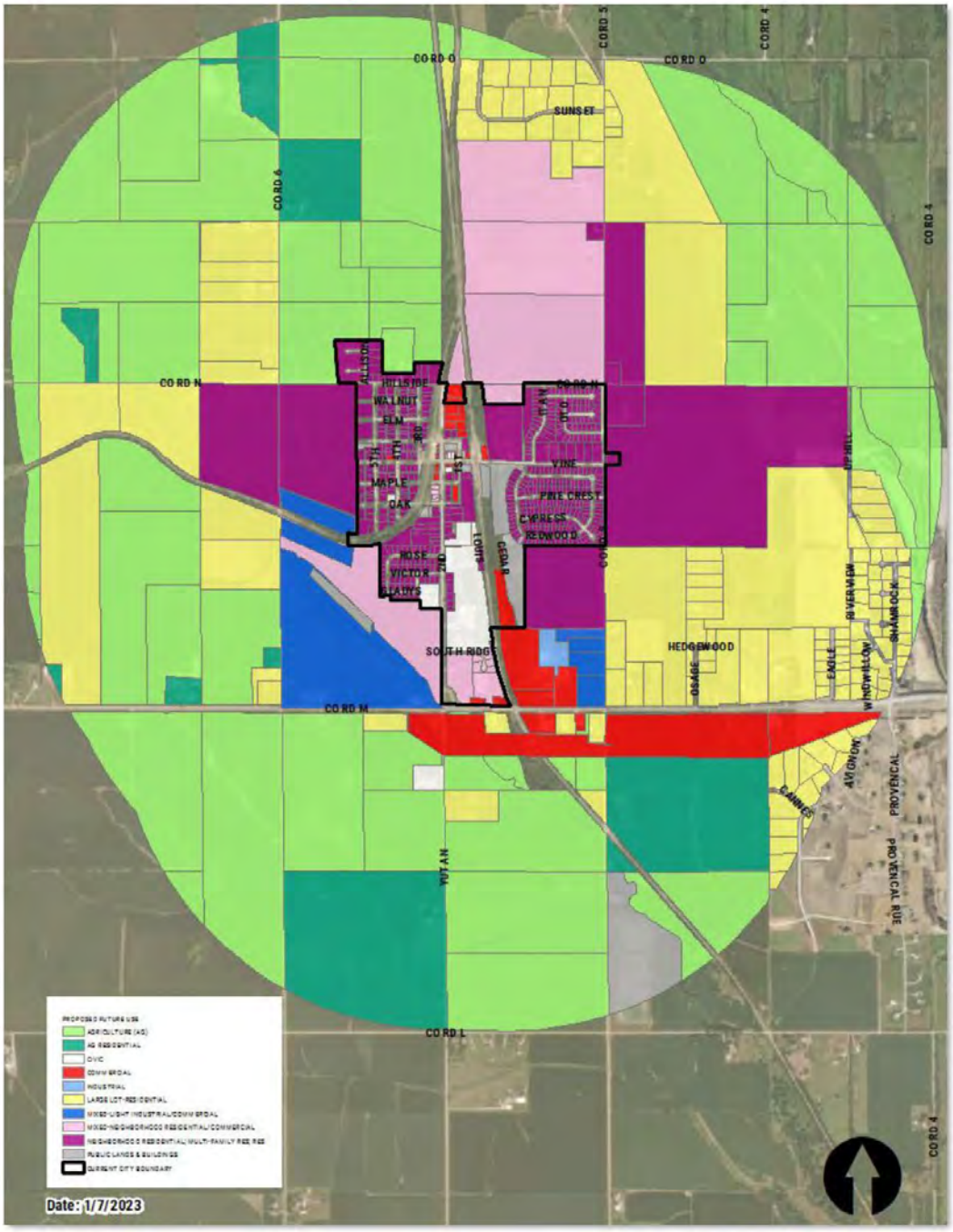
Future Development Trends

In 2024, a private property demolished grain elevators that were in the FIRM-identified floodplain, reducing the vulnerability to flood damage. Over the past five years, a new apartment complex was constructed in the central business district. The city does not anticipate new housing development or businesses and industries in the near future. For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted regardless of where they are located. According

to the local planning team any new and future development is not likely to occur in any other known hazard locations.

The future land use map below indicates the city's intended land use growth. Mixed neighborhood multifamily residential development is illustrated in dark purple and is expected to grow east, northeast, and west of the current community boundaries. Mixed neighborhood multifamily and commercial land use is planned to the north and southwest; commercial land use is designated along Highway 92; and large lot residential, agricultural residential, and agricultural land uses fill the remaining ETJ limits.

Future Land Use Map



Community Lifelines

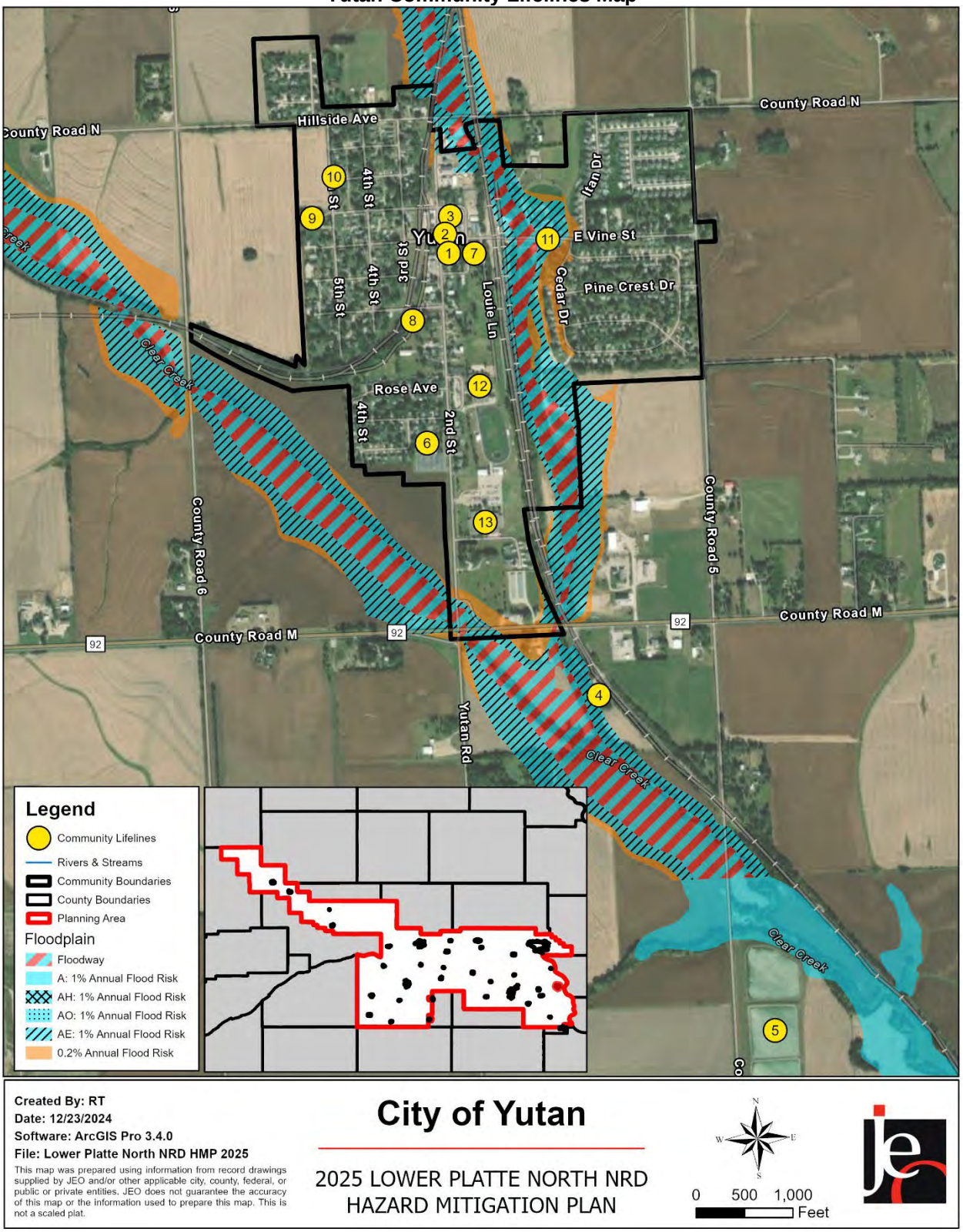
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Yutan Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain
1	Community Center	Other	-	N
2	City Office	Safety and Security	-	N
3	Fire Station	Safety and Security	G	N
4	Sanitary Lift Station	Food, Water, Shelter	G	N
5	Sewage Lagoons	Food, Water, Shelter	-	N
6	St. John's Lutheran Church	Other	-	N
7	US Post Office	Safety and Security	-	N
8	Utilities Department / Well #2	Food, Water, Shelter	-	N
9	Water Tower	Food, Water, Shelter	-	N
10	Well #1	Food, Water, Shelter	G	N
11	Well #3	Food, Water, Shelter	-	Y (1%)
12	Yutan Elementary School	Safety and Security	-	N
13	Yutan High School	Safety and Security	-	N

Yutan Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Yutan which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the City of Yutan. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however Yutan has identified mitigation actions to reduce the impacts of the hazards. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Flooding

Though no damage occurred within Yutan city limits, the March 2019 flooding of the Platte River damaged many roads around the city making transportation to and from Yutan difficult. Maintaining these transportation routes is important as most residents commute to work outside of the city. Yutan experienced minor flash flooding in May 2024. Clear Creek southwest of the city limits and Upper Clear Creek running through the center of Yutan are also prone to flooding. Riverine flooding is more of a concern than flash flooding because of the city's proximity to the Platte River, Clear Creek, and Upper Clear Creek. Cedar Drive in the Timbercrest Subdivision has poor stormwater drainage. The city has plans to rebuild city-owned impacted buildings above the recognized Base Flood Elevation. Future actions to mitigate this risk include building structures to NFIP standards and minimizing obstructions in waterways.

Mitigation and Strategic Actions

Action	Flood Prone Property Mitigation
Description & Location	Rebuild city-owned buildings and structures that have been impacted by flooding to be above the Base Flood Elevation. Ensure current and future developments are up to the NFIP standards.
Hazard(s) Addressed	Flooding
Estimated Cost	Varies by project
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	City Administration, Floodplain Administrator
Status	Not started. Yutan is planning to rebuild city-owned buildings above BFE.

Grass/Wildfires

Grass and wildfire are a concern for the city because they could damage the agricultural land around Yutan. The Yutan Volunteer Fire Department responds to fires in the region. The city's building codes and zoning ordinance both require space between structures that will help prevent fire from spreading between structures. Continued following and maintenance of the building code and zoning regulations are needed to reduce fire risks.

Mitigation and Strategic Actions

See the *Tree City USA* action under Severe Thunderstorms.

Levee Failure

While not identified as a prioritized hazard by the local planning team, Yutan is protected by the Upper Clear Creek levee in the northern area of the community. There is no data available of the

levee overtopping. The Upper Clear Creek levee protects one building, seven people, and an estimated $500,000 in property value according to the 2023 USACE National Structure Inventory. The map below illustrates the levee's location within the community.

Mitigation and Strategic Actions

Action	Infrastructure Hardening
Description & Location	Harden community lifelines to withstand high winds, hail, heavy snow, etc., by hardening roofs, hail resistant barriers to HVAC systems, shatter-proofing windows, building tie-downs and anchors, flood walls, and other architectural designs that reduce damage.
Hazard(s) Addressed	Flooding, Grass/Wildfires, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	Varies by project
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	City Administration, Utilities
Status	Not started. Community lifelines are protected under hail insurance.

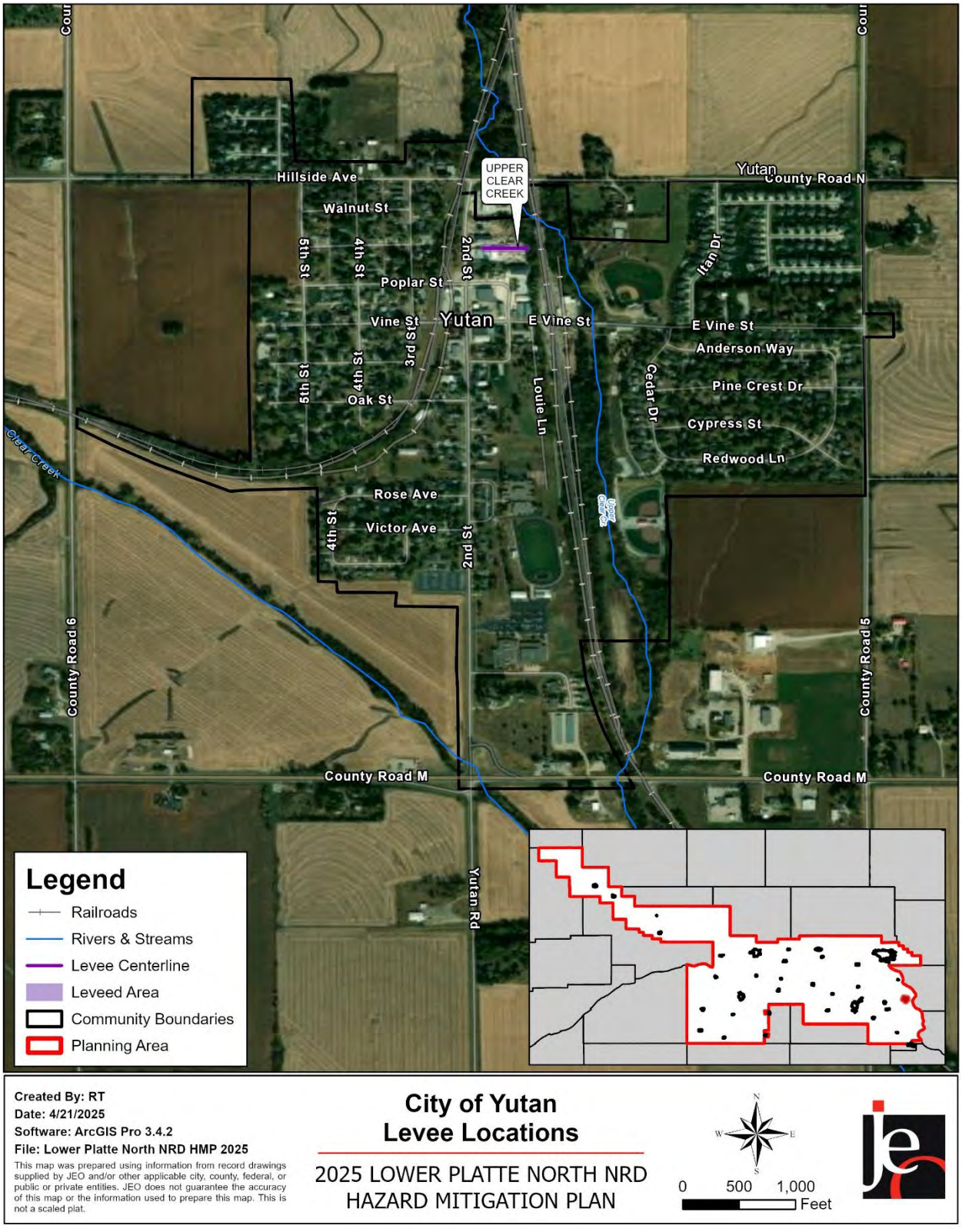
Severe Thunderstorms

The risk of hail damage to property, agriculture, and infrastructure is a concern for the community. Severe thunderstorms are a yearly occurrence in the planning area. The last large hailstorm occurred in August 2021 with 1.25 inch-size hail stones that did not result in property damage. Community lifelines are not fitted with hail-resistant materials, but they are insured for hail damage. There is no local tree board to maintain trees and residents do not receive information regarding hail-resistant building materials with building permits.

Mitigation and Strategic Actions

Action	Tree City USA
Description & Location	Work to become a Tree City USA through the National Arbor Day Foundation in order to receive direction, technical assistance, and public education on how to establish a hazardous tree identification and removal program in order to limit potential tree damage and damages caused by trees in a community when a storm event occurs.
Hazard(s) Addressed	Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	Staff Time
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	City Administration, Utilities
Status	Not started. Community lifelines are protected under hail insurance.

Yutan Levee Location



Severe Winter Storms

Yutan is responsible for preparing for and responding to winter storms. For heavy snow, this requires a significant amount of manpower, equipment, and resources. Snow and ice increase the risk of traffic accidents and impede residents from their commutes to work. Extreme cold increases the likelihood of water main breaks. Approximately 65% of power lines in the community are buried, protecting them from damage during severe storms. There are unofficial snow routes along 2nd Street and Vine Street to aid snow removal and ease of transportation. The Public Works Department is responsible for removing snow using two trucks with blades, a skid loader with a snow pusher attachment, and a salter that fits on a pickup. The Police and Rural Fire Departments acquired a UTV for emergency personnel which will be fitted with tracks to move through snow and ice. The city will continue being attentive during snow emergencies to mitigate future risks.

Mitigation and Strategic Actions

Action	Backup and Emergency Generators
Description & Location	Identify and evaluate current backup and emergency generators. Obtain additional generators based on identification and evaluation. The city would like a backup generator for the city offices. Look into installing a backup generator for the water tower.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	Varies by size
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Utilities
Status	An additional generator for well #2 is a priority. The city office and city shop have been identified as needing generators.

Tornadoes and High Winds

In April 2024, a tornado touched down within the vicinity of Yutan, and another tornado occurred outside city limits on July 2024. High winds from the July tornado impacted areas across the city. In case of a disaster, electronic records are backed up on a secure server. Physical records are stored in the city office with the older records in the basement. There are two sirens in town. They are activated by County Dispatch or the Yutan Fire Department. There are no public safe rooms in the city. County emergency management offers text alerts for emergencies and severe weather. The city does not have Mutual Aid Agreements in place. The planning team has continued training for emergency services and strengthened building codes to mitigate risks.

Mitigation and Strategic Actions

Action	Alert/Warning Sirens
Description & Location	Perform an evaluation of existing alert sirens in order to determine sirens which should be replaced or upgraded. Install new sirens where lacking with remote activation options.
Hazard(s) Addressed	Dam Failure, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$5,000+
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	City administration, utilities
Status	An additional alert siren could benefit the community.

Other Mitigation and Strategic Actions

Action	Continuity Planning
Description & Location	Develop continuity plans for critical community services. Develop continuity plans for critical services in order to increase resiliency after a hazardous event. Encourage businesses to develop continuity plans.
Hazard(s) Addressed	Animal & Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$10,000+
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	City administration
Status	Lower priority but discussions are happening.

Action	Drought Monitoring
Description & Location	Increase drought monitoring at a local and regional level.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	Staff Time, General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board
Status	Not started.

Action	Drought Ordinance
Description & Location	Create and pass a more robust drought ordinance. The NRD can work with local community leaders and water system operators to promote developing and updating local drought ordinances.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	Staff Time, General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not started.

Action	Groundwater Monitoring Wells
Description & Location	Work with the LPN NRD on possibly adding groundwater monitoring wells near the community.
Hazard(s) Addressed	Drought
Estimated Cost	Unknown
Local Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	City administration, utilities
Status	Not started.

Action	Update Comprehensive Plan
Description & Location	Update comprehensive plan. Integrate plan with Hazard Mitigation Plan components.
Hazard(s) Addressed	Animal & Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$15,000+
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	City administration
Status	Not started.

Action	New Municipal Well
Description & Location	Drill a third well to meet future demand.
Hazard(s) Addressed	Drought
Estimated Cost	Varies
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	City administration
Status	Not started.

Completed Mitigation and Strategic Actions

Action	Backup Records
Description & Location	Develop protocol for backing up critical records onto a portable storage device or service. Maintain routine backup of records.
Hazard(s) Addressed	Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Status	Records are backed up on a portable storage device. Cloud-based digital records are maintained for historic documents.

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Community Profile

Village of Lindsay



Lower Platte North NRD
Hazard Mitigation Plan 2025

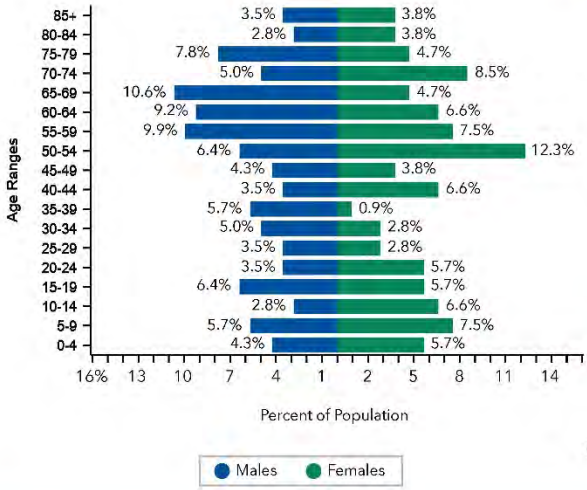
Community Fact Sheet

Community Summary Fact Sheet

Lindsay, NE
Lower Platte North NRD Hazard Mitigation Plan 2025

247	52.2	120	2.06	$238,889	$70,188
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID



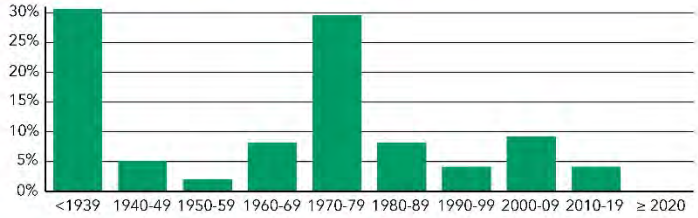
TOTAL POPULATION

2023 Total Population (Estimate)	247
2020 Total Population (U.S. Census)	283
2010 Total Population (U.S. Census)	305
2000 Total Population (U.S. Census)	361

AT RISK POPULATIONS

15	69	1	3%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

HOUSING: YEAR BUILT



EMPLOYMENT

24	0.0%
Total Businesses	Unemployment Rate

POPULATION BY RACE



- Black Population
- Asian Population
- American Indian Population
- Other Race Population
- Population of 2+ Races
- White Population

1% **of the Total Population is Hispanic**

HOUSING

1	1%
Vacant Housing Units	Mobile Homes

esri THE SCIENCE OF WHERE

Source: Esri, U.S. Census, Esri-Data Axle, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021.

Local Planning Team

Lindsay Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
John Haynes	Village Clerk/Floodplain Administer	Village of Lindsay	Materials Development	Attended, Materials Development
Fred Hoefer	Board Chairperson	Village of Lindsay	Attended	Attended, Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The Board Chairman, Board of Trustees, and Clerk/Treasurer will be responsible for reviewing and updating the community profile outside of the five-year update. Lindsay will review the plan bi-annually and the public will be notified at board meetings.

Capability Assessment

The planning team assessed the Village of Lindsay's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Lindsay Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	No
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operations Plan	Yes
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	No
	Subdivision Regulation/Ordinance	No
	Floodplain Ordinance	Yes
	Building Codes	Yes
	Water System Emergency Response Plan	Yes
	Wellhead Protection Plan	Yes
	National Flood Insurance Program	Yes
	Community Rating System	No
	Community Wildfire Protection Plan	Yes (Regional)
	Other (if any)	-
	Planning Commission	No

Capability/Planning Mechanism		Yes/No
Administrative & Technical Capability	Floodplain Administrator	Yes
	GIS Capabilities	Yes
	Chief Building Official	No
	Civil Engineering	Yes
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	-
Fiscal Capability	1- & 6-Year Plan	Yes (Road Plan)
	Applied for Grants in the Past	Yes
	Awarded a Grant in the Past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric/Water/Sewer Service Fees	Yes (Water, Sewer)
	Storm Water Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	Yes
	Ongoing Public Education or Information Program (e.g., Responsible Water Use, Fire Safety, Household Preparedness, Environmental Education)	Yes
	Natural Disaster or Safety Related School Programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	-

Lindsay Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Limited
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

National Flood Insurance Program (NFIP)

Lindsay is a member of the NFIP, having joined on 9/4/1987. The village's Floodplain Administrator, with assistance from Platte County Emergency Management, oversees the commitments and requirements of the program. The floodplain administrator uses the FEMA National Flood Hazard Layer Viewer and the Nebraska Department of Natural Resources Interactive Maps to determine whether a development will be in the floodplain. Additionally, the Board of Trustees reviews every project to determine if it is in the floodplain. A floodplain development permit is required for any project in the floodplain according to the village's 2010 Floodway and Flood Fringe Ordinance 4-5-10. The floodplain administrator, Platte County Emergency Manager, and FEMA/NEMA representatives are involved in the process of identifying substantially damaged structures after a flood event. Improvements are not allowed if the structure does not follow FEMA regulations. Lindsay uses the 50% threshold rule based on the assessed value of the home. Any planned improvements must be under that amount. Letters of Map Change are tracked and compiled through the building permit process.

The local planning team has stated that Lindsay will remain in good standing and continue to be involved with the NFIP. Adequate time and resources for community education on the requirements and value of regulations, inspections, and enforcement have been barriers to running the program efficiently. There are no known areas in the community with limited NFIP coverage. The village discusses the importance of flood insurance with every building permit application submitted. Additional NFIP information is given in the table below.

Lindsay NFIP Information

NFIP Overview	
Date of NFIP Participation:	9/04/1987
Floodplain Administrator:	John Haynes
Is Floodplain Administrator a Certified Floodplain Manager?	No
Is Floodplain Management an Auxiliary Function?	Yes
Number of NFIP Policies In-Force:	1
Total NFIP Premium ($):	$1,294
Total NFIP Coverage ($):	$276,000
Number of Claims Paid Out:	3
Total Amount of Claims Paid Out ($:)	$36,210
Number of Repetitive Loss Structures:	0
Number of Severe Repetitive Loss Structures:	0
Is the Community Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	No
FIRMs Digital or Paper?	Digital
Located in a RISK Map Area?	No

Buildings and Valuation in the Floodplain

The planning team acquired GIS parcel data from the County Assessor and Microsoft building footprint data to analyze the location, number, and value of buildings located in the 100-year and 500-year floodplains. A summary of the results of this analysis is provided in the following tables.

Lindsay Buildings and Value in the 100-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
215	$67,219,760	24	$3,454,575	11.1%

Source: County Assessor, 2024; Microsoft, 2024

Lindsay Buildings and Value in the 500-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
215	$67,219,760	0	$0	0%

Source: County Assessor, 2024; Microsoft, 2024

Plans and Studies

The Village of Lindsay has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the village updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Building Code

The building code sets standards for constructed buildings and structures. The village's building codes are based on the 2018 International Building Code, with no amendments made. Enforcement of the building codes is done through an interlocal agreement with the City of Norfolk. The hazard mitigation plan has not been integrated into the building codes.

Drought Management Plan (2021)

Lindsay's drought ordinance outlines the conservation management plan to minimize the effects of water shortage and control the municipal water supply during periods of high demand. The hazard mitigation plan has not been integrated into the drought ordinance. The Drought Emergency Contingency Plan was reviewed and reconfirmed in August 2021 with the Recodification of Municipal Ordinances.

Floodplain Ordinance (2010)

The village's floodplain ordinance outlines requirements for structures and developments located in the 100-year floodplain. By having a floodplain ordinance, the village promotes public health, safety, and welfare by minimizing losses due to floods. It also helps to assure eligibility of purchasing flood insurance for property owners. There is no plan or timeline to update the floodplain ordinance. The hazard mitigation plan has not been integrated with the floodplain ordinance.

Middle Northeast Community Wildfire Protection Plan (2021)

The purpose of the Middle Northeast Community Wildfire Protection Plan (CWPP) is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years.

Platte County Local Emergency Operations Plan (2021)

The Platte County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond

and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. Flooding, dam failure, and mass shelter information from the LEOP were used to inform hazard prioritization and community lifelines. The hazard mitigation plan has not been integrated with the LEOP.

Water System Emergency Response Plan (2021)

A water system emergency response plan serves as a guideline for water operators and village board to minimize the disruption of normal services to consumers and to provide public health protection during an emergency event. The document identifies several natural and human-caused events and discusses the water system's response during those events. The hazard mitigation plan has not been integrated into the water system emergency response plan. The board reviews the emergency response plan annually and makes updates as required.

Wellhead Protection Plan

The purpose of wellhead protection plans is to protect the public drinking water supply wells from contamination. It includes identifying potential sources of groundwater contamination in the area and managing the potential contaminant sources. The wellhead protection plan has not been integrated into the wellhead protection plan. There are no plans to update the plan.

Future Development Trends

Over the past five years, a new housing district was annexed that will have 11 new homes. A new private school and wellness center are under construction in the northern area of the village. The village has also developed a 10-foot-wide walking/biking trail in the southwest area of the community. Lindsay is also working on a pond restoration project at the intersection of Highway 91 and Elm Street to reduce the vulnerability of flooding in the community. The walking/biking trail, along with the pond restoration project, is within the floodplain.

In the future, new business expansion is anticipated at the manufacturing facility in the northeastern portion of the village. The village is planning for a new fire hall in the northwest section of Lindsay and additional housing development in the northwest in the area that has already been annexed.

For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted regardless of where they are located. According to the local planning team any new and future development is not likely to occur in any other known hazard locations.

Community Lifelines

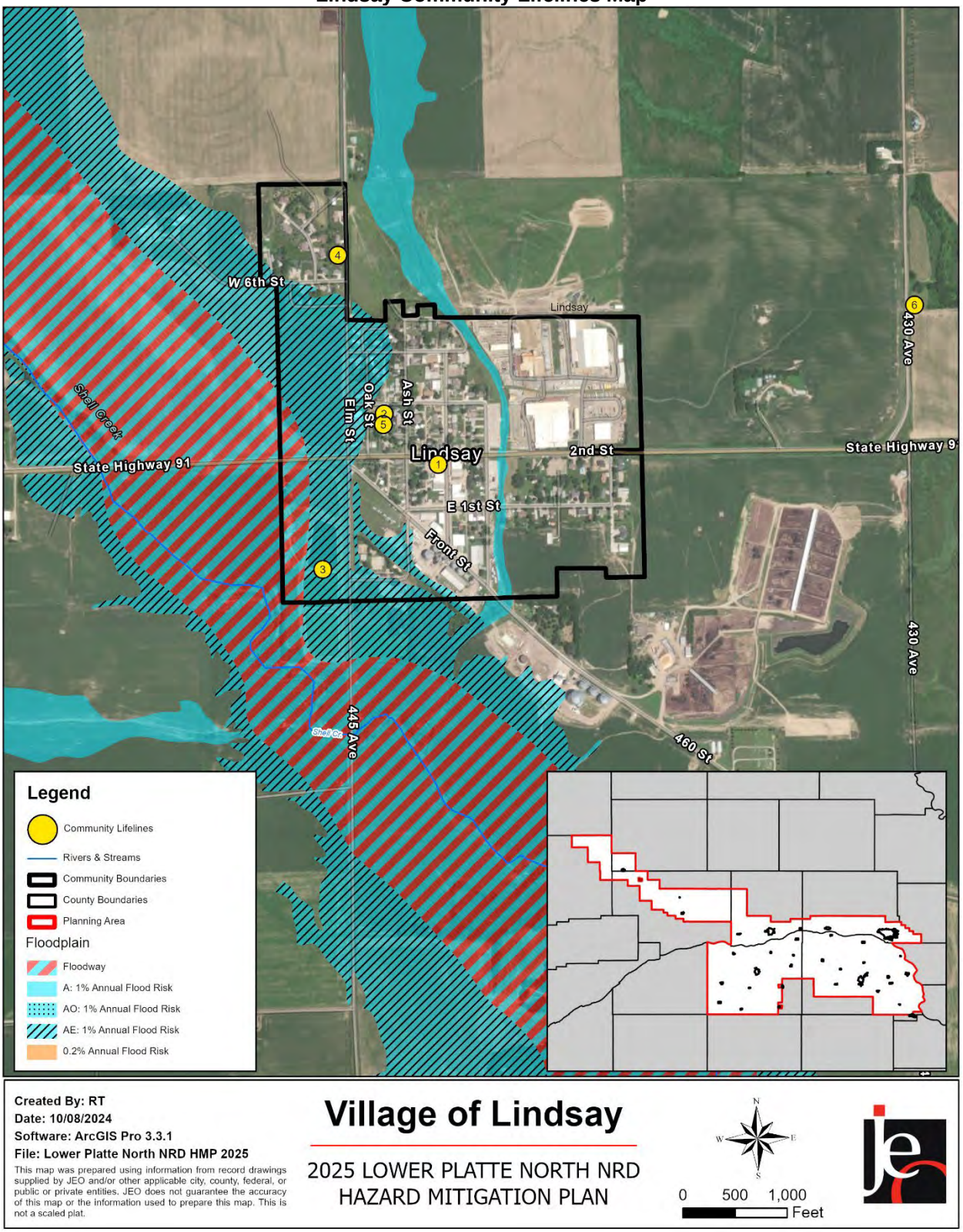
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Lindsay Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain
1	Town Hall	Safety and Security	-	N
2	Water Tower	Food, Water, Shelter	-	N
3	Wastewater Treatment Facility	Food, Water, Shelter	-	Y (1%)
4	Well 83-1	Food, Water, Shelter	-	N
5	Well 89-1	Food, Water, Shelter	-	N
6	Well 2013-1	Food, Water, Shelter	-	N

Lindsay Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Lindsay which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Village of Lindsay. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however Lindsay has identified mitigation actions to reduce the impacts of the hazards. Dam Failure has been omitted from this profile as there are no high hazard dams upstream of the community according to NeDNR data. Therefore, no mitigation actions have been identified for that hazard. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Flooding

The March 2019 floods had significant effects on Lindsay. Flooding of Shell Creek left roads and park equipment damaged and left debris throughout the village. The southwest corner of Lindsay is most prone to flooding because of its vicinity to these two waterways. The dry creek that runs through Lindsay also has the potential to flood during heavy rain. Future flooding has the potential for major disruption to the public and can result in high costs after the disaster. The entire village has poor stormwater drainage, but no community lifelines have been damaged by flooding to this point. The walking/biking trail has been completed, and the pond restoration project is in development in the southwest part of the village. Lindsay removed asphalt street and gravel surfaces and replaced them with concrete surfaces for Ash and Dewey streets. To reduce the impacts of potential future floods, a berm needs to be installed, and Highway 91 and Elm Street need to be raised to direct all water under the bridge on Highway 91.

Mitigation and Strategic Actions

Action	Levee/Floodwall Construction and/or Improvements
Description & Location	Raise the berm around the fishing pond in order to reduce the change of floodwaters impacting the community.
Hazard(s) Addressed	Flooding, Levee Failure
Estimated Cost	Varies
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Maintenance Department
Status	The pond restoration project was completed, but the village needs the Army Corps of Engineers to complete the study and authorize raising the berm in that area of the floodplain.

Action	Stormwater System Improvements
Description & Location	Stormwater system improvements may include pipe upsizing and additional inlets. Retention and detention facilities may also be implemented to decrease runoff rates while also decreasing the need for other stormwater system improvements.
Hazard(s) Addressed	Flooding, Severe Thunderstorms
Estimated Cost	Unknown
Local Funding	General Budget
Timeline	1 Year
Priority	High
Lead Agency	Board of Trustees, Maintenance Department
Status	Some storm sewers have been installed and being designed into all future projects.

Action	Stream Bank Stabilization/Grade Control Structures/Channel Improvements
Description & Location	Stabilization improvements including rip rap, vegetative cover, j-hooks, boulder vanes, etc. can be implemented to reestablish the channel banks. Channel stabilization can protect structures, increase conveyance, and provide flooding benefits.
Hazard(s) Addressed	Flooding
Estimated Cost	Unknown
Local Funding	General Budget
Timeline	1 Year
Priority	High
Lead Agency	Board of Trustees, Maintenance Department
Status	Some bank stabilization has been completed. The village will evaluate if this is complete or if more attention is needed after another major storm event.

Removed Mitigation and Strategic Actions

Action	Flood Damage Repair
Description & Location	Replace or repair the entrance bridge to the lagoons that was damaged during the 2019 flood event.
Hazard(s) Addressed	Flooding
Status	This project has been completed.

Severe Thunderstorms

The Village of Lindsay experiences two to three severe thunderstorms every year, resulting in downed trees and lost shingles. Lightning, high winds, and loss of power are all concerns regarding this hazard. Community lifelines have been impacted in the past. In case of a power surge, municipal records are protected with surge protectors on electronic devices. Approximately 25% of power lines are buried, making most of the power infrastructure vulnerable. The town hall has a weather radio to alert occupants of a severe storm. A new fire/weather siren replaced an old unit by Town Hall.

Mitigation and Strategic Actions

Action	Backup and Emergency Generators
Description & Location	Provide a portable or stationary source of backup power to shelters, and other critical facilities, particularly at the lift station, wells, pump station, town hall, and fire hall.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	Unknown
Local Funding	General Budget
Timeline	1 Year
Priority	High
Lead Agency	Board of Trustees, Maintenance Department
Status	The village is reviewing equipment requirements.

Severe Winter Storms

Blizzards are a yearly occurrence in Lindsay, making transportation difficult, especially in emergency situations. In January of 2024, Highway 91 was shut down going east and west due to a multi-vehicle accident during a snowstorm, which stopped all traffic. About 25% of power lines in the village are buried. Snow removal is done by village maintenance with a skid loader, a dump truck with a blade, and a tractor with a loader and rear blade. These resources are usually sufficient for the village's snow removal needs. The village has reviewed its snow removal equipment for upgrades to better prepare for future snow events.

Mitigation and Strategic Actions

See the *Backup and Emergency Generators* action under Severe Thunderstorms.

Tornadoes and High Winds

In 2012, a farmhouse was destroyed by an EF2 tornado near Lindsay. The roof of the house was lifted from the structure, causing the walls to collapse. The family had taken cover in the basement and were unharmed. No community lifelines have been damaged by tornadoes in the past. High wind has caused damage to trees, power lines, and property yearly in Lindsay. The lagoon and lift station have been damaged by wind in the past. Future tornadoes and high wind events would have a major impact on the community. Backup systems prevent harm to municipal records in case of a disaster. There are no FEMA-certified safe rooms in the community in case of a severe storm, but community members can seek shelter in their basements. Lindsay has two warning sires, activated either by Platte County dispatch or locally. Platte County Emergency Management will soon offer emergency text alerts. The town hall can be used as a shelter location, or basements can be used in the event of a tornado. In case of a disaster, Mutual Aid Agreements are in place with the neighboring communities of Newman Grove, Humphrey, Madison, and St. Edward (all comprising the Mid-Nebraska Fire Protection Area).

Mitigation and Strategic Actions

Action	Tree City USA
Description & Location	Work to become a Tree City by establishing a tree board, enacting a tree care ordinance, establishing a forestry care program, and enacting an Arbor Day observance and proclamation.
Hazard(s) Addressed	Animal & Plant Disease, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	Unknown
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Board of Trustees, Maintenance Department
Status	This action has not started to date.

Other Mitigation and Strategic Actions

Action	Look into Using Well 83-1 for Non-potable Uses
Description & Location	Look into using well 83-1 for non-potable Lindsay Corporation plant uses.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	Staff Time, General Budget
Timeline	2-5 Years
Priority	Low
Lead Agency	Village Board
Status	New Action. Not started.

Action	MOU for Emergency Water Supplies
Description & Location	Collaborate and develop agreements or memorandums of understanding with regional jurisdictions and organizations in the case of an emergency.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	Staff Time, General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	New Action. Not started.

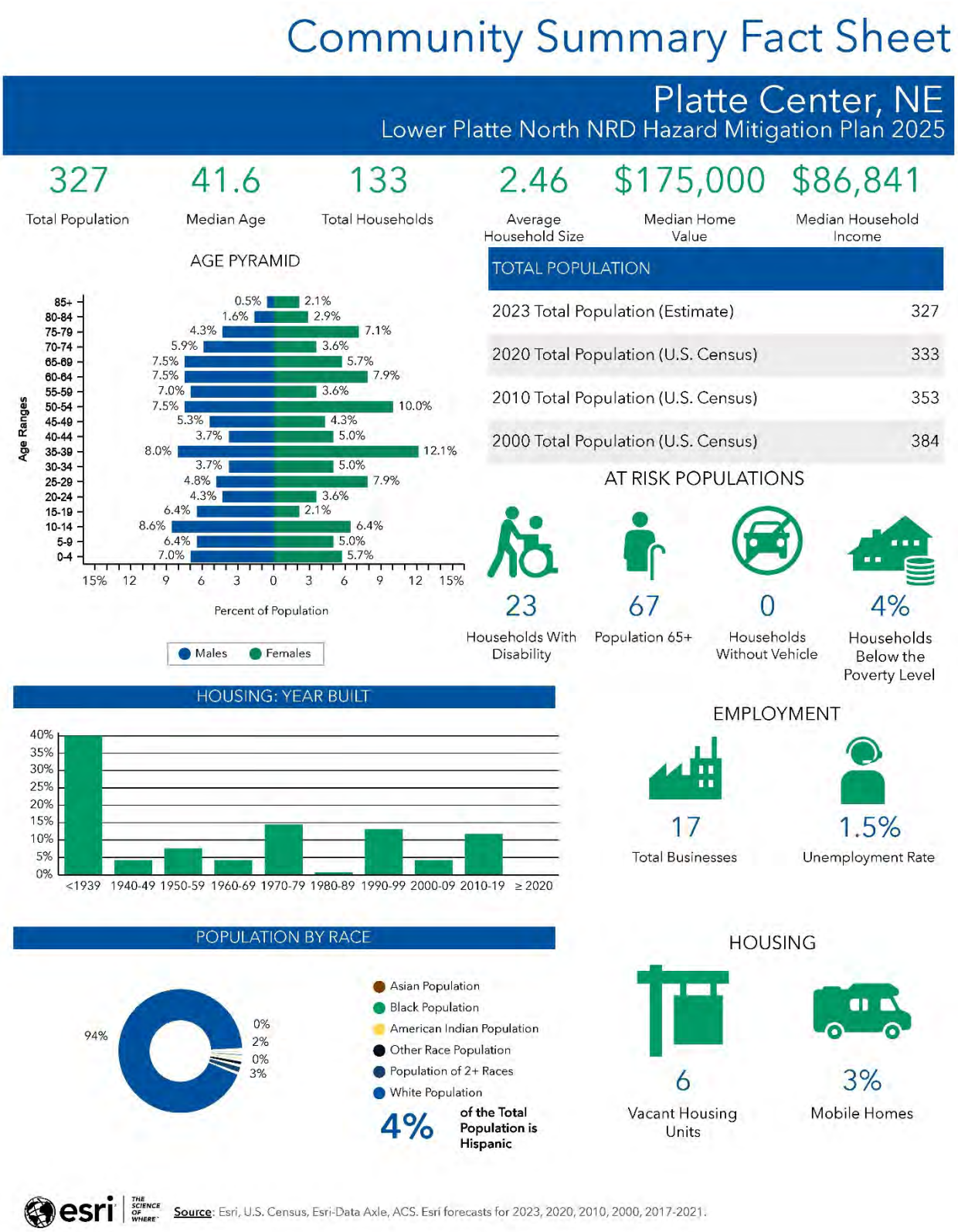
Action	Public Education
Description & Location	Educate staff, residents, and visitors on their risks to all hazards that could impact the community, how to get information and emergency notifications, mitigation actions that can be taken, and preparedness actions to keep themselves safe, especially regarding the chemical sites in the community and Highway 91 that bisects the town. Coordinate outreach and education projects and materials with Platte County, Nebraska Department of Environment and Energy, Department of Transportation, and other project partners. Lindsay will amplify and expand on education and outreach strategies created by Platte County, FEMA, and other partners.
Hazard(s) Addressed	Flooding, Hazardous Materials Release
Estimated Cost	$5,000
Local Funding	General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Board of Trustees, Floodplain Administrator
Status	New Action. Not started. The planning team has indicated more outreach and educational materials are needed for the NFIP.

Community Profile

Village of Platte Center

Lower Platte North NRD
Hazard Mitigation Plan 2025

Community Fact Sheet



Local Planning Team

Platte Center Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Andrew Greisen	Floodplain Manager	Village of Platte Center	-	Attended, Materials Development
Brooke Schmidt	Clerk	Village of Platte Center	-	Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The Village Floodplain Board, Chairperson, and Clerk will be responsible for reviewing and updating the community profile outside of the five-year update. Platte Center will review the plan annually and the public will be notified at board meetings, which are posted in the local newspaper. Special revisions will be posted in three public locations. Posts can be added on the website if needed.

Capability Assessment

The planning team assessed the Village of Platte Center's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Platte Center Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	Yes
	Economic Development Plan	No
	Emergency Operations Plan	Yes
	Floodplain Management Plan	No
	Storm Water Management Plan	Yes
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	Yes
	Building Codes	Yes
	Water System Emergency Response Plan	Yes
	Wellhead Protection Plan	Yes
	National Flood Insurance Program	Yes
	Community Rating System	No
	Community Wildfire Protection Plan	Yes (Regional)
	Other (if any)	-

Capability/Planning Mechanism		Yes/No
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administrator	Yes
	GIS Capabilities	Yes
	Chief Building Official	Yes
	Civil Engineering	Yes
	Grant Manager	Yes
	Mutual Aid Agreement	Yes (Rural Fire Department)
	Other (if any)	-
Fiscal Capability	1- & 6-Year Plan	Yes
	Applied for Grants in the Past	Yes
	Awarded a Grant in the Past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	No
	Gas/Electric/Water/Sewer Service Fees	Yes (Water, Sewer)
	Storm Water Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	No
	Ongoing Public Education or Information Program (e.g., Responsible Water Use, Fire Safety, Household Preparedness, Environmental Education)	Yes
	Natural Disaster or Safety Related School Programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	-

Platte Center Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Moderate
Time to Devote to Hazard Mitigation	Moderate
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	High

National Flood Insurance Program (NFIP)

Platte Center is a member of the NFIP, having joined 1/30/1990, and the village's Floodplain Administrator oversees the commitments and requirements of the program. The Floodplain Administrator uses the Nebraska Department of Natural Resources website to determine if a development will be located in the floodplain. Developers need to come to the village office and fill out a floodplain building permit before development occurs. The developer must contact an engineer on their own. NeDNR is contacted to get approval on any changes or development done in the floodplain. No construction can take place until this process is complete. The Floodplain Administrator goes door to door to identify substantially damaged structures after a flood event. Substantially improved structures are identified based on if updates equate up to 50% of the assessed value of the property. The village's floodplain regulations do not exceed the State of Nebraska requirements.

The local planning team has stated that Platte Center will remain in good standing and be involved with the NFIP. One barrier to running the program effectively is needing to adopt certain ordinances. Lower income homes have limited NFIP policy coverage or may be unaware of their policy coverages. The village is in the process of updating its policies and outreach and will have educational videos on their website about the floodplain and flood insurance. Additional NFIP information is given in the table below.

Platte Center NFIP Information

NFIP Overview	
Date of NFIP Participation:	1/30/1990
Floodplain Administrator:	Andrew Greisen
Is Floodplain Administrator a Certified Floodplain Manager?	No (Taken Courses)
Is Floodplain Management an Auxiliary Function?	No
Number of NFIP Policies In-Force:	13
Total NFIP Premium ($):	$16,656
Total NFIP Coverage ($):	$1,256,000
Number of Claims Paid Out:	26
Total Amount of Claims Paid Out ($:)	$258,148
Number of Repetitive Loss Structures:	1
Number of Severe Repetitive Loss Structures:	0
Is the Community Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	No
FIRMs Digital or Paper?	Digital
Located in a RISK Map Area?	No

Buildings and Valuation in the Floodplain

The planning team acquired GIS parcel data from the County Assessor and Microsoft building footprint data to analyze the location, number, and value of buildings located in the 100-year and 500-year floodplains. A summary of the results of this analysis is provided in the following tables.

Platte Center Buildings and Value in the 100-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
250	$23,939,540	105	$5,931,820	42%

Source: County Assessor, 2024; Microsoft, 2024

Platte Center Buildings and Value in the 500-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
250	$23,939,540	0	$0	0%

Source: County Assessor, 2024; Microsoft, 2024

Plans and Studies

The Village of Platte Center has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When Platte Center updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Building Code (2006)

The building code sets standards for constructed buildings and structures. Platte Center has a building code separate from the International Building Codes. The village has a Building Permits and Inspections Department, which is responsible for permitting development and conducting inspections. The hazard mitigation plan has not been integrated into the building code.

Capital Improvement Plan (2006)

The capital improvement plan (CIP) outlines projects the village would like to pursue and provides a planning schedule and financing options. Projects include stormwater improvements, installing water meters for residential structures, and installing emergency generators in community lifelines. The hazard mitigation plan has not been integrated into the CIP. However, projects in the CIP have been included in the Hazard Prioritization and Mitigation Strategy section of this profile. The village will update the CIP to include additional projects identified in the hazard mitigation plan.

Comprehensive Plan (2006)

The comprehensive plan is designed to guide the future actions and growth of the village. The hazard mitigation plan has not been integrated into the comprehensive plan. However, the comprehensive plan discusses flooding, contains goals aimed at Safe Growth, directs development away from the floodplain, encourages elevation of structures in the floodplain, and identifies areas that need emergency shelters. Discussions on updating the comprehensive plan will start at the village board meeting in May 2025.

Drought Ordinance (2006)

Platte Center's drought ordinance outlines the conservation management plan to minimize the effects of water shortage and control the municipal water supply during periods of high demand. The hazard mitigation plan has not been integrated into the drought ordinance.

Floodplain Regulations (2003)

The village's floodplain ordinance outlines requirements for structures and developments located in the 100-year floodplain. By having a floodplain ordinance, the village promotes public health, safety, and welfare by minimizing losses due to floods. It also helps to assure eligibility of purchasing flood insurance for property owners. Platte Center is in the process of updating the floodplain ordinance, with plans for it to be completed by the end of 2025. Currently, the

regulations discourage development and limit population density in the floodplain and require more than one foot of elevation above Base Flood Elevation in the floodplain.

Middle Northeast Community Wildfire Protection Plan (2021)

The purpose of the Middle Northeast Community Wildfire Protection Plan CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years.

Platte County Local Emergency Operations Plan (2021)

The Platte County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years and includes the top hazards that would affect the county and its populations.

Subdivision Regulations (2006)

The village's subdivision regulations govern the division of land from one or more larger parcels into smaller lots. The hazard mitigation plan has not been integrated into the subdivision regulations. However, future updates will include restrictions on subdivision of land within or adjacent to the floodplain in the village's subdivision regulations.

Water System Emergency Response Plan (2024)

A water system emergency response plan serves as a guideline for water operators and the village board to minimize the disruption of normal services to consumers and to provide public health protection during an emergency event. The document identifies several natural and human-caused events and discusses the water system's response during those events. The hazard mitigation plan has not been integrated with this plan.

Wellhead Protection Plan (2025)

Platte Center is finalizing its wellhead protection plan and anticipates its completed by May 2025. The purpose of wellhead protection plans is to protect the public drinking water supply wells from contamination. It includes identifying potential sources of groundwater contamination in the area and managing the potential contaminant sources. The wellhead protection plan has not been integrated with the hazard mitigation plan.

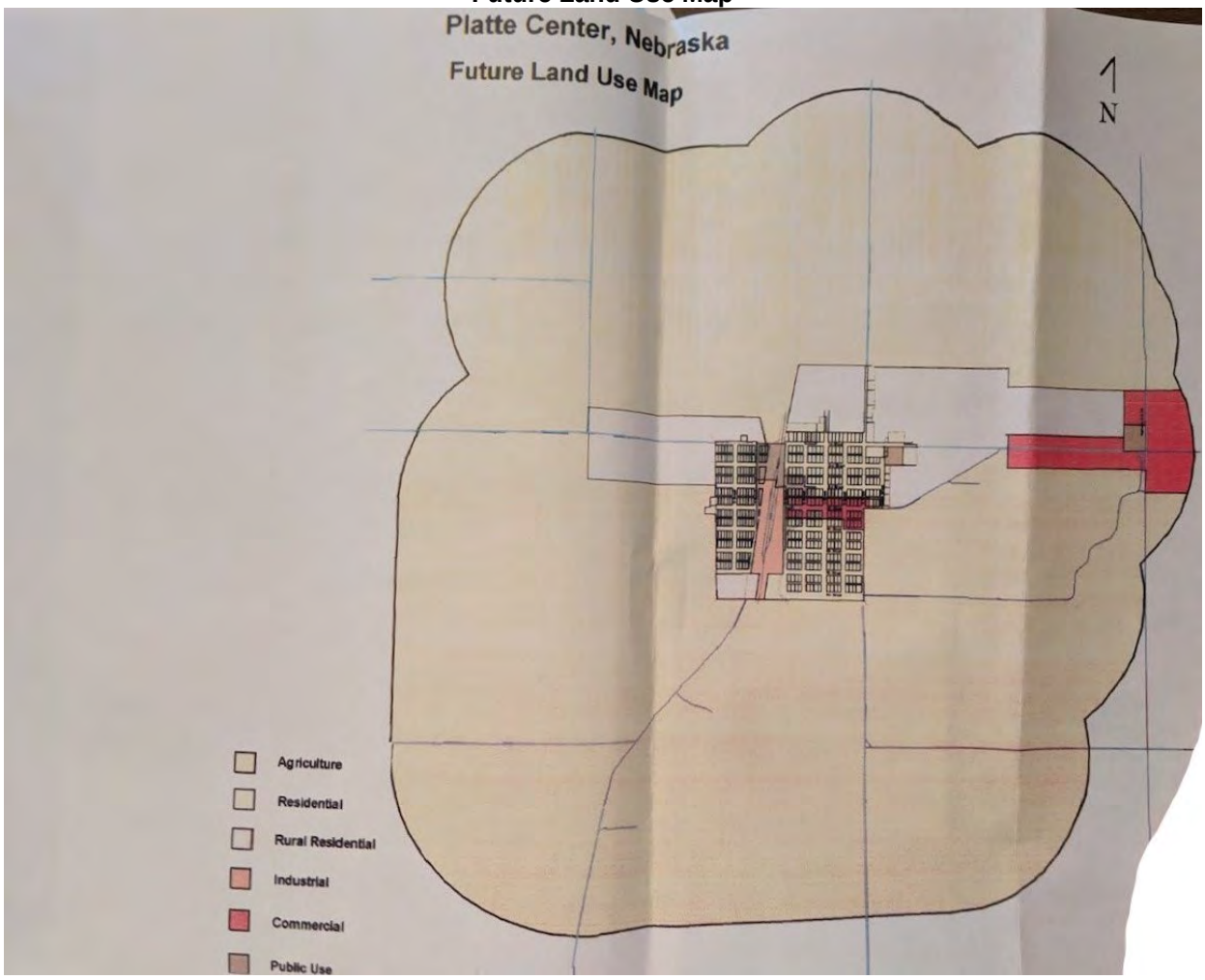
Zoning Ordinance (2006)

The village's zoning ordinance outlines where and how development should occur in the future. Development is restricted in hazard prone areas. The zoning ordinance also discourages housing and vulnerable populations near chemical storage sites and the ability to implement water restrictions. By the end of 2025, the ordinances should be written and finalized. Updates to the zoning ordinance will consider the wildland urban interface and include well setback requirements.

Future Development Trends

Over the past five years, new housing and two new businesses have moved into Platte Center. New road projects have occurred with more underway. The village is improving safety resources for residents and improving water lines throughout the community. In the future, Platte Center is expecting housing development to the northeast of Platte Street. For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted. According to the local planning team no new developments occurred or will occur in any known hazard locations.

Future Land Use Map



Community Lifelines

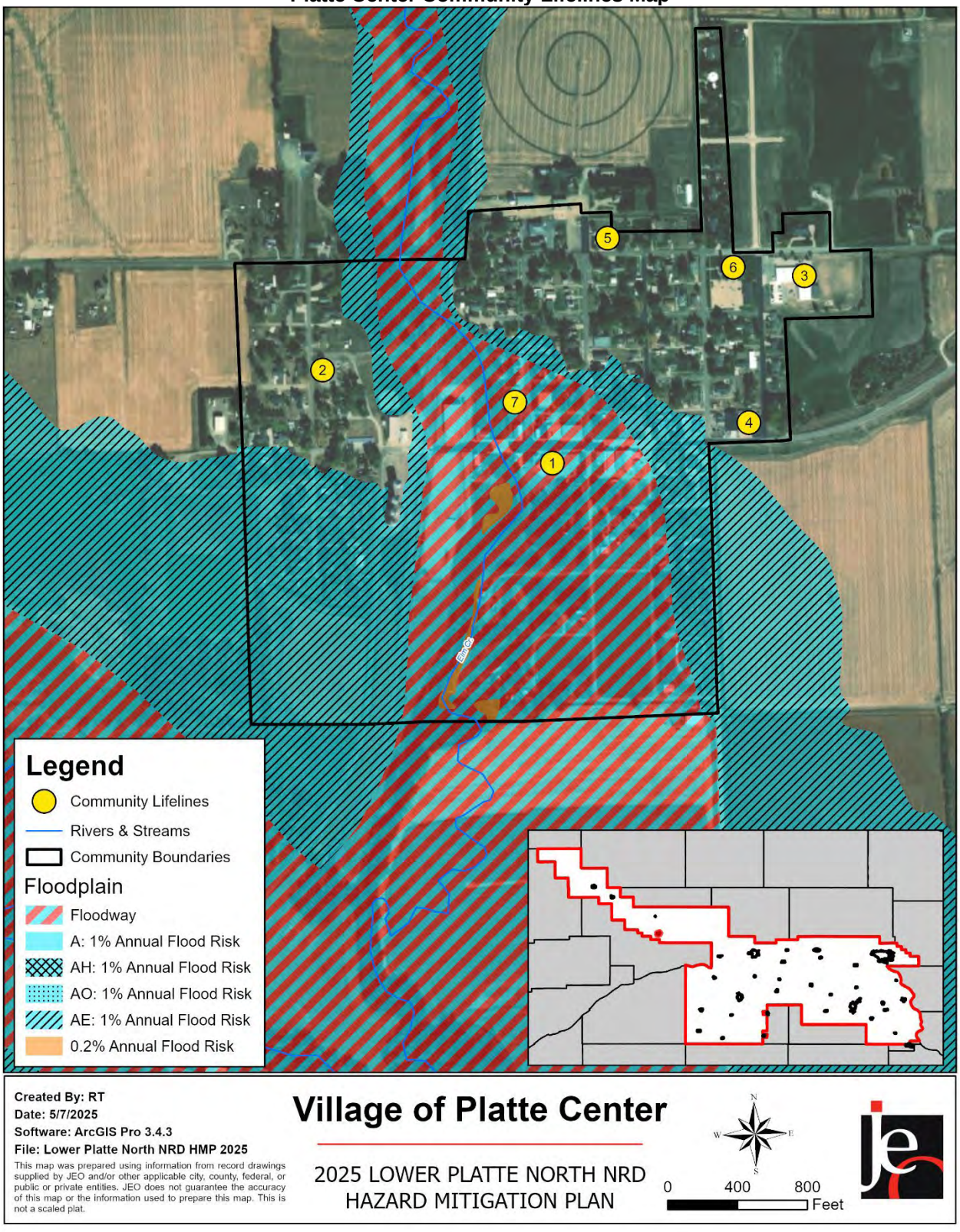
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Platte Center Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	City Auditorium/Office	Safety and Security	-	Y (Floodway)
2	City Equipment Storage	Other	-	N
3	District 24 School	Safety and Security	-	N
4	Fire Department	Safety and Security	-	N
5	Grace Lutheran Church	Other	-	N
6	St. Joseph Church	Other	-	N
7	Village Main Building	Safety and Security	G (Portable)	Y (Floodway)

Platte Center Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Platte Center which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Village of Platte Center. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however Platte Center has identified mitigation actions to reduce the impacts of the hazards. Dam Failure and Levee Failure have been omitted from this profile as there are no high hazard dams upstream or any levee protected areas near the community according to NeDNR and USACE data. Therefore, no mitigation actions have been identified for those two hazards. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Flooding

Major flooding in the village occurred in 1990 and 2008. In 1990 water was six feet deep on Main Street and caused businesses and homes to have water damage. The flood in 2008 did not have water as deep, but damage to businesses and homes also occurred. During the March 2019 flood, a levee downstream breached causing water to drop in Elm Creek and stopped the village from having any flooding. Flooding in 2021 caused damage to homes, businesses, and public areas in the village. Surrounding roads and Highway 81 were closed due to the conditions and people could not travel in a direct path to work or school. Riverine flooding is the primary concern for the village. Elm Creek runs through the village and drains into Shell Creek three-quarters of a mile south of town. If the water level in Shell Creek is high, then Elm Creek backs up causing flooding to occur in the community. Every year there is a risk of a flood that would affect 30% of the village and the entire business district. Areas of the village most likely to flood are located in the floodway in figure above. The village hall building is located in the floodway, but the office is located on the second floor so damage to contents is minimal. The lift station is also located in the floodway but was raised out of the floodplain over 10 years ago. The village is currently working on cleaning out ditches and improving drainage help mitigate flooding issues. The village prepares for floods by sandbagging businesses and sending alerts to the community about impending weather. Platte Center was working with FEMA to get structures in the floodway elevated through the BRIC program. The village will try to work with FEMA in the future to complete this project. Preventing development in the floodplain is needed to reduce future risks.

Mitigation and Strategic Actions

Action	Sewer System Repairs
Description & Location	Wastewater sludge has accumulated in the Platte Center Municipal Wastewater Lagoons over the decades. The village would like to remove the built-up sludge to improve storage and treatment abilities. Sanitary Sewer Collection System Repairs- the community would like to televise their sewer system and repair those areas that are in the poorest condition.
Hazard(s) Addressed	Flooding
Estimated Cost	Varies
Local Funding	General Fund (NDEE Grant)
Timeline	1 Year
Priority	High
Lead Agency	Village Board
Status	A grant has been awarded. Currently at the beginning stage of the project.

Action	Stream Bank Stabilization / Grade Control Structures / Channel Improvements
Description & Location	Stabilization improvements including rock rip rap, vegetative cover, j-hooks, boulder vanes, etc. can be implemented to reestablish the channel banks. Channel stabilization can protect structures, increase conveyance and provide flooding benefits. Stabilization is needed along Elm Creek
Hazard(s) Addressed	Flooding
Estimated Cost	Varies
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	The village was working through the BRIC program until the program got put on hold.

Severe Thunderstorms

Primary concerns regarding severe thunderstorms are damage to buildings, fallen power lines, and damaged trees. Severe thunderstorms are an annual occurrence in the village, but no major event sticks out. Power loss occurs a couple of times a year but does not typically last very long. In the event of power loss or power surge, records are backed up on a flash drive and electronic devices have surge protectors. Community lifelines have not been impacted by past events. Village-owned buildings are protected by hail resistant building materials and are insured against hail damage. The fire department uses storm spotters and weather radios to alert the community of incoming storms. A starting generator has been installed at the village substation to ensure no sewage waste will enter resident homes. Information and alerts are sent out to keep everyone aware of severe weather conditions.

Mitigation and Strategic Actions

See the *Alert/Warning Siren* action under Tornadoes and High Winds.

Severe Winter Storms

No major winter storm events have occurred in the village, but small snowstorms occur on an annual basis. Past impacts include snow removal on streets and power loss. The village opened the auditorium for residents needing a warm place after the severe winter storms in March 2025. Residents were provided with running water and the ability for people to charge their devices at the auditorium. The village works closely with the rural fire department to plow roads when rescue calls come in. Platte Center handles all snow removal in the community. The village leases a John Deere tractor and blade for snow removal, and a motor grader can be used during larger snow events. These have been sufficient during past events. Salt and gravel are also used on roads after ice storms to help melt ice and increase traction. The village updates residents on severe weather so they can prepare and know what they can do during emergencies.

Mitigation and Strategic Actions

Action	Weather Radios
Description & Location	Identify weather warning radio locations. Purchase or upgrade weather radios as needed.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$5,000+, Varies by scope
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Discussed during board meetings. Platte Center will look into quotes for installation so that the school and residents in that area can be alerted of severe storms and emergencies.

Tornadoes and High Winds

On December 15, 2021, a tornado unexpectedly touched down that took out a garage and caused minor exterior damage. One home had part of its roof come off. If a large tornado were to hit the village, the likelihood of major damages is high. The location of Platte Center is known to get tornadoes, which could destroy the town, and the village would not have the funds to assist all villagers post-disaster. The village has two warning sirens which are activated by 911 dispatch in Columbus. Nobody in the village is able to activate the sirens. Platte Center is planning to add another siren near the water tower in the northeast of the village for the school and residents to be notified. The village also utilizes reverse 911 and offers mass text alerts for residents. There are no certified safe rooms in the community and residents must use basements. Most houses have basements and businesses without basements have plans in place for staff to seek shelter.

Mitigation and Strategic Actions

Action	Alert/Warning Siren
Description & Location	Perform an evaluation of existing alert sirens in order to determine sirens which should be replaced or upgraded. Install a new siren near the school.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$5,000+, Varies by scope
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Discussed during board meetings. Platte Center will look into quotes for installation so that the school and residents in that area can be alerted of severe storms and emergencies.

Other Mitigation and Strategic Actions

Action	Drought Monitoring
Description & Location	Increase drought monitoring at a local and regional level.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	Staff Time, General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board
Status	Not started.

Action	Drought Ordinance
Description & Location	Create and pass a more robust drought ordinance. The NRD can work with local community leaders and water system operators to promote developing and updating local drought ordinances.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	Staff Time, General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not started.

Action	MOU for Emergency Water Supplies
Description & Location	Collaborate and develop agreements or memorandums of understanding with regional jurisdictions and organizations in the case of an emergency.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	Staff Time, General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	New Action. Not started.

Action	New Municipal Well
Description & Location	The village may require a new well as a result of continuous nitrate contamination. The village will only require a new well if the nitrate contamination trend continues.
Hazard(s) Addressed	Drought
Estimated Cost	$420,000
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board, Engineer
Status	In the works.

Action	Update Land Use Regulations
Description & Location	Update ordinances (zoning ordinance, subdivision regulations, floodplain regulations, etc.) to regulate development in hazard prone areas. Integrate the regulations with components of the hazard mitigation plan.
Hazard(s) Addressed	Animal & Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$15,000+
Local Funding	General Fund
Timeline	1 Year
Priority	Medium
Lead Agency	Village Board
Status	In the works. Expect ordinances to be completed by the end of 2025.

Action	Update Wellhead Protection Plan
Description & Location	Review and revise the wellhead protection plan to protect municipal wells from contamination.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	Staff Time, General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not started.

Action	Well Transducers
Description & Location	Install transducers on wells to monitor water levels. The real-time groundwater level monitoring allows for early identification of declining water tables, helping to detect drought conditions earlier and track water levels over time. The NRD is currently working with interested community water systems to install the transducers in community wells at minimal cost to the community.
Hazard(s) Addressed	Drought
Estimated Cost	Unknown
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not started.

Community Profile

Village of Richland

Lower Platte North NRD
Hazard Mitigation Plan 2025

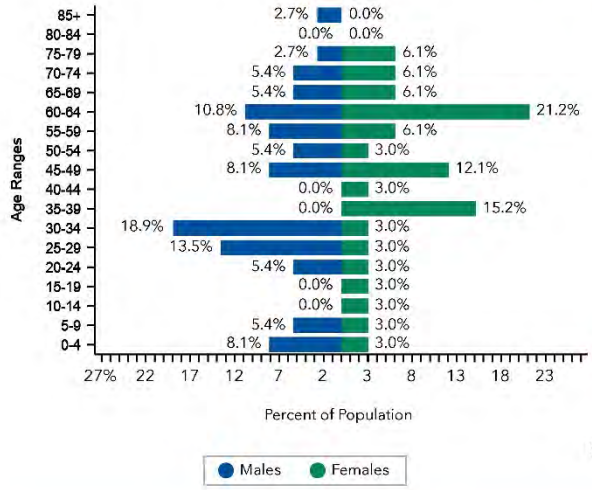
Community Fact Sheet

Community Summary Fact Sheet

Richland, NE
Lower Platte North NRD Hazard Mitigation Plan 2025

70	47.1	34	2.06	$258,333	$53,691
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID



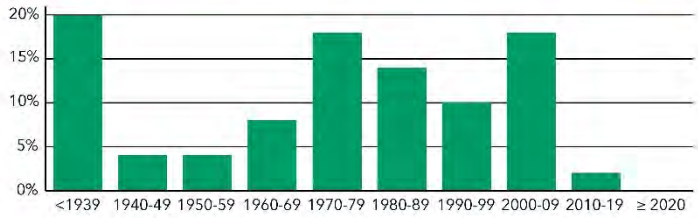
TOTAL POPULATION

2023 Total Population (Estimate)	70
2020 Total Population (U.S. Census)	70
2010 Total Population (U.S. Census)	81
2000 Total Population (U.S. Census)	88

AT RISK POPULATIONS

9	12	0	9%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

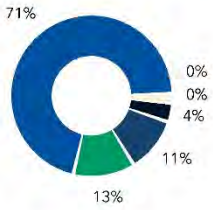
HOUSING: YEAR BUILT



EMPLOYMENT

5	2.0%
Total Businesses	Unemployment Rate

POPULATION BY RACE



- Asian Population
- American Indian Population
- Other Race Population
- Population of 2+ Races
- Black Population
- White Population

9% **of the Total Population is Hispanic**

HOUSING

4	14%
Vacant Housing Units	Mobile Homes

esri THE SCIENCE OF WHERE

Source: Esri, U.S. Census, Esri-Data Axle, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021.

Local Planning Team

Richland Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Mark Arps	Emergency Manager	Colfax County	Attended, Materials Development	Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The County Emergency Management and Floodplain Administrator will be responsible for reviewing and updating the community profile outside of the five-year update. Richland will review the plan bi-annually and the public will be notified at open house and council meetings.

Capability Assessment

The planning team assessed the Village of Richland's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Richland Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operations Plan	Yes
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	Yes
	Building Codes	No
	Water System Emergency Response Plan	No
	Wellhead Protection Plan	No
	National Flood Insurance Program	Yes
	Community Rating System	No
	Community Wildfire Protection Plan	Yes (Regional)
	Other (if any)	-
Administrative & Technical	Planning Commission	No
	Floodplain Administrator	Yes
	GIS Capabilities	No

Capability/Planning Mechanism		Yes/No
Capability	Chief Building Official	No
	Civil Engineering	Yes
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	-
Fiscal Capability	1- & 6-Year Plan	Yes
	Applied for Grants in the Past	No
	Awarded a Grant in the Past	No
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric/Water/Sewer Service Fees	Yes (Water, Sewer)
	Storm Water Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	No
	Ongoing Public Education or Information Program (e.g., Responsible Water Use, Fire Safety, Household Preparedness, Environmental Education)	No
	Natural Disaster or Safety Related School Programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	-

Richland Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Moderate
Staff/Expertise to Implement Projects	Moderate
Public Support to Implement Projects	High
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

National Flood Insurance Program (NFIP)

Richland is a member of the NFIP, having joined on 3/4/2014 and the County Emergency Manager is the floodplain administrator who oversees the commitments and requirements of the program. The floodplain administrator uses information from NeDNR to determine if a development will be located in the floodplain. The permitting process is done using county, state,

and federal ordinances. Enforcement of the regulations is done through onsite inspections. After a flood event, the County Assessor and Zoning Administrator help identify substantially damaged and substantially improved structures. There are no Letters of Map Change filed within the jurisdiction of Richland. The village's floodplain regulations do not exceed the State of Nebraska requirements.

The local planning team has stated that Richland will remain in good standing and be involved in the NFIP. Currently, the village has no barriers when running the program. There are no known areas in the community with limited NFIP coverage. The community, property owners, and stakeholders are invited to village board meetings to learn about the importance of flood insurance. Additional NFIP information is given in the table below.

Richland NFIP Information

NFIP Overview	
Date of NFIP Participation:	3/4/2014
Floodplain Administrator:	Mark Arps
Is Floodplain Administrator a Certified Floodplain Manager?	No
Is Floodplain Management an Auxiliary Function?	Yes
Number of NFIP Policies In-Force:	0
Total NFIP Premium ($):	$0
Total NFIP Coverage ($):	$0
Number of Claims Paid Out:	0
Total Amount of Claims Paid Out ($:)	$0
Number of Repetitive Loss Structures:	0
Number of Severe Repetitive Loss Structures:	0
Is the Community Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	No
FIRMs Digital or Paper?	Digital
Located in a RISK Map Area?	No

Parcel Improvements and Valuation

The planning team acquired GIS parcel data from the County Assessor to analyze the location, number, and value of property improvements (e.g. buildings, garages, sheds etc.) located in the 100-year and 500-year floodplains at the parcel level. The data did not contain the number of structures on each parcel. A summary of the results of this analysis is provided in the following tables.

Richland Building Improvements and Value in the 100-Year Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
96	$2,897,820	0	$0	0%

Source: County Assessor, 2019

Richland Building Improvements and Value in the 500-Year Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
96	$2,897,820	0	$0	0%

Source: County Assessor, 2019

Plans and Studies

The Village of Richland has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the village updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Colfax County Local Emergency Operations Plan (2020)

The Colfax County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. The hazard mitigation plan has not been integrated with this plan. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines.

Comprehensive Plan (2002)

The comprehensive plan is designed to guide the future actions and growth of the village. The hazard mitigation plan has not been integrated into the comprehensive plan, but the plan does discuss drought, wildfires, and severe storms. The plan discusses directing housing away from chemical storage facilities. An update of the plan is scheduled to be completed in 2024 and will include goals and objectives aimed at Safe Growth.

Floodplain Ordinance

The village's floodplain ordinance outlines requirements for structures and developments located in the 100-year floodplain. By having a floodplain ordinance, the village promotes public health, safety, and welfare by minimizing losses due to floods. It also helps to assure eligibility of purchasing flood insurance for property owners. The floodplain ordinance restricts development in hazard prone areas and requires one foot elevation above the Base Flood Elevation in the floodplain. The hazard mitigation plan has not been integrated into the floodplain ordinance.

Middle Northeast Community Wildfire Protection Plan (2021)

The purpose of the Middle Northeast Community Wildfire Protection Plan CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years.

Subdivision Regulations

The village's subdivision regulations govern the division of land from one or more larger parcels into smaller lots. Future updates to the subdivision regulations will include restrictions on the subdivision of land within or adjacent to the floodplain. Planning and Zoning will inspect properties with the Floodplain Administrator prior to construction.

Zoning Ordinance

The village's zoning ordinance outlines where and how development should occur in the future. In the zoning ordinance, development is restricted in hazard prone areas. Well setback requirements and the ability to implement water restrictions are included in the zoning ordinance. Hazard mitigation planning has been integrated into the zoning ordinance by including setbacks, along with County, State, and Federal Regulations that are required to be followed.

Future Development Trends

Over the last five years, the Village of Richland has demolished substandard buildings. This likely helps reduce vulnerabilities to all hazards. A new co-op fertilizer storage building was built in the northern part of the village, on Front Street and Road 3. A housing development is being planned in the southeast portion of the village.

For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted regardless of where they are located. According to the local planning team any new and future development is not likely to occur in any other known hazard locations.

Community Lifelines

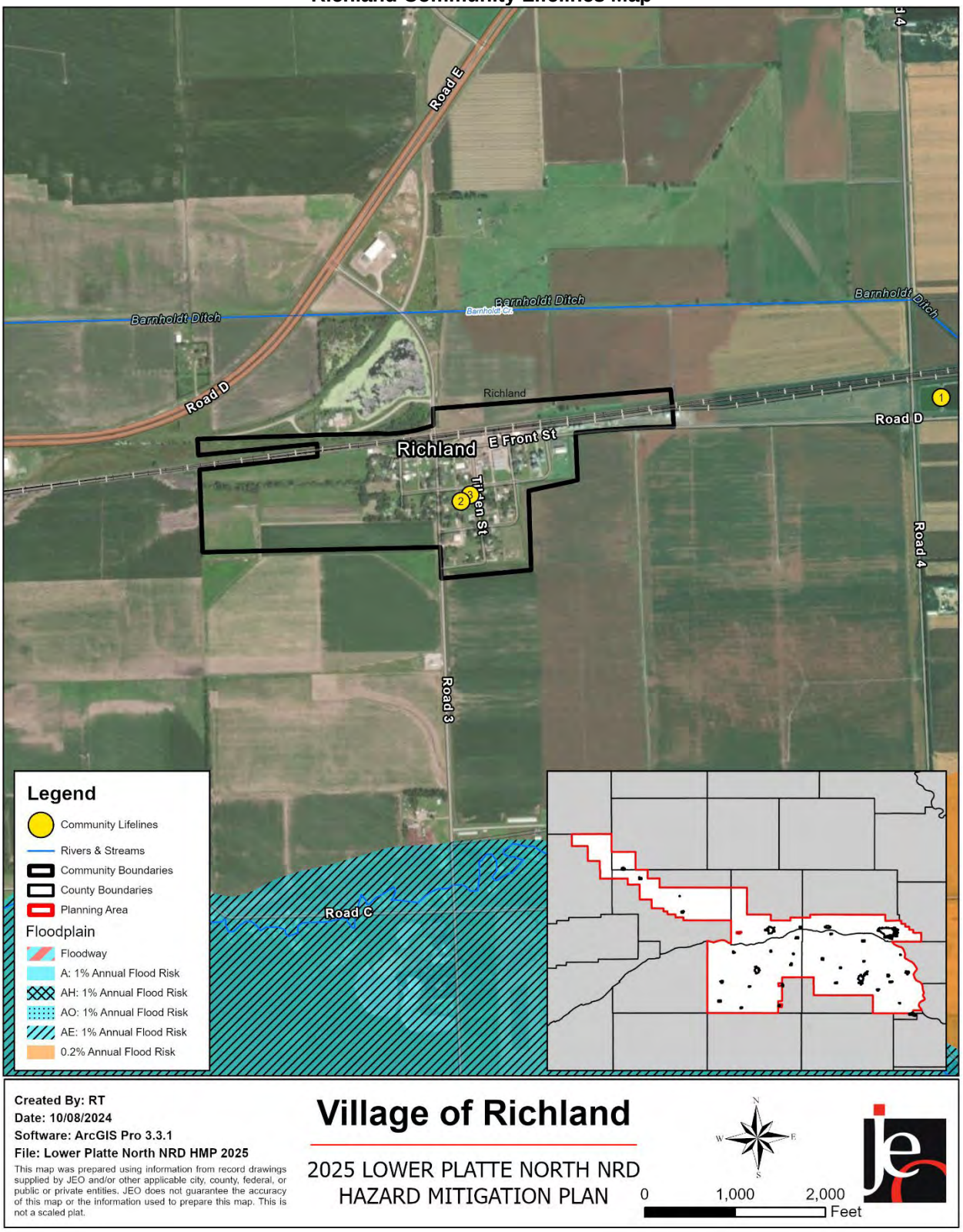
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Richland Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Village Hall	Safety and Security	-	N
2	Lagoons	Food, Water, Shelter	-	N
3	Siren	Communications	-	N

Richland Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Richland which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Village of Richland. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however Richland has identified mitigation actions to reduce the impacts of the hazards. Dam Failure and Levee Failure have been omitted from this profile as there are no high hazard dams upstream or any levee protected areas near the community according to NeDNR and USACE data. Therefore, no mitigation actions have been identified for those two hazards. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Hazardous Materials Release

There are three chemical storage facilities located within two miles of Richland. The site of most concern for the village is the co-op which is located on the north side of the community on Front Street and Road 3, which is also used to leave the village onto Highway 3. All residences and the village hall are located within three or four blocks of the co-op. Transportation routes of most concern include Highway 30, Road 3, Front Street, and the railroad as they all carry a wide variety of farm and other chemicals. If a major spill were to occur, the entire village may need to be evacuated south on Road 3. No fixed site or transportation chemical spills have occurred in Richland. To better prepare for a hazardous materials release, the Schuyler Fire Department will need to meet with representatives from the co-op to exercise evacuation plans. The fire department would be the first to respond and is trained in small spill containment and clean-up. Depending on the size of the spill, additional mutual aid may need to be called in.

Mitigation and Strategic Actions

Action	Emergency Exercise: Hazardous Spill
Description & Location	Coordinate with the Schuyler Fire Department and the fixed chemical sites to exercise an evacuation plan in the case of a spill in or near the community.
Hazard(s) Addressed	Hazardous Materials Release
Estimated Cost	$5,000+
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	County Emergency Management, Schuyler Volunteer Fire Department
Status	New action. Not started.

Severe Thunderstorms

Severe thunderstorms are an annual occurrence for the community. No damages from events have been reported. Primary concerns include loss of power and damage to structures from large hail, wind, or falling tree limbs. No community lifelines in Richland have backup power generators. No power lines in the community are buried, making the village more susceptible to power loss. Clearing overhanging tree branches near powerlines is needed to prevent the loss of power from severe thunderstorms.

Mitigation and Strategic Actions

Action	Hazardous Tree Removal
Description & Location	Conduct a tree inventory. Develop and implement tree maintenance and trimming program to remove hazardous limbs and trees and potentially replace them with drought-tolerant trees.
Hazard(s) Addressed	Animal & Plant Disease, Drought, Extreme Temperatures, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$200 per tree
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	New action. Not started.

Action	Infrastructure Hardening
Description & Location	Harden community lifelines to withstand high winds, hail, heavy snow, etc. by hardening roofs, hail resistant barriers to HVAC systems, shatter-proofing windows, building tie-downs and anchors, flood walls, and other architectural designs that reduce damage.
Hazard(s) Addressed	Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	Varies by structure
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	New action. Not started.

Severe Winter Storms

Primary concerns related to severe winter storms are road closures, loss of power, and heating issues. Severe winter storms are an annual occurrence across the planning area and the community. The local planning team did not recall any specific events which caused damages in the village. Snow removal is handled by the village and the current resources are adequate for most snow events that occur. The village would need to collaborate with the county road department to assist with emergency snow removal.

Mitigation and Strategic Actions

Action	Improve and Revise Snow/Ice Removal
Description & Location	As needed, continue to revise and improve the snow and ice removal program for streets. Revisions should address situations such as plowing, ice removal, parking during snow and ice removal, removal of associated storm debris, and rescuing those stranded during winter weather events.
Hazard(s) Addressed	Extreme Temperatures, Severe Winter Storms
Estimated Cost	Varies by project
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board, Colfax County Highway Department
Status	New action. Not started.

Tornadoes and High Winds

On March 30, 2006, emergency management reported a brief tornado touchdown southeast of Richland. The tornado took the shingles off a roof and caused some tree damage. Another tornado was reported on August 20, 2007, to the east of Richland that caused sporadic tree and crop damage south of the village. If a large tornado were to hit the village, it would likely cause massive amounts of damage. There are no public storm shelters in the community so residents must use basements or interior spaces for shelter. Richland has updated the tornado siren in the village, and it reaches all areas of the community. The village has local storm spotters to monitor incoming storms. Mutual aid agreements are in place with surrounding communities and the county. Applying for grants to help fund a community storm shelter and continuous updates to the siren is needed to reduce future risks.

Mitigation and Strategic Actions

Action	Safe Rooms/Storm Shelters
Description & Location	Design and construct storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, school, and other areas.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes and High Winds
Estimated Cost	$350+ per sq. ft.
Local Funding	General Funds
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Need to identify funding options for a storm shelter in the community.

Other Mitigation and Strategic Actions

Action	Public Education
Description & Location	Educate staff, residents, and visitors on their risks to all hazards that could impact the community, especially regarding drought and terrorism and cyber-attack. Also educate the public on how to get information and emergency notifications, what mitigation actions can be taken, and preparedness actions to keep themselves safe. Coordinate outreach and education projects and materials with Colfax County and other project partners.
Hazard(s) Addressed	Drought, Terrorism and Cyber-Attack
Estimated Cost	$500+
Local Funding	General Fund
Timeline	5+ Years/Ongoing
Priority	Low
Lead Agency	Village Board
Status	Ongoing efforts with Colfax County. Plan on dispersing additional information on water conservation and management during drought and dry seasons.

Completed Mitigation and Strategic Actions

Action	Alert/Warning Sirens
Description & Location	Perform an evaluation of existing alert sirens in order to determine sirens which should be replaced or upgraded. Install new sirens where lacking with remote activation options.
Hazard(s) Addressed	Tornadoes and High Winds, Severe Thunderstorms
Status	Completed.

Action	Backup and Emergency Generators
Description & Location	Identify and evaluate current backup and emergency generators. Obtain additional generators based on identification and evaluation. Provide portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations and other community lifelines and shelters.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Status	Completed.

Community Profile

Village of Rogers

Lower Platte North NRD
Hazard Mitigation Plan 2025

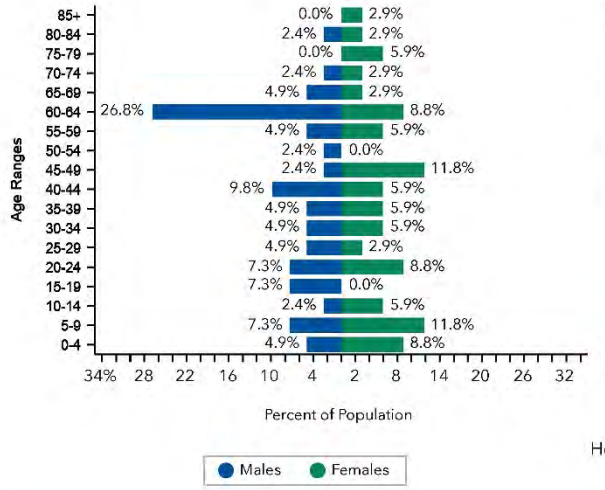
Community Fact Sheet

Community Summary Fact Sheet

Rogers, NE
Lower Platte North NRD Hazard Mitigation Plan 2025

75	42.1	33	2.27	$220,000	$79,186
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID



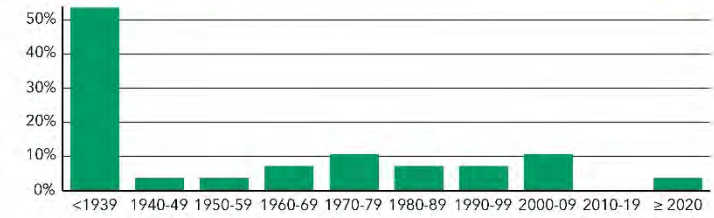
TOTAL POPULATION

2023 Total Population (Estimate)	75
2020 Total Population (U.S. Census)	82
2010 Total Population (U.S. Census)	95
2000 Total Population (U.S. Census)	110

AT RISK POPULATIONS

4	10	1	11%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

HOUSING: YEAR BUILT



EMPLOYMENT

5	0.0%
Total Businesses	Unemployment Rate

POPULATION BY RACE



- Asian Population
- American Indian Population
- Population of 2+ Races
- Black Population
- Other Race Population
- White Population

4% of the Total Population is Hispanic

HOUSING

3	7%
Vacant Housing Units	Mobile Homes

esri THE SCIENCE OF WHERE

Source: Esri, U.S. Census, Esri-Data Axle, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021.

Local Planning Team

Rogers Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Darlene Divis	Village Clerk	Village of Rogers	Attended, Materials Development	Attended, Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The Chairperson, Clerk, and Board of Trustees will be responsible for reviewing and updating the community profile outside of the five-year update. Rogers will review the plan annually and the public will be notified during board meetings.

Capability Assessment

The planning team assessed the Village of Rogers's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Rogers Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	No
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operations Plan	Yes
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	No
	Subdivision Regulation/Ordinance	No
	Floodplain Ordinance	Yes
	Building Codes	Yes
	Water System Emergency Response Plan	Yes
	Wellhead Protection Plan	Yes
	National Flood Insurance Program	Yes
	Community Rating System	No
	Community Wildfire Protection Plan	Yes (Regional)
	Other (if any)	-
Administrative & Technical	Planning Commission	Yes
	Floodplain Administrator	Yes
	GIS Capabilities	No

Capability/Planning Mechanism		Yes/No
Capability	Chief Building Official	No
	Civil Engineering	No
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	-
Fiscal Capability	1- & 6-Year Plan	Yes
	Applied for Grants in the Past	Yes
	Awarded a Grant in the Past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric/Water/Sewer Service Fees	Yes (Water)
	Storm Water Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	No
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	No
	Ongoing Public Education or Information Program (e.g., Responsible Water Use, Fire Safety, Household Preparedness, Environmental Education)	Yes
	Natural Disaster or Safety Related School Programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	-

Rogers Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Limited
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

National Flood Insurance Program (NFIP)

Rogers is a member of the NFIP, having joined on 9/17/1992, and the village's Clerk/Floodplain Administrator oversees the commitments and requirements of the program. The floodplain administrator contacts the State office with questions on floodplain permit issues and uses the FEMA Flood Map Service Center. Rogers follows the Floodplain Building Permit Ordinance set

up by the federal government for the village after the 1990 flood. The village's floodplain regulations do not exceed the State of Nebraska requirements. The village board issues floodplain development permits and inspects any building to ensure development is in compliance with the floodplain regulations. Rogers has contacted the State for assistance in identifying substantially damaged structures after flood events. No substantially improved structures have been identified; most improvements involve additions such as a porch, entryway, or small room. Letters of Map Change can be located on the FEMA Map Service Center website.

The local planning team has stated that Rogers will remain in good standing and be involved with the NFIP. Currently, the village has no barriers when running the program. The village provides informative flyers to educate property owners and other stakeholders about the importance of flood insurance. Additional NFIP information is given in the table below.

Rogers NFIP Information

NFIP Overview	
Date of NFIP Participation:	9/17/1992
Floodplain Administrator:	Darlene Divis
Is Floodplain Administrator a Certified Floodplain Manager?	No
Is Floodplain Management an Auxiliary Function?	Yes
Number of NFIP Policies In-Force:	6
Total NFIP Premium ($):	$2,002
Total NFIP Coverage ($):	$269,000
Number of Claims Paid Out:	1
Total Amount of Claims Paid Out ($:)	$0
Number of Repetitive Loss Structures:	0
Number of Severe Repetitive Loss Structures:	0
Is the Community Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	No
FIRMs Digital or Paper?	Digital
Located in a RISK Map Area?	No

Buildings and Valuation in the Floodplain

The planning team acquired GIS parcel data from the County Assessor and Microsoft building footprint data to analyze the location, number, and value of buildings located in the 100-year and 500-year floodplains. A summary of the results of this analysis is provided in the following tables.

Rogers Buildings and Value in the 100-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
76	$1,551,920	76	$1,551,920	100%

Source: County Assessor, 2024; Microsoft, 2024

Rogers Buildings and Value in the 500-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
76	$1,551,920	0	$0	0%

Source: County Assessor, 2024; Microsoft, 2024

Plans and Studies

The Village of Rogers has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the village updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Building Code (1993)

The building code sets standards for constructed buildings and structures. Rogers' building codes were updated in 1993 according to its floodplain ordinance. The Floodplain Building Codes are enforced through the village board and utilize the floodplain requirements established by the federal government in 1993. The hazard mitigation plan has not been integrated with the floodplain building codes.

Colfax County Local Emergency Operations Plan (2020)

The Colfax County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. The hazard mitigation plan has been integrated with this plan. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines.

Floodplain Ordinance (1993)

The village's floodplain ordinance outlines requirements for structures and developments located in the 100-year floodplain. By having a floodplain ordinance, the village promotes public health, safety, and welfare by minimizing losses due to floods. It also helps to assure eligibility of purchasing flood insurance for property owners. There is no plan or timeline to update the village's floodplain ordinance. Based on the age of the ordinance, the hazard mitigation plan has not been integrated with the floodplain ordinance.

Middle Northeast Community Wildfire Protection Plan (2021)

The purpose of the Middle Northeast Community Wildfire Protection Plan CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years

Water System Emergency Response Plan (2020)

A water system emergency response plan serves as a guideline for water operators and village board to minimize the disruption of normal services to consumers and to provide public health protection during an emergency event. The document identifies several natural and human-caused events and discusses the water system's response during those events. The hazard

mitigation plan has not been integrated with the water system emergency response plan, and there are no plans to update the plan after the 2020 update.

Wellhead Protection Plan

The purpose of wellhead protection plans is to protect the public drinking water supply wells from contamination. It includes identifying potential sources of groundwater contamination in the area and managing the potential contaminant sources. The hazard mitigation plan has not been integrated with the wellhead protection plan. There are plans to update the wellhead protection plan in 2025 due to building and cattle in the area of the well.

Future Development Trends

Over the past five years, a new house was constructed at the corner of Second and Paine Street, one house was demolished on Center Street, and a trailer was demolished on Hamilton Street. An old schoolhouse building on Third Street was also demolished. The demolished structures likely helped to reduce vulnerabilities to all hazards. A four-lane highway was developed north of the village limits, increasing accessibility into and out of the community and likely reducing potential vulnerability in the case of a hazardous event. Other than the new house constructed, there have not been any new structures developed in the floodplain or hazardous areas. In the next five years, a new house and shop will be developed in the central area of the community.

The entire community is within the 1% annual flood risk zone and may be vulnerable to flooding. For hazards like drought, extreme temperatures, flooding, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted regardless of where they are located. According to the local planning team any future development is not likely to occur in any other known hazard locations.

Community Lifelines

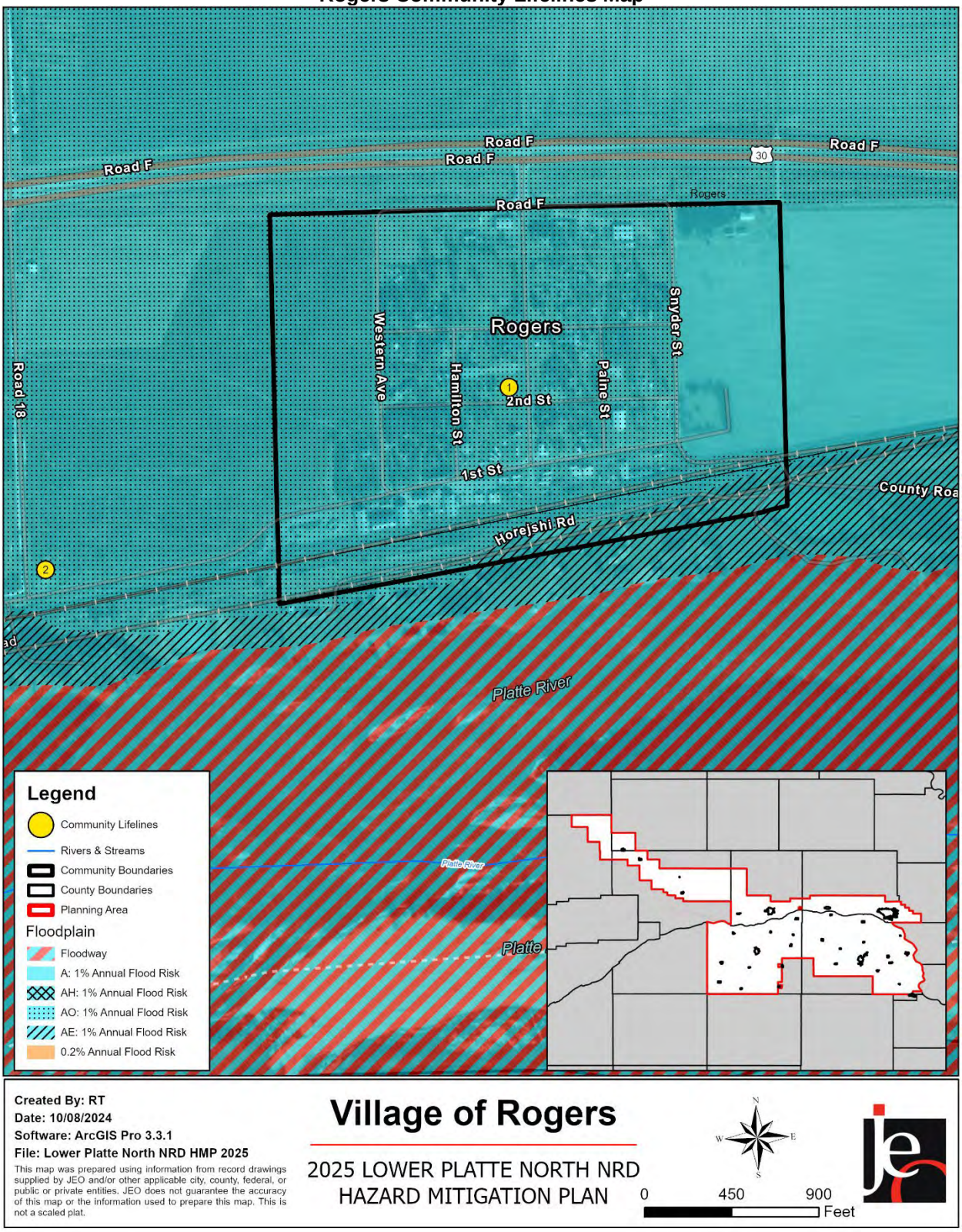
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Rogers Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Water Tower & Emergency Well	Food, Water, Shelter	-	Y (1%)
2	Well (New - Right-angle driver for emergency power)	Food, Water, Shelter	-	Y (1%)

Rogers Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Rogers which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Village of Rogers. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however Rogers has identified mitigation actions to reduce the impacts of the hazards. Dam Failure and Levee Failure have been omitted from this profile as there are no high hazard dams upstream or any levee protected areas near the community according to NeDNR and USACE data. Therefore, no mitigation actions have been identified for those two hazards. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Flooding

Most homes in Rogers were affected in the March 2019 floods. Almost all houses had some damage, and many basements were filled with water, with the water rising as high as a few inches on the first floor of homes at lower elevations. Two homes were destroyed, and the community hall was severely damaged. The old pump house was inundated with about eight inches of water and took several months to clean up. The old District 56 school and community hall also had water damage beyond repair. Evacuations were done before and during the flood. This flooding was due to flooding of the Shell Creek, in turn caused by flooding of the Platte River. The Shell Creek runs from the City of Schuyler to about three miles west of Rogers where it turns to pass under the Union Pacific Railroad line to reach the Platte River. One house moved out of town and two dwelling units were torn down. Streets within Rogers had holes and cracks, which were repaired. Rogers also experienced significant flood damage in 1990. The County Emergency Manager at the time notified the village a few days in advance, and some community members were able to evacuate and prepare their property. The municipal well was inundated with water so a new well had to be constructed. Rogers had no warning when the flooding occurred in 2019. The entire community is prone to flooding but the northern portion of the town sits at the lowest elevation. In the 2019 floods, the north and middle portion of the village received two or more feet of water while the southern portion received one foot. The stormwater ditches are kept clean of debris, but the community is only served by one low capacity culvert. The entire community of Rogers is located within the 1% annual chance flood risk area.

In the last five years, debris and trees have been cleaned out from Shell Creek. The creek was also widened and straightened to increase flow capacity. A small bridge over the creek was torn down. Union Pacific Railroad installed a new, larger bridge that is less likely to be impacted from flood events. Rogers joined with Colfax County and area farmers to repair and raise the levee west of the village. Continuous maintenance of Shell Creek and cleaning it of debris, along with improving correspondence with emergency management are ongoing actions the village is pursuing to reduce the impacts of flooding in the future.

Mitigation and Strategic Actions

Action	Stormwater System Improvements
Description & Location	Stormwater system improvements may include installing culvert and maintaining current stormwater system. Some inlets go under the railroad tracks and more cannot be added. The planning team has identified an area in the north part of town along 5th Street where a full culvert can be installed for better maintenance and cleaning.
Hazard(s) Addressed	Flooding, Severe Thunderstorms
Estimated Cost	$170,000+
Local Funding	General Budget
Timeline	5+ Years
Priority	High
Lead Agency	Village Board, Streets Superintendent
Status	Expenses are too much for the village to upgrade its stormwater system. The railroad company has cleaned out the outlet under the UPRR. Drainage ditch and partial culverts in the north part of town are hard for property owners to maintain.

Hazardous Materials Release

No hazardous materials have been released in the Village of Rogers to date. A Union Pacific Railroad line runs along the south side of Rogers, making the entire south side vulnerable to chemical spills during transportation. The village has attempted to reach out to Union Pacific to mitigate risks but has not received a response. There is a new highway along the north side of the village that could also be vulnerable to chemical spills during transportation. The village well is located near the rail line and less than a mile south of the highway.

Mitigation and Strategic Actions

Action	Educational Program for Transportation Chemical Spills
Description & Location	Develop education program to inform residents of risks related to chemical spills including direct outreach to residents living in the immediate vicinity of transportation routes such as highways and railways.
Hazard(s) Addressed	Hazardous Materials Release
Estimated Cost	$3,000+
Local Funding	General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board, Clerk
Status	Village Clerk has taken courses on who to contact for hazardous spills; contact information is available in the Colfax County LEOP.

Severe Winter Storms

A severe winter storm in February 2016 produced blizzard conditions with heavy snow and high winds, causing power outages in areas of eastern Rogers. This was a three-day event with no passable routes for the electrical company to make repairs to the power system, so home generators were the only source of power for this part of the village. Winter storms are a concern because they can cause power outages, interrupt the heat in residents' homes, and block travel in and out of the village. No power lines in the community are buried, making the entire system vulnerable to severe storms. Snow removal is done by a contracted company – the village has no snow removal equipment and does not use snow fences or snow routes to aid snow removal. Snow removal services by the contracted company have been sufficient to this point.

Mitigation and Strategic Actions

Action	Backup and Emergency Generators
Description & Location	Identify and evaluate current backup and emergency generators. Obtain additional generators based on identification and evaluation. A portable generator can be stored at the community center. A backup generator is needed for Well 94-1.
Hazard(s) Addressed	Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	Varies by size
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	New action. Not started.

Tornadoes and High Winds

An F0 tornado briefly touched down in Rogers on June 20, 1996 but no damages were reported. A future tornado or high wind event could be catastrophic, particularly because there are no storm shelters in the village, and the emergency response time and communication with Colfax County Emergency Management needs improvement. Municipal records are not backed up in case of a disaster. Mutual Aid Agreements are in place with Colfax County and the City of North Bend. The village's siren can be activated either by the village or by county dispatch. The village is currently trying to coordinate siren testing with the county since previous attempts to activate Rogers' siren have not been consistently effective. County Emergency Management offers emergency text alerts and residents can receive alerts on their phones. The Village Board and Clerk offer tornado preparedness and response information door-to-door. Additionally, the village clerk and board have contact information of all residents in the community and can reach out to them in case of a hazardous event or disaster.

Mitigation and Strategic Actions

Action	Safe Rooms and Storm Shelter
Description & Location	Construct a new community center that will have a tornado shelter for vulnerable residents without a basement.
Hazard(s) Addressed	Extreme Temperatures, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$200,000
Local Funding	General Budget
Timeline	2-5 Years
Priority	High
Lead Agency	Village Board
Status	New action. Most homes do not have a basement, and a storm shelter is needed for vulnerable residents.

Other Mitigation and Strategic Actions

Action	Drought Monitoring
Description & Location	Increase drought monitoring at a local and regional level.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	Staff Time, General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	Utility Superintendent, Village Board
Status	Not started.

Action	Drought Ordinance
Description & Location	Create and pass a more robust drought ordinance. The NRD can work with local community leaders and water system operators to promote developing and updating local drought ordinances.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	Staff Time, General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not started.

Action	Gather Historical Water Levels and Trends
Description & Location	Store historical consumption and water level information electronically.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	Staff Time, General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Utility Superintendent, Village Board
Status	Not started.

Action	Groundwater Monitoring Wells
Description & Location	Work with the LPN NRD on possibly adding groundwater monitoring wells near the community.
Hazard(s) Addressed	Drought
Estimated Cost	Unknown
Local Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Utility Superintendent, Village Board
Status	New action. Not started.

Action	Identify Potential New Water Source
Description & Location	Identify alternative solutions or locate new water sources for emergencies.
Hazard(s) Addressed	Drought
Estimated Cost	Varies by project
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Not started.

Action	MOU for Emergency Water Supplies
Description & Location	Collaborate and develop agreements or memorandums of understanding with regional jurisdictions and organizations in the case of an emergency.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	Staff Time, General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	New Action. Not started.

Action	Public Education
Description & Location	Educate staff, residents, and visitors on their risks to animal and plant disease, drought, flooding, and hazardous materials release. Also educate the public on how to get information and emergency notifications, what mitigation actions can be taken, and preparedness actions to keep themselves safe. Coordinate outreach and education projects and materials with Colfax County, Nebraska Department of Agriculture, Department of Environment and Energy, and other project partners. Rogers will amplify and expand on education and outreach strategies created by Colfax County.
Hazard(s) Addressed	Animal & Plant Disease, Drought, Flooding, Hazardous Materials Release
Estimated Cost	$500+
Local Funding	Staff Time
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board, Clerk
Status	New action. Ongoing educational information can be delivered during open meetings, mailed with water bills, or communicated door-to-door, especially concerning animal and plant disease and drought conditions. Pamphlets regarding hazardous spills and flooding are needed in the community.

Action	Well Transducers
Description & Location	Install transducers on wells to monitor water levels. Real-time groundwater level monitoring allows for early identification of declining water tables, helping to detect drought conditions earlier and track water levels over time. The NRD is currently working with interested community water systems to install the transducers in community wells at minimal cost to the community.
Hazard(s) Addressed	Drought
Estimated Cost	Unknown
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Utility Superintendent, Village Board
Status	Not started.

Community Profile

City of Schuyler

Lower Platte North NRD
Hazard Mitigation Plan 2025

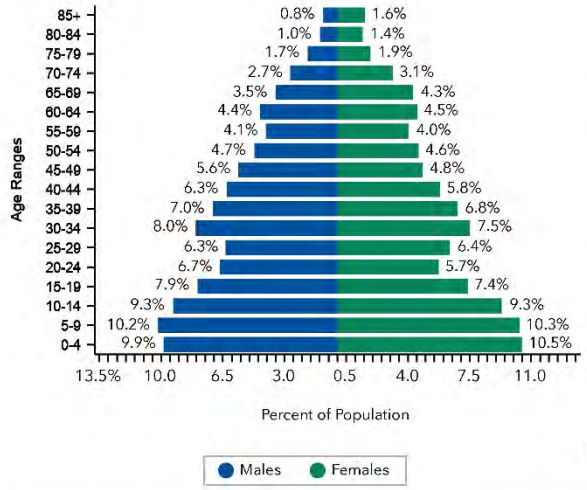
Community Fact Sheet

Community Summary Fact Sheet

Schuyler, NE
Lower Platte North NRD Hazard Mitigation Plan 2025

6,532	30.0	1,942	3.36	$118,347	$69,095
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID



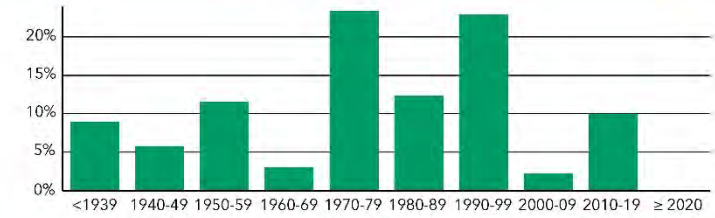
TOTAL POPULATION

2023 Total Population (Estimate)	6,532
2020 Total Population (U.S. Census)	6,547
2010 Total Population (U.S. Census)	6,243
2000 Total Population (U.S. Census)	5,620

AT RISK POPULATIONS

432	712	0	9%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

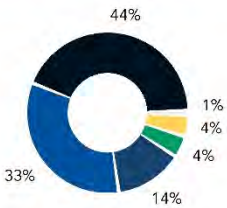
HOUSING: YEAR BUILT



EMPLOYMENT

179	1.4%
Total Businesses	Unemployment Rate

POPULATION BY RACE



- Asian Population
- American Indian Population
- Black Population
- Population of 2+ Races
- White Population
- Other Race Population

72% **of the Total Population is Hispanic**

HOUSING

158	20%
Vacant Housing Units	Mobile Homes

esri THE SCIENCE OF WHERE

Source: Esri, U.S. Census, Esri-Data Axle, ACS. Esri forecasts for 2023, 2020, 2010, 2000, 2017-2021.

Local Planning Team

Schuyler Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Donald Glodowski	CFM Inspector	City of Schuyler	Materials Development	Materials Development
Lora Johnson	City Administrator	City of Schuyler	Attended, Materials Development	Attended, Materials Development
Matthew Sobota	Utilities Superintendent	City of Schuyler	Attended	Attended

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The City Administrator, Building Inspector/CFM Inspector, and Clerk will be responsible for reviewing and updating the community profile outside of the five-year update. Schuyler will review the plan bi-annually and the public will be notified on social media, the city website, and during council meetings.

Capability Assessment

The planning team assessed the City of Schuyler's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Schuyler Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	Yes
	Capital Improvements Plan	Yes
	Economic Development Plan	Yes
	Emergency Operations Plan	Yes
	Floodplain Management Plan	Yes
	Storm Water Management Plan	No
	Zoning Ordinance	Yes
	Subdivision Regulation/Ordinance	Yes
	Floodplain Ordinance	Yes
	Building Codes	Yes
	Water System Emergency Response Plan	Yes
	Wellhead Protection Plan	No
	National Flood Insurance Program	Yes
	Community Rating System	No
	Community Wildfire Protection Plan	Yes (Regional)

Capability/Planning Mechanism		Yes/No
	Other (if any)	Yes – Housing Study
Administrative & Technical Capability	Planning Commission	Yes
	Floodplain Administrator	Yes
	GIS Capabilities	No
	Chief Building Official	Yes
	Civil Engineering	Yes
	Grant Manager	Yes
	Mutual Aid Agreement	Yes
	Other (if any)	-
Fiscal Capability	1- & 6-Year Plan	Yes
	Applied for Grants in the Past	Yes
	Awarded a Grant in the Past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	Yes
	Gas/Electric/Water/Sewer Service Fees	Yes
	Storm Water Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	Yes
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	No
	Ongoing Public Education or Information Program (e.g., Responsible Water Use, Fire Safety, Household Preparedness, Environmental Education)	No
	Natural Disaster or Safety Related School Programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	Yes
	Other (if any)	-

Schuyler Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Limited
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

National Flood Insurance Program (NFIP)

Schuyler is a member of the NFIP, having joined on 3/5/1990, and the city's Floodplain Administrator oversees the commitments and requirements of the program. The floodplain administrator uses the information on the FEMA online Map Service Center, the NEDNR website, and FEMA and NFIP manuals and technical bulletins. Regarding the floodplain permitting process, developers receive a development permit with their building permit. The location of the project is always checked along with its elevations. All projects and developments are notified of FEMA floodplain regulations before starting, and all activities are monitored to ensure compliance with the local floodplain regulations. Immediately after a flood event, the community monitors areas in its jurisdiction for substantially damaged structures. Substantially improved structures are monitored at the time of permit applications. The city's floodplain regulations do not exceed the State of Nebraska requirements. All Letters of Map Amendments or Change paperwork are kept on file, along with any NFIP or FEMA documents.

The local planning team has stated that Schuyler will remain in good standing and continue involvement with the NFIP. Language barriers with residents can make explanations of the program difficult. Another barrier to running the program effectively is that people can be resistant to authority and intervention. Lower valued homes and properties without mortgages are areas in the community that have limited NFIP Police Coverage. The city provides educational materials when contacted about NFIP requirements and at the permit application period. The city discourages the cancellation of policies. Additional NFIP information is given in the table below.

Schuyler NFIP Information

NFIP Overview	
Date of NFIP Participation:	3/5/1990
Floodplain Administrator:	Donald Glodowski
Is Floodplain Administrator a Certified Floodplain Manager?	Yes
Is Floodplain Management an Auxiliary Function?	Yes
Number of NFIP Policies In-Force:	269
Total NFIP Premium ($):	$185,142
Total NFIP Coverage ($):	$34,911,000
Number of Claims Paid Out:	116
Total Amount of Claims Paid Out ($:)	$839,090
Number of Repetitive Loss Structures:	18
Number of Severe Repetitive Loss Structures:	0
Is the Community Currently Suspended from the NFIP?	No
Any Outstanding Compliance Issues?	No
FIRMs Digital or Paper?	Digital
Located in a RISK Map Area?	No

Parcel Improvements and Valuation

The planning team acquired GIS parcel data from the County Assessor to analyze the location, number, and value of property improvements (e.g. buildings, garages, sheds etc.) located in the 100-year and 500-year floodplains at the parcel level. The data did not contain the number of structures on each parcel. A summary of the results of this analysis is provided in the following tables.

Schuyler Parcel Improvements and Value in the 100-Year Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
2,178	$245,445,510	926	$70,314,295	42.5%

Source: County Assessor, 2024; Microsoft 2024

Schuyler Parcel Improvements and Value in the 500-Year Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
2,178	$245,445,510	441	$36,333	20.2%

Source: County Assessor, 2024; Microsoft 2024

Plans and Studies

The City of Schuyler has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the city updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Building Code (2012)

The building code sets standards for constructed buildings and structures. The city's codes are based on the 2012 International Building Codes and International Residential Codes with no amendments made from the original version. Enforcement of codes is done by Schuyler's building inspector. Due to the age of the code, the hazard mitigation plan has not been integrated with the building code.

Colfax County Local Emergency Operations Plan (2020)

The Colfax County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines. The hazard mitigation plan has not been integrated with the LEOP.

Comprehensive Plan (2018)

The comprehensive plan is designed to guide the future actions and growth of the city. The hazard mitigation plan has not been integrated into the plan and does not discuss natural hazards. The plan does include goals and objectives aimed at Safe Growth, encourages infill development and elevation of structures within the floodplain, and identifies areas that need emergency shelters. Schuyler's comprehensive plan directs development away from the floodplain, housing away from chemical storage facilities, and vulnerable populations and housing away from major transportation routes. There currently is no timeline to update the comprehensive plan.

Floodplain Ordinance (2016)
The city's floodplain ordinance outlines requirements for structures and developments located in the 100-year floodplain. By having a floodplain ordinance, the city promotes public health, safety, and welfare by minimizing losses due to floods. It also helps to assure eligibility of purchasing flood insurance for property owners. The floodplain ordinance has not been integrated with the city's floodplain ordinance.

Middle Northeast Community Wildfire Protection Plan (2021)
The purpose of the Middle Northeast Community Wildfire Protection Plan CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years.

Subdivision Regulations (2018)
The city's subdivision regulations govern the division of land from one or more larger parcels into smaller lots. The regulations restrict the subdivision of land within or adjacent to the floodplain. There are no plans to update the subdivision regulations, and the hazard mitigation plan has not been incorporated into the regulations.

Water System Emergency Response Plan (2005)
A water system emergency response plan serves as a guideline for water operators and the city to minimize the disruption of normal services to consumers and to provide public health protection during an emergency event. The document identifies several natural and human-caused events and discusses the water system's response during those events. The hazard mitigation plan has not been integrated with this plan.

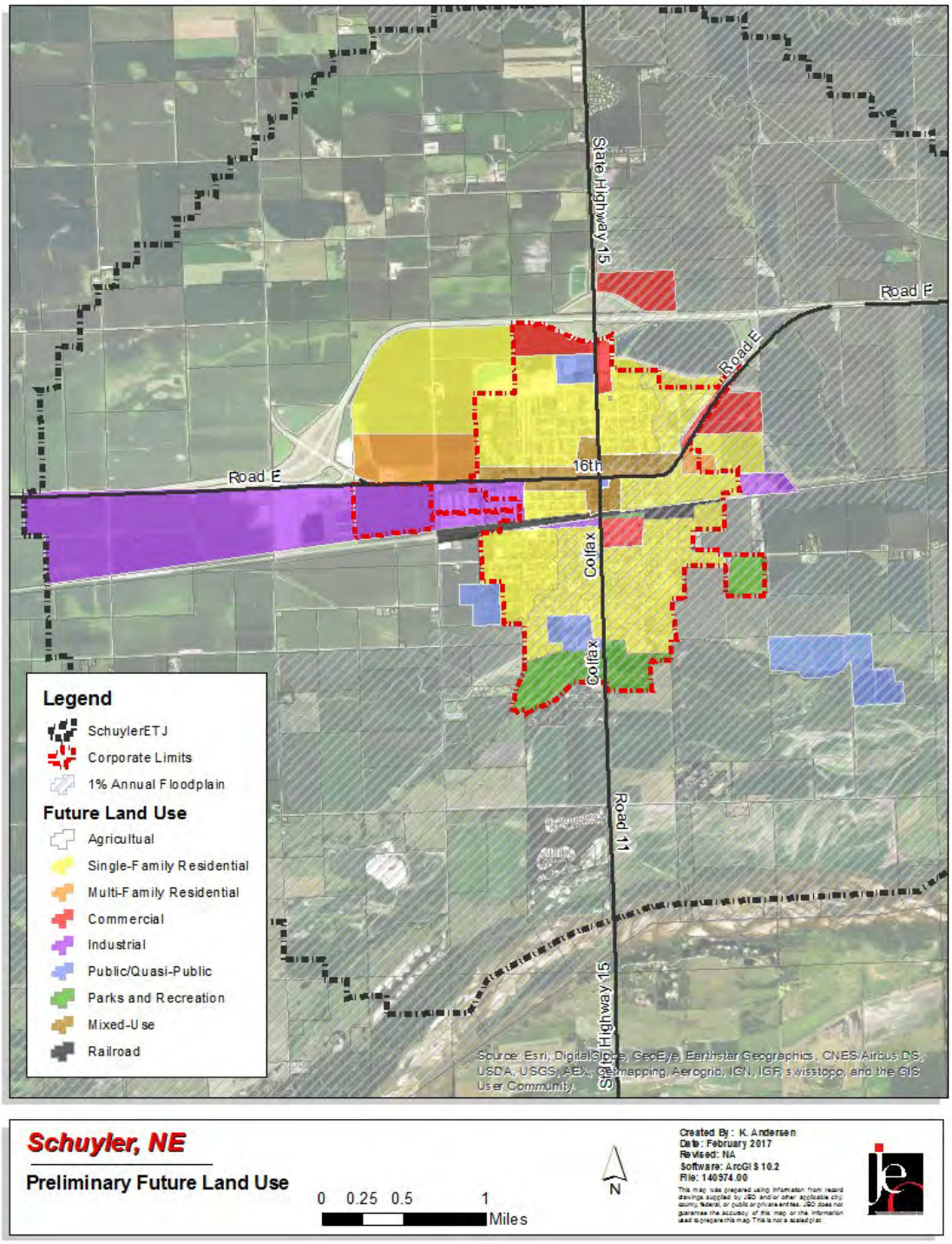
Zoning Ordinance (2018)
The city's zoning ordinance outline where and how development should occur in the future. The ordinance restricts development in hazard prone areas, discourages development in the floodplain, discourages housing and vulnerable populations near chemical storage units. The hazard mitigation plan has not been integrated with the zoning ordinance and there are no plans or timeline to update the ordinance.

Future Development Trends
There have been new housing structures and businesses developed in the northwest part of Schuyler over the past five years, none of which are in the floodplain. A new subdivision called Sky Haven is being constructed in the northeast part of town and may be vulnerable to flooding if the properties are located in the 0.2% flood risk area. The police station has been remodeled in downtown Schuyler.

For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted regardless of where they are located. According to the local planning team any new and future development is not likely to occur in any other known hazard locations.

The Future Land Use map below indicates intended growth areas for Schuyler over time. Single and multi-family housing is planned in the northwest part of the city, along with industrial use to the west and some in the east of Schuyler. The east and south parts of Schuyler are within the 1% annual floodplain, which mainly consists of residential development, along with parks and open space, commercial, and industrial use. The railroad bisects the community horizontally and is surrounded by residential, industrial, and some mixed use.

Future Land Use Map



Community Lifelines

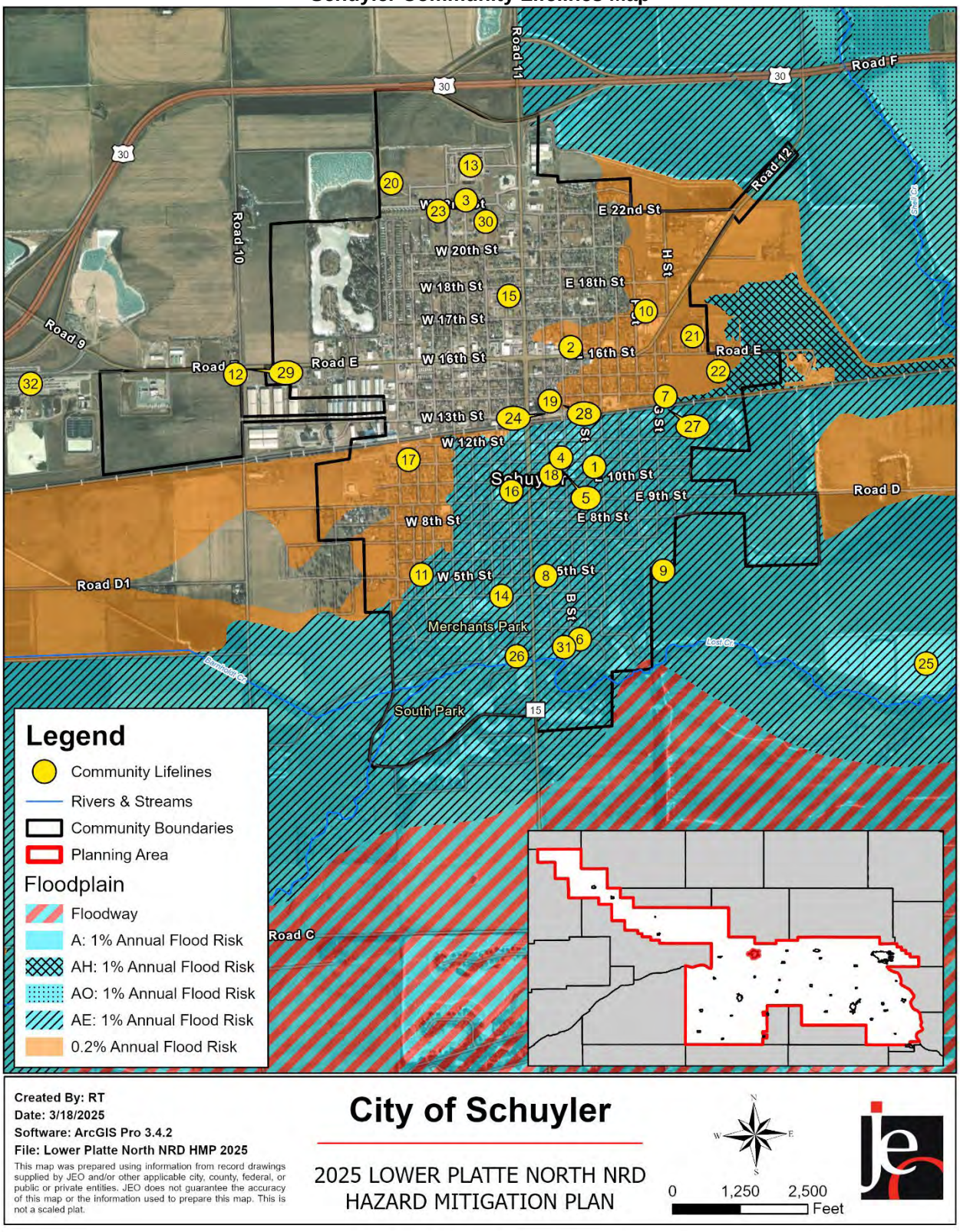
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Schuyler Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain
1	Colfax County Courthouse	Safety and Security	S	Y (1%)
2	Fire Station	Safety and Security	G	Y (Partially 0.2%)
3	Sanitary Sewer Lift Station – Elementary School	Food, Water, Shelter	G	N
4	Municipal Building	Safety and Security	-	Y (1%)
5	Police Department	Safety and Security	G	Y (1%)
6	Pump House #21	Food, Water, Shelter	G	Y (1%)
7	Pump House & Well #14	Food, Water, Shelter	G	Y (0.2%)
8	Sanitary Sewer Lift Station- Southeast	Food, Water, Shelter	G	Y (1%)
9	Sanitary Sewer Lift Station- Main	Food, Water, Shelter	G	Y (1%)
10	Sanitary Sewer Lift Station- North	Food, Water, Shelter	G	Y (0.2%)
11	Sanitary Sewer Lift Station- West	Food, Water, Shelter	G	Y (1%)
12	Sanitary Sewer Lift Station- Cargill	Food, Water, Shelter	G	N
13	Schuyler Elementary School	Safety and Security	-	N
14	Schuyler High School	Safety and Security	-	Y (1%)
15	Schuyler Memorial Hospital/Clinic	Health and Medical	G	N
16	Schuyler Middle School	Safety and Security	-	Y (1%)
17	Street Shop & Utilities Garage	Other	-	Y (0.2%)
18	Utilities Office & Truck Garage	Other	G	Y (1%)
19	Water Tower	Food, Water, Shelter	-	N
20	Water Tower	Food, Water, Shelter	-	N
21	Well #22	Food, Water, Shelter	G	Y (0.2%)
22	Well #23	Food, Water, Shelter	G	Y (0.2%)
23	Well #24	Food, Water, Shelter	G	N
24	Well Controls/Fill Station	Food, Water, Shelter	G	N
25	Lagoons	Food, Water, Shelter	-	Y (1%)
26	Oak Ballroom	Food, Water, Shelter	-	Y (0.2%)
27	Switchgear/transformer (East)	Energy	-	Y (0.2%)
28	Switchgear/transformer (Downtown)	Energy	-	Y (0.2%)
29	Switchgear/transformer at Frontier Coop	Energy	-	N
30	Switchgear/transformer (North)	Energy	-	N
31	Switchgear/transformer (South)	Energy	-	Y (1%)
32	Switchgear/transformer at Cargill	Energy	-	N

Schuyler Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Schuyler which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the City of Schuyler. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however Schuyler has identified mitigation actions to reduce the impacts of the hazards. Dam Failure has been omitted as there are no high hazard dams upstream to the community according to NeDNR data. Therefore, no mitigation actions have been identified for that hazard. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Levee Failure

While not identified as a prioritized hazard by the local planning team, the city is protected by two levees. There are two levees near the City of Schuyler: Shell Creek Levee and Lost Creek and Platte River Levee. There have not been any historical occurrences of the Shell Creek Levee from overtopping. The Shell Creek Levee protects 257 buildings, 620 people, and an estimated $50 million in property value from potential flooding according to the 2023 USACE National Structure Inventory. The Lost Creek and Platte River embankment is located further from the community; however, the levee protected area covers the southern portion of Schuyler. The local planning team has shared that concerns of this levee failing is of low concern. There has been one occurrence of the Lost Creek and Platte River Levee overtopping and multiple instances of water levels reaching concerning loading levels. Lost Creek and Platte River Levee protects 118 buildings, 135 people, and an estimated $10 million in property value from potential flooding.

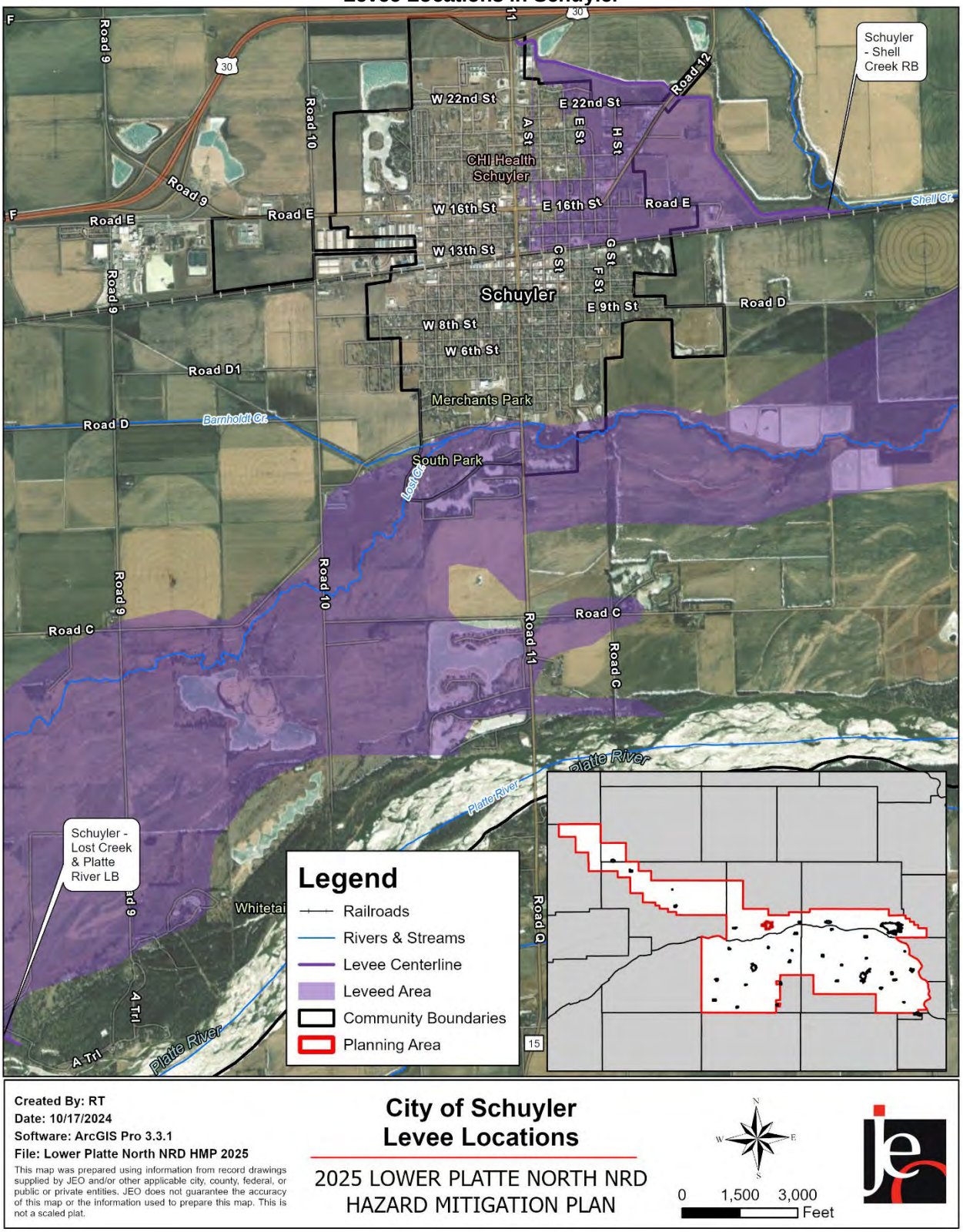
Mitigation and Strategic Actions

Action	Emergency Exercise
Description & Location	Conduct tabletop exercises to determine the response scenarios for different hazard events. Develop and conduct an exercise focused on a levee failure event.
Hazard(s) Addressed	Flooding, Levee Failure, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	$8,000+
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	City Administrator, Emergency Management
Status	Not started

Severe Thunderstorms

High winds during severe thunderstorms are a continued threat due to storm damage. There were reports of property damage in the south part of the city in 2008 and in the east part of the city in 2011. Siding, windows, and roofs of private property were damaged during these storms. Utility poles, trees, the roofs of the lift station and wells, and the siding of critical facilities have also been damaged. Approximately 30% of the power lines in the city are not buried, making those lines vulnerable to severe storms. The roof of the historic Oak Ballroom was replaced after a severe thunderstorm. Lightning has damaged the scoreboard and lights at the ballpark twice in the last five years.

Levee Locations in Schuyler



Mitigation and Strategic Actions

Action	Backup and Emergency Generators
Description & Location	Provide portable or stationary backup generators to shelters, pumps on the levee and other critical facilities.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$3,500+ depending on site requirements
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	City Administrator
Status	Not started.

Action	Public Education
Description & Location	Educate staff, residents, and visitors on their risks to all hazards that could impact the community, how to get information and emergency notifications, mitigation actions that can be taken, and preparedness actions to keep themselves safe. Coordinate outreach and education projects and materials with Colfax County and other project partners. Schuyler will hand out literature regarding hail resistant building materials.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes and High Winds
Estimated Cost	$100/year
Local Funding	General Budget
Timeline	1 Year
Priority	High
Lead Agency	City Administrator
Status	Not started.

Other Mitigation and Strategic Actions

Completed Mitigation and Strategic Actions

Action	New Municipal Well
Description & Location	Construct a new community well to expand water supply.
Hazard(s) Addressed	Drought
Status	Completed.

Action	Stormwater System Improvements
Description & Location	Stormwater systems comprising of pipes and inlets can be used to convey runoff. Undersized systems can contribute to localized flooding. Stormwater system improvements may include pipe upsizing and additional inlets. Retention and detention facilities may also be implemented to decrease runoff rates while also decreasing the need for other stormwater system improvements.
Hazard(s) Addressed	Flooding
Status	Completed. Gates were added on Lost Creek.

Mitigation and Strategic Actions

Action	Acquire High Risk Flooding Property
Description & Location	Voluntary elevation or acquisition and demolition of flood-prone properties.
Hazard(s) Addressed	Flooding
Estimated Cost	Varies
Local Funding	General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	City Administrator
Status	Not started.

Action	Capacity Building
Description & Location	Hire an additional water operator to support current personnel.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	Staff Time, General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	City Administrator, City Council
Status	Not started.

Action	Construct a Water Treatment Plant
Description & Location	If water quality does not improve, construct a water treatment plant.
Hazard(s) Addressed	Drought
Estimated Cost	Varies by need and size
Local Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Water Operator, City Administrator
Status	Not started.

Action	Drought Conservation Program
Description & Location	Create a social media program for drought conservation.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	Staff Time, General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	City Administrator
Status	Not started.

Action	Improve Snow and Ice Removal Program
Description & Location	Improve snow routes and the snow and ice removal procedures for streets. Improvements should address plowing snow, ice removal, parking during snow and ice removal, and the removal of associated storm debris.
Hazard(s) Addressed	Severe Winter Storms
Estimated Cost	$1,000
Local Funding	General Budget
Timeline	1 Year
Priority	High
Lead Agency	Mayor, Streets Foreman
Status	Not started.

Action	NIMS Training
Description & Location	Provide National Incident Management System (NIMS) training for staff and elected officials.
Hazard(s) Addressed	Animal & Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	Staff time
Local Funding	General Budget
Timeline	1 Year
Priority	High
Lead Agency	City Administrator, Department Heads, Emergency Management
Status	Not started.

Action	Update Lagoon
Description & Location	Add secondary lagoon cells in anticipation of future growth in the city.
Hazard(s) Addressed	Flooding
Estimated Cost	$1,200,000
Local Funding	General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Utilities Superintendent
Status	Not started.

Removed Mitigation and Strategic Actions

Action	Drainage Study/Stormwater Master Plan
Description & Location	Conduct a stormwater master plan to identify problem areas and mitigation projects.
Hazard(s) Addressed	Flooding
Status	Removed.

Action	Safe Rooms and Storm Shelters
Description & Location	Construct storm shelters and safe rooms in highly vulnerable areas such as churches, schools, apartments, and others.
Hazard(s) Addressed	Dam Failure, Flooding, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber Attack, Tornadoes and High Winds
Status	Removed.

Action	Windbreaks/Living Snow Fence
Description & Location	Install windbreaks and/or living snow fences to increase water storage capacity of soil and reduce blowing snow, particularly along Highway 15 and along 22nd Street from Colfax Street to Fort Street.
Hazard(s) Addressed	Severe Winter Storms
Status	Removed.

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NRD Profile

Lower Platte North Natural Resources District

Lower Platte North NRD
Hazard Mitigation Plan 2025

Local Planning Team

Lower Platte North NRD Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Eric Gottschalk	General Manager	Lower Platte North NRD	1on1, Materials Development	-
Ryan Chapman	Assistant Manager	Lower Platte North NRD	Attended, Materials Development	Attended, Materials Development
Sean Elliott	Projects/Rural Water Manager	Lower Platte North NRD	Attended, Materials Development	Attended
Lacey Sabatka	Information Coordinator	Lower Platte North NRD	Attended	-
Daryl Anderson	Water Resources Manager	Lower Platte North NRD	Attended	1on1, Materials Development
Jacob Stover	Water Resources Specialist	Lower Platte North NRD	1on1, Materials Development	-
Kaitlyn Bargen	Water Resources Specialist	Lower Platte North NRD	1on1, Materials Development	-
Bob Heimann	Operations & Maintenance Manager	Lower Platte North NRD	1on1, Materials Development	-
Brandon Beethe	GIS / Grants Coordinator	Lower Platte North NRD	1on1, Materials Development	Attended, Materials Development
Jacob Maslonka	Water Quality Program Coordinator	Lower Platte North NRD	-	Attended, Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The Assistant Manager will review and update this participant profile outside of the five-year update. The NRD will review the plan annually, and the public will be notified during public NRD board meetings.

Capability Assessment

The NRD has the authority to levy taxes for specific purposes and to issue general obligation bonds to finance certain projects. The NRD also regularly engages in public education and information programs related to hazard mitigation in the area, and routinely works with other counties, cities, and villages within their jurisdictional boundaries. Due to the unique structure of the NRD, the typical capability assessment table was not used. The following table summarizes the district's overall capabilities.

Lower Platte North NRD Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Moderate
Staff/Expertise to Implement Projects	Moderate
Public Support to Implement Projects	Moderate
Time to Devote to Hazard Mitigation	Low
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Moderate

Plans and Studies

The NRD has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the district updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Drought Risk and Resiliency Report (2025)

As part of this hazard mitigation plan, a Drought Risk and Resiliency report as developed. The report specifically analyzes drought risk on community water systems within the NRD. The NRD met with each community water system to better understand their capabilities, drought risk, monitoring, and emergency supplies. Recommendations for each water system were developed and integrated into the profiles. In addition, a community outreach kit and sample drought ordinances were created.

Emergency Action Plan – Wanahoo Dam, Cottonwood Creek 21-A Dam, Cottonwood Creek 7-A Dam

The NRD has three emergency action plans for their three high hazard dams. Inundation maps and a notification flowchart are included in the plans. They also identify evacuation routes, assign individual responsibilities, and identify scenarios that would require an evacuation. These plans are required to be updated every five years. Because these are response plans, the hazard mitigation plan has not been integrated into it.

Groundwater Management Area Rules and Regulation (2018)

The Groundwater Rules and Regulations were updated in 2018 and have not been integrated with the hazard mitigation plan. These rules and regulations oversee groundwater quality and quantity across the district. Specific rules include irrigation runoff water, water well permits, groundwater quality management areas, groundwater quantity management areas, non-hydrologically connected areas, groundwater transfer, and municipal wellfields. Drought is not specifically discussed, but groundwater quantity management areas would impact future drought events and response. This plan has not been integrated with the hazard mitigation plan.

Groundwater Management Plan (2025)

The NRD's Groundwater Management Plan outlines local groundwater resources, groundwater quality concerns, ground uses, and develops strategies for our it will be managed. The plan includes information on hydrology, groundwater quantity, groundwater quality, and recommendations. The groundwater management plan is still under development so recommendations cannot be integrated into the hazard mitigation plan.

Long Range Implementation Plan (2025)
The Long-Range Implementation Plan was updated in 2025 and has been integrated with the hazard mitigation plan by calling for the continued update of the hazard mitigation plan and assisting communities in implementing identified flood protection projects. The purpose of the plan is to summarize accomplishments by the district during 2024 as well as discussing activities for the next five years. The plan discusses flood control and damage reduction activities, drainage improvement and channel rectification, and education. Applicable projects from this plan have been added as mitigation actions.

Lower Platte North NRD Master Plan (2019)
The NRD's Mast Plan provides an overview of the NRD and outlines the goals and objectives the district has over the next 10 years. Included in the plan are NRD projects and programs, flood risk reduction, rural water districts, staffing, and goals and objectives. Information about the flood risk reduction projects is included in the hazard mitigation plan. Hazard mitigation principles are included in the identified goals "Protect Lives and Property by Reducing Floodwater Damages on Private and Public Lands", "Protect and Enhance Ground and Surface Water Supplies for Domestic, Agricultural and Industrial Uses with the District", and "Protecting Lives, Protecting Property and Protecting the Future by Wise and Proper Development Within the Lower Platte River Basin". The Master Plan will be updated prior to 2029.

Lower Platte North NRD Voluntary Integrated Management Plan (2018)
The Voluntary Integrated Management Plan provides the framework for joint management of groundwater and surface water, because they are hydrologically connected. It enables the district and NeDNR to coordinate management actions and the monitoring of groundwater and surface water. The goals included in the VIMP are: 1) Water Supply Inventory 2) Water Demand Inventory 3) Sustainability of the Resource 4) Public Outreach 5) Basin-wide Coordination. The hazard mitigation plan has not been integrated into this plan.

Lower Platte River Drought Contingency Plan (2019)
The Lower Platte North NRD was one of six consortium members that put together the Lower Platte River Drought Contingency Plan in 2019. The focus of the drought plan was to establish a framework for coordination and communication amongst consortium members to address drought in the Lower Platte River. Additionally, a wide range of alternatives for augmenting surface water supplies in the Lower Platter River near Ashland were investigated. The plan included a drought vulnerability assessment, drought monitoring protocols, drought mitigation measures, and drought response actions. Applicable mitigation actions from the drought contingency plan were included as actions in the hazard mitigation plan. Data from the hazard mitigation plan was used in the creation of the drought contingency plan.

Upper Wahoo Creek Watershed Plan (2022)
The purpose of this plan is to provide flood damage reduction to agricultural and rural lands within the Upper Wahoo Creek watershed and below the confluence of Cottonwood Creek and Wahoo Creek. The plan recommends nine single-purpose floodwater dams at locations identified to enhance flood risk reduction. These recommendations have been added as a mitigation action below.

Western Sarpy / Clear Creek Levee System Emergency Preparedness Plan
A levee system Emergency Preparedness Plan establishes procedures relevant to preparedness, response, and recovery activities that lead to safe, effective management of the levee system. It conveys procedures and processes that address an emergency situation at the levee and

establishes actions for first responders during unusual levee-related events. The plan includes roles and responsibilities, risk communication, emergency response activation, evacuation, and training. The hazard mitigation plan has not been integrated into this plan.

Water System Emergency Response Plan – Bruno-David City Rural Water System, Colon-Wahoo Rural Water System

A water system emergency response plan serves as a guideline for water operators and the NRD to minimize the disruption of normal services to consumers and to provide public health protection during an emergency event. The document identifies several natural and human-caused events and discusses the water system's response during those events. The NRD has two water system emergency response plans, one for the Bruno-David City Rural Water System and the other from the Colon-Wahoo Rural Water System. The hazard mitigation plan has not been integrated with these plans.

Future Development Trends

Over the past five years, the district has added a new source water protection position. The district has also helped to repair damage from the 2019 floods. Nine new flood control structures are in the process of being built in the Wahoo Creek watershed. A new NRD office building is being built (location). This office building will have a backup generator. Over the next five years, the NRD plans to implement Rawhide Creek projects that include several ditch improvements and detention basins.

The new NRD office building will be vulnerable to building damage from severe thunderstorms, severe winter storms, and tornadoes and high winds. However, that vulnerability will be minimized as it is a new structure and will have a backup generator. The ongoing and future Wahoo Creek and Rawhide Creek will help to reduce the district's vulnerability to dam failure, flooding, and levee failure.

Community Lifelines

As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.

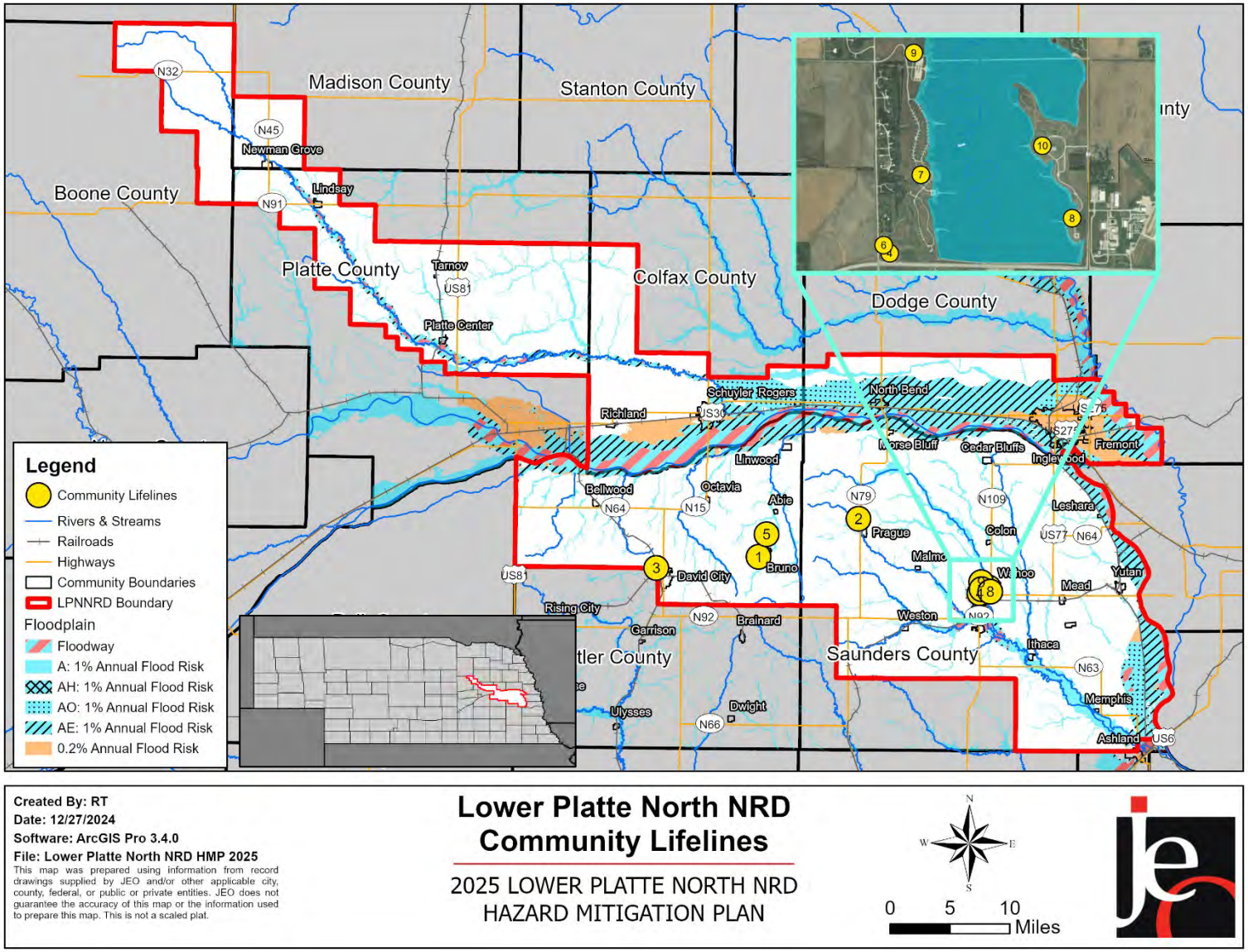


Lower Platte North Natural Resources District Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Bruno RWD Meter Pits	Food, Water, Shelter	G (Portable)	N
2	Czechland Storage Shed, Restrooms, and Picnic Shelters	Food, Water, Shelter	-	N
3	David City Master Meter Pit	Food, Water, Shelter	G (Portable)	N
4	Headquarters and Storage Shop	Safety and Security	G	N
5	Homestead Bathroom Shelters and Well	Food, Water, Shelter	-	N
6	Colon RWD Chlorination System and Meter House	Food, Water, Shelter	G (Portable)	N
7	Lake Wanahoo Lift Station	Other	-	N
8	Lake Wanahoo Park Shelters, Restrooms, and Shower House	Food, Water, Shelter	-	N
9	Lake Wanahoo Storage Shed	Other	-	N
10	Wanahoo Education Building and Fire Department Shed	Other	-*	N

* Education building has solar power capabilities

Lower Platte North Natural Resources District Community Lifelines Map



Hazard Historical Occurrences

The following table provides a statistical summary for hazards that have occurred in the NRD. The property damages from the NCEI Storm Events Database (January 1996 through November 2023) should be considered only as broad estimates. Crop damages reports come from the USDA Risk Management Agency between 2000 and 2023.

Lower Platte North NRD Hazard Loss History

Hazard Type		Count	Property Damage	Crop Damage[2]
Animal & Plant Disease	Animal Disease[1]	84	3,141 Animals	N/A
	Plant Disease[2]	55	N/A	$306,967
Dam Failure[5]		2	$0	N/A
Drought[6]		441 out of 1,548 Months	$55,000	$159,863,886
Extreme Temperatures	Extreme Heat[7]	Avg. 5 Days a Year	N/A	$20,194,663
	Extreme Cold[7]	Avg. 32 Days a Year	$0	$320,710
Flooding[8]	Flash Flood	58	$492,500	$5,736,483
	Flood	127	$58,763,000	
Grass/Wildfires[9] *2 Injuries, 2 Fatalities*		1,086	6,366 Acres Burned	$70,739
Hazardous Materials Release	Fixed Site[3] 6 Injuries 1 Fatality	84	$0	N/A
	Transportation[4] 1 Injury	35	$100,104	N/A
Levee Failure[11]		3	$12,130,000	N/A
Severe Thunderstorms[8]	Hail Range: 0.75-4.5 Inches Average: 1.2 Inches	549	$14,251,000	$25,485,345
	Thunderstorm Wind Range: 50-100 mph Average: 56 mph	366	$850,000	$37,666,301
	Heavy Rain	12	$0	
	Lightning	6	$303,000	
Severe Winter Storms[8]	Blizzard	27	$0	$1,837,180
	Heavy Snow	16	$,3000,000	
	Ice Storm	11	$0	
	Winter Storm	148	$0	
	Winter Weather	40	$0	
Terrorism & Cyber Attack[10]		1	$0	N/A
Tornadoes and High Winds[8]	High Winds Range: 35-58 mph Average: 49 mph	64	$5,000	$6,825,252
	Tornadoes Range: EFU-EF2 Average: EF0	44	$2,093,000	$18,612
Total		**2,818**	**$89,042,604**	**$258,326,138**

N/A: Data not available
1 – NDA, 2014 – 2023
2 - USDA RMA, 2000 –2023
3 – NRC, 1990 – December 2023

4 – PHSMA, 1971 – June 2024
5 – Stanford University NPDP, December 2023
6 – NOAA, 1895 – December 2023
7 – NOAA Regional Climate Center, 1893 – 2024
8 – NCEI, 1996 - December 2023
9 – NFS, 2000 - 2023
10 – University of Maryland, 1970 – 2017
11 – USACE, 2019-2021

Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for the Lower Platte North Natural Resources District which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Lower Platte North Natural Resources District. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however Lower Platte North NRD has identified mitigation actions to reduce the impacts of those hazards. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Dam Failure

There were no dam failures or impending dam failures in the region during the March 2019 flood event. Though the issue had been mitigated to the best of the NRD's ability, there were concerns that flooding at Lake Wanahoo would stress the spillway. The Lake Wanahoo dam piping has been addressed in the past and could potentially become stressed in the future despite the structural reinforcements that have been added. There are still additional repairs on the Lake Wanahoo dam that are needed from 2019.

The significant hazard level dam on Trouble Creek, just north of Fremont, has a wide breach path and is the secondary dam of concern in the NRD, followed by the Bellwood 2-C Dam near Bellwood. There are approximately 45 flood reduction dams in the NRD. Some of these are higher risk than others, either because they are aging, or they are high hazard dams. A map of all the dams can be seen below. Most dams are built to endure 25 to 100-year storm frequency. The effect of a dam failure from private dams would likely have a small impact and be limited to county roads.

The LPNNRD continues progress on the Wahoo Creek Watershed Project. The project includes the planning, design, and development of nine dam structures in the Wahoo Creek Watershed. In fall 2018, an engineering consultant was hired by the Lower Platte North NRD to provide construction, permitting, and design of sites 26a, 26b, and 27, as well as the design of the six remaining sites. These three sites are future floodwater reduction dam structures to protect a county road and bridge. The NRD is continuing to work with the NRCS to establish the proposed remaining eight sites. This project has the potential to be completed by December 2026.

The LPNNRD has entered into an agreement to develop a supplemental watershed plan for the rehabilitation of the Cottonwood 21-A Dam. Cottonwood 21-A is a high hazard dam with a drainage area of 1,427 acres and a conservation pool that covers approximately 32 acres. The rural community of Malmo is downstream of the dam.

Since 2014, the LPNNRD has conducted breach analyses for significant hazard dams across the NRD. So far, they have analyzed close to 50 dams. However, the Trouble Creek Dam needs to be reanalyzed due to the construction of Highway 30.

The NRD is concerned that development in inundation areas would cause a low or significant hazard dam to be increased to a high hazard dam. Many areas in the district, like Butler and Platte counties, do not have regulations preventing development in dam inundation areas.

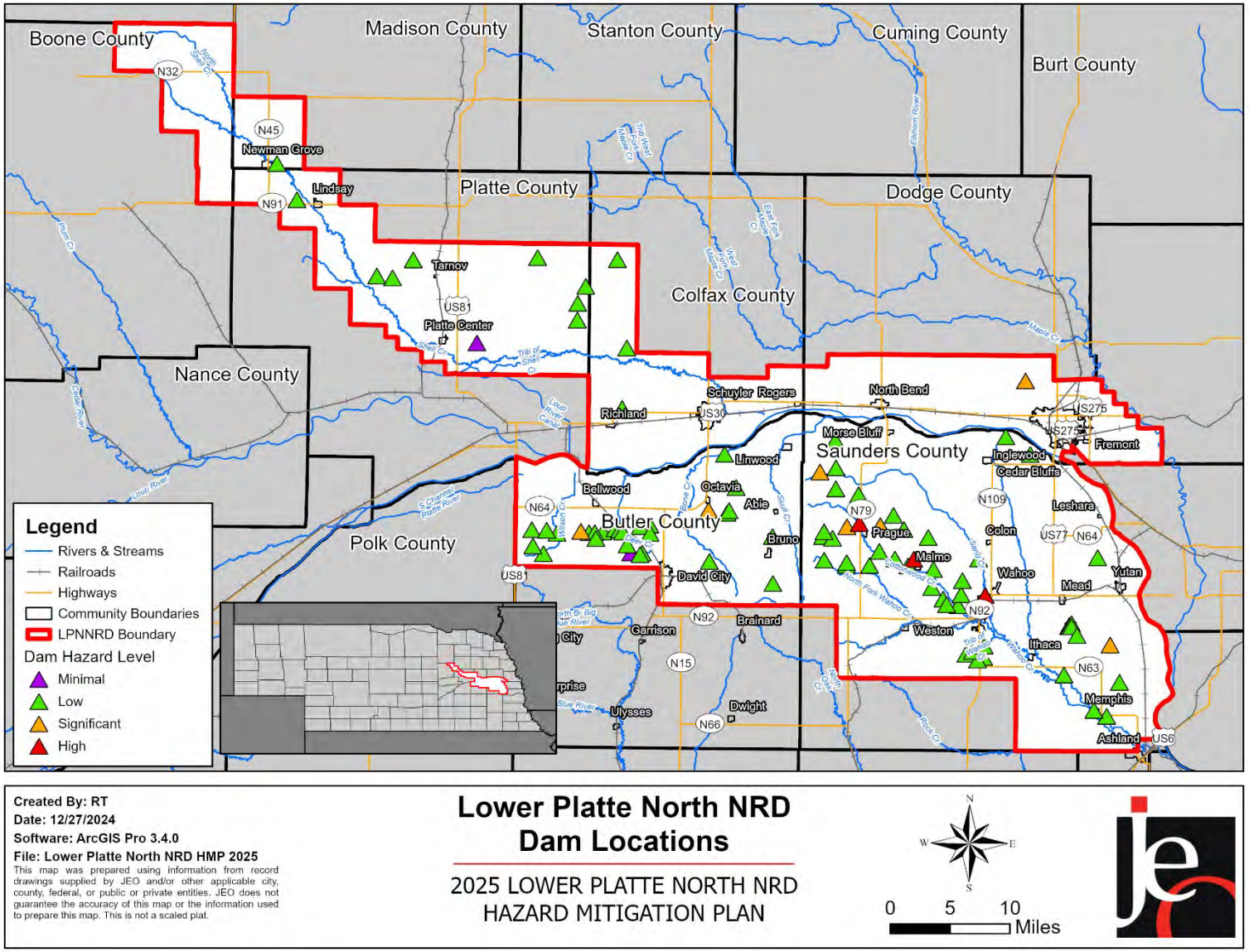
Mitigation and Strategic Actions

Action	Dam Inundation Mapping
Description & Location	Create or update dam inundation maps for high hazard dams and add them to a public server.
Hazard(s) Addressed	Dam Failure, Flooding
Estimated Cost	Staff Time
Local Funding	Staff Time
Timeline	2-5 Years
Priority	High
Lead Agency	Assistant Manager, GIS Coordinator
Status	In Progress. Working on sending completed inundation maps to DNR.

Action	Dam Inundation Area Regulations
Description & Location	Promote the adoption of regulations that prohibit development in dam inundation areas.
Hazard(s) Addressed	Dam Failure, Flooding
Estimated Cost	Staff Time
Local Funding	Staff Time
Timeline	Ongoing
Priority	High
Lead Agency	Assistant Manager
Status	Ongoing. Saunders county has adopted dam inundation regulations.

Action	Lake Wanahoo Repairs
Description & Location	Repair damaged areas at Lake Wanahoo from the May 2024 event. This includes breakwater structures, jetties, and the outlet.
Hazard(s) Addressed	Dam Failure, Flooding
Estimated Cost	$1,000,000+
Local Funding	General Fund, Disaster Funds
Timeline	1 Year
Priority	High
Lead Agency	Projects Manager
Status	In Progress

Dam Locations in the NRD



Removed Mitigation and Strategic Actions

Action	Lake Drainage Device
Description & Location	Design or purchase a new pump to allow the NRD to lower and raise lake levels more efficiently.
Hazard(s) Addressed	Dam Failure, Flooding, Severe Thunderstorms
Status	Removed. This project is no longer being pursued by the NRD.

Drought

In the last 50 years, the 2012 drought was by far the worst drought. Swedeburg, an unincorporated community south of Wahoo, had the most noted water quantity issues in the region during the 2012 drought while most incorporated communities had no water quantity issues. During the recent drought in 2021-2023, a few domestic wells in the Fremont and Ames area went dry. The bluffs by Linwood also had livestock wells go dry. In the NRD, rural domestic wells are more susceptible during droughts as irrigation wells pull more water than usual while the water table is not replenished with rain.

Current drought trigger levels are based on the decline of an aquifer's saturated thickness over a two-year period. Trigger level response measures can be lifted after a three-year increase in saturated thickness. From 2000 to 2006 several regional aquifers dropped to their drought response trigger levels because of increased irrigation, however, drought response measures were not activated after well levels were determined to be adequate.

In areas with known water quantity issues (Special Quantity Area), adopted regulations restrict the amount of water that can be pumped from new irrigation wells during a drought. The NRD also plans to further limit the area where new wells can be drilled. Current restrictions require a 600-foot space between high-capacity wells.

The NRD recently updated their Groundwater Management Plan and as a part of this hazard mitigation plan process, created a Drought Risk and Resiliency Report (*Drought Risk and Resiliency Report Annex*). The purpose of the Drought Risk and Resiliency Report was to better understand drought risks on community water systems within the NRD and establish proactive measures to reduce impacts from drought. During the planning process, the NRD met with every community water system in the district to better understand their water systems and vulnerabilities to drought. Projects identified in those plans have been included as mitigation actions. In the future, the NRD would like to create a network of weather stations for increased local data. The NRD also has funds for well transducers and monitoring wells.

Mitigation and Strategic Actions

Action	Drought Assessment Risk Model
Description & Location	The NRD could utilize existing GIS data to create a model that maps areas with elevated drought risk. The GIS model would qualitatively compare the vulnerability of the aquifer to drought conditions. These maps can be made district-wide or on a community-by-community basis.
Hazard(s) Addressed	Drought, Extreme Temperatures
Estimated Cost	Staff Time
Local Funding	Staff Time, General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Water Resources Manager, Water Quality Program Coordinator
Status	Not Started

Action	Emergency Water Supplies
Description & Location	Help community water systems identify a short-term secondary source of water.
Hazard(s) Addressed	Dam Failure, Drought, Flooding, Hazardous Materials Release, Levee Failure, Terrorism & Cyber Attack
Estimated Cost	Staff Time
Local Funding	Staff Time
Timeline	5+ Years
Priority	Medium
Lead Agency	Water Quality Program Coordinator
Status	In Progress. A needs assessment is currently underway.

Action	Gather Historical Water Levels and Trends
Description & Location	The Lower Platte North NRD can support communities in gathering historical information and storing the data electronically who do not gather this data. This data can create hydrographs to help predict future conditions and optimize operations during drought
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	Staff Time, Rural Water Funds
Timeline	5+ Years
Priority	Medium
Lead Agency	Water Resources Manager, Water Quality Program Coordinator
Status	

Action	Implement Projects from Drought Plan
Description & Location	Assist drinking water providers in implementing projects identified in the NRD's drought plan.
Hazard(s) Addressed	Drought
Estimated Cost	Varies by Project
Local Funding	General Fund
Timeline	5+ Years
Priority	High
Lead Agency	Water Quality Program Coordinator
Status	Not Started

Action	Monitoring Wells
Description & Location	Determine locations and install monitoring wells. Locations will be within communities and district wide. Emphasize wellhead protection areas and locations identified in the Groundwater Management Plan.
Hazard(s) Addressed	Drought
Estimated Cost	$200,000
Local Funding	General Fund, Water Sustainability Fund, SRF Funds
Timeline	2-5 Years
Priority	High
Lead Agency	Water Resources Manager, Water Quality Program Coordinator
Status	In Progress. Possible location identification has started.

Action	MOU for Emergency Water Supplies
Description & Location	Work with communities and county emergency managers to help create agreements or MOUs with outside water suppliers..
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	General Fund, Water Sustainability Fund, SRF Funds
Timeline	5+ Years
Priority	Medium
Lead Agency	Water Resources Manager, Water Quality Program Coordinator
Status	Not Started.

Action	Numerical Groundwater Flow Model
Description & Location	A numerical groundwater flow model can forecast drought risk district-wide by simulating how groundwater levels respond to various stressors, including pumping, recharge variability, and surface water interactions. The NRD is participating in an effort to complete a sub-regional model of the Lower Platte River. Once completed, this model could assess long-term groundwater availability and depletion. Outputs can highlight vulnerable zones, guide conservation efforts, and identify localized needs.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	Staff Time, General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Water Resources Manager, Water Quality Program Coordinator
Status	In Progress. Participating in a sub-regional model of the Lower Platte River

Action	Water System Improvements
Description & Location	Rural water districts should replace aging infrastructure and ensure that they are protected against natural disasters.
Hazard(s) Addressed	Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber Security, Tornadoes and High Winds
Estimated Cost	$5,000,000
Local Funding	Rural Water Funds
Timeline	Ongoing
Priority	Medium
Lead Agency	NRD Rural Water Department
Status	Ongoing as projects are identified.

Action	Well Interference Assessment
Description & Location	
Hazard(s) Addressed	
Estimated Cost	Staff Time
Local Funding	Staff Time
Timeline	5+ Years
Priority	Medium
Lead Agency	Water Quality Program Coordinator
Status	

Action	Well Transducers
Description & Location	Work with local public water systems to help fund and install transducers for better monitoring water levels and drought.
Hazard(s) Addressed	Drought
Estimated Cost	$35,000+
Local Funding	General Fund, ARPA Funds
Timeline	1 Year
Priority	High
Lead Agency	Water Quality Program Coordinator
Status	In Progress. Currently identifying possible water systems and wells.

Action	Windbreaks/Living Snow Fence
Description & Location	Installation of windbreaks and/or living snow fences to increase water storage capacity in soil and reduce blowing snow.
Hazard(s) Addressed	Drought, Severe Winter Storms
Estimated Cost	$50,000
Local Funding	General Fund, SWCP Funds
Timeline	Ongoing
Priority	Low
Lead Agency	NRD Operations Committee
Status	Ongoing as projects are identified.

Removed Mitigation and Strategic Actions

Action	Expand Water Storage Capacity
Description & Location	Build new or expand current water reservoirs in the Village of Colon and the City of Wahoo (water towers, etc.).
Hazard(s) Addressed	Drought
Status	Removed. This action is no longer a priority for the NRD.

Flooding

Many private levees failed in the March 2019 flood event, flooding farmland along the Platte River and its tributaries. The flood damage in the NRD from this event was greatest along the Platte River from Platte County to the City of Ashland in Saunders County. Wahoo Creek and Shell Creek are also prone to flooding. The Shell Creek Watershed is of particular concern because it has no flood reduction structures though it comprises about 1/3 of the district. The creek itself is deep after decades of imprudent channelization and erosion. The NRD is currently working to stabilize the banks of Shell Creek to prevent further erosion. There are also nine dams to be built on Wahoo Creek, primarily from south of Prague to west of Weston, addressing flooding where the Sand Creek and Wahoo Creek intersect. Most riverine flood impacts in the district are confined to farmland; however, it can impact lake communities, Schuyler, Fremont, and county road infrastructure.

Major flooding also occurred in May 2024. Numerous rounds of thunderstorms caused flash flooding in multiple areas. Many roads were under water in Fremont, Bruno, and near Skull Creek. Water levels at Lake Wanahoo reached several feet higher than levels during the March 2019 flooding event. In Leshara, 14 people needed to be rescued and many homes were damaged. In Wahoo, many buildings were flooded, and nearby fields and roads were washed out. Despite the damage that did occur, it is estimated that NRD flood structures prevented $1.3 million dollars in downstream property and infrastructure damage. A disaster declaration was issued because of this event.

The NRD has completed several projects to help reduce flooding across the district. Completed in 2013, the Sand Creek Environmental Restoration Project was a multifaceted project that provided environmental restoration, flood control, and recreation benefits for the Sand Creek Watershed area in Saunders County. Lake Wanahoo and the Lake Wanahoo Dam were the keystones of the project in addition to seven other dam projects.

In the mid-1980s, the Lower Platte North NRD began work on a project to alleviate flooding problems in the Skull Creek watershed. Skull Creek drains the northeast corner of Butler County and the extreme northwest corner of Saunders County. In 1999 Homestead Lake was constructed as part of this project. Homestead Lake provides up to a 37-surface-acre reservoir with a flood pool of 92 acres. The structure helps protect Abie, Linwood and surrounding areas from flood damage. Estimates in 2001 showed that on average, Homestead Lake will prevent $40,000 in flooding damage each year over the projected 50-year life of the project.

Since 2019, the NRD partnered with Colfax County and the Union Pacific Railroad to replace a railroad bridge that was damaged during the floods. The NRD also created beached wetlands along Shell Creek to help alleviate future flooding and increase the capacity of the creek.

Each winter and spring, NRD and its partners in the Platte River Ice Jam Agreement closely monitor conditions on the Lower Platte River so that ice jams can be dealt with in a timely manner to prevent flood damage. The group primarily focuses on the stretch of river from south of Fremont to Plattsmouth. When conditions warrant, the NRD and other partners are able to hire licensed explosive contractors to blast jams loose. In 2021, the Lower Platte North NRD partnered and established an Interlocal Agreement with Dodge County, Papio-Missouri River NRD and the City of Fremont to establish ice/flood monitoring cameras along the Platte River.

Mitigation and Strategic Actions

Action	Backup and Emergency Generators
Description & Location	Provide a portable or stationary source of backup or redundant power to community lifelines and shelters. A backup generator is needed at the new NRD office location.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber Attack, Tornadoes and High Winds
Estimated Cost	$100,000 per Generator
Local Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Assistant Manager
Status	In Progress. The new office construction is underway, and a backup generator will be included.

Action	Implement Projects Identified in the Rawhide Creek WFPO
Description & Location	Implement projects identified in the Rawhide Creek WFPO. Identified projects include, but are not limited to: additional detention storage west of the city and improvements to the Fremont Cutoff Ditch berms.
Hazard(s) Addressed	Flooding
Estimated Cost	$38,000,000
Local Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Projects Manager, City of Fremont
Status	New Action. Not Started. The Rawhide Creek WFPO is currently being finalized.

Action	Improve Flood and Dam Failure Warning System
Description & Location	Install a flood warning system throughout the district including flow gages and meters, cameras, and any other flood warning system technologies on major rivers and tributaries to warn the public of impending flooding due to ice jams or rain events. One identified location need is Trouble Creek.
Hazard(s) Addressed	Dam Failure, Flooding, Levee Failure
Estimated Cost	$250,000
Local Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Projects Manager
Status	In Progress. Some warning systems have been completed but other locations are still needed.

Action	Rawhide Creek Project
Description & Location	A joint water management project for flood reduction along Rawhide Creek.
Hazard(s) Addressed	Flooding
Estimated Cost	$1,000,000+
Local Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Projects Manager
Status	Design Phase. Currently awaiting approval of the Environmental Assessment Phase.

Action	Shell Creek Flood Reduction
Description & Location	Analyze and implement flood reduction alternatives in the Shell Creek watershed.
Hazard(s) Addressed	Flooding
Estimated Cost	$25,000,000
Local Funding	General Fund, Sinking Funds, NRCS Funds, 319 Funds
Timeline	5+ Years
Priority	High
Lead Agency	Projects Manager, NRCS
Status	Not Started

Action	Skull and Bone Project
Description & Location	Analyze and implement flood reduction alternatives in the Skull and Bone watersheds.
Hazard(s) Addressed	Flooding
Estimated Cost	$25,000,000+
Local Funding	General Funds, Sinking Funds, NRCS Funds
Timeline	5+ Years
Priority	High
Lead Agency	Projects Manager, NRCS
Status	Not Started. Waiting on design funds to begin the Environmental Assessment Phase.

Action	Stormwater Runoff BMP Project
Description & Location	Construct an example stormwater BMP project that will be used as education and runoff reduction. Project will be located at the new NRD office.
Hazard(s) Addressed	Flooding
Estimated Cost	$10,000+
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Assistant Manager
Status	Not Started

Action	Stormwater System Improvements
Description & Location	Stormwater system improvements may include pipe upsizing and additional inlets. Retention and detention facilities may also be implemented to decrease runoff rates while decreasing the need for other stormwater system improvements.
Hazard(s) Addressed	Dam Failure, Flooding, Levee Failure, Severe Thunderstorms
Estimated Cost	Varies by Project
Local Funding	General Fund
Timeline	Ongoing
Priority	High
Lead Agency	Projects Manager, Assistant Manager
Status	Ongoing. The NRD assists other entities with their stormwater improvement projects as needs are identified.

Action	Upper Wahoo Creek Watershed Flood Reduction
Description & Location	Implement actions identified in the Upper Wahoo Creek Watershed Plan.
Hazard(s) Addressed	Flooding
Estimated Cost	$25,000,000
Local Funding	General Fund, Sinking Funds, NRCS Funds
Timeline	2-5 Years
Priority	High
Lead Agency	Projects Manager, NRCS
Status	In Progress. Three dams are currently under construction. Design and land rights acquisition is ongoing for the final six dams.

Action	USACE Flooding Study
Description & Location	Work with the USACE, Papio Missouri NRD, and Lower Platte South NRD to perform a study to better asses degraded habitats, reducing flood risks, and improving flood resiliency in the Lower Platte River Watershed. This idea was started 15-20 years ago but was never funded.
Hazard(s) Addressed	Flooding
Estimated Cost	$3,000,000+
Local Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Projects Manager, Papio Missouri NRD, Lower Platte South NRD, USACE
Status	Not Started

Removed Mitigation and Strategic Actions

Action	Dodge County Platte River Communities Flood Mitigation and Resiliency Plan
Description & Location	Through activities such as outreach projects, distribution of maps and environmental education, increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards. Also educate citizens on water conservation methods, evacuation plans, etc.
Hazard(s) Addressed	Dam Failure, Flooding, Levee Failure
Status	Removed. This plan was replaced with several smaller studies.

Action	Flood Control Projects
Description & Location	Conduct flood control projects as necessary, particularly in the Wahoo Creek Watershed, the Shell Creek Watershed and as determined by the joint water management advisory board.
Hazard(s) Addressed	Dam Failure, Flooding, Levee Failure
Status	Removed. This action has been split up into individual project actions.

Levee Failure

Many levee failures occurred in the NRD in 2019 because of the March floods. There are 31 areas on Clear Creek Levee that need repairs or improvements – 25 are under USACE jurisdiction but require the NRD to provide construction materials. The fuse plug in the Clear Creek Levee, located at the Army National Guard Camp near the City of Ashland cost $130,000 to repair. The devastating flood in March 2019 wreaked havoc on both the Sarpy and Clear Creek Levees. The Clear Creek Levee breached in two locations, caused severe erosion at other locations, flooded the entire National Guard Camp, took out one Lincoln Well Field and threatened a pipeline. The March 2019 damage cost $9.19 million to repair. The other levees in the district with flood damage are under the responsibility of local dike and drainage districts, such as Ames Dike, or are privately owned and maintained. The dike on Shell Creek near the Village of Platte Center has breached on occasion, impacting Highway 81, but is privately maintained. The sandpit soil piles owned by the Fremont Rod and Gun Club and the Lake Ventura communities, consisting of gravel piled near the Platte River, were breached in 2019. These last two breaches impacted their communities and the City of Fremont. The Morse Bluff levee is still breached and has not been repaired since the 2019 failure. All other levees have been repaired by the USACE or through FEMA funds.

The NRD is currently moving to mitigate future flooding in Ditch 8. Ditch 8 is an eight-mile drainage system located north of the City of Fremont. It was built in the early 1930s but was not maintained until the 1980s when it was put under the jurisdiction of the NRD and built up to provide 100-year flood protection to the city. The Rawhide and Trouble Creek Dam are part of the Ditch 8 system, together named the Merlyn England Flood Control Project.

The Lower Platte North NRD has done two large levee projects to help reduce flooding risk in the district. The first project, completed in 2004, involved improvements to levees on the Platte and Elkhorn Rivers in Sarpy and Saunders Counties. The levees were made uniform along both sides of the river and able to withstand a 50-year flood once improvements were completed. Near Thomas Lakes (just south of where the Elkhorn joins the Platte), notches were cut into an existing levee on the west side of the Platte, and a new levee was constructed further back to remove a bottleneck. Further south, a levee was built around the Ashland National Guard Camp. Across the river, just north of the U.S. Highway 6 crossing, other levees were constructed near the Beacon View housing development.

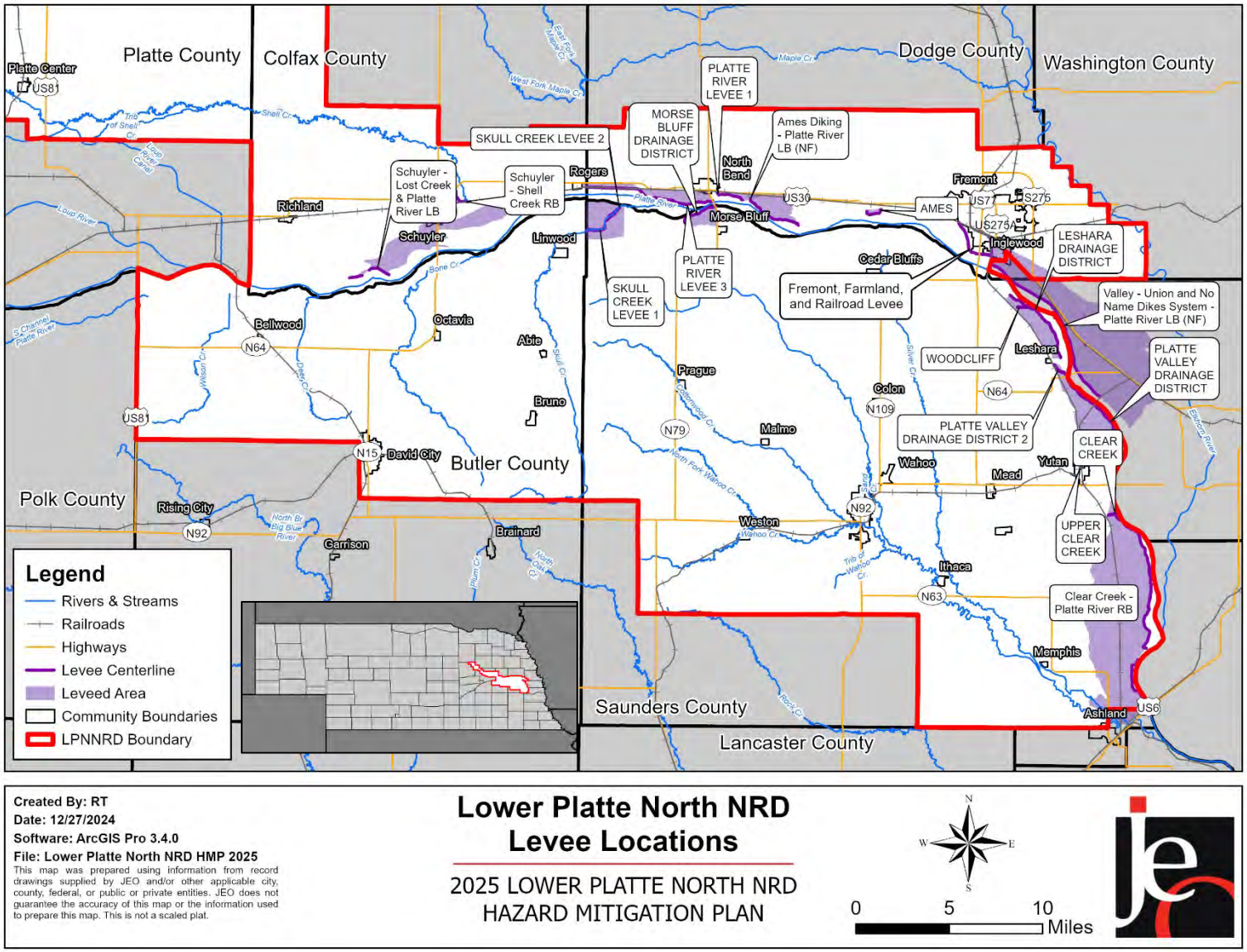
The second project is the Schuyler 205 Levee Project which was completed in 2015. The Lower Platte North NRD was a local partner with the City of Schuyler for a levee construction improvement project to reduce flooding from Shell Creek. Phase I of the project involved levees on a 2.5 mile stretch near Shell Creek north and east of Schuyler.

Mitigation and Strategic Actions

Action	Levee Construction and/or Improvements
Description & Location	Create a levee to protect community lifelines and residences, such as the Schuyler Levee. Repair the Clear Creek Dike and other levees district wide.
Hazard(s) Addressed	Flooding, Levee Failure
Estimated Cost	$100,000,000+
Local Funding	General Fund, Sinking Fund
Timeline	5+ Years
Priority	High
Lead Agency	Projects Manager
Status	Not Started

Action	Morse Bluff Levee Repairs
Description & Location	Work jointly with Saunders County to repair the levee from the 2019 floods.
Hazard(s) Addressed	Flooding, Levee Failure
Estimated Cost	$2,500,000
Local Funding	General Fund
Timeline	2-5 Years
Priority	Low
Lead Agency	Projects Manager, Saunders County
Status	Not Started. Waiting on funding.

Levee Locations in the NRD



Created By: RT
Date: 12/27/2024
Software: ArcGIS Pro 3.4.0
File: Lower Platte North NRD HMP 2025

This map was prepared using information from record drawings supplied by JEO and/or other applicable city, county, federal, or public or private entities. JEO does not guarantee the accuracy of this map or the information used to prepare this map. This is not a scaled plat.

Lower Platte North NRD Levee Locations

2025 LOWER PLATTE NORTH NRD HAZARD MITIGATION PLAN

Other Mitigation and Strategic Actions

Action	Alert/Warning Sirens
Description & Location	Install an emergency siren at Lake Wanahoo to alert nearby visitors to severe weather. Evaluate the need for emergency sirens at other NRD recreation areas.
Hazard(s) Addressed	Grass/Wildfire, Severe Thunderstorms, Tornadoes and High Winds
Estimated Cost	$20,000
Local Funding	General Fund, Parks Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Recreation Manager
Status	Not Started.

Action	Public Education
Description & Location	Through activities such as outreach projects, distribution of maps and environmental education, increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property regional from animal and plant disease. Work with county emergency managers on educational materials and outreach, especially on EAB.
Hazard(s) Addressed	Animal & Plant Disease
Estimated Cost	$25,000
Local Funding	General Fund
Timeline	Ongoing
Priority	High
Lead Agency	NRD Information and Education Department
Status	Ongoing. The NRD does annual education on flooding risks, drought, and other hazards.

Action	Safe Room and Storm Shelter
Description & Location	Design and construct storm shelters and safe rooms in highly vulnerable areas such as churches, schools, and other areas.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes and High Winds
Estimated Cost	$400,000
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Projects Manager
Status	Not Started

Drainage District Profile

Ames Diking and Drainage District

Lower Platte North NRD
Hazard Mitigation Plan 2025

Local Planning Team

Ames Diking and Drainage District Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Grant Hansen	Board President	Ames Diking and Drainage District	Attended, Materials Development	Attended, Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The board president, secretary, and treasurer will be responsible for reviewing and updating the community profile outside of the five-year update. Ames Diking and Drainage District will review the plan bi-annually and the public will be notified at board meetings.

Location and Purpose

The Ames Diking & Drainage District is an organized levee authority that owns and maintains the Ames Diking & Drainage District Levee System located in southern Dodge County. The dike stretches three miles along the Platte River between the City of North Bend and the Village of Ames. It protects a Union Pacific Railroad rail line, 900 acres of farmland, a portion of US Highway 30, and a few residential structures and outbuildings. A map of the levee system can be found in the Community Lifelines section of this profile.

Capability Assessment

Due to the unique structure of the drainage district, the typical capability assessment table was not used. The following table summarizes the district's overall capabilities.

Ames Diking and Drainage District Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Moderate
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

Plans and Studies

Ames Diking and Drainage District has one planning document that discusses or relates to hazard mitigation. The plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the district updates this plan, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Flood Action Plan

A flood action plan outlines the Ames Diking and Drainage's response protocols during a flood event that could impact the district. The plan lists responsibilities for key personnel along with action steps to help reduce possible impacts of the flood. The hazard mitigation plan has not been integrated into this plan as it is strictly response related.

Future Development Trends

After the flooding in 2019, the dike was rebuilt in accordance with the specifications of the U.S. Army Corps of Engineers. The road to the dike was also rebuilt by the county. This likely decreased vulnerability to both flooding and levee failure. For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted.

Community Lifelines

As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.

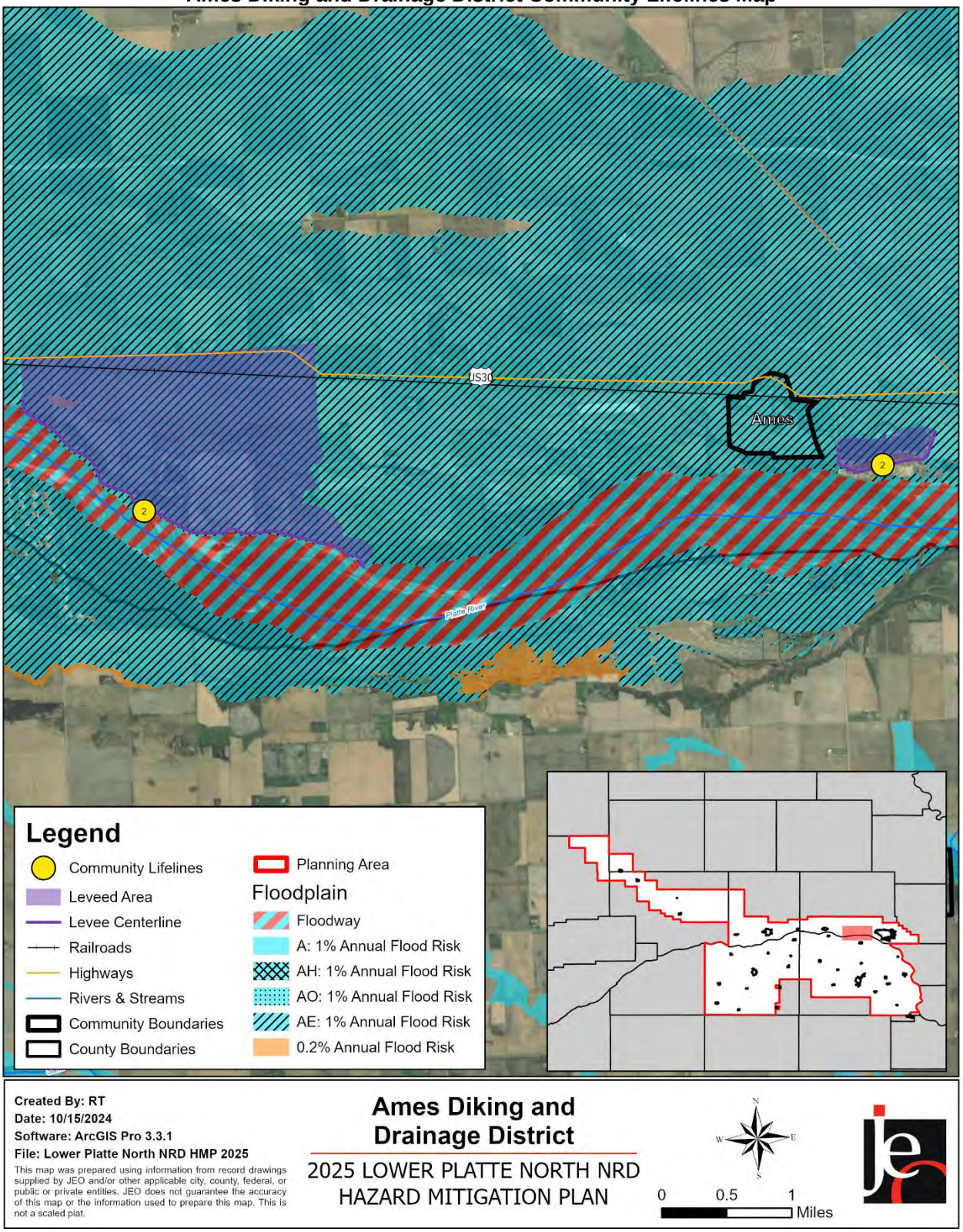


Ames Diking and Drainage District Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Dodge County Emergency Management*	Safety and Security	G	Y (0.2%)
2	Levee System	Other	-	Y (1%)
3	Lower Platte North NRD**	Other	-	N

**Not mapped. Located in Fremont.*
***Not Mapped. Located in Wahoo.*

Ames Diking and Drainage District Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for the Ames Diking and Drainage District which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Ames Diking and Drainage District. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however, Ames Diking and Drainage District has identified mitigation actions to reduce the impacts of the hazards. Dam failure, flooding, levee failure, and severe thunderstorms are the only hazards that could impact Ames Diking and Drainage District since their capabilities and responsibilities as a jurisdiction focus on drainage and flood control. Each hazard has a mitigation action that addresses it, so no other actions are needed. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Dam Failure

There has been no history of dam failures impacting the district but if the large dams upstream of the diking district like the Kingsley Dam or dams in Wyoming and Colorado were to fail, there would be massive flooding. Such flooding would likely overwhelm the dike, either overtopping it or causing a breach. The drainage district has maintained the dike according to USACE standards, however, ensuring that upstream dams are properly inspected can help reduce risks.

Mitigation and Strategic Actions

Action	Improve/Implement Flood and Dam Failure Warning System
Description & Location	Evaluate or implement flood/water level alert and dam failure warning alert system. Regularly update equipment, ensure it is in a secure location, and install gages as needed. Work with Central Nebraska Public Power & Irrigation District on inspection frequency and rigor of Kingsley Dam.
Hazard(s) Addressed	Dam Failure, Flooding
Estimated Cost	$5,000+
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Diking District Board, Central Nebraska Public Power and Irrigation District
Status	New Action. Not Started

Flooding

The March 2019 flood caused a 1,000-foot breach in the Ames Dike, resulting in massive destruction of farms, homes, land, livestock, and crops from the dike down the river to the City of Fremont. Riverine flooding from ice jams in the spring is the biggest threat to the integrity of the dike. The Union Pacific Railroad rail lines, Highway 30, farmland, and residential structures from County Road 11 to the City of Fremont experience the largest impacts of flooding. Much of this area also has poor stormwater drainage.

In response to the March 2019 flood, communities and diking and drainage districts, including Ames District, in southern Dodge County along the Platte River, formed the Dodge County Joint Water Management Advisory Board. They've partnered to develop a comprehensive flood risk reduction and mitigation strategy along the Platte River. The Board is currently looking for funding

alternatives to develop a Flood Mitigation and Flood Resiliency Plan to identify, evaluate, and prioritize flood mitigation alternatives to improve flood resiliency along the Platte River. The rebuilding and continuous maintenance of the dike in accordance with the USACE specifications will lessen the risk of flooding in the area.

Mitigation and Strategic Actions

Action	Dodge County Platte River Communities Flood Mitigation and Resiliency Plan
Description & Location	Develop a flood mitigation and resiliency plan to holistically look at local flood risks and measures to reduce them from North Bend to Fremont along the Platte River. The plan will include hydrologic and hydraulic analyses to assess the nature of the flood risks and evaluate flood risk reduction improvement projects. Structural and non-structural mitigation may be considered and prioritized. The conceptual flood risk reduction recommendations will serve to provide a path forward toward implementation and a reduction of further damage to structures and community lifelines.
Hazard(s) Addressed	Flooding
Estimated Cost	$1,000,000
Local Funding	General Budget, Water Sustainability Fund
Timeline	5+ Years/Ongoing
Priority	Medium
Lead Agency	Joint Water Advisory Board (Ames Diking and Drainage District is a partner on the Board)
Status	Ongoing. The district is a member of the board. The board continues to work on projects which will be dependent on significant flooding or weather events.

Action	Reshaping Road Surfaces
Description & Location	Work with the Dodge County Highway Department to reshape road surfaces to improve drainage.
Hazard(s) Addressed	Flooding, Severe Thunderstorms
Estimated Cost	Unknown
Local Funding	General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Dodge County Highway Department, Township Board
Status	New Action. Not Started

Levee Failure

If the Ames Dike were to fail, most of the flooding would impact the Union Pacific Railroad, Highway 30, Timber Wood SID #5 and the other small housing developments east along the Platte River, the Village of Ames, many local farmsteads, and potentially the City of Fremont. The Ames Diking – Platte River Left Bank protects 54 buildings, 92 people, and an estimated $16 million in property value according to the 2023 USACE National Structure Inventory. It is not accredited through FEMA but is actively enrolled in the USACE Public Law 84-99 program. The Army Corps of Engineers has certified the Ames Dike to meet its specifications. The dike provides 100-year flood protection. The rebuilding and continuous maintenance of the dike in accordance with USACE specifications will lessen the risk of flooding from levee failures in the area.

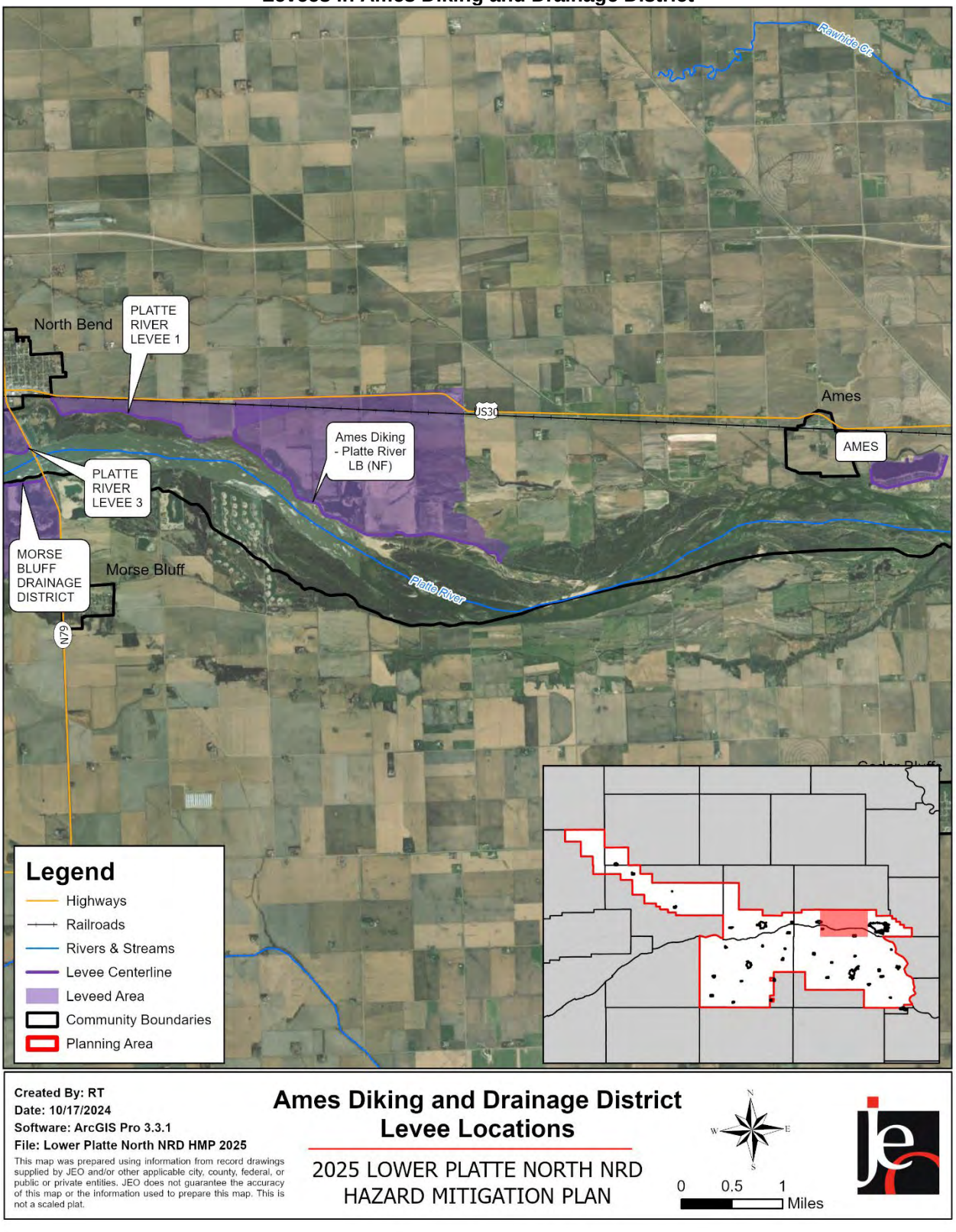
Mitigation and Strategic Actions

Action	Levee/Floodwall Construction and/or Improvements
Description & Location	Levees and floodwalls serve to provide flood protection to businesses and residents during large storm events. Improvements to existing levees and floodwalls will increase flood protection. The district would like to raise and lengthen the dike.
Hazard(s) Addressed	Flooding, Levee Failure
Estimated Cost	Varies
Local Funding	General Budget, Corps cost-sharing
Timeline	5+ Years/Ongoing
Priority	Medium
Lead Agency	Board of Directors
Status	The board is still planning this development and is discussing it with the Army Corps of Engineers. Improvements will be ongoing and dependent on significant flood events.

Other Mitigation and Strategic Actions

Action	Emergency Response Plan
Description & Location	Develop and update an Emergency Response Plan.
Hazard(s) Addressed	Dam Failure, Flooding, Levee Failure, Severe Thunderstorms
Estimated Cost	$15,000
Local Funding	General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Board of Directors
Status	New Action. Not started.

Levees in Ames Diking and Drainage District



School District Profile

Cedar Bluffs Public School

Lower Platte North NRD
Hazard Mitigation Plan 2025

Local Planning Team

Cedar Bluffs Public School Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Harlan Ptomey	Superintendent	Cedar Bluffs Public School	Attended, Materials Development	Attended, Materials Development
Ben Hansen	Director of Continuous Improvement	Cedar Bluffs Public School	-	Attended

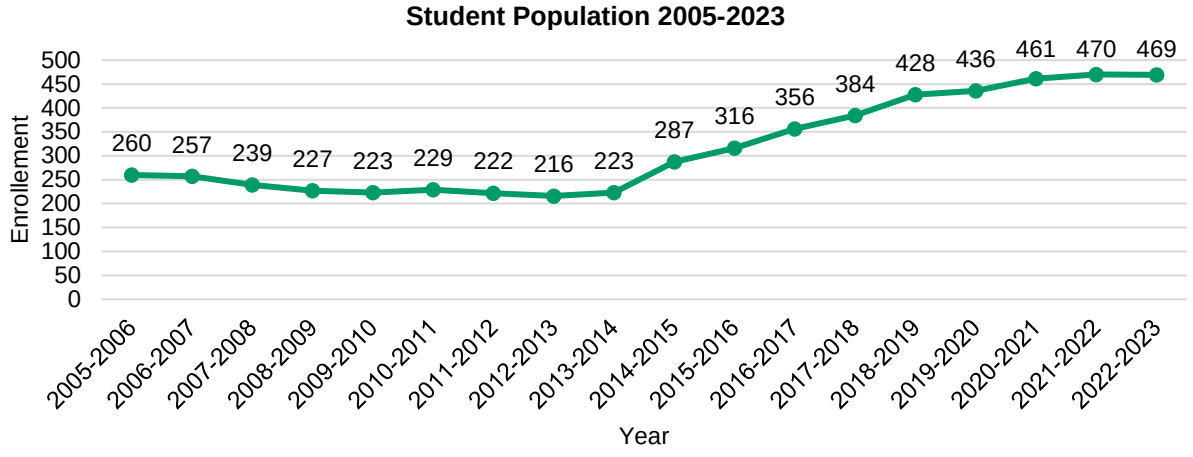
Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The Superintendent, Director of Learning, and High School Principal will be responsible for reviewing and updating this participant profile outside of the five-year update. Cedar Bluffs Public School District will review the plan bi-annually. The public will be notified during public school board meetings.

Demographics

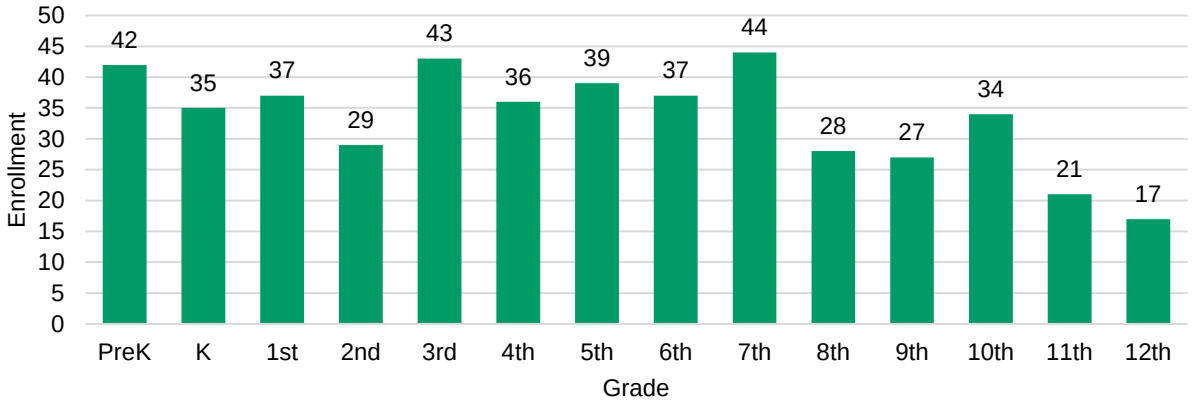
The following figure displays the historical student population trend starting with the 2005-06 school year and ending with the 2022-2023 year. It indicates that the student population has been increasing since 2013 with a slight decline in 2023. There are 469 students enrolled in the district.[1] An increasing student population can mean there is increasing tax revenue for the school district, which could make implementation of mitigation projects easier. However, it is also associated with increased emergency planning requirements and increased development. Cedar Bluffs Public School anticipates a growth in student population due to their free preschool program that is full each year and has a waiting list.



Source: Nebraska Department of Education

1 Nebraska Department of Education. June 2024. "Nebraska Education Profile." https://nep.education.ne.gov/.

Number of Students by Grade, 2022-2023



Source: Nebraska Department of Education

The figure above indicates that the largest number of students are in the 3rd and 7th grades. The lowest population of students are in 11th and 12th grades. According to the Nebraska Department of Education, 44.6% of students receive either free or reduced priced meals at school. This is lower than the state average of 49.7%. Additionally, 19.2% of students are in the Special Education Program and the school mobility rate is 2.8%. The school district population has a less than one percent of English language learners. These particular students may be more vulnerable during a hazardous event than the rest of the student population.

Student Statistics, 2022-2023

	School District	State of Nebraska
Free/Reduced Priced Meals	44.6%	49.9%
School Mobility Rate	2.8%	5.5%
English Language Learners	N/A	8.4%
Special Education Students	19.2%	16.5%

Source: Nebraska Department of Education

Capability Assessment

The planning team assessed Cedar Bluffs Public School's hazard mitigation capabilities by reviewing the district's planning capability, administration and technical capability, fiscal capability, education and outreach capability, drills, and overall capability.

Cedar Bluffs School District is a member of ALICAP Insurance which has required trainings each year. The trainings are done through Vector online modules. The school district is also required to do monthly fire drills and two tornado drills annually. Cedar Bluffs Public School District tries to do one intruder drill annually that includes staff members. To educate students and families about emergency procedures, Cedar Bluffs follows the "I Love You Guys" standard response protocol and sends information home to families annually.

The school district has the fire chief do an annual required walk-through of facilities. Saunders County law enforcement is invited when the district conducts their intruder drills. Multiple police officers and fire department personnel within the community lead trainings like CPR for coaches.

Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning Capability	Facility Improvements Plan	Yes
	Continuity of Operations Plan	Yes
	Crisis Response Plan	Yes
	Strategic Plan	No
	Other (if any)	-
Administration & Technical Capability	Grant Manager	No
	Mutual Aid Agreement	Yes – Red Cross and Three Rivers Health Department
	Other (if any)	-
Fiscal Capability	Applied for Grants in the Past	Yes
	Awarded Grants in the Past	Yes
	Authority to Levy Taxes for Specific Purposes Such as Mitigation Projects	Yes
	General Obligation Revenue or Special Tax Bonds	Yes
	Approved Bonds in the Past	Yes
	Flood Insurance	Yes
	Other (if any)	-
Education & Outreach Capability	Natural Disaster or Safety Related School Programs	Yes
	Hazard Education or Information Program	No
	StormReady Certification	No
	Other (if any)	-
Drills	Fire	12 / year
	Tornado	2 / year
	Intruder	1 / year
	Bus evacuation	1 / year
	Evacuation	1 / year
	Other (if any)	-

Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Moderate
Staff/Expertise to Implement Projects	Moderate
Public Support to Implement Projects	High
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	High

Plans and Studies

Cedar Bluffs Public School District has two planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the school district updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Cedar Bluffs Public School All-Hazards Safety and Security Plan

The all-hazards plan provides information about how to respond to emergency incidents by outlining responsibilities and procedures for the school district. The plan details the roles and responsibilities of school faculty and staff, students, and stakeholders before, during, and after an incident. It assures that the district has established guidelines and procedures to prevent, mitigate, prepare, respond, and recover from threats and hazards effectively.

Cedar Bluffs Public School Emergency Operations Plan

The emergency operations plan identifies and establishes response protocol to incidents by outlining the responsibilities and duties of the school district and its employees. The plan lists and explains various hazards and incidents, along with standard procedures on what to do in each circumstance.

Future Development Trends

Cedar Bluffs Public School District has grown over the past 10 years from having around 200 students to almost 500 students. The number of staff has also increased from about 30 to now 80 in the same timeframe. The school district has added a new kitchen and cafeteria, gym, math wing, vocational building, and bus barn. Several classrooms have also been added and renovated. For the next several years, the school district plans to move offices to the entryway of the building to increase safety and security. This should help reduce the risk of terrorism.

For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted. According to the local planning team any new and future development is not likely to occur in any other known hazard locations.

Community Lifelines

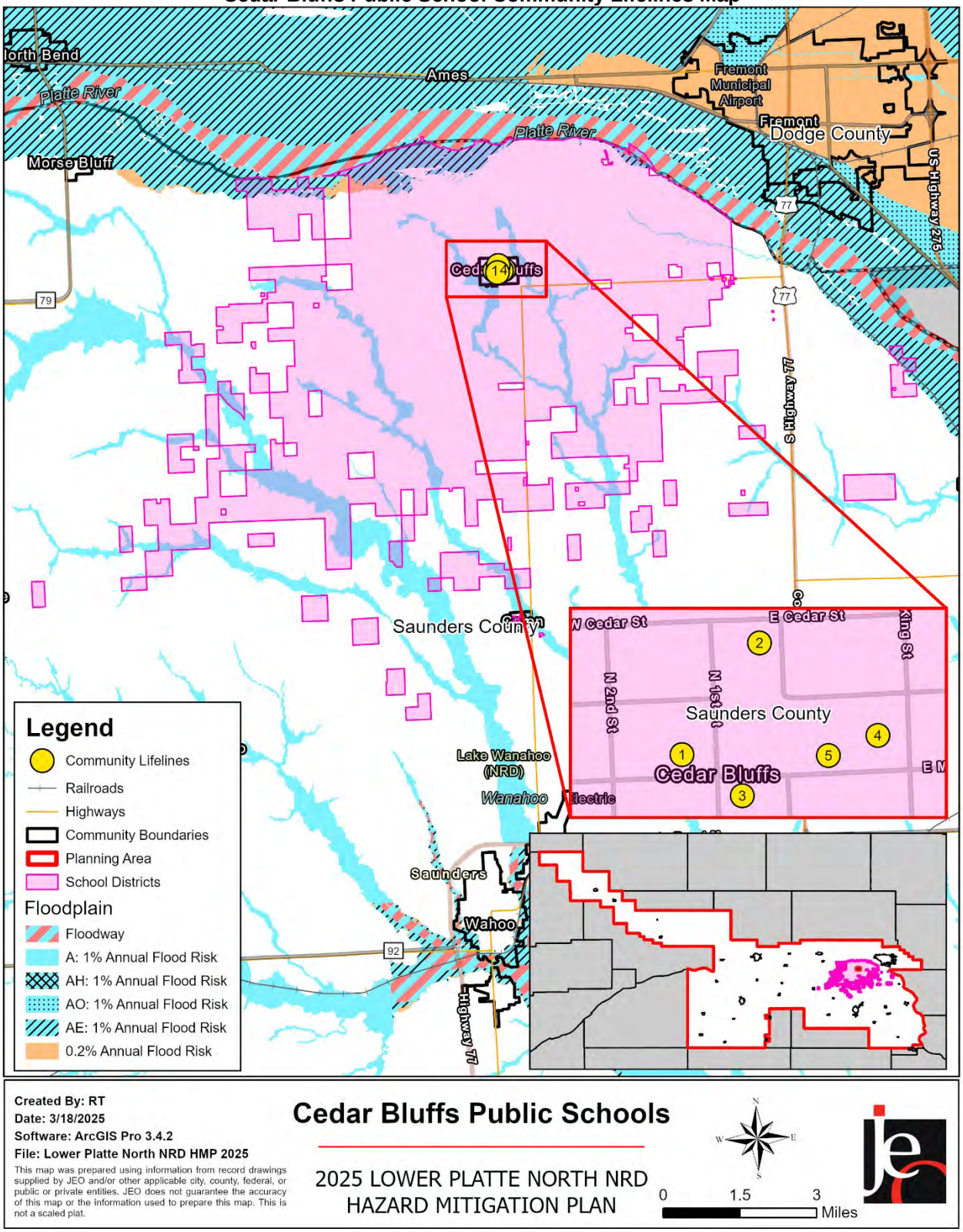
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Cedar Bluffs Public School Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Auditorium	Safety and Security	-	N
2	Bus Barn	Transportation	-	N
3	Cedar Bluffs Fire Department	Safety and Security	G	N
4	Cedar Bluffs Public School	Safety and Security	-	N
5	County Preschool Building	Safety and Security	-	N

Cedar Bluffs Public School Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Cedar Bluffs Public School which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by Cedar Bluffs Public School. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however Cedar Bluffs Public School has identified mitigation actions to reduce the impacts of these hazards. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Severe Thunderstorms

Severe thunderstorms have downed power lines in the past, leaving the district without power because school buildings do not have backup generators. This lack of generators is especially pertinent because the school's auditorium is used as a Red Cross Shelter and the school serves a vulnerable population that could feasibly be expected to shelter in place. The bus barn, auditorium, and local American Legion could also use backup generators because they are used in the district's reunification plan after evacuation to house personnel. The bus barn also needs improvements to the ventilation system during evacuation drills. In case of power surges, school records are backed up off-site. There are no hazardous trees on school property that could threaten power lines after the district and Village of Cedar Bluffs collaborated to perform tree maintenance and re-grade the park to improve stormwater drainage in 2017. Hail events are likely to cause property damage to the school, especially the roofs and any vehicles left outside during a hailstorm. The main school's roof is constructed of rock but most of the outbuildings and the gym have metal roofs that may be vulnerable. All community lifelines are insured against hail damage**.** The school district continues to update their plans and drill for a shelter in place event.

Mitigation and Strategic Actions

Action	Backup and Emergency Generators
Description & Location	Identify and evaluate current backup and emergency generators. Obtain additional generators based on identification and evaluation. Provide portable or stationary source of backup power to the high school, elementary, district office, and Bellwood.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	Varies by size
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Superintendent, Maintenance
Status	Cedar Bluffs Public School has been prioritized to receive a storm shelter that will have its own generator.

Action	Hazardous Tree Removal
Description & Location	Conduct tree inventory. Develop and implement tree maintenance and trimming program to remove hazardous limbs and trees.
Hazard(s) Addressed	Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$200 per tree
Local Funding	General Fund
Timeline	1 Year
Priority	Low
Lead Agency	Superintendent, Maintenance
Status	No action has been taken on this other than what is around the immediate property. New trees planted at the school and park; however, neighborhood trees are not in good shape.

Removed Mitigation and Strategic Actions

Action	Weather Radios
Description & Location	Add weather radios to school buildings.
Hazard(s) Addressed	Flooding, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Status	Removed. Cedar Bluffs has purchased a police/weather scanner.

Terrorism and Cyber-Attack

There have been no previous terrorist attempts at the school, but the district prioritizes safeguarding students and staff from the national increase in active shooter events. The school is the most vulnerable facility to terrorism in the Village of Cedar Bluffs. According to research on active shooter events, they are most likely to be perpetrated by a lone person or a small group of students. The district's facilities are vastly under prepared for an active shooter. The elementary building erected walls so that it is no longer an open area. The school does maintain an active shooter plan that identifies safe versus easy access areas throughout the school.

Mitigation and Strategic Actions

Action	First Aid Training
Description & Location	Promote first aid training/certification for all 143 employees.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$100 per person
Local Funding	General Fund, QCPUF and Special Building Funds
Timeline	2-5 Years
Priority	Medium
Lead Agency	Superintendent, Maintenance
Status	Cedar Bluffs Public School has been prioritized for a storm shelter that can double as a safe room.

Action	Install Vehicle Barriers
Description & Location	Install vehicular barriers to protect critical facilities where possible. Location will be between the high school and elementary.
Hazard(s) Addressed	Terrorism and Cyber-Attack
Estimated Cost	$500 per concrete barrier, $20 per linear foot of chain linked fence
Local Funding	General Fund and Special Building Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Superintendent, Maintenance
Status	Progress has been made with some entrances having barriers. Others still need more work.

Tornadoes and High Winds

No tornadoes have impacted the school district, but a future occurrence could be catastrophic especially if it occurred during a sporting event at the local park because there are no shelters there. All school records are backed up to an offsite server to protect them from a hazard event. The Cedar Bluffs Volunteer Fire Department maintains and activates the warning siren in the village. The district conducts tornado drills bi-annually to educate students and staff on tornado response. There are no FEMA certified safe rooms in the school buildings or community. The district does not have any formal Mutual Aid Agreements in place but has been able to rely on its Educational Service Unit for support during crises in the past. A FEMA-rated shelter that doubles as a safe room is needed for potential tornadoes and high winds events.

Mitigation and Strategic Actions

Action	Safe Room / Storm Shelter
Description & Location	Construct a multi-purpose addition for the school that will be a tornado rated storm shelter to house all students and some of the village's population during adverse weather events. Shelter would be built in the middle of the district's campus with easy access by all school buildings with an outside door to allow anyone within a half mile radius to come and take shelter. The facility would include a stand-alone generator.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes and High Winds
Estimated Cost	$3,500,000
Local Funding	General Fund, Special Building Fund and QCPUF Bond
Timeline	2-5 Years
Priority	High
Lead Agency	Superintendent, Village of Cedar Bluffs
Status	Cedar Bluffs Public School has been prioritized for a storm shelter.

Action	Warning Systems
Description & Location	Implement telephone or computerized/web-based interrupt system such as Reverse 911, emergency text messaging warning system, etc. Include broadcast warnings to residents about hazardous conditions, water restrictions, etc.
Hazard(s) Addressed	Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$2,000 per year
Local Funding	General Fund
Timeline	1 Year
Priority	Medium
Lead Agency	Superintendent, Secretary
Status	Saunders County received a grant from the Department of Justice (COPS). Cedar Bluffs Public School is set to receive two APX 1500 Control Station School Series radios.

Other Mitigation and Strategic Actions

Action	School Emergency Communications
Description & Location	Establish an action plan to improve communication between schools and other government agencies to better assist students and staff during and following emergencies. Establish inner-operable communications. Can coordinate with the Department of Agriculture on animal and plant disease outbreaks, the Department of Natural Resources on dam and levee failure notifications, and local jurisdictions on water conservation strategies during drought and dry seasons.
Hazard(s) Addressed	Animal & Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Levee Failure
Estimated Cost	$10,000+
Local Funding	General Fund
Timeline	1 Year
Priority	Medium
Lead Agency	Superintendent, Administration
Status	Saunders County received a grant from the Department of Justice (COPS). Cedar Bluffs Public School is set to receive two APX 1500 Control Station School Series radios.

Removed Mitigation and Strategic Actions

Action	Generator Pump
Description & Location	Provide a generator pump for the wrestling room to pump out water 24/7 due to a high water table.
Hazard(s) Addressed	Flooding
Status	Removed. The school district does not have a wrestling room below level.

Fire District Profile

Colon Volunteer Fire District Profile

Lower Platte North NRD
Hazard Mitigation Plan 2025

Local Planning Team

Local Planning Team

Name	Title	Fire District	Round 1 Meeting	Round 2 Meeting
Jim Ondracek	Fire Chief	Colon Rural Fire District	Recording, Materials Development	Attended, Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The Fire Chief and Rural Fire Protection District Board will be responsible for reviewing and updating the community profile outside of the five-year update. The Colon Volunteer Fire District will review the plan bi-annually and the public will be notified at board meetings.

Capability Assessment

Due to the unique structure of fire districts, the typical capability assessment table was not used. The following table summarizes the district's response vehicles, special teams, and special equipment. In addition, the district has mutual aid agreements with all the Saunders County fire departments.

Response Vehicles, Special Teams, and Special Equipment

Aerial	Pumper	Tanker	Pumper / Tanker	Grass-Weed Truck	Utility Truck	Rescue Units	Special Teams	Special Equipment
0	2	3	0	1	0	0	0	0

Plans and Studies

Colon Volunteer Fire Department is part of three planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the department updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Saunders County Local Emergency Operations Plan (2021)

The Saunders County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. The hazard mitigation plan has been integrated with this plan and includes the top hazards that would affect the county

and its populations. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines.

Southeast Nebraska Community Wildfire Protection Plan (2020)

The purpose of the Southeast Nebraska Wildfire Protection Plan CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years.

Standard Operating Procedures

The standard operating procedures outline the department's response to a variety of different calls that could be received. These procedures are unlikely to be further integrated with the hazard mitigation plan as they deal directly with response efforts.

Future Development Trends

Over the past five years, Colon Volunteer Fire District has moved to a new fire station on the east side of Colon. The new fire hall property is partially within a flood hazard area which increases vulnerability to flooding. There are no planned changes for the fire district for the next five years. For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted regardless of where they are located.

Community Lifelines

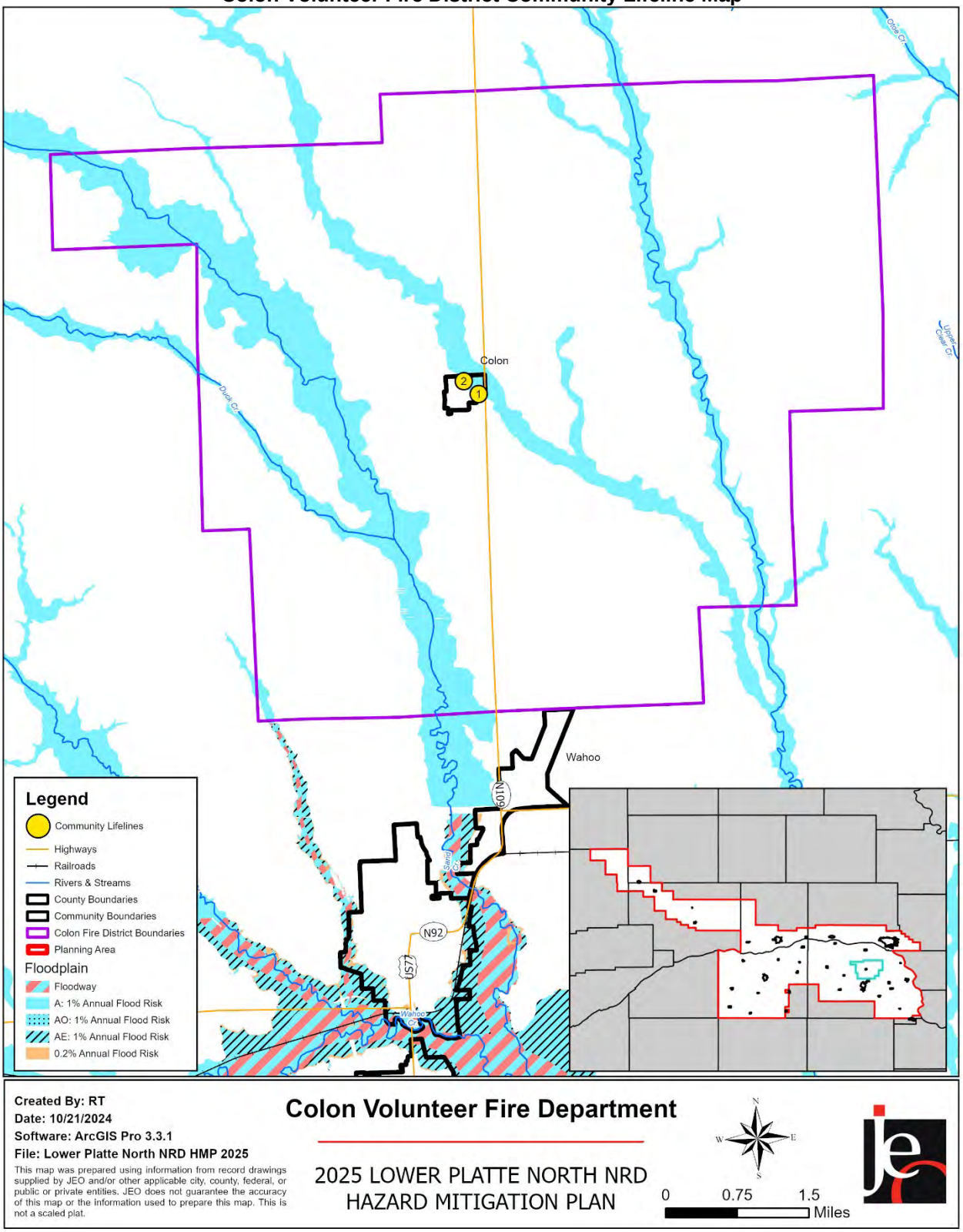
As listed in the tables below, the fire district identified community lifelines that are vital for disaster response and essential for returning the district's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Colon Volunteer Fire District Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Fire Hall / Meeting Hall	Safety and Security	G	Y (1%) Partially
2	Well Pump House	Food, Water, Shelter	-	N

Colon Volunteer Fire District Community Lifeline Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for the Colon Volunteer Fire District which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the fire district. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however, Colon Volunteer Fire Department has identified mitigation actions to reduce the impacts of these hazards. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Flooding

The floods in 2019 affected roads which impacted the department's access and ability to respond to events. Flooding from creeks and streams is the most common in the district. These events often flood roads making travel difficult. Many areas in the district have poor stormwater drainage.

Mitigation and Strategic Actions

Action	Capacity Building
Description & Location	The county is currently upgrading the communication system for response agencies. Old radios might not work with the new upgrade and new radios would need to be purchased.
Hazard(s) Addressed	Dam Failure, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	Varies
Local Funding	Rural Fire Protection District Budget
Timeline	1 Year
Priority	High
Lead Agency	Rural Fire District
Status	Partially completed.

Grass/Wildfires

Field and vegetation fires are a concern for the district because they damage crops, grass, and property. The Village of Colon is not protected from wildfire by a Wildland-Urban Interface Code. The district owns two pumpers, three tankers, and one brush rig. They do not participate in any public outreach on fire prevention and response.

Mitigation and Strategic Actions

Action	Hazardous Fuels Reduction
Description & Location	Identify locations in the district which have high grass/wildfire risk and a buildup of vegetation. Work with landowners to reduce vegetation and thin fuels to reduce the chance of a large grass/wildfire especially during dry seasons or drought. Promote drought and fire-resistant landscaping in the district.
Hazard(s) Addressed	Drought, Grass/Wildfires
Estimated Cost	$5,000+, Staff Time
Local Funding	Rural Fire Protection District Budget
Timeline	Ongoing
Priority	High
Lead Agency	Rural Fire District
Status	New Action.

Hazardous Materials Release

There are commercial and farmer-owned agricultural chemical storage sites throughout the district. Chemical and fuel spills, particularly from motor vehicle accidents, are a concern while chemicals are being transported to or from co-op facilities. The state highways, county roads, and township roads are of most concern for the fire district. A variety of unknown chemicals are transported along these routes. The fire district is not trained to respond to a chemical spill and does not have the appropriate gear; therefore, a chemical spill would have a large impact on the district.

Mitigation and Strategic Actions

Action	Resident Notification
Description & Location	Improve residential notification of current or future hazardous situations. Focus initial notification on grass/wildfire and hazardous materials release incidents. Also include notifications during drought and dry conditions to prevent fires from occurring.
Hazard(s) Addressed	Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfire, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism & Cyber-Attack, Tornadoes and High Wind
Estimated Cost	$500+
Local Funding	Rural Fire Protection District Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	Rural Fire District
Status	New Action. Not Started.

Severe Thunderstorms

Wind and hail damage to property has occurred in the district area because of severe thunderstorms in the past. The pump house does not have a backup generator to protect its power supply in case of a surge from a lightning storm. The fire hall is not fitted with hail resistant building materials and has been damaged in the past, but it is insured against hail damage. The fire hall has a portable generator that would provide minimal power services to lights, doors, and heat.

Mitigation and Strategic Actions

Action	Backup and Emergency Generators
Description & Location	Identify and evaluate current backup and emergency generators. Obtain additional generators based on identification and evaluation. The fire department would like a backup generator for the new fire station and at the well house.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	Varies by size
Local Funding	Rural Fire Protection District Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Rural Fire District
Status	The portable generator at the fire hall can provide minimal power services to lights, doors, and heat. A potential place for another backup generator is at the pump house.

Severe Winter Storms

Severe winter storms can cause power outages and road closures. Road closures could impede response efforts across the district. The village and county are responsible for snow removal in the district. The fire station has a backup generator in case of a prolonged power outage.

Mitigation and Strategic Actions

See the *Backup and Emergency Generators* action under Severe Thunderstorms.

Tornadoes and High Winds

No tornadoes have occurred in the district, but a future event could be catastrophic. High winds can lead to property damage and power outages. The Village of Colon has a warning siren, activated by County Dispatch or the fire department. Rural areas outside of Colon are not covered by the siren. The fire hall only has a small portable generator to mitigate the impacts of prolonged power outages from tornadoes or windstorms. There have been past power outages but not during a call. If one did occur during a call, it could impact water well access and getting garage doors open. There are no FEMA certified safe rooms in the district. In case of a disaster, Mutual Aid Agreements are in place with all the fire districts in Saunders County.

Mitigation and Strategic Actions

See the *Backup and Emergency Generators* action under Severe Thunderstorms.

Other Mitigation and Strategic Actions

Action	Public Education
Description & Location	Educate staff, residents, and visitors on their risks to all hazards that could impact the district, how to get information and emergency notifications, mitigation actions that can be taken, and preparedness actions to keep themselves safe especially regarding grass and wildfires and agricultural diseases that can increase fire risks. Reach out to farmers about the risk of fires when harvesting during a drought. Coordinate outreach and education projects and materials with Saunders County, surrounding fire departments, Nebraska Forestry Service, and other project partners. The district will amplify and expand on education and outreach strategies created by Saunders County and other statewide partners.
Hazard(s) Addressed	Animal & Plant Disease, Drought, Grass/Wildfires
Estimated Cost	$500
Local Funding	Rural Fire Protection District Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Fire Chief
Status	New Action. Not Started

Drainage District Profile

Cotterell Diking and Drainage District

Lower Platte North NRD
Hazard Mitigation Plan 2025

Local Planning Team

Cotterell Diking and Drainage District Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Mike Eason	Chairman	Cotterell Diking and Drainage District	Attended, Materials Development	1-on-1, Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The Chairman will be responsible for reviewing and updating this participant profile outside of the five-year update. Cotterell Diking and Drainage District will review the plan bi-annually and the public will be notified with direct notifications to landowners, a newspaper article, and during public board meetings.

Location and Purpose

The Cotterell Diking and Drainage District is an organized levee authority that owns and maintains the Cotterell Diking and Drainage District Levee System located in southern Dodge County. The dike stretches from the City of North Bend to the east along the Platte River until Eason Lake. It protects a Union Pacific Railroad rail line and farmland. A map of the levee and leveed area can be found in the Community Lifelines section of this profile.

Capability Assessment

Due to the unique structure of the drainage district, the typical capability assessment table was not used. The following table summarizes the district's overall capabilities.

Cotterell Diking and Drainage District Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Moderate
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

Plans and Studies

Cotterell Diking and Drainage District does not have any plans or studies. If any plans or studies are created for the district in the future, the local planning team will work to integrate the hazard mitigation plan into them.

Future Development Trends

Over the past five years, there have been no major developments in the area that have impacted the district. In the next five years, there are no planned developments that will impact the district. This likely keeps the district's vulnerability and risk to hazards the same. For hazards like drought,

extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, any future developments could be impacted regardless of where they are located.

Community Lifelines

As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.

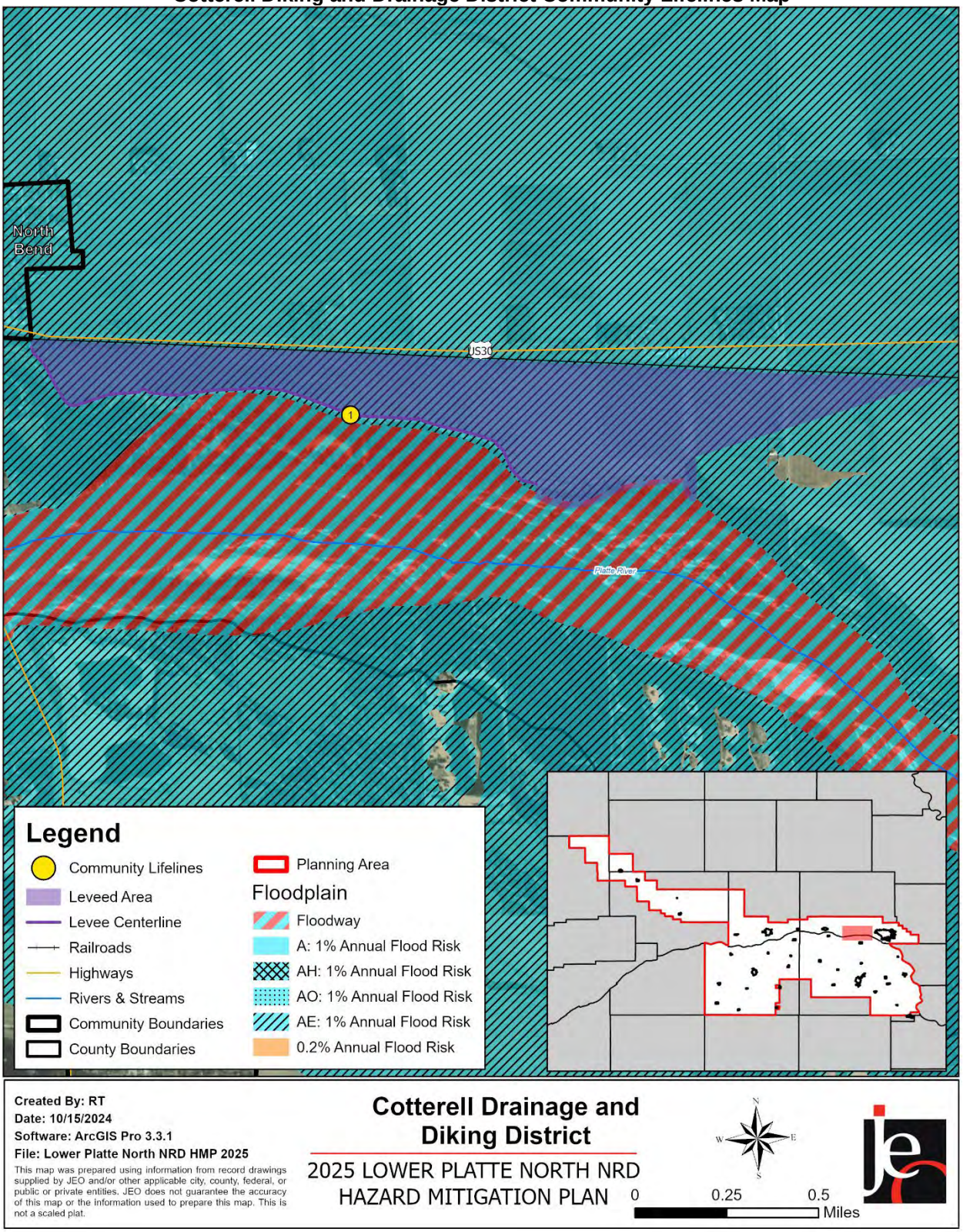


Cotterell Diking and Drainage District Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	District Levee	Other	-	Y (1%)
2	Dodge County Board of Supervisors*	Safety and Security	-	Y (0.2%)
3	North Bend Rural Fire District**	Safety and Security	-	Y (1%)
4	U.S. Army Corps of Engineers***	Safety and Security	-	N

**Not mapped, located in Fremont, NE.*
***Not mapped, location in North Bend, NE.*
****Not mapped, located in Omaha, NE.*

Cotterell Diking and Drainage District Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for the Cotterell Diking and Drainage District which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Cotterell Diking and Drainage District. Based on this analysis, the local planning team determined their vulnerability to all other hazards listed in this profile to be of secondary concern, however, Cotterell Diking and Drainage District has identified mitigation actions to reduce the impacts of those hazards. Flooding, levee failure, and severe thunderstorms are the only hazards that could impact the dike and the drainage district since their capabilities and responsibilities as a jurisdiction focus on drainage and flood control. Each of those hazards has a mitigation action that addresses it, so no other actions are needed. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Flooding

Impacts to the rail line are the most important impact of flooding. Heavy floods wash out the stones underneath the tracks, leaving them suspended in the air. Farm ground and Highway 30 are also protected by the dike. The March 2019 floods closed Highway 30 for three weeks. The dike provides 100-year flood protection from the Platte River and is generally only vulnerable to ice jams on the river in early spring. Ice jams along the district are most likely to happen near the City of North Bend because of the bend in the river there.

In response to the March 2019 flood, communities and diking and drainage districts, including Cotterell District, in southern Dodge County along the Platte River formed the Dodge County Joint Water Management Advisory Board. They've partnered together to develop a comprehensive flood risk reduction and mitigation strategy along the Platte River. The District Board is currently looking for funding alternatives to develop a Flood Mitigation and Flood Resiliency Plan to identify, evaluate, and prioritize flood mitigation alternatives to improve flood resiliency along the Platte River.

Mitigation and Strategic Actions

Action	Levee/Floodwall Construction and/or Improvements
Description & Location	Levees and floodwalls serve to provide flood protection to businesses and residents during large storm events. Improvements to existing levees and floodwalls will increase flood protection. If possible, the structure should be designed to FEMA standards to provide 1-percent flood protection providing additional flood insurance benefits
Hazard(s) Addressed	Levee Failure, Flooding
Estimated Cost	$1,000,000+
Local Funding	General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	District Board, Union Pacific Railroad
Status	Not Started. This project will not happen without outside assistance from the railroad.

Removed Mitigation and Strategic Actions

Action	Dodge County Platte River Communities Flood Mitigation and Resiliency Plan
Description & Location	Develop a flood mitigation and resiliency plan to holistically look at local flood risks and measures to reduce them from North Bend to Fremont along the Platte River. The plan will include hydrologic and hydraulic analyses to assess the nature of the flood risks and evaluate flood risk reduction improvement projects. Structural and non-structural mitigation may be considered and prioritized. The conceptual flood risk reduction recommendations will serve to provide a path forward towards implementation and a reduction of further damage to structures and critical facilities.
Hazard(s) Addressed	Flooding
Status	Removed. The district is no longer a part of this process.

Levee Failure

The Cotterell Dike has failed once, in the early spring of 1988 near North Bend because of an ice jam on the Platte River. The dike was noncompliant with USACE standards before the dike failure and was rebuilt to the same noncompliance by USACE. Many of the dike's deficiencies have been rectified by the district since 1988 but the dike remains in noncompliance today because of its steep slopes, crest narrower than ten feet, and several larger cottonwood trees along the base of the dike. An ice jam in 1964 caused flooding that pushed water to the north side of the dike but did not damage it. The dike sustained no damage in the 2019 flood. The district performs yearly inspections and mowing of the dike. In the future the district would like to upgrade the dike so that it is no longer in noncompliance.

Mitigation and Strategic Actions

Action	Bank Improvements
Description & Location	Fortify the riverbank with concrete near Eason Lake. The river is starting to cut into the dike at that location.
Hazard(s) Addressed	Levee Failure, Flooding, Severe Thunderstorms
Estimated Cost	$200,000 - $300,000
Local Funding	General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	District Board
Status	New Action, Not Started. The district would need outside assistance for funding.

Removed Mitigation and Strategic Actions

Action	Flood Damage Repair
Description & Location	Repair damages from the March 2019 flood event.
Hazard(s) Addressed	Flooding
Status	Removed. The dike was not damaged during the March 2019 flood event.

School District Profile

David City Public Schools Profile

Lower Platte North NRD
Hazard Mitigation Plan 2025

Local Planning Team

David City Public Schools Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Dr. Chad Denker	Superintendent	David City Public Schools	-	One-on-One, Materials Development

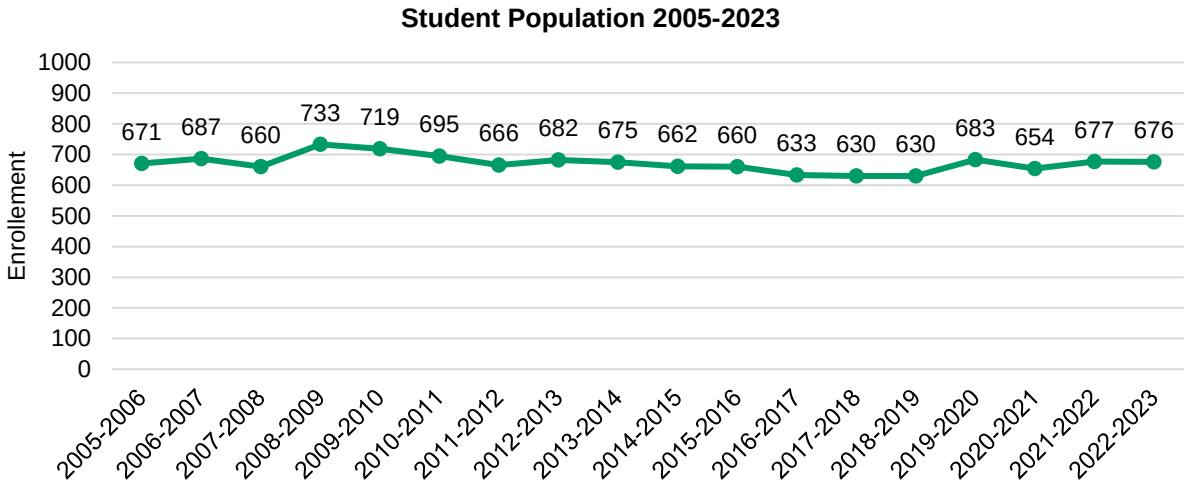
Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The Superintendent, Head of Maintenance, and Crisis Team Coordinator will be responsible for reviewing and updating the community profile outside of the five-year update. David City Public Schools will review the plan annually and the public will be notified on the school website.

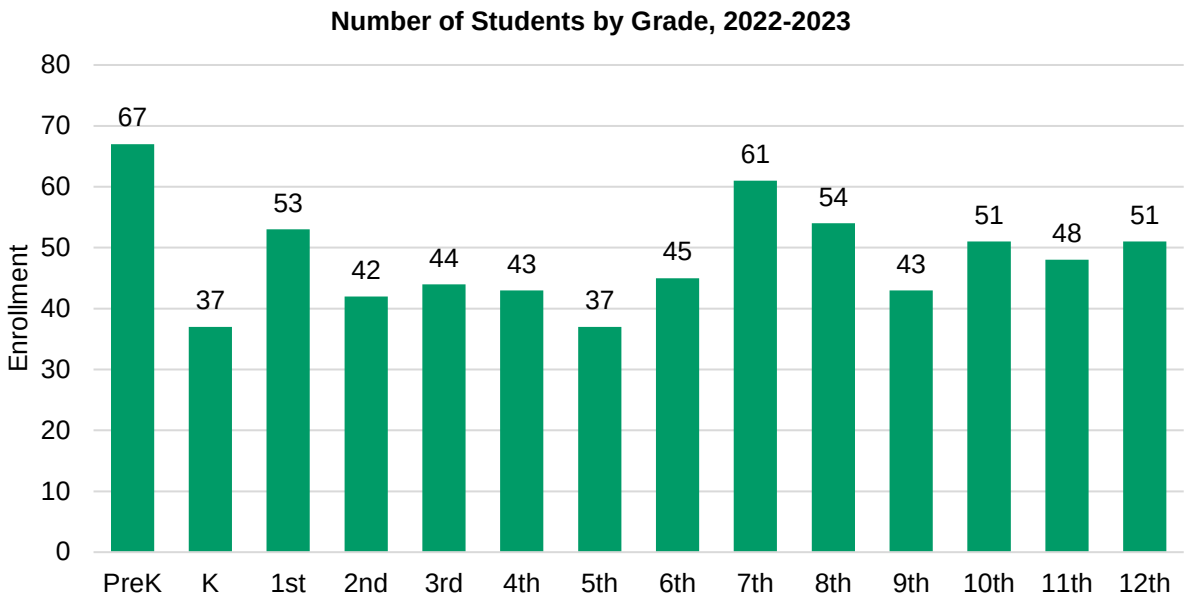
Demographics

The following figure displays the historical student population trend starting with the 2005-06 school year and ending with the 2022-2023 year. It indicates that the student population has been increasing since 2020 with a slight decline in 2023. There are 676 students enrolled in the district.[2] An increasing student population can mean there is increasing tax revenue for the school district, which could make implementation of mitigation projects easier. However, it is also associated with increased emergency planning requirements and increased development.



Source: Nebraska Department of Education

2 Nebraska Department of Education. June 2024. "Nebraska Education Profile." https://nep.education.ne.gov/.



Source: Nebraska Department of Education

The figure above indicates that the largest number of students are in the pre-kindergarten and 7th grades. The lowest population of students are in kindergarten and 5th grades. According to the Nebraska Department of Education (NDE), 46.6% of students receive either free or reduced priced meals at school. This is lower than the state average of 49.7%. Additionally, 23.0% of students are in the Special Education Program, the school mobility rate is 9.0%, and 4.1% of students are English Language Learners. These particular students may be more vulnerable during a hazardous event than the rest of the student population. The school district has some documents translated into Spanish for students and families.

Student Statistics, 2022-2023

	School District	State of Nebraska
Free/Reduced Priced Meals	46.6%	49.9%
School Mobility Rate	9.0%	5.5%
English Language Learners	4.1%	8.4%
Special Education Students	23.0%	16.5%

Source: Nebraska Department of Education

Capability Assessment

The planning team assessed David City Public Schools' hazard mitigation capabilities by reviewing the district's planning capability, administration and technical capability, fiscal capability, education and outreach capability, drills, and overall capability.

David City Public Schools trains its staff about emergency procedures using the Emergency Operations Plan, at crisis team meetings, and through various drills performed throughout the year (fire, tornado, evacuation). The majority of staff members are trained in CPR/First Aid, and about 147 of the 156 staff members are up to date on their certification. Students also participate in the drills; however, not much education is provided to parents on emergency procedures. The school district partners with local fire and police departments in various opportunities, such as walkthroughs with the fire department and providing key access to all buildings in case of emergencies.

Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning Capability	Facility Improvements Plan	Yes
	Continuity of Operations Plan	No
	Crisis Response Plan	Yes
	Strategic Plan	Yes (update in progress)
	Other (if any)	-
Administration & Technical Capability	Grant Manager	Yes
	Mutual Aid Agreement	Yes
	Other (if any)	-
Fiscal Capability	Applied for Grants in the Past	Yes
	Awarded Grants in the Past	Yes
	Authority to Levy Taxes for Specific Purposes Such as Mitigation Projects	Yes
	General Obligation Revenue or Special Tax Bonds	Yes
	Approved Bonds in the Past	No
	Flood Insurance	No
	Other (if any)	-
Education & Outreach Capability	Natural Disaster or Safety Related School Programs	No
	Hazard Education or Information Program	No
	StormReady Certification	No
	Other (if any)	-
Drills	Fire	10 / year
	Tornado	2 / year
	Intruder	1 / year
	Bus evacuation	2 / year
	Evacuation	1 / year
	Other (if any)	-

Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Moderate
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Limited
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

Plans and Studies

David City Public Schools has an Emergency Operations Plan that contains information on prevention, preparedness, response, and recovery to reduce impacts from threats and hazards. The hazard mitigation plan has not been integrated with the school district EOP. When the school district updates or creates new planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Future Development Trends

Over the past five years, the school district has added a $7.5 million addition to the high school with a new commons area, entrance, and weight room. The school district has completed a long-range facility plan with additional projects over the next 20 years. David City Public Schools does not anticipate significant changes in its student population unless new businesses enter David City and the local population increases.

In the future, the school district plans to add to the high school. For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted regardless of where they are located. According to the local planning team any new and future development is not likely to occur in any other known hazard locations.

Community Lifelines

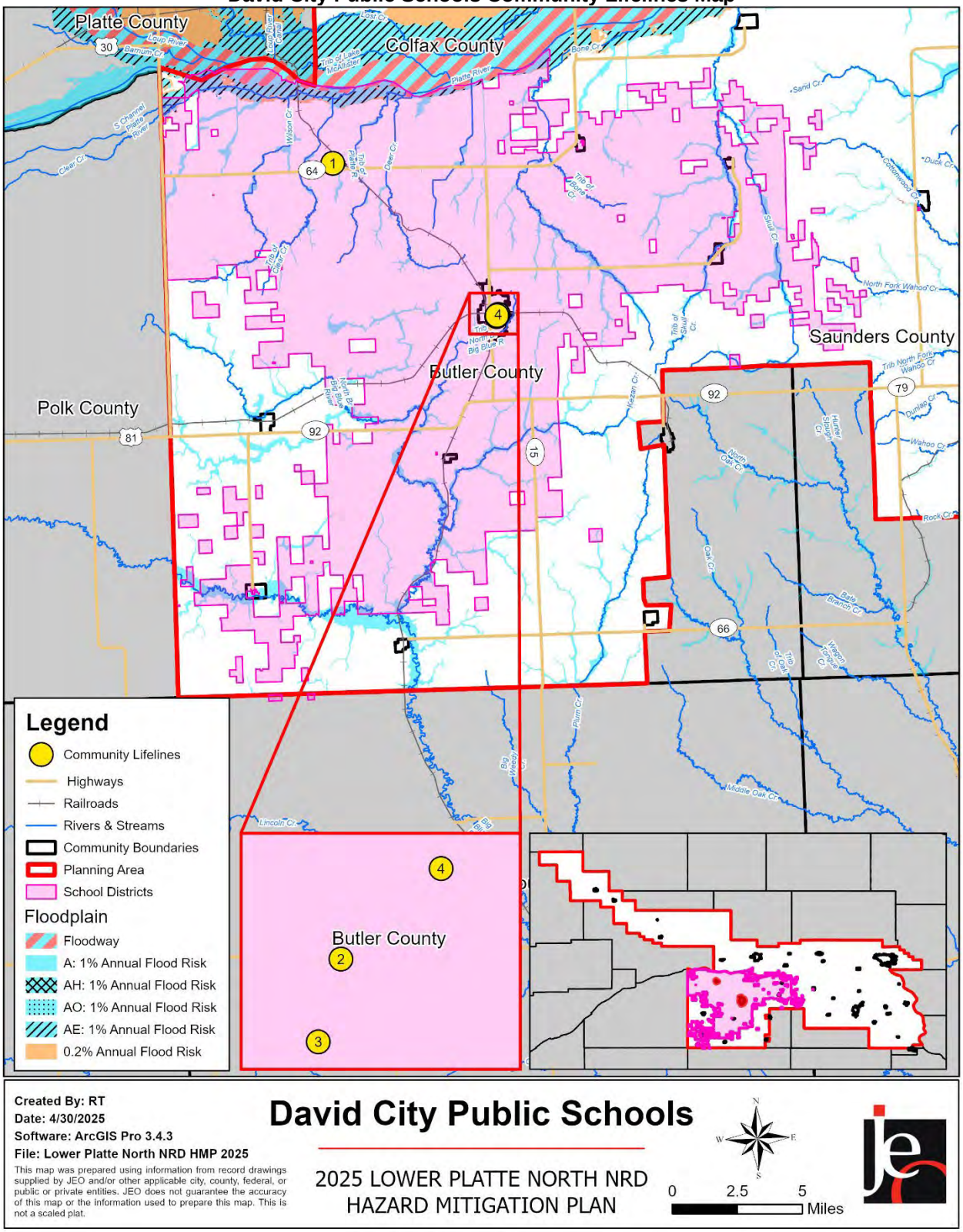
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



David City Public Schools Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Bellwood Elementary School	Safety & Security	G	N
2	David City Middle & High School	Safety & Security	-	N
3	David City Preschool & District Office	Safety & Security	-	N
4	David City Elementary	Safety & Security	-	N

David City Public Schools Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for David City Public Schools which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by David City Public Schools. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however, David City Public Schools has identified mitigation actions to reduce the impacts of those hazards. Dam Failure and Levee Failure have been omitted from this profile as there are no high hazard dams or any levee protected areas in the district according to NeDNR and USACE data. Therefore, no mitigation actions have been identified for those two hazards. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Drought

Drought is likely to impact the entire region's economic system. Because David City Public Schools relies on tax funds to maintain its educational services, a drought would also impact the district. A severe drought may also increase the needs of students, in turn requiring more assistance from school resources. Droughts also impact water quality, which is especially dangerous for small children, so the school may need to purchase bottled water.

Mitigation and Strategic Actions

Action	Ensure Adequate Water Supply
Description & Location	Develop agreements with organizations, such as the Nebraska Department of Health and Human Services or local jurisdictions and organizations, for secondary water sources during drought conditions.
Hazard(s) Addressed	Drought, Grass/Wildfires
Estimated Cost	Varies
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Superintendent
Status	New action. Not started.

Action	Establish a Reserve Fund
Description & Location	Ensuring the school district has adequate funds to continue operations during drought seasons if tax revenue drops due to farmers and the economy impacted by drought.
Hazard(s) Addressed	Drought
Estimated Cost	Staff Time
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Superintendent
Status	New action. Secondary priority.

Flooding

The March 2019 flooding across Nebraska affected David City Public Schools and the surrounding community. Impacts from flooding can include school cancelation and damage to community lifelines. Flooding of county roads has prevented busing in the past, impacting

attendance. Both flash and riverine flooding are a concern, with Bellwood Lake, North Lake, Bone Creek, Platte River, and Loup River all prone to flooding. Of these bodies of water, the Platte River and Bone Creek are of most concern. Other areas around the district may have poor stormwater drainage that could affect the schools. The school district can establish alternate bus routes to prevent impacts from flooding in the future.

Mitigation and Strategic Actions
See the *School Emergency Communications* action under Other Mitigation and Strategic Actions.

Severe Thunderstorms

Severe thunderstorms have caused power outages; washed out roads; and caused damage from flooding, high winds, and hail throughout the district. County roads are particularly likely to be affected. The district's four buildings are mostly constructed from brick, but the roofs and windows are still vulnerable to damage from hail. Each building is insured against hail and other damage by EMC Insurance Company, but damage from hail could still financially impact the district and disrupt school services. The district's IT infrastructure is protected from power surges with a backup battery system and backup servers that protect school records. Most of the district owned buildings do not have a backup power generator. Two of the four buildings do have weather radios. The school district can update fire and tornado shelter plans and its exit plans to help reduce impacts from this hazard.

Mitigation and Strategic Actions

Action	**Backup and Emergency Generators**
Description & Location	Provide a portable or stationary source of backup power for all three schools, high school wrestling room, and the district office.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	Varies by size
Local Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	Superintendent and Maintenance Department
Status	Bellwood Elementary School has a backup generator. The school district is prioritizing installing a generator at the elementary school and another at the high school in David City.

Severe Winter Storms

County road closures and power outages from severe winter storms impact the school district's ability to bus students and to hold classes. David City Public Schools communicates with the County Road Supervisor on road conditions and if classes need to be canceled. The school district maintains a tractor and a snow blower for snow removal on school grounds, though more snow removal resources would be helpful.

Mitigation and Strategic Actions

Action	Weather Radios
Description & Location	Conduct an inventory of weather radios at the schools and district office. Ensure they broadcast safety measures and proper evacuation procedures in the event of a severe weather activity, wildfire, or technical/man-made hazard.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfire, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$100 each
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Superintendent and administration
Status	Not started.

Terrorism and Cyber-Attack

No terroristic or cyber-attacks have occurred to the school district, but an event could be catastrophic since a large number of vulnerable populations reside in the buildings during the school year. Sensitive information on the school server could also be compromised if a cyber attack were to happen. The school district receives a lot of phishing emails, scam emails, and other harmful materials online. David City Public Schools is exploring safety measures to reduce risks to this hazard. Future projects can include setting up a firewall, two-step authentication, and backing up data at an off-site location.

Mitigation and Strategic Actions

Action	Install Cyber-Security Measures
Description & Location	Install a firewall on school district devices and have a secondary backup of files at an off-site location. Potentially requiring two-step authentication.
Hazard(s) Addressed	Terrorism and Cyber-Attack
Estimated Cost	$5,000
Local Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Superintendent and Tech Coordinator
Status	School district is pursuing this as a priority project in the next 24 months.

Other Mitigation and Strategic Actions

Action	Hazardous Fuels Reduction
Description & Location	Create buffers around school properties through the removal or reduction of flammable vegetation and replacing it with nonflammable vegetation or materials as a defensible space measure.
Hazard(s) Addressed	Extreme Temperatures, Drought, Grass/Wildfires
Estimated Cost	Varies by project
Local Funding	General Fund
Timeline	2-5 Years
Priority	Low
Lead Agency	Superintendent and Maintenance
Status	New action. Hazardous tree removal has been completed.

Action	School Emergency Communications
Description & Location	Establish an action plan to improve communication between schools and other government agencies to better assist students and staff during and following emergencies. Further collaboration efforts with local police and fire departments to ensure communication and operations during emergencies align with their procedures. Establish inner-operable communications.
Hazard(s) Addressed	Animal & Plant Disease, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$10,000+
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Superintendent and administration
Status	Not started. Need to update fire and tornado plans.

Removed Mitigation and Strategic Actions

Action	First Aid Training
Description & Location	Promote first aid training for all staff.
Hazard(s) Addressed	Animal & Plant Disease, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Status	Removed. First aid and CPR are already offered to school district staff.

Action	Hazardous Tree Removal
Description & Location	Conduct a tree inventory. Develop and implement tree maintenance and trimming program to remove hazardous limbs and trees.
Hazard(s) Addressed	Drought, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Status	Completed. Conducted and managed tree removal.

Action	Install Vehicular Barriers
Description & Location	Install vehicular barriers to protect buildings where possible. This would be located the high school and David City elementary.
Hazard(s) Addressed	Terrorism
Status	Removed. Partial completion, but not feasible at this moment.

Fire Districts Profile

Dwight Volunteer Fire Department Profile

Lower Platte North NRD
Hazard Mitigation Plan 2025

Local Planning Teams

Local Planning Teams

Name	Title	Fire District	Round 1 Meeting	Round 2 Meeting
James A. Mastny	Fire Chief	Dwight Volunteer Fire Department	-	Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The Fire Chief, Rural Fire Board, and Town Board will be responsible for reviewing and updating the community profile outside of the five-year update. Dwight Volunteer Fire Department will review the plan every two years and the public will be notified by posts at public places.

Demographics

The fire districts do not collect demographic information of their population, nor does the U.S. Census Bureau recognize fire districts as a distinct unit. As a result, there is no demographic data generated specifically for each fire district. For information regarding population data, please refer to *Section 3 and Appendix C*. The table below gives an approximate number of people served for each participating district.

Capability Assessment

Due to the unique structure of fire districts, the typical capability assessment table was not used. The following table summarizes each district's response vehicles, special teams, and special equipment. In addition, each district can utilize mutual aid, county, and state resources if needed during large-scale events.

Response Vehicles, Special Teams, and Special Equipment

Participating Fire District	Aerial	Pumper	Tanker	Pumper / Tanker	Grass-Weed Truck	Utility Truck	Rescue Units	Special Teams	Special Equipment
Dwight Volunteer Fire Department	0	2	4	0	2	2	1	0	2 sets of jaws

Mutual Aid Agreements

Participating Fire District	Mutual Aid Partnerships
Dwight Volunteer Fire Department	Abie, Bellwood, Brainard, Bruno, David City, Linwood, Rising City, Ulysses, Bee, Valparaiso

Plans and Studies

Dwight Volunteer Fire Department has regional planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When [jurisdiction] updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Butler County Local Emergency Operations Plan (2021)

The Butler County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. The hazard mitigation plan has been integrated with this plan and includes the top hazards that would affect the county and its populations. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines.

Southeast Nebraska Community Wildfire Protection Plan (2020)

The purpose of the Southeast Nebraska Community Wildfire Protection Plan CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years.

Future Development Trends

Over the past five years, the fire department has established a new rescue squad and updated a used pumper and grass rig. In the future, the fire district is planning on updating its pumper. This likely decreases vulnerability of hazards by providing more and advanced services for the district.

Community Lifelines

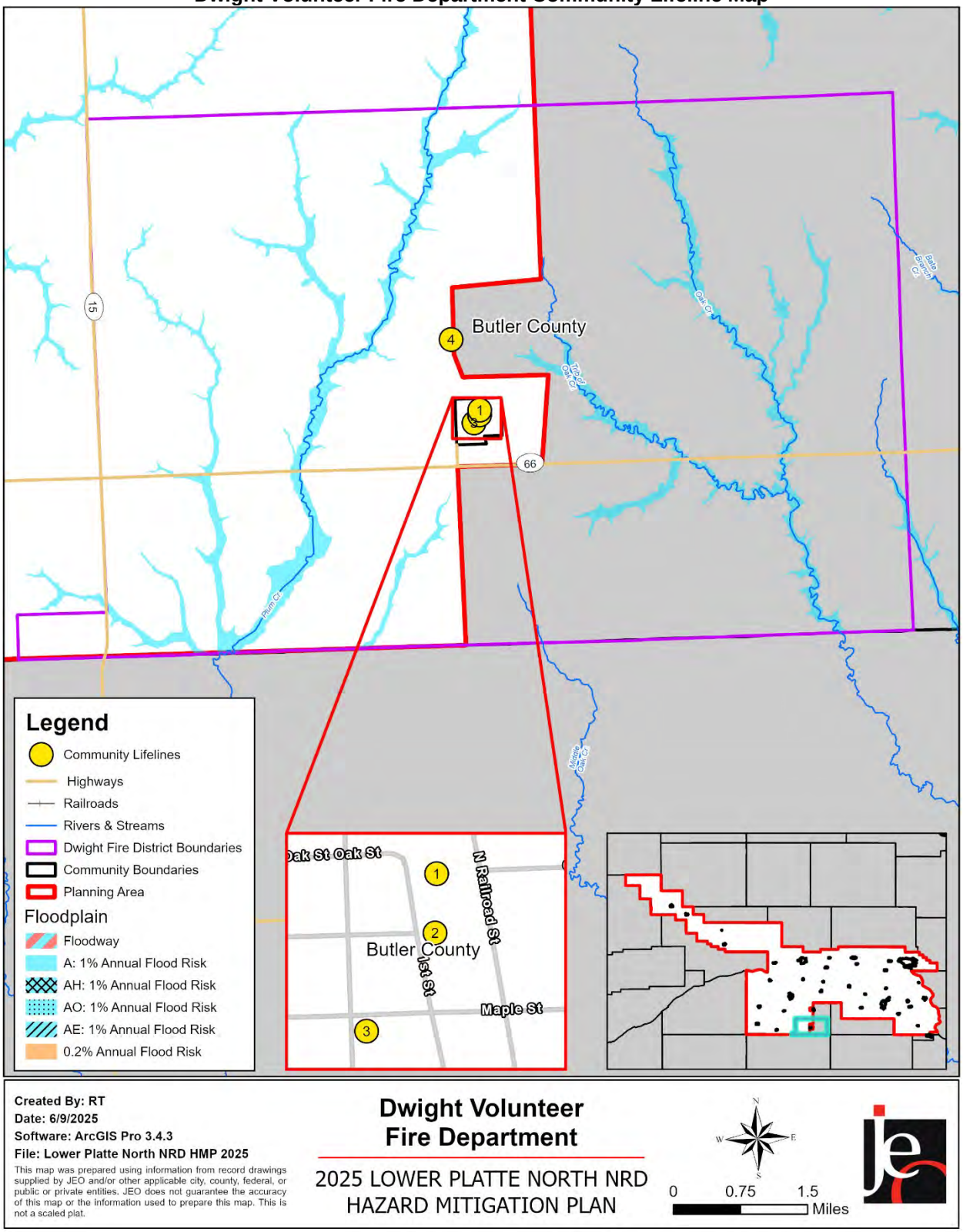
As listed in the tables below, each fire district identified community lifelines that are vital for disaster response and essential for returning the districts' functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Dwight Volunteer Fire Department Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	East Butler Grade School	Safety & Security	G, S	N
2	Fire Hall	Safety & Security	G	N
3	Maintenance Building	Other	G	N
4	Well House	Food, Water, Shelter	G	N

Dwight Volunteer Fire Department Community Lifeline Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning teams prioritized specific hazards of top concern for the fire districts which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by each fire district. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however, Dwight Volunteer Fire Department has identified mitigation actions to reduce the impacts of the hazards. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Drought

Drought is a concern for the fire department because a lack of water and dry conditions can have negative impacts on regional fires. Dry conditions can lead to more fires and a decreased water supply could reduce the fire department's ability to fight fires. The department takes water from the town wells to fight fire. Water quantity has been sufficient in the past. Restricting burn permits is a needed action to prevent potential fires from occurring during dry conditions.

Mitigation and Strategic Actions

Action	Assess Vulnerability to Drought Risk
Description & Location	The jurisdiction will review relevant plans and systems to identify factors which may increase drought impacts or gaps in planning and service delivery. This may include but is not limited to: assessing water distribution system(s), reviewing well levels and identifying alternative water sources (if needed), examining water intensive consumers, review of water pricing structures, considering the need for municipal water meters, and other locally appropriate actions.
Hazard(s) Addressed	Drought
Estimated Cost	$10,000+
Local Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board
Status	Not started.

Action	Evaluate Water Supply
Description & Location	Evaluate and locate new sources of ground and/or surface water to ensure adequate supplies to support the existing community and any additional growth which may occur.
Hazard(s) Addressed	Drought, Grass/Wildfires
Estimated Cost	Varies
Local Funding	Village General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Village Board
Status	Possibly looking into a new well.

Action	Expand Water Storage Capacity
Description & Location	Evaluate the need to expand current water storage capacity (via new water tower, additional wells, etc.). Establish emergency water supplies such as dry hydrants and individual or community cisterns for defending structures from wildland fires.
Hazard(s) Addressed	Drought, Grass/Wildfires
Estimated Cost	Varies
Local Funding	Village General Fund
Timeline	1 Year
Priority	High
Lead Agency	Village Board
Status	Dwight is looking into a new well. Preparations are being made to start the application process.

Action	Monitor Water Supply
Description & Location	Establish a system/process for monitoring water supplies (establishing timeframes for measuring well depths, increasing stream flow, etc.)
Hazard(s) Addressed	Drought, Grass/Wildfires
Estimated Cost	Staff time
Local Funding	Village General Fund
Timeline	1 Year
Priority	High
Lead Agency	Village Board
Status	Dwight Water Operator monitors water levels closely throughout the year.

Action	Water System Improvements
Description & Location	Make water system improvements to include additional fire hydrants/increase supply and pressure to effectively fight fires and meet increasing demands. Update/improve water distribution system (identifying and replacing leaky pipes, assisting residents in identifying inefficiencies, transitioning to smart irrigation systems, etc.). Upgrade water district infrastructure to decrease likelihood of damages and improve water system for emergency use.
Hazard(s) Addressed	Drought, Grass/Wildfires
Estimated Cost	Varies
Local Funding	Village General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Village Board
Status	New well possibility.

Action	Well Improvement
Description & Location	Improve community well system.
Hazard(s) Addressed	Drought, Grass/Wildfires
Estimated Cost	Varies
Local Funding	Village General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Village Board
Status	Village is looking at a new well.

Grass/Wildfires

Occasional grass and wildfires in the region are inevitable but are a concern when they get out of control and threaten property and crops. A field fire west of Dwight occurred on October 1, 2024. Firefighters were able to get the fire under control. The Village of Dwight does not have a Wildland-Urban Interface Code, but property owners are encouraged to have defensible space around structures to mitigate fire near urban areas.

Mitigation and Strategic Actions

Action	Capacity Building
Description & Location	Improve emergency rescue and response equipment and facilities by providing additional or updating existing equipment. For example: backup systems for emergency vehicles, training additional personnel, upgrading radio systems, etc.
Hazard(s) Addressed	Animal & Plant Disease, Dam Failure, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	Varies
Local Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Rural Board
Status	Not started. The fire district is looking at updating its pumper.

Severe Thunderstorms

Hail damage is a risk for the fire department because it could damage the fire station and equipment. A significant hailstorm in 2006 left property and crop damage throughout the Village of Dwight. One-inch hail has been reported in April and again in June of 2022 in Dwight. No significant damages were reported from those two events. The fire hall is not built with hail resistant materials but is insured against hail damage.

Mitigation and Strategic Actions

Action	Infrastructure Hardening
Description & Location	Harden community lifelines to withstand high winds, hail, heavy snow, etc. by hardening roofs, hail resistant barriers to HVAC systems, shatter-proofing windows, building tie-downs and anchors, flood walls, and other architectural designs that reduce damage.
Hazard(s) Addressed	Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Levee Failure, Hazardous Materials Release, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	Varies by project
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Fire Chief, Rural Board
Status	Ongoing process. Potentially retrofit fire hall to be hail resistant.

Other Mitigation and Strategic Actions

Action	Public Education
Description & Location	Educate the public about hazard vulnerability and mitigation measures. Educational materials, such as brochures and fliers, can be developed and provided to the public to increase community wide hazard awareness and safety strategies. Educate volunteers on procedures to stay safe during extreme temperatures.
Hazard(s) Addressed	Animal & Plant Disease, Dam Failure, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	Staff Time
Local Funding	Staff Time, General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Rural Board
Status	New action. Dwight Fire District distributes information on their social media to the public on hazards and safety procedures. Can expand by offering safety procedures on what to do during power outages, extreme temperature safety procedures, or other information sharing on how to stay safe during severe weather-related events.

Completed and Removed Mitigation and Strategic Actions

Action	Alert/Warning Sirens
Description & Location	Perform an evaluation of existing alert sirens in order to determine which sirens should be replaced or upgraded. Install new sirens where lacking with remote activation options.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Severe Thunderstorms, Tornadoes and High Winds
Status	Completed. Rural Fire Board took over.

Action	Backup and Emergency Generators
Description & Location	Identify and evaluate current backup and emergency generators. Obtain additional generators based on identification and evaluation. Provide a portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations and other critical facilities and shelters.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Status	Removed. Generators at the fire department, north well, and an auxiliary generator on hand.

Educational Service Unit Profile

Educational Service Unit #2

Lower Platte North NRD
Hazard Mitigation Plan 2025

Local Planning Team

Educational Service Unit #2 Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Dr. Ted DeTurk	Executive Director	Educational Service Unit #2	Materials Development	Attended, Materials Development
Mitch Hoffer	Assistant Director	Educational Service Unit #2	Attended	-

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The Administrator & Community Navigator, Business Manager & Mental Health Director, and Technology Director & Independent Program Principal will be responsible for reviewing and updating this participant profile outside of the five-year update. Educational Service Unit #2 (ESU 2) will review the plan annually and the public will be notified during a public meeting.

Location and Purpose

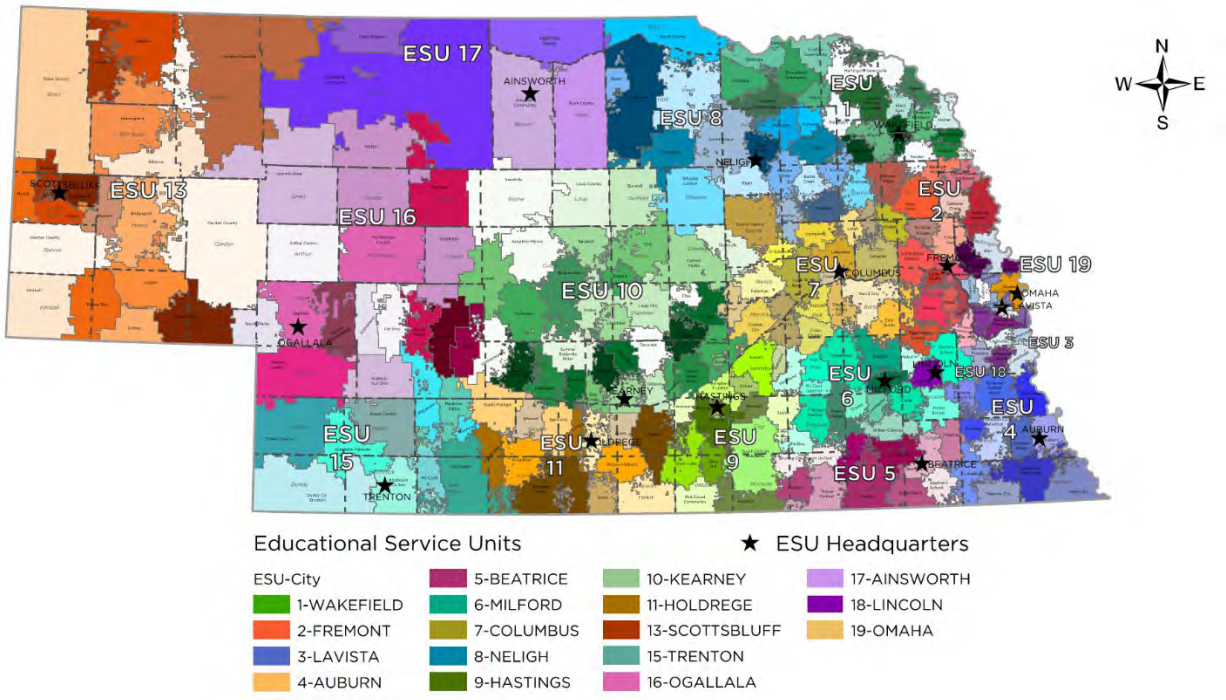
ESU 2 provides services for member school districts in the areas of: Grant Writing, Professional Development, Mental Health and Community Outreach, Behavior Consulting and Programs, Technology Infrastructure and Support, Special Education Services, and Career and Technical Education Programs. The service unit has an office and operates the Independent School located in Fremont. Member school districts include the list below. Map of the ESUs in Nebraska can be found on the next page.

- Ashland Greenwood
- Bancroft/Rosalie
- Cedar Bluffs
- Fremont
- Lyons/Decatur
- Logan View
- Oakland/Craig
- Mead
- North Bend Central
- Tekamah/Herman
- Raymond Central
- Yutan
- West Point/Beemer
- Wisner/Pilger
- Scribner/Snyder
- Wahoo

Capability Assessment

Due to the unique structure of educational service units, the typical capability assessment table was not used. The following table summarizes the unit's overall capabilities. ESU 2 is governed by a publicly elected board, made up of eight individuals. The unit currently has 108 staff. The district offers training on psychological first aid, crisis response, and cyber-attack tabletops.

Educational Service Units in Nebraska



Educational Service Unit #2's Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Moderate
Staff/Expertise to Implement Projects	High
Public Support to Implement Projects	Moderate
Time to Devote to Hazard Mitigation	Moderate
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	High

Plans and Studies

ESU 2, along with the 16-member public schools, completed the Department of Education's Emergency Operations Plan. The plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the unit updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Emergency Operations Plan (2021)

The purpose of the emergency operations plan is to identify and respond to incidents by outlining the responsibilities and duties of ESU 2 and its employees. This plan outlines organization and assignment of responsibilities, communications, direction and control, and finance. Within the document is a Continuity of Operations Plan that ensures there are procedures in place to maintain or rapidly resume essential operations after an incident that disrupts normal activities. Specific hazards discussed in the plan includes medical emergency, tornado, lightning, flood, intruder, and hazardous materials release. This plan is reviewed regularly and updated as needed. Because the unit has not participated in the hazard mitigation plan in the past, it has not been integrated into the emergency operations plan.

Future Development Trends

Over the past five years, ESU 2 hired an additional 45 people based solely on grants awarded. The influx of staff has resulted in a facility addition of approximately 5,800 square feet to the existing office and approximately 3,150 square feet of renovation. Currently there are no plans for additional personnel or construction in the next five years. For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new developments could be impacted regardless of where they are located.

Community Lifelines

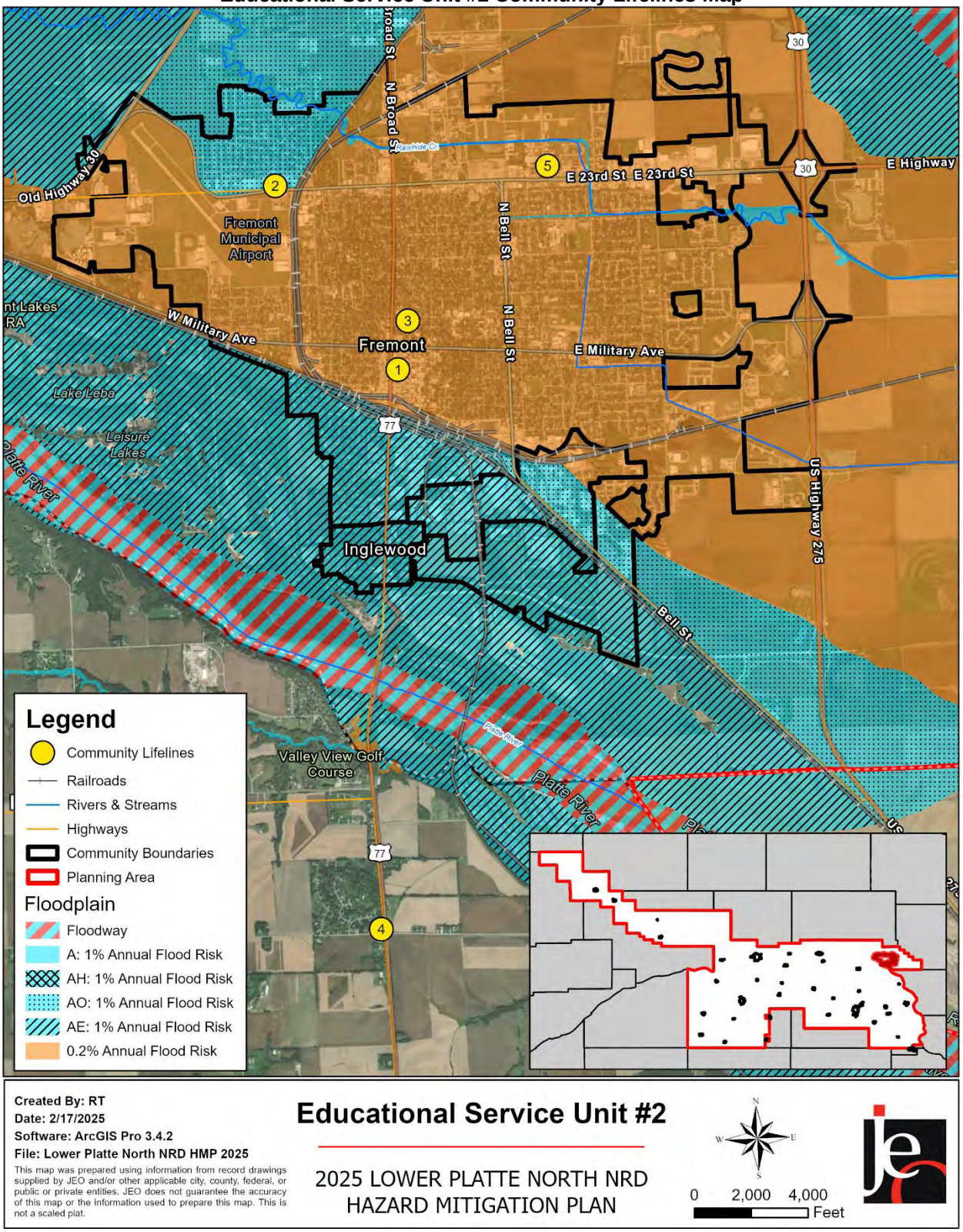
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Educational Service Unit #2 Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Dodge County Emergency Management	Safety & Security	G	Y (0.2%)
2	ESU 2 Office	Other	G	Y (1%)
3	Fremont Public Schools	Other	-	Y (0.2%)
4	Independent School	Other	-	N
5	Three Rivers Health Department	Health & Medical	G (Mobile)	Y (0.2%)

Educational Service Unit #2 Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Educational Service Unit #2 which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by Educational Service Unit #2. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however, ESU #2 has identified mitigation actions to reduce the impacts of those hazards. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Severe Thunderstorms

During a severe thunderstorm in May of 2024, the area received approximately five inches of rain, and the ESU 2 office was struck by lightning. This electrical surge required the backup generator to fire up and the battery backup system to boot up. That switchover resulted in a lapse in service for less than a minute but did impact technology storage and area email service. Without further lightning protection, this type of event could occur again in the future.

Mitigation and Strategic Actions

Action	Food and Clothing Bank Storage
Description & Location	ESU 2 currently operates a food and clothing bank as part of the Navigator Program. These banks provide students with necessities including clothing and toiletries, as well as food. The banks are to be used at school locations after a disaster event. One area of concern is storage availability for this which would be addressed with an enclosed trailer kept at the Educational Service Unit building (2320 N. Colorado Ave.) and two wheeled storage cabinets.
Hazard(s) Addressed	Extreme Temperatures, Dam Failure, Flooding, Grass/Wildfire, Hazardous Material Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Tornadoes & High Winds
Estimated Cost	$7,500
Local Funding	General Budget
Timeline	1 Year
Priority	Medium
Lead Agency	Executive Director
Status	New Action. Planning Stage. Currently, all materials are spread throughout the building including the basement of the Independent Program. The ESU has a pickup to tow the trailer to wherever is needed.

Action	Lightning Protection
Description & Location	Install lightning protection devices at the ESU 2 Office and Independence School to reduce possible interruption or loss of power.
Hazard(s) Addressed	Severe Thunderstorms
Estimated Cost	$1,000+
Local Funding	General Budget
Timeline	2-5 Years
Priority	Low
Lead Agency	Executive Director
Status	New Action. Not Started.

Terrorism & Cyber-Attack

There have been no terrorism or cyber-attack incidents within the last two years at ESU 2. The unit is primarily concerned with a cyber-attack due to the increasing number of events in the United States. ESU 2 relies heavily on technology and sensitive data to provide services, ensuring proper cybersecurity is essential to preventing a cyber-attack. Being a public institution, the ESU is vulnerable to nation state, political, and financially motivated cyber threats. ESU 2 has completed several projects, to help reduce the likelihood of a successful cyber-attack. Projects that have been implemented are listed below.

- Completed two internal cybersecurity audits.
- Implementation security controls.
- Completed two penetration tests in 2024 to identify areas of improvement.
- Completed two network security improvement projects.
- Created new network security standards based on lessons learned.
- Configuration of regular vulnerability scans identify vulnerable systems.
- Created cybersecurity intelligence sharing agreement with partner organizations.
- Created email-based Data Loss Prevention policies for GLBA content.
- Established internal audit pipeline for new vendors, software, and services.
- Created new cloud platform threat alerting and response.

Mitigation and Strategic Actions

Action	Cyber Security Governance Program
Description & Location	Implementation and ongoing management of organization level security governance programs, including policy establishment and enforcement.
Hazard(s) Addressed	Terrorism & Cyber-Attack
Estimated Cost	$15,000
Local Funding	General Budget
Timeline	1-3 Years
Priority	Low
Lead Agency	Technology Department
Status	New Action. In Progress.

Action	Cyber Security Staff
Description & Location	Establish a dedicated cyber security staff position for ESU 2.
Hazard(s) Addressed	Terrorism & Cyber-Attack
Estimated Cost	$85,000+
Local Funding	General Budget
Timeline	5+ Years
Priority	Moderate
Lead Agency	Executive Director
Status	New Action. Not Started.

Action	Dark Web Monitoring Solution
Description & Location	Monitoring, intelligence, and protection for internal, external, identity, fraud, geopolitical, data leak, and attack surface threats to the organization.
Hazard(s) Addressed	Terrorism & Cyber-Attack
Estimated Cost	$30,000 - $100,000+
Local Funding	General Budget
Timeline	1-3 Years
Priority	Low
Lead Agency	Technology Department
Status	New Action. Not Started

Action	Staff Training
Description & Location	Train staff in cyber security measures and steps to take when receiving suspicious emails or other electronic requests. Train staff in steps to take during a cyber-attack event.
Hazard(s) Addressed	Terrorism & Cyber-Attack
Estimated Cost	Staff Time
Local Funding	General Budget, Staff Time
Timeline	Ongoing
Priority	High
Lead Agency	Executive Director
Status	New Action. Ongoing. Staff are regularly trained in security measures and appropriate steps to take during a cyber-attack.

Other Mitigation and Strategic Actions

Action	Public Education
Description & Location	Educate staff, school district superintendents, and students on hazard that could impact the area and ESU #2's response to those actions. Work with local county emergency managers to help create and amplify outreach. Conduct a tabletop exercise with superintendents and emergency managers. Coordinate with relevant parties on mitigation strategies that can include: • Dispersing safety information on animal and plant disease outbreaks • Sharing with school districts on how to respond during floods that could result from severe thunderstorms/heavy rain, or dam and levee failures • Educating on water conservation strategies with school districts in the event of a drought • Proper evacuation or shelter-in-place training in the event of a tornado/high wind event, or fire • Support on event cancellation procedures during extreme temperature and severe winter storms
Hazard(s) Addressed	Animal & Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Levee Failure, Severe Winter Storms, Severe Thunderstorms, Tornadoes and High Winds
Estimated Cost	$1,000+
Local Funding	General Budget
Timeline	Ongoing
Priority	Medium
Lead Agency	Executive Director
Status	New Action. Ongoing. The service unit currently conducts a tabletop exercise annually with superintendents and emergency managers.

SID Profile

Lake Ventura SID #3

Lower Platte North NRD
Hazard Mitigation Plan 2025

Local Planning Team

Lake Ventura SID #3 Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Jim Wilcynski	Trustee	Lake Ventura SID #3	Attended	Attended
Rob Custer	Chairman	Lake Ventura SID #3	Attended	Attended, Materials Development
Larry Snyder	Clerk	Lake Ventura SID #3	-	Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The Planning Team will be responsible for reviewing and updating the community profile outside of the five-year update. Lake Ventura SID #3 will review the plan bi-annually and the public will be notified through public notices.

Location and Purpose

The Lake Ventura SID #3 is a private lake community in the southeastern portion of Dodge County, two miles west of the City of Fremont. The SID covers approximately 90 acres of land and 110 acres of lake. The Platte River is just south of the community.

Demographics

The Lake Ventura community has about 100 homes housing about 142 people. The median age of the population is 55 to 60 years old.

Capability Assessment

Due to the unique structure of the SID, the typical capability assessment table was not used. The following table summarizes the district's overall capabilities.

Lake Ventura SID #3 Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Limited
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

Plans and Studies

Lake Ventura SID #3 has emergency plans that discuss or relate to hazard mitigation. When the SID updates those plans, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Future Development Trends

No changes have been made over the past five years in Lake Ventura SID #3 and no new structures are anticipated in the near future. This likely keeps vulnerability to all hazards the same.

Community Lifelines

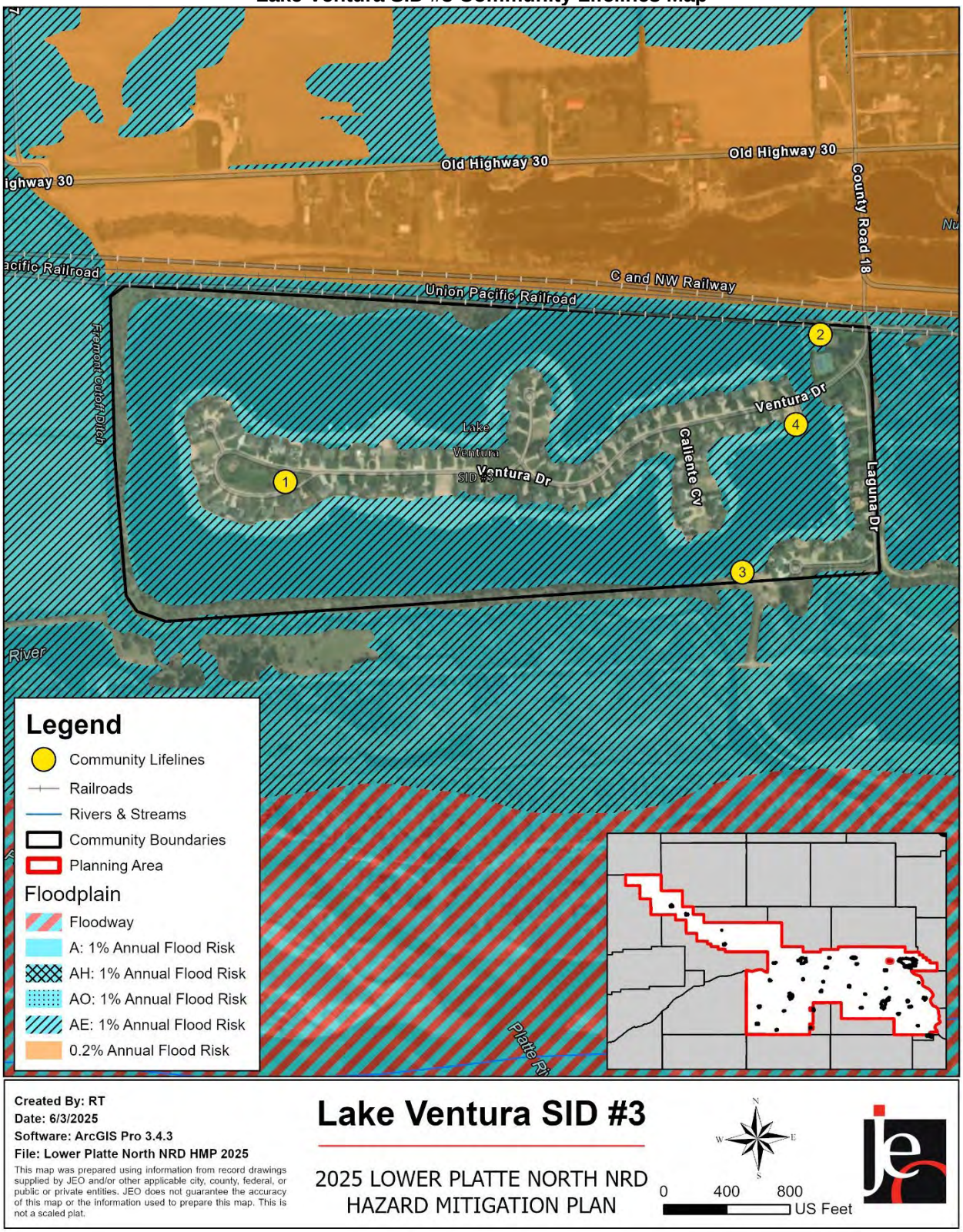
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Lake Ventura SID #3 Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Pressure Tank Building	Food, Water, Shelter	-	N
2	Wastewater Treatment Plant	Food, Water, Shelter	-	Y (1%)
3	Well #1	Food, Water, Shelter	-	Y (1%)
4	Well #2	Food, Water, Shelter	-	Y (1%)

Lake Ventura SID #3 Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for the Lake Ventura SID #3 which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Lake Ventura SID #3. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however, the SID has identified mitigation actions to reduce the impacts of those hazards. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Drought

Drought is a concern for Lake Ventura because it increases the water used by surrounding agricultural producers for irrigation, dropping the community's well levels. In the past the wells have dropped by 40 feet to a depth of four to eight feet. This creates a high risk of losing potable water for the lake's residents during a drought. Approximately 10 years ago the wells were deepened to adjust for these low water table issues. The newer and deeper wells have lowered the risk of this hazard.

There are two drought definitions for the SID: the first is when the wells are no longer operable because the well level is too low. The second is when the lake level is low causing limited lake access and stress to the fish population. Well levels are monitored daily. During drought events lawn water restrictions are put in place. Lake Ventura can connect to the City of Fremont's water system if potable water becomes unavailable. The SID has not had issues with water quality during drought events but will ration the water usage. The Planning Team has stated that connecting to Fremont's water system is a potential action to reduce future impacts during droughts.

Mitigation and Strategic Actions

Action	Assess Vulnerability to Drought Risk
Description & Location	Review relevant plans and systems to identify factors which may increase drought impacts or gaps in planning and service delivery. This may include but is not limited to: assessing water distribution system(s), reviewing well levels and identifying alternative water sources (if needed), examining water intensive consumers, review of water pricing structures, considering the need for municipal water meters, and other locally appropriate actions.
Hazard(s) Addressed	Drought
Estimated Cost	$10,000+
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	SID #3
Status	Not started.

Action	Drought Management Plan
Description & Location	Work with relevant stakeholders to develop a drought management plan. Includes: identify water monitoring protocols, outline drought responses (watering restrictions), identify opportunities to reduce water consumption (swimming pools, fountains), and establish the jurisdictional management procedures.
Hazard(s) Addressed	Drought
Estimated Cost	$25,000+
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	SID #3
Status	Potentially connect system with Fremont.

Action	Incorporate Native Species into Municipal Landscapes
Description & Location	Work to incorporate native species of plans into municipal landscapes when updates/improvements are implemented.
Hazard(s) Addressed	Drought
Estimated Cost	$1,000+
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	SID #3
Status	Continual maintenance is done throughout the SID.

Flooding

The March 2019 floods had a significant impact on Lake Ventura. There was low level flooding in the sewage treatment building and at the gas pump of the boat fueling system. This caused minor damage to the sewage treatment building. The east end of Lake Ventura and the sewage treatment plant are most prone to flooding. There is minor ponding of stormwater in the subdivision and poor stormwater drainage in the farmland to the west of the community.

In response to the March 2019 flood, communities and diking and drainage districts, including Lake Ventura, in southern Dodge County along the Platte River formed the Dodge County Joint Water Management Advisory Board. They've partnered together to develop a comprehensive flood risk reduction and mitigation strategy along the Platte River. The Board is currently looking for funding alternatives to develop a Flood Mitigation and Flood Resiliency Plan to identify, evaluate, and prioritize flood mitigation alternatives to improve flood resiliency along the Platte River. Since then, additional fill dirt has been added to 216 yards north of the dike area. In the future, a culvert should be installed on County Road 18 at the entrance to Lake Ventura between the Union Pacific Railroad and Lake Ventura SID property to reduce risks from flooding.

Mitigation and Strategic Actions

Action	Above Ground Stormwater System and Drainage Improvements
Description & Location	Stormwater systems comprising of ditches, culverts, or drainage ponds can be used to convey runoff. Undersized systems can contribute to localized flooding. Drainage improvements may include ditch upsizing, ditch cleanout and culvert improvements. Retention and detention facilities may also be implemented to decrease runoff rates while also decreasing the need for other stormwater system improvements. Bridges typically serve as flow restrictions along streams and rivers. Cleanout and reshaping of channel segments at bridge crossings can increase conveyance, reducing the potential for flooding.
Hazard(s) Addressed	Flooding
Estimated Cost	Varies
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	SID #3
Status	Not started.

Action	Dodge County Platte River Communities Flood Mitigation and Resiliency Plan
Description & Location	Develop a flood mitigation and resiliency plan to holistically look at local flood risks and measures to reduce them from North Bend to Fremont along the Platte River. The plan will include hydrologic and hydraulic analyses to assess the nature of the flood risks and evaluate flood risk reduction improvement projects. Structural and non-structural mitigation may be considered and prioritized. The conceptual flood risk reduction recommendations will serve to provide a path forward towards implementation and a reduction of further damage to structures and community lifelines.
Hazard(s) Addressed	Flooding
Estimated Cost	$1,000,000
Local Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Joint Water Advisory Board (The SID is a partner on the Board)
Status	Continued/ongoing efforts.

Action	Emergency Fuel Supply Plan
Description & Location	Plan to ensure adequate fuel supply is available during an emergency. Prioritization and rationing plans for gasoline and diesel uses in extended loss of fuel supply or electric power supply; plans to purchase local fuel supply; etc.
Hazard(s) Addressed	Extreme Temperatures, Floodings, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$6,000+
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	SID #3
Status	Not started.

Action	Facility Floodproofing
Description & Location	Explore the possibility of floodproofing for facilities which fall into the one percent flood inundation areas. The SID would like to harden the sewage treatment site.
Hazard(s) Addressed	Flooding
Estimated Cost	Varies
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	SID #3
Status	Under consideration.

Action	Stream Bank Stabilization / Grade Control Structures / Channel Improvements
Description & Location	Stabilize banks along streams and rivers. This may include, but is not limited to: reducing bank slope, addition of riprap, installation of erosion control materials/fabrics.
Hazard(s) Addressed	Flooding
Estimated Cost	Varies
Local Funding	NRD General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	SID #3
Status	Cutoff ditch/west end of the lake should be rerouted directly south the Platte River.

Levee/Berm Failure

Berms surround all four sides of Lake Ventura. The berms on the north, south and east sides failed during the March 2019 flooding event. They were breached in two places. Berm failures could cause floodwater to inundate the sewage treatment plant, wells, and many residences. A berm failure could also cut off access to the community; cause a loss of infrastructure; contaminate the lake with fertilizer, chemicals, invasive species, and soil; and damage the major transportation routes. According to the planning team, the northern, southern, and western berms provide 100-year or more flood protection. Since the 2019 floods, the north dike/berm has had repair work completed. Continued reinforcement of the berm and levee systems are needed to reduce risks from this hazard.

Mitigation and Strategic Actions

Action	Drainage Study/Stormwater Master Plan
Description & Location	Identify potential flooding sources and flood-vulnerable areas. Explore solutions and prioritize
Hazard(s) Addressed	Levee Failure, Flooding
Estimated Cost	$10,000+
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	SID #3
Status	Continued efforts.

Action	Emergency Exercise
Description & Location	Conduct tabletop exercises to determine the response scenarios in the event of levee failure.
Hazard(s) Addressed	Levee Failure, Flooding
Estimated Cost	$5,000+
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	SID #3
Status	Not started.

Action	Levee Failure Evacuation Plan
Description & Location	Work with officials to develop an evacuation plan if the levee were to fail.
Hazard(s) Addressed	Levee Failure, Flooding
Estimated Cost	$10,000+
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	SID #3
Status	Continued project.

Action	Levee/Floodwall Construction and/or Improvements
Description & Location	Levees and floodwalls serve to provide flood protection to businesses and residents during large storm events. Improvements to existing levees and floodwalls will increase flood protection. If possible, the structure should be designed to FEMA standards to provide 1-percent flood protection providing additional flood insurance benefits.
Hazard(s) Addressed	Levee Failure, Flooding
Estimated Cost	Varies
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	SID #3
Status	The north berm has been repaired since the 2019 floods. Continued reinforcement of the dike/berm is needed.

Severe Thunderstorms

Hail is a concern for the SID because it can cause property damage. There have been no significant hail events in the past 15 years. Community lifelines are not fitted with hail resistant building materials, but they are insured against hail damage.

Completed Mitigation and Strategic Actions

Action	Power, Service, and Electrical Lines
Description & Location	Work with local Public Power District or community electricity department to identify vulnerable transmission and distribution lines and plan to replace or retrofit existing structures to be less vulnerable to storm events. Also work to bury power and service lines. The SID will work with Fremont Public Power Department.
Hazard(s) Addressed	Extreme Temperatures, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Status	Completed. New power poles and primary underground service has been installed.

Mitigation and Strategic Actions

Action	Backup and Emergency Generators
Description & Location	Identify and evaluate current backup and emergency generators. Obtain additional generators based on identification and evaluation. The SID #3 relies solely on the City of Fremont for electricity and would like backup power generators for the sewage treatment facility, lift stations, and wells.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	Varies by size
Local Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	SID #3
Status	A committee has been formed to research this. The ice storm in March 2025 caused power line failures and loss of electrical service. Electrical services at facilities have been upgraded to accept generators.

Action	Infrastructure Assessment Study
Description & Location	Conduct an assessment of bridges and infrastructure in potential areas of concern.
Hazard(s) Addressed	Dam Failure, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	Varies by size of jurisdiction
Local Funding	County General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	SID #3
Status	The county inspects the bridge/

Action	Infrastructure Hardening
Description & Location	Harden community lifelines to withstand high winds, hail, heavy snow, etc. by: hardening roofs, hail resistant barriers to HVAC systems, shatter-proofing windows, building tie-downs and anchors, flood walls, and other architectural designs that reduce damage. A floodwall is needed around the sewage treatment plan.
Hazard(s) Addressed	Dam Failure, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	Varies by structure
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	SID #3
Status	Under consideration.

Tornadoes and High Winds

No tornadoes have occurred in Lake Ventura, but a future tornado could be catastrophic. The SID has only paper municipal records – they are not backed up in case of a disaster. The community does not have a warning signal. The County Emergency Manager does offer text alerts. There

are no FEMA certified safe rooms, so community member can only seek shelter in their homes. The SID does not provide education on tornado response and does not have Mutual Aid Agreements in place in case of a disaster.

Mitigation and Strategic Actions

Action	Backup Records
Description & Location	Develop protocol for backing up critical records onto a portable storage device or service. Maintain routine backup of records.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	Staff time
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	SID #3
Status	Reviewing.

Action	First Aid Training
Description & Location	Promote first aid training for all residents.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$100 per person
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	SID #3
Status	Not started.

Action	Safe Rooms and Storm Shelters
Description & Location	Design and construct storm shelters and safe rooms at the west park and boat ramp area.
Hazard(s) Addressed	Tornadoes and High Winds
Estimated Cost	$350+ per square foot
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	SID #3
Status	Not started.

Other Mitigation and Strategic Actions

Action	Comprehensive Disaster / Emergency Response Plan
Description & Location	Develop a comprehensive disaster and emergency response plan.
Hazard(s) Addressed	Animal and Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$15,000
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	SID #3
Status	Not started. Some facilities are included in the Dodge County LEOP.

Action	Continuity Planning
Description & Location	Develop continuity plans for critical services in order to increase resiliency after a hazardous event.
Hazard(s) Addressed	Animal and Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$10,000+
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	SID #3
Status	Not started.

Action	Emergency Operations Center
Description & Location	Identify and establish an emergency operations center.
Hazard(s) Addressed	Animal and Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	Staff time
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	SID #3
Status	Ongoing efforts.

Fire Districts Profile

Malmo Volunteer Fire Department Profile

Lower Platte North NRD
Hazard Mitigation Plan 2025

Local Planning Teams

Local Planning Teams

Name	Title	Fire District	Round 1 Meeting	Round 2 Meeting
Chris Gustafson	Fire Chief	Malmo Volunteer Fire Department	-	Attended, Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The Fire Chief, Assistant Chief, and 2nd Assistant Chief will be responsible for reviewing and updating the community profile outside of the five-year update. The Malmo Volunteer Fire District will review the plan annually and the public will be notified on social media and in the yearly newsletter.

Capability Assessment

Due to the unique structure of fire districts, the typical capability assessment table was not used. The following table summarizes each district's response vehicles, special teams, and special equipment. In addition, each district can utilize mutual aid, county, and state resources if needed during large-scale events.

Response Vehicles, Special Teams, and Special Equipment

Participating Fire District	Aerial	Pumper	Tanker	Pumper / Tanker	Grass-Weed Truck	Utility Truck	Rescue Units	Special Teams	Special Equipment
Malmo Volunteer Fire Department	0	2	3	0	2	0	0	0	2 SUVs, 1 UTV

Mutual Aid Agreements

Participating Fire District	Mutual Aid Partnerships
Malmo Volunteer Fire Department	Ashland, Cedar Bluffs, Colon, Ithaca, Mead, Morse Bluff, Prague, Valparaiso, Wahoo, Weston, Yutan

Plans and Studies

The Malmo Volunteer Fire Department has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the department updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update. The fire department also uses that 2025 Emergency Assistance Wildfire Control (Yellow Book) to know where aviation suppression resources are in Nebraska and the 2019 Nebraska Disaster Resource Guide for additional statewide and federal resources in the event of a disaster.

Saunders County Local Emergency Operations Plan (2021)

The Saunders County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. The hazard mitigation plan has been integrated with this plan and includes the top hazards that would affect the county and its populations. Flooding, dam failure, and mass shelter information from the LEOP were used to inform hazard prioritization and community lifelines.

Standard Operating Procedures

The standard operating procedures outline the department's response to a variety of different calls that could be received. These procedures are unlikely to be further integrated with the hazard mitigation plan as they deal directly with response efforts.

Southeast Nebraska Community Wildfire Protection Plan (2020)

The purpose of the Southeast Nebraska Wildfire Protection Plan CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years.

Future Development Trends

Over the past five years, Malmo Volunteer Fire Department has developed a new fire hall, updated its 6x6 grass trucks, and purchased a UTV and skid unit. The fire department is constructing a new grass rig and currently updates two sets of bunker gear every year or as needed. In the future, the fire department would like to acquire an auto start generator system. This will likely lower the district's vulnerabilities from various hazardous events. For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted regardless of where they are located.

Community Lifelines

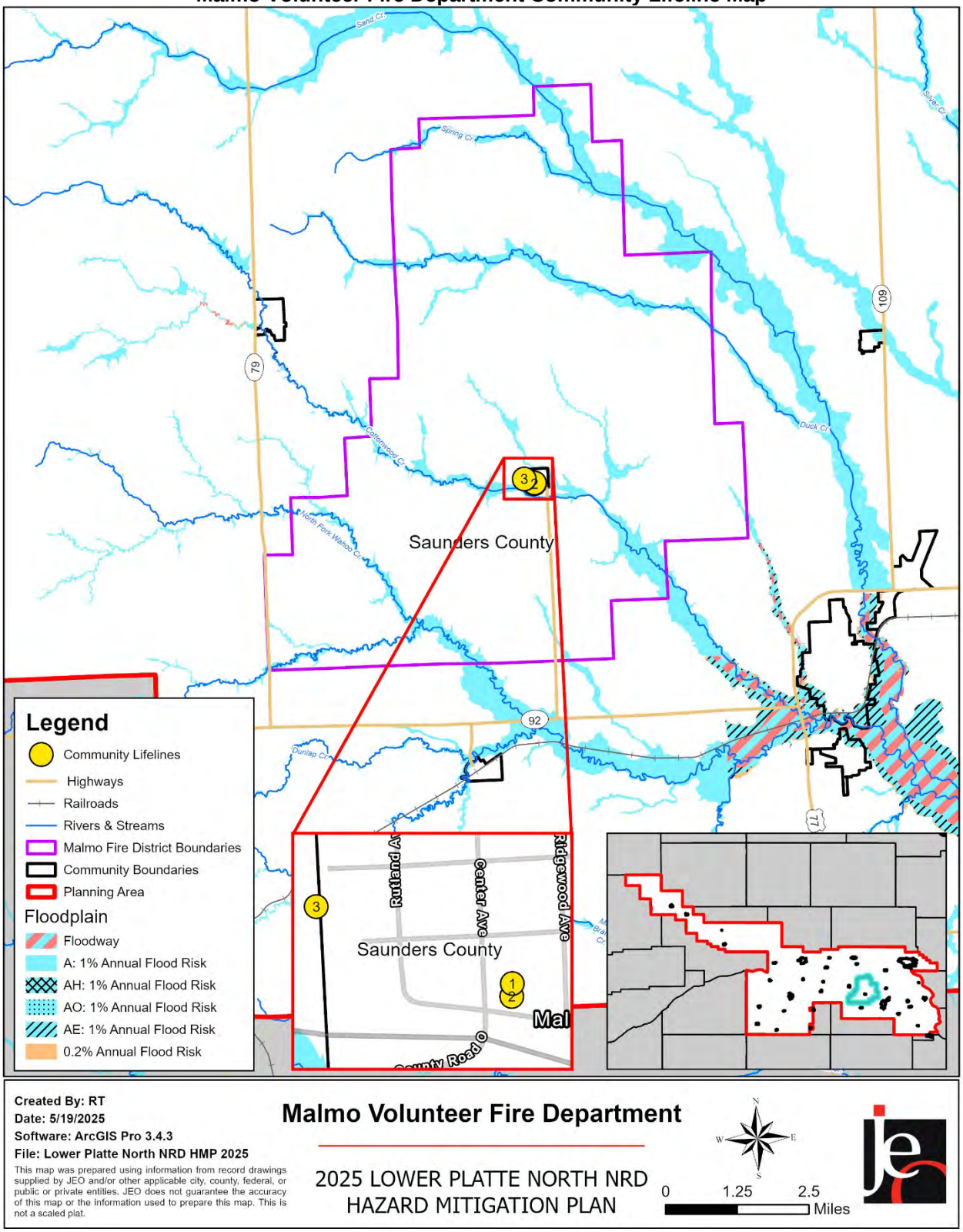
As listed in the tables below, each fire district identified community lifelines that are vital for disaster response and essential for returning the districts' functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Malmo Volunteer Fire Department Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Malmo Community Hall	Food, Water, Shelter	S	N
2	Malmo Fire Station	Safety and Security	G	N
3	Malmo Water Tower & Well	Food, Water, Shelter	G	N

Malmo Volunteer Fire Department Community Lifeline Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning teams prioritized specific hazards of top concern for the fire districts which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by each fire district. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however Malmo Volunteer Fire Department has identified mitigation actions to reduce the impacts of the hazards. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Grass/Wildfires

On October 21, 2024, a combine started a fire two miles from town. Due to dry conditions and high winds, fires can easily spread throughout the district. The fire on October 21 could have spread into town from the dry and windy weather conditions at the time. To reduce current risks, Malmo Fire Department limits burning in the district during dry and high wind conditions. The fire department uses social media to ask people to be cautious and asks farmers to also be careful and to clean off equipment daily or on windy days. Malmo Fire is currently working on another grass rig to reduce future risks from wildfires.

Mitigation and Strategic Actions:

Action	Capacity Building
Description & Location	Chainsaws are used to cut down burning trees on field fence lines and are needed in the UTV and new grass rig. The fire department also uses them for storm cleanup.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$1,500+
Local Funding	Fire District Budget
Timeline	1 Year
Priority	High
Lead Agency	Malmo Fire
Status	Need to purchase. Also need water rescue equipment.

Severe Thunderstorms

On May 21, 2024, flash flooding occurred in the community as a result of severe thunderstorms. Severe storms can also cause wind damage, lead to loss of power, and make roads impassable. A motorist was stranded in the flooding, which has led to the need of some basic water rescue equipment. Power outages take longer to fix in rural areas in the district. The fire department has purchased cordless chainsaws to help with debris removal. More saws and water rescue equipment are needed, along with a backup generator for station power, to reduce future risks from severe thunderstorms. An auto start generator would improve response time, allowing members to respond to calls faster and operate door openers without taking valuable time to set up the current generator.

Mitigation and Strategic Actions:

Action	Backup and Emergency Generators
Description & Location	Identify and evaluate current backup and emergency generators. Obtain an additional generator at the fire station that can be used at the community hall.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$20,000
Local Funding	Fire District Budget
Timeline	1 Year
Priority	High
Lead Agency	Rural Fire District
Status	The fire district has a backup generator that was used during the winter storms in March 2025. The current generator has to be moved outside and hooked up if power is lost. An auto start backup generator would provide power for the fire hall doors and can help with department safety.

Severe Winter Storms

The severe winter storms in March 2025 caused power lines to go down and made traveling difficult throughout the district. Power was lost for five days in Malmo. Having no power for multiple days meant people had no water and trouble keeping warm. The fire department has identified an auto start backup generator for station power to reduce future impacts from severe winter storms. The generator would provide power to get doors open and trucks out faster in the event of a power loss. It also provides power to the community hall, where people can shelter and warm up. The community hall has a kitchen available for residents to make food.

Mitigation and Strategic Actions:
See the *Backup and Emergency Generators* action under Severe Thunderstorms.

Other Mitigation and Strategic Actions

Action	Public Education
Description & Location	Educate staff, residents, and visitors on their risks to agricultural diseases that can impact fire risks, drought conditions, flooding from dam and levee failures, grass and wildfires, and hazardous materials releases. Also educate the public on how to get information and emergency notifications, what mitigation actions can be taken, and preparedness actions to keep themselves safe. Coordinate outreach and education projects and materials with Saunders County, surrounding fire departments, Nebraska Forestry Service, and other project partners. The district will amplify and expand on education and outreach strategies created by Saunders County and other organizations.
Hazard(s) Addressed	Animal & Plant Disease, Dam Failure, Drought, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure
Estimated Cost	$500
Local Funding	Fire District Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Fire Chief
Status	The fire district uses its social media to share high fire risks with residents and farmers.

School District Profile

Mead Public Schools Profile

Lower Platte North NRD
Hazard Mitigation Plan 2025

Local Planning Team

Mead Public Schools Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
PJ Quinn	Superintendent	Mead Public Schools	Attended, Materials Development	Attended, Materials Development
Terry Hickman	Principal	Mead Public Schools	Materials Development	-
Darin Kovar	Principal	Mead Public Schools	Materials Development	-

Plan Maintenance

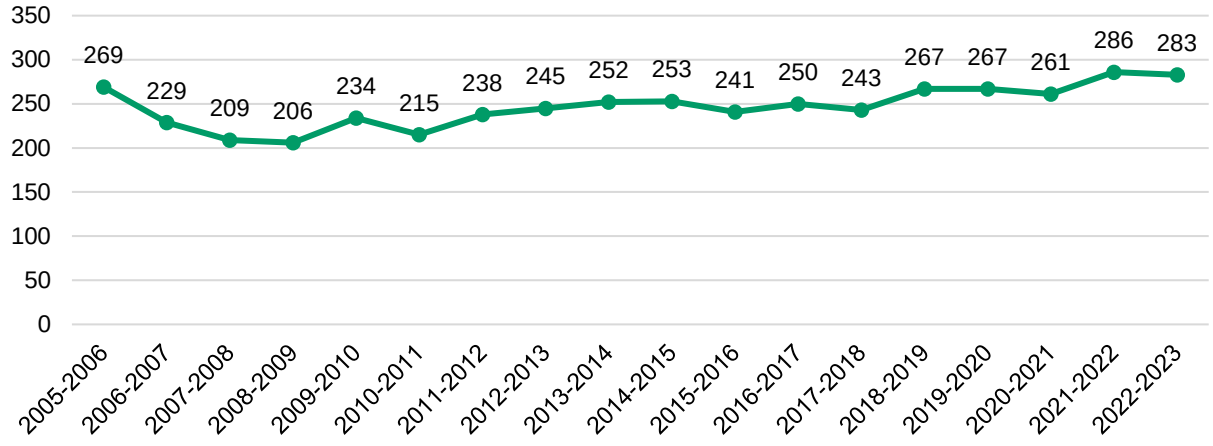
Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The Superintendent, K-12 Principal, and the Director of Special Programs will be responsible for reviewing and updating the community profile outside of the five-year update. Mead Public Schools will review the plan annually and the public will be notified via the school website and other electronic communication channels.

Demographics

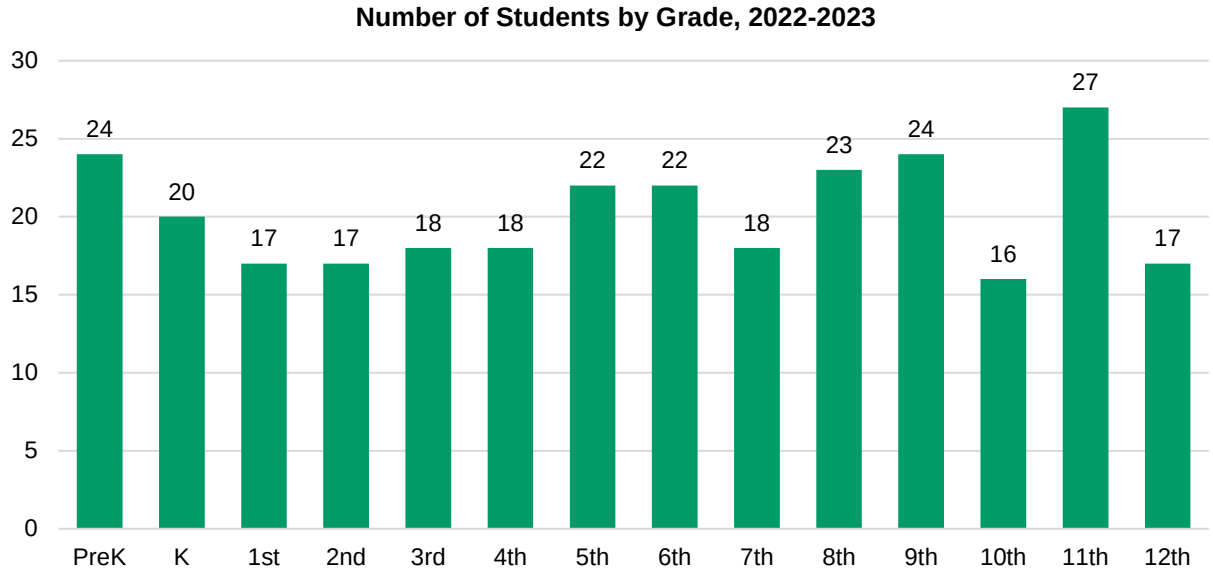
The following figure displays the historical student population trend starting with the 2005-06 school year and ending with the 2022-2023 year. It indicates that the student population from prekindergarten to 12th grade has been increasing since 2020, with a slight decline in 2023. There 283 students enrolled in the district.[3] The 2022-23 number also include the preschool population in the district. An increasing student population can mean there is increasing tax revenue for the school district, which could make implementation of mitigation projects easier. However, it is also associated with increased emergency planning requirements and increased development.

Student Population 2005-2023



Source: Nebraska Department of Education

3 Nebraska Department of Education. June 2024. "Nebraska Education Profile." https://nep.education.ne.gov/.



Source: Nebraska Department of Education

The figure above indicates that the largest number of students are in the 11th, 9th and Pre-Kindergarten grades. The lowest population of students are in 10th and 12th grades. According to the Nebraska Department of Education (NDE), 35% of students receive either free or reduced priced meals at school. This is lower than the state average of 49.7%. Additionally, 17.8% of students are in the Special Education Program and the school mobility rate is 6.6%. These particular students may be more vulnerable during a hazardous event than the rest of the student population. There are no English Language Learners in the school district.

Student Statistics, 2022-2023

	School District	State of Nebraska
Free/Reduced Priced Meals	35.0%	49.9%
School Mobility Rate	6.6%	5.5%
English Language Learners	N/A	8.4%
Special Education Students	17.8%	16.5%

Source: Nebraska Department of Education

Capability Assessment

The planning team assessed Mead Public Schools's hazard mitigation capabilities by reviewing the district's planning capability, administration and technical capability, fiscal capability, education and outreach capability, drills, and overall capability.

The Standard Response Protocol (SRP) procedures for situations necessitating use of Hold, Secure, Lockdown, Evacuate, and Shelter are reviewed with staff at the beginning of each school year. These procedures are also explained to students and drilled during the school year. Staff meetings are used to debrief with staff. Other emergency trainings are provided by video, such as cardiac arrest, seizures, and others. Staff members receive the Safety and Crisis Plan each year. Students participate in drills for a variety of emergency procedures. The basic SRP procedures are published for parent and patron review. They are also posted in multiple locations throughout the school. Fire and police departments are provided a copy of the Safety and Crisis Plan. The fire department presents on Fire Safety annually as part of Fire Safety Week.

Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning Capability	Facility Improvements Plan	Yes
	Continuity of Operations Plan	No
	Crisis Response Plan	Yes
	Strategic Plan	No
	Other (if any)	-
Administration & Technical Capability	Grant Manager	Yes
	Mutual Aid Agreement	No
	Other (if any)	-
Fiscal Capability	Applied for Grants in the Past	No
	Awarded Grants in the Past	No
	Authority to Levy Taxes for Specific Purposes Such as Mitigation Projects	Yes
	General Obligation Revenue or Special Tax Bonds	Yes
	Approved Bonds in the Past	Yes
	Flood Insurance	No
	Other (if any)	-
Education & Outreach Capability	Natural Disaster or Safety Related School Programs	No
	Hazard Education or Information Program	No
	StormReady Certification	No
	Other (if any)	-
Drills	Fire	10 / year
	Tornado	2 / year
	Intruder	3 / year
	Bus evacuation	2 / year
	Evacuation	6 / year
	Other (if any)	-

Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Limited
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Moderate

Plans and Studies

Mead Public Schools has two planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the school district updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Mead Public Schools Facilities Audit (In Progress)

Mead Public Schools is currently developing a facilities audit with an architectural and engineering firm. The purpose of a facilities audit is to inventory buildings, grounds, and equipment owned by

the school district. Data is collected to determine the resources available and determine the most efficient way to manage and use those resources. The hazard mitigation plan will be considered once the decision is made to renovate the existing elementary building or construct a new facility. If a new facility is recommended, a storm shelter will be included. Weather-related power outages would need to be addressed regardless of renovation or new construction.

Safety and Crisis Response Plan

The 2024-25 Crisis Plan provides staff with the best practices to follow in case of an emergency situation. The document outlines procedures for evacuation, lockdown, or shelter-in-place along with communication strategies with media and contact information for key staff members in the district. Key hazards listed in the crisis plan include fire, tornado, medical injury/emergency, intruder, abduction at school, weapons, shooting, bomb threat, utility failure, school vehicle accident, suicide threat, student or staff tragedy, and environmental contamination. Updates to the crisis plan can include elements from the hazard mitigation plan.

Future Development Trends

Over the past five years, the school district has added a gym, locker rooms, and a fitness center to the junior-senior high school. The locker rooms have been constructed to meet storm shelter requirements. There are no set plans for any changes within the district in the future, but the Facilities Audit currently being developed will determine a master plan for new buildings and building upgrades.

For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted regardless of where they are located. According to the local planning team any new and future development is not likely to occur in any other known hazard locations.

Community Lifelines

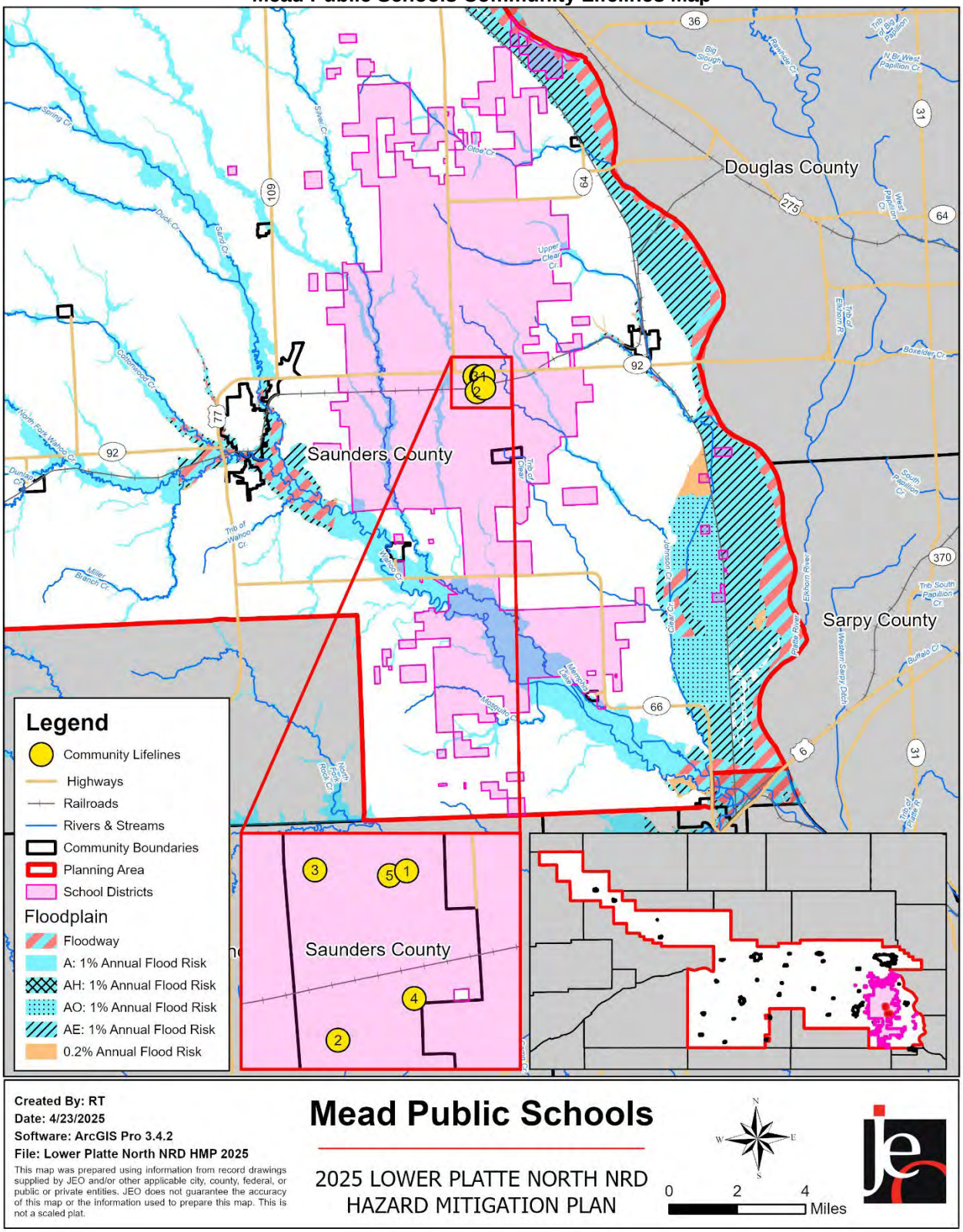
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Mead Public Schools Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	4-Stall Parking Garage	Other	-	N
2	Alma Lutheran Church	Other	-	N
3	Mead Elementary School	Safety and Security	-	N
4	Mead Fire Hall	Safety and Security	G	N
5	Mead High School	Safety and Security	S	N

Mead Public Schools Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Mead Public Schools which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by Mead Public Schools. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however, Mead Public Schools has identified mitigation actions to reduce the impacts of those hazards. Dam Failure would not impact the school district as there are no high hazard dams in the district according to NeDNR data. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Extreme Temperatures

Extreme heat is only a concern for outdoor sporting events and practices. These events are held at the discretion of coaches. An event cancellation policy is in place; cancellation notices are sent by email and the school's Beacon Text system. The school does not have a backup generator in case of a power outage caused by an extreme heat event. Mead Public Schools follows the recommendations of the Nebraska School Activities Association for extreme temperature events.

Mitigation and Strategic Actions

Action	Backup and Emergency Generators
Description & Location	Provide a portable or stationary source of backup power for the two schools.
Hazard(s) Addressed	Extreme Temperatures, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$100,000
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Superintendent
Status	Two small generators were purchased to mitigate the impact of the power outage from a severe winter storm in March 2025 to power the refrigerator and freezer. Installation of a commercial-sized generator may be considered if a new elementary school building is constructed.

Flooding

The flooding events over the past few years have caused a major concern for the district. Flooding disrupts transportation to and from schools, especially if roads and bridges are damaged. Attendance has been impacted from previous floods, as was the case most recently during the 2023-24 school year as a result of traveling routes being blocked by floodwaters. School facilities have not been damaged from flood events.

Mitigation and Strategic Actions

Action	Update Emergency Operations Plan
Description & Location	To enhance emergency operations plan to address flooding or other natural and technical disasters throughout the district.
Hazard(s) Addressed	Animal and Plant Disease, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$1,000
Local Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Superintendent and ESU 2 personnel
Status	Assistance on the Emergency Operations Plan is part of the services the district has requested from ESU 2 during the 2025-26 school year. Can coordinate efforts with local police and fire departments to ensure operations align with their procedures, especially for flooding and fires.

Hazardous Materials Release

The school district is concerned with transportation chemical spills because the schools are located near the co-op, rail line, and highway where a lot of chemicals are transported. In addition to the highway and agricultural facilities near the school, there is also a rail line. In January 2020 the pumping station near the school had a leak. A smell of gas was in the school. Windows were closed, and no evacuation was necessary. The district has policies in place for how to respond to nearby chemical spills. Mapping of utilities has been completed to reduce the risk or impact of a hazardous materials release. Electrical breaker maps have been started so that air handling units can be shut down if necessary. Education and training opportunities on proper responses are needed to best prepare for a potential hazardous materials release event.

Mitigation and Strategic Actions

Action	Control Air-In Filtration
Description & Location	In the event of a chemical spill that releases a vapor cloud, initiate a “kill switch” of the air ventilation system.
Hazard(s) Addressed	Hazardous Materials Release
Estimated Cost	Minimal
Local Funding	General Fund (minimal)
Timeline	1 Year
Priority	Medium
Lead Agency	Superintendent
Status	Project is ongoing as the school district continues to identify and label shut-off points for HVAC systems.

Severe Thunderstorms

Lightning during severe thunderstorms can cause safety issues for students being transported on school buses. The bus drivers have safety protocols to direct their response to severe thunderstorms. One day while loading students on buses home, the children were evacuated from the buses and sheltered for 45 minutes. The district has surge protectors to protect critical equipment during lighting storms. In Fall of 2019 lightning hit a light pole on the football field. The resulting power surge destroyed the fire alarm system and electrical disconnect. The primary concern for hail is damage to roofs and windows. All school facilities are insured for hail damage. Roof repairs have been done twice in 16 years after damage from hail events. The high school

has a metal roof and the elementary school has a spray foam roof. There have been no other impacts from hail in the district. The district has a Safety and Crisis Plan that includes procedures for severe weather.

Mitigation and Strategic Actions

Action	Infrastructure Hardening
Description & Location	The current elementary building has numerous windows in all classrooms and offices. None of the windows are shatter proof in case of large hail events. If the building is renovated, new windows could be upgraded to deal with hail events. Construction of a new elementary school will include non-combustible and fire-resistant materials to reduce fire risk.
Hazard(s) Addressed	Flooding, Grass/Wildfires, Hazardous Materials Release, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$1,000,000
Local Funding	Building Fund/Bond Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Superintendent, Maintenance
Status	Pending decision on renovation or new construction.

Severe Winter Storms

Winter storms impact school nearly every year by causing school cancellations. Heavy snowfall puts a tremendous amount of stress on facilities and building roofs. Icy conditions produce hazardous driving and walking conditions. Extreme cold associated with such storms is also a concern for travel safety and stress on HVAC systems. Frequency, power outages, and dangerous travel conditions are also major concerns regarding severe winter storms. The district maintains a school cancellation policy in case of impassible roads and extreme cold. Routine building maintenance is done to prevent severe impacts. Snow removal is contracted out for sidewalks and parking lots. Their snow removal resources are sufficient at this time. Past severe winter storm impacts include power outages, stuck buses, and bus rerouting.

Mitigation and Strategic Actions

See the *Backup and Emergency Generators* action under Extreme Temperatures.

Terrorism (Physical Threat)

No events relating to terrorism or active shooters have occurred within the school district. There is a general ongoing concern across the country of an attack at schools, especially for active shooter incidents. The school district has reviewed its Standard Response Protocol with staff and students. Future projects to mitigate the risks include collaborating training with law enforcement and first responders.

Mitigation and Strategic Actions

Action	Emergency Exercise: Terrorism
Description & Location	Develop and facilitate an emergency management exercise, including reunification procedures, with local law enforcement and first responders to review current planning efforts and to identify areas in need of improvement or gaps in planning.
Hazard(s) Addressed	Terrorism (Active Shooter)
Estimated Cost	$5,000+
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Superintendent
Status	The Safety Committee held small scale reunification walk-throughs for school staff in 2024-25.

Tornadoes and High Winds

No tornadoes have impacted school facilities, but a future event could be catastrophic. There have been several events in recent years that have come close to impacting the district. Major concerns regarding tornadoes and high winds include injuries or fatalities, damage to buildings/facilities, and power outages. The school conducts tornado drills twice per year to protect students and staff in case of a disaster. The 7-12 grade building has changed its tornado emergency plan over the past five years with the addition of the shelter-rated locker rooms. Elementary students go to the library which is located under the gymnasium. The district does not have mutual aid agreements in place. Data is backed up nightly to a local server and to a site 15 miles away. The school district's tornado plan is reviewed consistently for potential improvements.

Mitigation and Strategic Actions

Action	Safe Rooms and Storm Shelters
Description & Location	Design and construct a FEMA-certified storm shelter in the district.
Hazard(s) Addressed	Severe Thunderstorms, Tornadoes and High Winds
Estimated Cost	$2,000,000
Local Funding	Local Bond/Building Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Superintendent
Status	The current 7-12 grade building has a storm shelter capable of housing all students and staff. The PK-6 grade building does not have space built to storm shelter specifications. May be a part of upcoming renovation or new construction project.

Other Mitigation and Strategic Actions

Removed Mitigation and Strategic Actions

Action	Public Education
Description & Location	Through activities such as outreach projects, distribution of maps and environmental education increase public awareness of natural hazards to both public and private property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards. Also, educate citizens on water conservation methods, evacuation plans, etc.
Hazard(s) Addressed	Animal & Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Status	Removed.

School District Profile

North Bend Central Public Schools

Lower Platte North NRD
Hazard Mitigation Plan 2025

Local Planning Team

North Bend Central Public Schools Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Patrick Ningen	Superintendent	North Bend Central Public Schools	-	Attended, Materials Development

Plan Maintenance

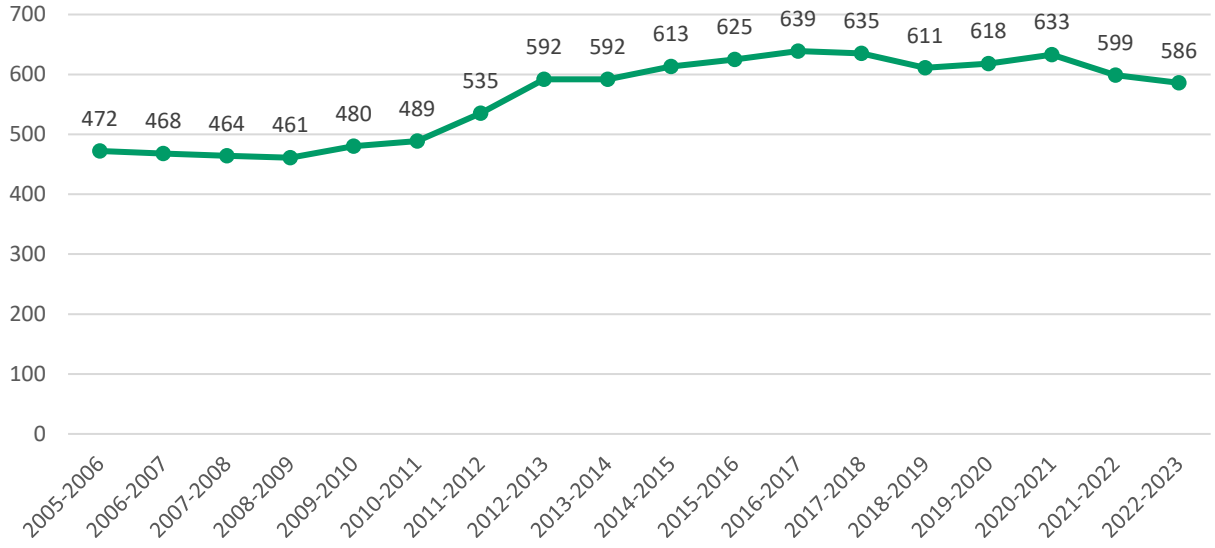
Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The Superintendent, Head of Maintenance, and principals will be responsible for reviewing and updating the community profile outside of the five-year update. North Bend Central Public Schools will review the plan annually and the public will be notified through a report given at one of their monthly board meetings.

Demographics

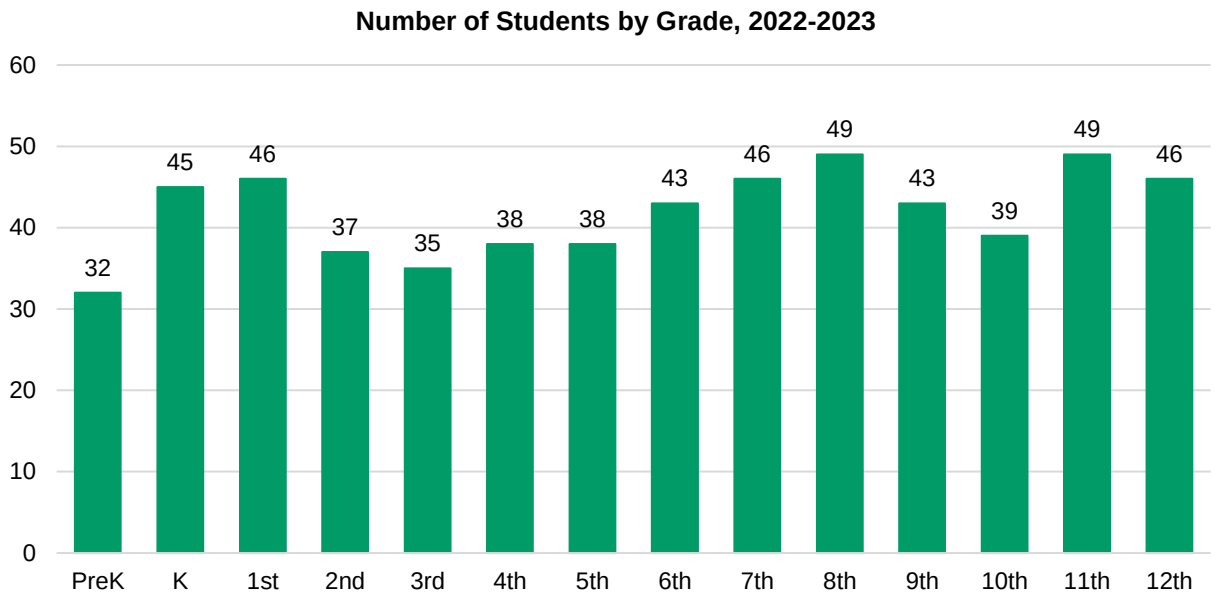
The following figure displays the historical student population trend starting with the 2005-06 school year and ending with the 2022-2023 year. It indicates that the student population has been declining since 2020. There are 586 students enrolled in the district.[4] A declining student population can mean there is a decreasing tax revenue for the school district, which could make implementation of mitigation projects more fiscally challenging.

Student Population 2005-2023



Source: Nebraska Department of Education

4 Nebraska Department of Education. March 2025. "Nebraska Education Profile." https://nep.education.ne.gov/.



Source: Nebraska Department of Education

The figure above indicates that the largest number of students are in the 8th and 11th grades. The lowest population of students are in Prekindergarten and 3rd grades. According to the Nebraska Department of Education, 27% of students receive either free or reduced priced meals at school. This is lower than the state average of 49.9%. Additionally, 13.5% of students are in the Special Education Program, the school mobility rate is 3.1%. These particular students may be more vulnerable during a hazardous event than the rest of the student population. There are no students in the English Language Learner program in the district.

Student Statistics, 2022-2023

	School District	State of Nebraska
Free/Reduced Priced Meals	27%	49.9%
School Mobility Rate	3.1%	5.5%
English Language Learners	-	8.4%
Special Education Students	13.5%	16.5%

Source: Nebraska Department of Education

Capability Assessment

The planning team assessed North Bend Central Public Schools's hazard mitigation capabilities by reviewing the district's planning capability, administration and technical capability, fiscal capability, education and outreach capability, drills, and overall capability.

North Bend Central Public Schools conducts regular safety drills and training sessions. The local educational service unit and Dodge County Sheriff's Department provide support during the drills and safety training. Additionally, the district's school nurse implements proper emergency procedures with school staff.

Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning Capability	Facility Improvements Plan	Yes
	Continuity of Operations Plan	Yes
	Crisis Response Plan	Yes

Capability/Planning Mechanism		Yes/No
	Strategic Plan	In Progress
	Other (if any)	-
Administration & Technical Capability	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	-
Fiscal Capability	Applied for Grants in the Past	Yes
	Awarded Grants in the Past	Yes
	Authority to Levy Taxes for Specific Purposes Such as Mitigation Projects	Yes
	General Obligation Revenue or Special Tax Bonds	Yes
	Approved Bonds in the Past	Yes
	Flood Insurance	Yes
	Other (if any)	-
Education & Outreach Capability	Natural Disaster or Safety Related School Programs	Yes
	Hazard Education or Information Program	No
	StormReady Certification	No
	Other (if any)	-
Drills	Fire	12 / year
	Tornado	2 / year
	Intruder	1 / year
	Bus evacuation	1 / year
	Evacuation	1 / year
	Other (if any)	-

Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Moderate
Staff/Expertise to Implement Projects	Moderate
Public Support to Implement Projects	High
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Moderate

Plans and Studies

North Bend Central Public Schools does not have any plans that discuss or relate to hazard mitigation. If the school district does create new planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the plan.

Future Development Trends

North Bend Central Public School District has seen a slight decline in student population over the past five years, from having a little over 600 students to 586 students in 2023. The number of full-time teachers has increased slightly but has remained between 44 and 47 members during this time. No significant changes to the district suggest that vulnerability to hazards has remained the same in recent years. For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted. According to the local planning team any new and future development is not likely to occur in any other known hazard locations.

Community Lifelines

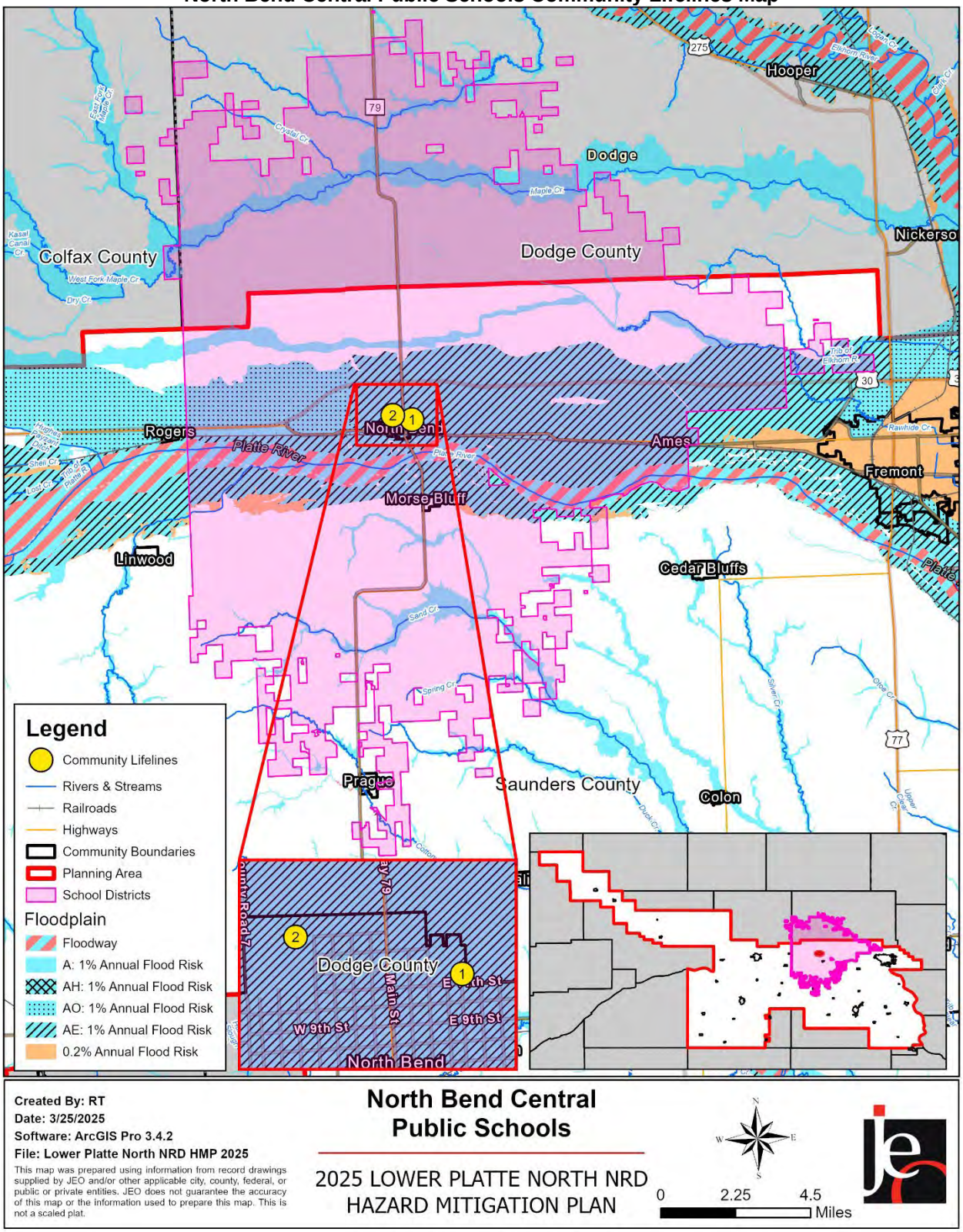
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



North Bend Central Public Schools Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	North Bend Elementary School	Safety & Security	S	Y (1%)
2	North Bend Central Middle & High School	Safety & Security	S	Y (1%)

North Bend Central Public Schools Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for North Bend Central Public Schools which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by North Bend Central Public Schools. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however, the school district has identified mitigation actions to reduce impacts from those hazards. Dam failure has been omitted from this profile as there are no high hazard dams in the district according to NeDNR data. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Drought

Drought is likely to impact the entire region's economic system. Because North Bend Central Public Schools relies on tax funds to maintain its educational services, a drought would also impact the district. A severe drought may also increase the needs of students, in turn requiring more assistance from school resources. Droughts also impact water quality, which is especially dangerous for small children, where the school may need to purchase bottled water.

Mitigation and Strategic Actions

Action	**Identify Emergency Water Supply**
Description & Location	Identify and formalize agreements for an emergency water supply for the school district in the event that drought reduces water or causes water quality issues.
Hazard(s) Addressed	Drought
Estimated Cost	Varies by project; $5,000+
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	Superintendent, Administration
Status	New action.

Flooding

The March 2019 flooding across Nebraska affected North Bend Central Public Schools and the surrounding community. Impacts from flooding can include school cancellation and damage to community lifelines. Flooding of county roads has previously prevented busing, impacting attendance. Both flash and riverine flooding are a concern. The Platte River is of most concern. Other areas around the district may have poor stormwater drainage that could affect the schools. Both community lifelines are within the 1% annual flood risk zone.

Mitigation and Strategic Actions

Action	Identify Alternative Bus Routes
Description & Location	Pre-identify alternative bus routes that can be used when flooding and other hazards close roads throughout the district.
Hazard(s) Addressed	Flooding, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	Staff Time
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Superintendent, Administration
Status	New action.

Severe Thunderstorms

Severe thunderstorms have caused power outages, washed out roads, and caused damage from flooding, strong winds, and hail throughout the district. County roads are particularly likely to be affected. The district's IT infrastructure is protected from power surges with a backup battery system and backup servers that protect school records. None of the district-owned buildings have a backup power generator. The district's two main buildings and community lifelines are primarily constructed from brick, but their roofs and windows remain vulnerable to hail damage. Each building is insured against hail and other damage by EMC Insurance Company, but damage from hail could still financially impact the district and disrupt school services.

Mitigation and Strategic Actions

Action	Backup and Emergency Generators
Description & Location	Identify and evaluate community lifelines that need backup and emergency generators. Obtain generators based on identification and evaluation. Provide portable or stationary sources of backup power to the elementary school and middle and senior high schools.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	Varies by size; $25,000+
Local Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	Superintendent, Head of Maintenance
Status	New action. Not started.

Severe Winter Storms

County road closures and power outages from severe winter storms impact the school district's ability to bus students and hold classes. The school district maintains a tractor and a snow blower for snow removal on school grounds; however, additional snow removal resources would be beneficial. Recent severe winter storms that took place in the winter of 2023-24 caused multiple days of canceled classes for students and impacted travel.

Mitigation and Strategic Actions

See the *Alternative Bus Routes* action under Flooding.

Tornadoes and High Wind

A tornado traveled through the school district in the summer of 2023 and impacted a family within the school district. Tornadoes and high winds are a concern as they have the potential to cause

power outages and damage to community lifelines. Power infrastructure within the school district is protected from power surges with a backup battery system and backup servers for school records. North Bend Central Public Schools does not have a backup generator if power is lost. The two main buildings in the school district are made of brick; however, the roofs and windows are vulnerable to damage.

Mitigation and Strategic Actions

Action	Infrastructure Hardening
Description & Location	Harden community lifelines to withstand high winds, hail, heavy snow, etc., by hardening roofs, hail-resistant barriers to HVAC systems, shatter-proofing windows, building tie-downs and anchors, flood walls, and other architectural designs that reduce damage.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	Varies by structure
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Superintendent, Head of Maintenance
Status	New action. Not started.

Other Mitigation and Strategic Actions

Action	Public Education
Description & Location	Educate staff, students, and parents about hazard vulnerability and mitigation measures for animal and plant diseases and levee failure. Activities may include classroom modules profiling certain hazards and discussing preparedness measures. Educational materials, such as brochures and fliers, can be developed and provided to parents to increase community wide hazard awareness. Staff training can be conducted regarding school hazard vulnerability to those hazards. The school district can coordinate with Nebraska Extension on agricultural diseases and county emergency management agencies on levee failure educational outreach and materials.
Hazard(s) Addressed	Animal & Plant Disease, Levee Failure
Estimated Cost	$500+
Local Funding	General Fund
Timeline	1 Year
Priority	Medium
Lead Agency	Superintendent, Administration
Status	New action.

Drainage District Profile

North Bend Drainage District

Lower Platte North NRD
Hazard Mitigation Plan 2025

Local Planning Team

North Bend Drainage District Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Larry L. Ruzicka	President	North Bend Drainage District	Recording, Materials Development	

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The local planning team will be responsible for reviewing and updating the community profile outside of the five-year update. North Bend Drainage District will review the plan [**annually** and the public will be notified through public notices.

Location and Purpose

The North Bend Drainage District maintains and repairs approximately 60 miles of drainage ditches in Dodge County. The district is located from the North Bend Cutoff to the west, the Central Cutoff to the north, the Fremont Cutoff to the east, and the Platte River to the south. All drainage ditches are owned by private landowners and the district has an easement to access and maintain the ditches. The drainage district contracts out the repair and maintenance work to private companies. The North Bend Cutoff serves as the channel to capture stormwater and floodwater from the Platte River and Shell Creek, diverting floodwater back into the Platte River before entering the City of North Bend and impacting Highway 79. The district's maintained ditches can be seen in the map located in the Community Lifelines section of this profile.

Capability Assessment

Due to the unique structure of the drainage district, the typical capability assessment table was not used. The following table summarizes the district's overall capabilities.

North Bend Drainage District Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Limited
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

Plans and Studies

North Bend Drainage District does not have any plans or studies. If any plans or studies are created for the district in the future, the local planning team will work to integrate the hazard mitigation plan into them.

Future Development Trends

Over the past five years, there has been construction on the Highway 30 expressway that runs through the cutoff ditches in the district. The east ditch bank of the North Bend Cutoff Ditch has been deteriorating over time. Future projects include cleaning debris from the ditches to improve drainage efficiency. The deteriorating ditch likely increases vulnerability to flooding. For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted regardless of where they are located.

Community Lifelines

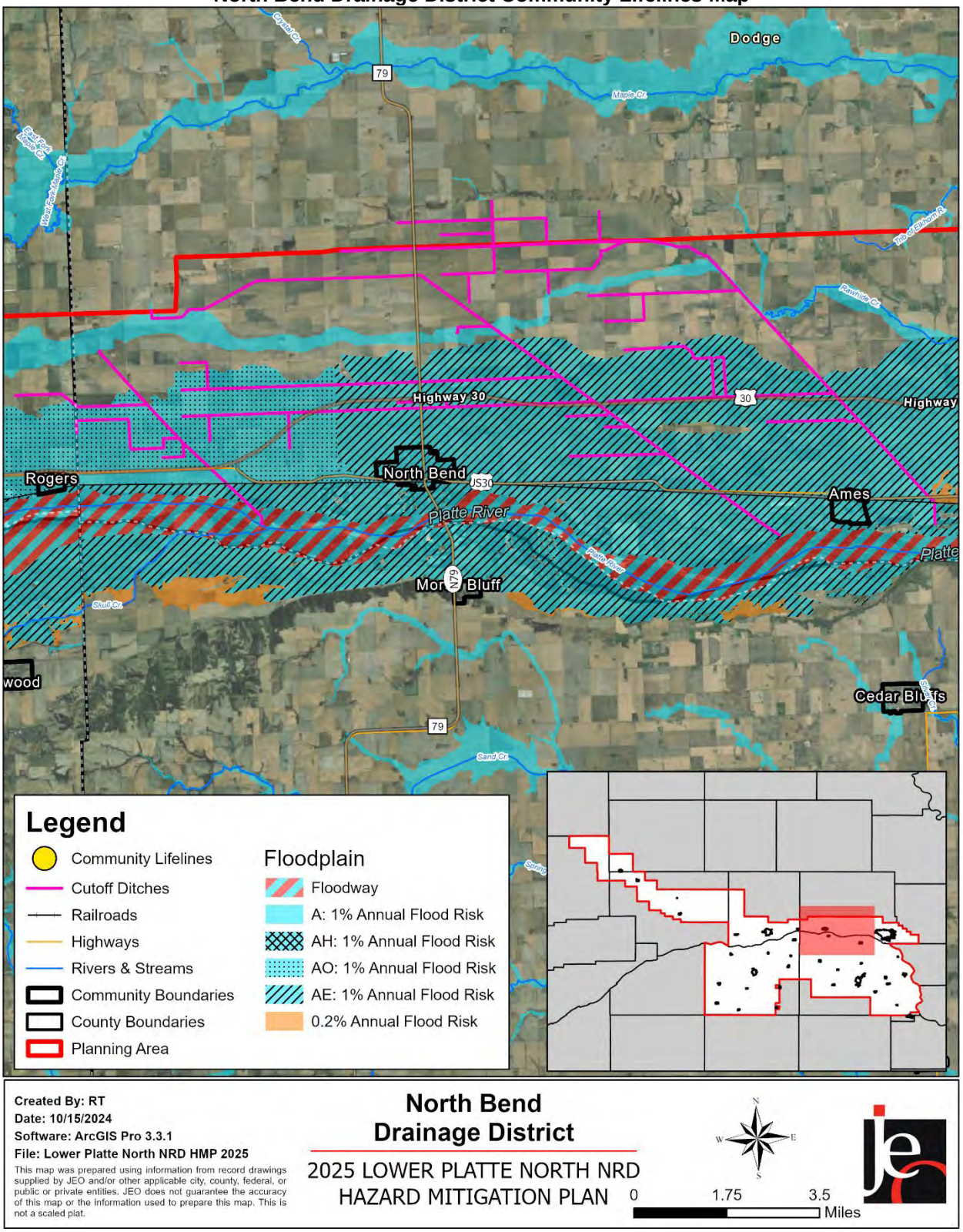
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



North Bend Drainage District Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain
1	Central Cutoff Ditch	Other	-	Y (1%)
2	Fremont County Drain Ditch	Other	-	Y (1%)
3	North Bend Cutoff Ditch	Other	-	Y (1%)

North Bend Drainage District Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for the North Bend Drainage District which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the North Bend Drainage District. Flooding, Levee Failure, and Severe Thunderstorms are the only hazards that could impact North Bend Drainage District. Each hazard has a mitigation action that addresses it, so no other actions are needed. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Flooding

The North Bend Drainage District's mission is drainage control. The two largest flood events in recent history occurred in 1990 and 2019. In 1990 Shell Creek flooded causing damage to the North Bend and Central Cutoffs. The damage consisted of debris in the ditch and bank washouts. The district received FEMA assistance after the event. In 2019 large amounts of snow runoff damaged all the Cutoffs and tributaries. Damage consisted of debris in the ditch and bank erosion. Breaches occurred on the North Bend and Central Cutoffs. Because of the breach, floodwater impacted the City of North Bend, county roads, Highways 30 and 79, and a rail line. Damage from the event was estimated at $500,000.

In response to the March 2019 flood, communities and diking and drainage districts, including North Bend Drainage District, in southern Dodge County along the Platte River formed the Dodge County Joint Water Management Advisory Board. They've partnered together to develop a comprehensive flood risk reduction and mitigation strategy along the Platte River. The Board is currently looking for funding alternatives to develop a Flood Mitigation and Flood Resiliency Plan to identify, evaluate, and prioritize flood mitigation alternatives to improve flood resiliency along the Platte River. As a response from the 2019 floods, North Bend Drainage District and other communities and drainage districts in southern Dodge County along the Platte River created the Dodge County Joint Water Management Advisory Board. One project that has come through the advisory board is the Rawhide Creek Watershed Work Plan. The plan aims to document existing flooding problems, evaluate new flood reduction and watershed protection strategies, and propose cost-effective ways to reduce flooding impacts. Over the past five years, the drainage district has improved the ditch bank on the North Bend Cutoff. Future steps for the drainage district are to improve the Central Cutoff ditch bank and keep up with the maintenance of all other ditches.

Completed Mitigation and Strategic Actions

Action	Flood Damage Repair
Description & Location	Repair ditches that were impacted by the 2019 flood event. Bank repair and debris removal is needed for most of the cutoffs and their tributaries.
Hazard(s) Addressed	Flooding
Status	Completed.

Mitigation and Strategic Actions

Action	Above Ground Stormwater System and Drainage Improvements
Description & Location	Perform yearly maintenance and repair of ditches within the district.
Hazard(s) Addressed	Flooding, Severe Thunderstorms
Estimated Cost	$10,000 - $60,000
Local Funding	General Fund, HMGP
Timeline	2-5 Years
Priority	High
Lead Agency	Drainage Board
Status	Drainage improvement projects are underway.

Action	Construct a Retention Pond
Description & Location	Improve the North Bend cutoff to create a retention pond. The pond will increase the holding capacity of flood waters and protect property to the east.
Hazard(s) Addressed	Flooding, Severe Thunderstorms
Estimated Cost	$1,700,000
Local Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Drainage Board
Status	Ongoing.

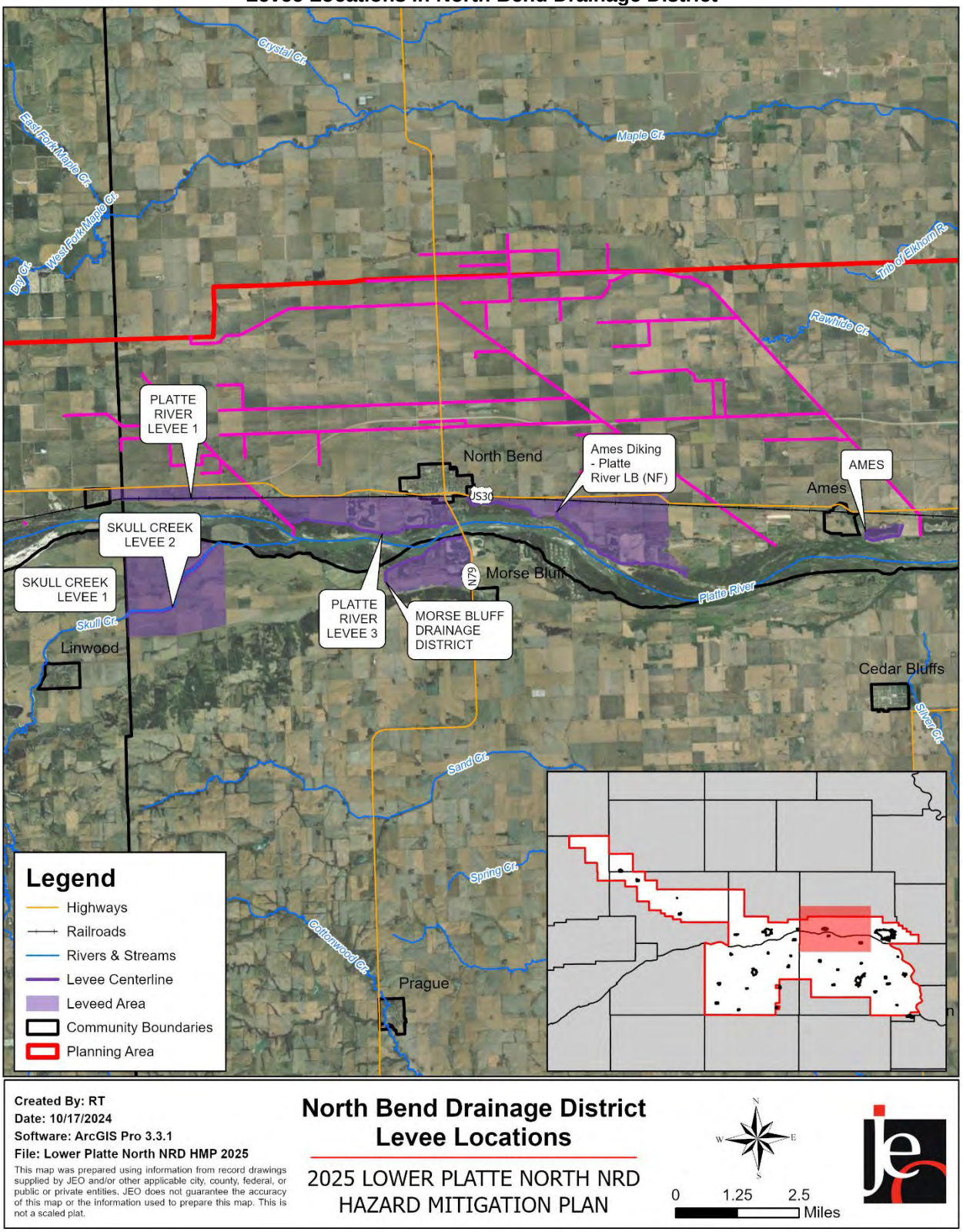
Levee Failure

Two major flood events that occurred in 1990 and 2019 caused significant damage within the North Bend Drainage District. The 1990 incident was a result of Shell Creek flooding which caused damage to the North Bend and Central Cutoffs. In 2019, snow runoff and ice jamming caused flooding that damaged all the Cutoffs and tributaries in the district. North Bend and Central Cutoffs were also breached, and floodwaters impacted the City of North Bend, county roads, Highway 30 and 79, and the rail line. The district received FEMA assistance for both events. As a response from the 2019 floods, North Bend Drainage District and other communities and drainage districts in southern Dodge County along the Platte River created the Dodge County Joint Water Management Advisory Board. One project that has come through the advisory board is the Rawhide Creek Watershed Work Plan. The plan aims to document existing flooding problems, evaluate new flood reduction and watershed protection strategies, and propose cost-effective ways to reduce flooding impacts. Over the past five years, the drainage district has improved the ditch bank on the North Bend Cutoff. The next steps for the drainage district are to improve the Central Cutoff ditch bank and keep up with the maintenance of all other ditches.

Mitigation and Strategic Actions

Action	Dodge County Platte River Communities Flood Mitigation and Resiliency Plan
Description & Location	Develop a flood mitigation and resiliency plan to holistically look at local flood risks and measures to reduce them from North Bend to Fremont along the Platte River. The plan will include hydrologic and hydraulic analyses to assess the nature of the flood risks and evaluate flood risk reduction improvement projects. Structural and non-structural mitigation may be considered and prioritized. The conceptual flood risk reduction recommendations will serve to provide a path forward towards implementation and a reduction of further damage to structures and community lifelines.
Hazard(s) Addressed	Flooding, Levee Failure
Estimated Cost	$1,000,000
Local Funding	General Fund
Timeline	5+ Years
Priority	Medium
Lead Agency	Joint Water Advisory Board (North Bend Drainage District is a partner on the Board)
Status	Ongoing efforts are being made.

Levee Locations in North Bend Drainage District



Fire Districts Profile

North Bend Volunteer Fire Department Profile

Lower Platte North NRD
Hazard Mitigation Plan 2025

Local Planning Teams

Local Planning Teams

Name	Title	Fire District	Round 1 Meeting	Round 2 Meeting
Waylon Fischer	Assistant Fire Chief	North Bend Volunteer Fire Department	-	Materials Development
Nick Dobrusky	Fire Chief	North Bend Volunteer Fire Department	-	Materials Development
Pat Tawney	President	North Bend Rural Fire Protection District	-	Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The Fire Chief, Assistant Fire Chief, and President of the Rural Fire District will be responsible for reviewing and updating the community profile outside of the five-year update. The North Bend Volunteer Fire Department will review the plan annually and the public will be notified at rural board meetings and in the newspaper as a public notice.

Demographics

The fire districts do not collect demographic information of their population, nor does the U.S. Census Bureau recognize fire districts as a distinct unit. As a result, there is no demographic data generated specifically for each fire district. For information regarding population data, please refer to *Section 3 and Appendix C*. The table below gives an approximate number of people served for each participating district. The district serves approximately 2,500 residents.

Capability Assessment

Due to the unique structure of fire districts, the typical capability assessment table was not used. The following table summarizes each district's response vehicles, special teams, and special equipment. In addition, each district can utilize mutual aid, county, and state resources if needed during large-scale events.

Response Vehicles, Special Teams, and Special Equipment

Participating Fire District	Aerial	Pumper	Tanker	Pumper / Tanker	Grass-Weed Truck	Utility Truck	Rescue Units	Special Teams	Special Equipment
North Bend Volunteer Fire Department	0	2	0	1	2	2	2	3*	1**

**Limited capacity for Hazmat, Grain/Water rescue.*
***Rescue truck for special teams.*

Mutual Aid Agreements

Participating Fire District	Mutual Aid Partnerships
North Bend Volunteer Fire Department	Cedar Bluffs, Dodge, Fremont Fire, Fremont Rural, Hooper, Linwood, Morse Bluff, Nickerson, Prague, Schuyler, Scribner, Snyder, Winslow

Plans and Studies

The North Bend Volunteer Fire Department has two planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the fire district updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Dodge County Local Emergency Operations Plan (2021)

The Dodge County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. The hazard mitigation plan has not been integrated with this plan. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines.

Missouri River East Community Wildfire Protection Plan (2021)

The purpose of the [regional wildfire area] Community Wildfire Protection Plan CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years.

Future Development Trends

Over the past five years, a new housing development has occurred along 12th and Locust Street in North Bend. For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be vulnerable. In the near future, a gas station is being proposed in the north part of the community. The fire district is in the process of updating its equipment and adding a new grass rig to reduce vulnerability of fires. A new fire hall is currently under development and will be located on Platte River Road between Hickory and Oak Streets.

Community Lifelines

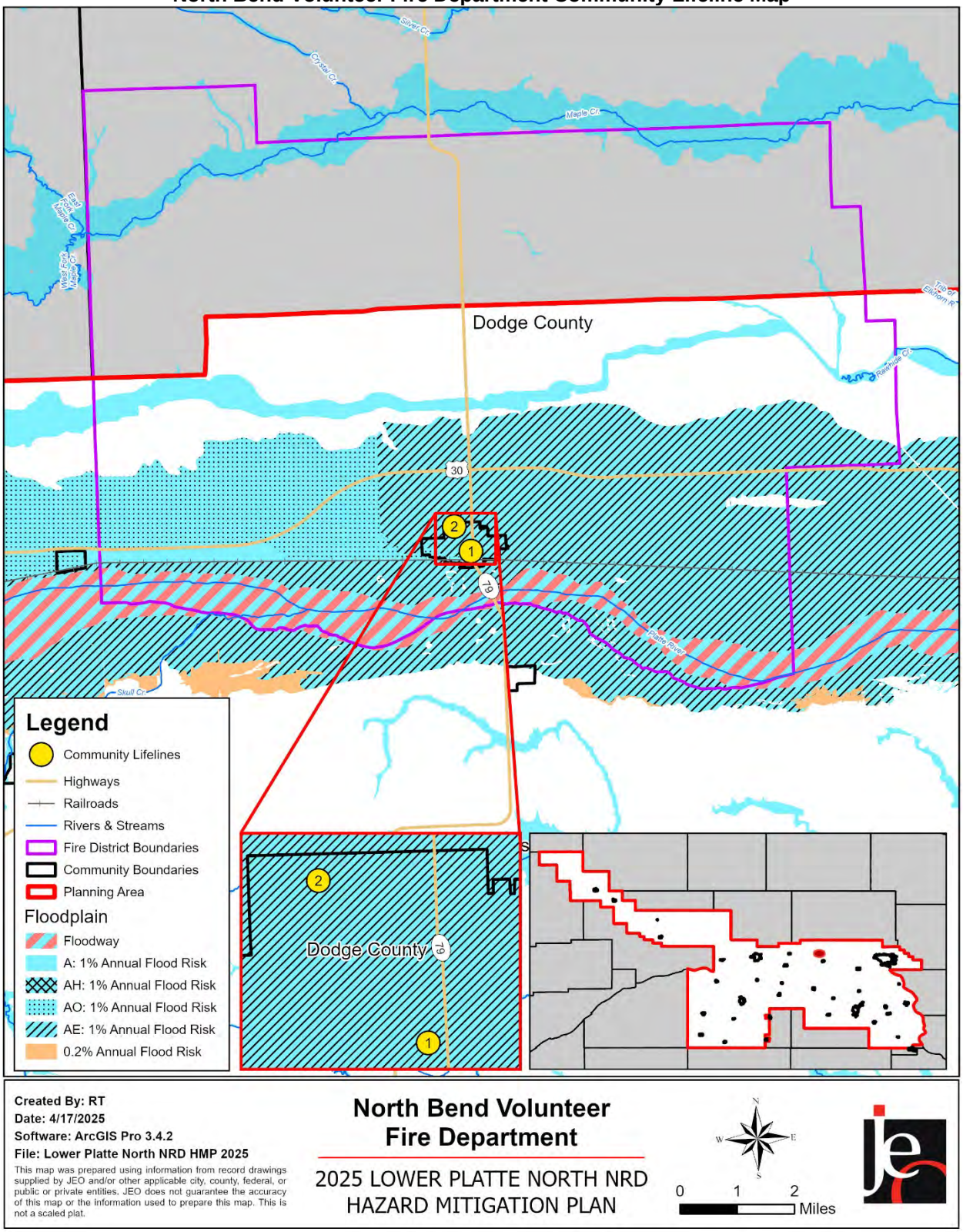
As listed in the tables below, each fire district identified community lifelines that are vital for disaster response and essential for returning the districts' functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



North Bend Volunteer Fire Department Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Fire Hall	Safety & Security	G	Y (1%)
2	North Bend High School	Safety and Security	S	Y (1%)
-	Highway 30	Transportation	-	Y (Partially)

North Bend Volunteer Fire Department Community Lifeline Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning teams prioritized specific hazards of top concern for the fire districts which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by each fire district. Based on this analysis, the local planning teams determined their vulnerability to all other hazards to be of secondary concern, however, North Bend Volunteer Fire has identified mitigation actions to reduce the impacts of the hazards. Dam Failure has been omitted from this profile as there are no high hazard dams in the district according to NeDNR data. Therefore, no mitigation actions have been identified for that hazard. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Flooding

The fire station has been damaged by flooding in the past. Recent severe flooding occurred in 2019, 2010, and 2007. The floods in 2019 led to six inches of rain in the fire station. Flooding of the Platte River and Shell Creek is a larger concern than flash floods for the community. Floods can also damage streets and roads, back up sewer systems, contaminate wells, and lead to evacuations and people stranded which would necessitate Mutual Aid supplies and support. The North Platte River and an area south of the expressway are most prone to flooding. Much of the district has poor stormwater drainage. North Bend Drainage District has done projects such as repairing the levee system after the 2019 floods to reduce risks from this hazard. The fire district is in the process of relocating its station that was damaged from the 2019 floods.

Mitigation and Strategic Actions

Action	Build a New Fire Station
Description & Location	The fire department would like to build a new fire station as the old one is not large enough. The current fire station is located in a flood risk area and was damaged after the 2019 floods.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$500,000+
Local Funding	Bond
Timeline	1 Year
Priority	High
Lead Agency	Rural Fire Board
Status	Currently in the engineering phase. Dirt work is happening. Discussions of a tornado room in the new station have been made.

Grass/Wildfires

On April 12, 2025, a controlled burn in the district rekindled and spread due to strong winds and lead to a sizable grass fire. Morse Bluff and Snyder fire districts were called for mutual aid services. Another recent fire occurred on October 1, 2024 after a farmer was harvesting. A significant fire started and increased due to high winds. The fire almost reached a tree line, threatening people's homes. Mutual aid services were brought in from Morse Bluff, Dodge, Snyder, and Scribner fire districts. Farm fields and tree lines along the Platte River are top concerns for grass and wildfires in the district. There is also limited access along Platte River Road. Water access is also a concern for the district, especially in areas that are difficult to access.

Mutual aid agreements with neighboring dire districts are in place to reduce vulnerability of water supply in areas that are harder to access. North Bend Fire reaches out to farmers in the area and asks them not to harvest during dry and windy seasons. The district is in need of replacing an old grass rig and adding an additional tanker to reduce impacts from this hazard.

Mitigation and Strategic Actions

Action	Capacity Building
Description & Location	The fire department is working towards updating its equipment by adding a new grass rig.
Hazard(s) Addressed	Grass/Wildfires
Estimated Cost	Varies by project
Local Funding	General Budget
Timeline	1 Year
Priority	High
Lead Agency	Fire Chief
Status	New action. In the process of getting a new grass rig.

Action	Hazardous Fuels Reduction
Description & Location	Participate in the Nebraska Forest Service (NFS) Forest Fuels Reduction Program which creates strategically located corridors of thinned forests across the landscape reduces fire intensity, improves fire suppression effectiveness, increases firefighters safety, and better protects lives and property.
Hazard(s) Addressed	Drought, Extreme Temperatures, Grass/Wildfires
Estimated Cost	Varies by project
Local Funding	Staff Time
Timeline	2-5 Years
Priority	Low
Lead Agency	Rural Board
Status	New action. Not started.

Hazardous Materials Release

Chemicals are often transported on US Highway 30 and the Union Pacific Railroad through the district. Highway 30 was moved outside the jurisdiction of North Bend, but still within the fire district's boundaries. Anhydrous ammonia storage is a concern in the district. Spills have occurred when the tanks are transported. The fire station is about four blocks from a storage facility and along chemical transportation routes. Residents of North Bend are not educated on the threat of chemical spills or spill response. The fire district has spill response training and gear for the operational level. For larger spills, the State HAZMAT team would need to be called, or the fire district will reach out to the railroad for their HAZMAT team. Educating communities on how to respond to a hazardous spill and providing more training to the fire district team are actions to reduce future risks.

Mitigation and Strategic Actions

Action	Training for Hazardous Materials Release
Description & Location	Improve emergency response by providing additional training opportunities for fire district personnel and expanding on equipment to manage hazardous spills and incidents.
Hazard(s) Addressed	Hazardous Materials Release
Estimated Cost	$10,000
Local Funding	General Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	Rural Board, Fire Chief
Status	New action. Current capabilities are limited to operational level.

Tornadoes and High Winds

Three tornadoes have occurred in the district in recent history. A funnel cloud appeared in 1998 but caused no damage. In 1999 a tornado damaged homes, trees, and power lines. Another tornado in 2023 that landed in the district resulted in a house being destroyed, along with broken windows and damaged siding on multiple homes. The City of North Bend has a warning siren for severe weather, activated by the fire department, but it does not reach the surrounding lake communities. County Emergency Management does offer text alerts. There are no FEMA certified safe rooms in the district. In case of a disaster Mutual Aid Agreements are in place with surrounding fire departments. The fire district also notifies communities when warning sirens are being tested. Discussions have been made about a potential tornado shelter in the new fire hall but that has not been confirmed.

Mitigation and Strategic Actions

See the *Build a New Fire Station* action under Flooding.

Other Mitigation and Strategic Actions

Action	Public Education
Description & Location	Educate staff, residents, and visitors on agricultural diseases and drought conditions that can increase hazardous fuels and fire risk, flooding (that can also be caused by levee failures), grass and wildfires, terrorism threats. Also educate the public on how to get information and emergency notifications, what mitigation actions can be taken, and preparedness actions to keep themselves safe. Coordinate outreach and education projects and materials with Dodge County, surrounding fire departments, Nebraska Forestry Service, local law enforcement, and other project partners. The district will amplify and expand on education and outreach strategies created by Dodge County and other organizations.
Hazard(s) Addressed	Animal & Plant Disease, Drought, Flooding, Grass/Wildfires, Levee Failure, Terrorism and Cyber-Attack
Estimated Cost	$500
Local Funding	Staff Time
Timeline	Ongoing
Priority	Low
Lead Agency	Fire Chief
Status	New action. Ongoing efforts with Dodge County Emergency Management. The fire district notifies farmers about harvesting during dry and strong wind periods.

Completed Mitigation and Strategic Actions

Action	Backup and Emergency Generators
Description & Location	Purchase a backup generator for the new fire station.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Status	Completed. Received a generator through Forestry Services.

Township Profile

Platte Township

Lower Platte North NRD
Hazard Mitigation Plan 2025

Local Planning Team

Platte Township Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Will Eaton	Chairperson	Platte Township	Materials Development	Materials Development
Kathy Eaton	Secretary	Platte Township	Attended	Attended

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The Chairperson, Treasurer, and Secretary will be responsible for reviewing and updating the community profile outside of the five-year update. Platte Township will review the plan annually and the public will be notified on posts about the monthly board agenda.

Location and Purpose

Platte Township is a 17 square mile subdivision of Butler County, located in the northeast corner of the county. The township is responsible for maintaining approximately 20 miles of road. A map of the township can be found in the Community Lifelines section of this profile. All large culverts and bridges are maintained by the county.

Capability Assessment

Due to the unique structure of townships, the typical capability assessment table was not used. The following table summarizes the township's overall capabilities.

Platte Township Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Limited
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

Plans and Studies

Platte Township does not have any plans or studies. If any plans or studies are created for the township in the future, the local planning team will work to integrate the hazard mitigation plan into them.

Future Development Trends

No new developments have occurred in Platte Township in recent years and there are no future projects planned in the area. This likely keeps vulnerability to all hazards the same.

Community Lifelines

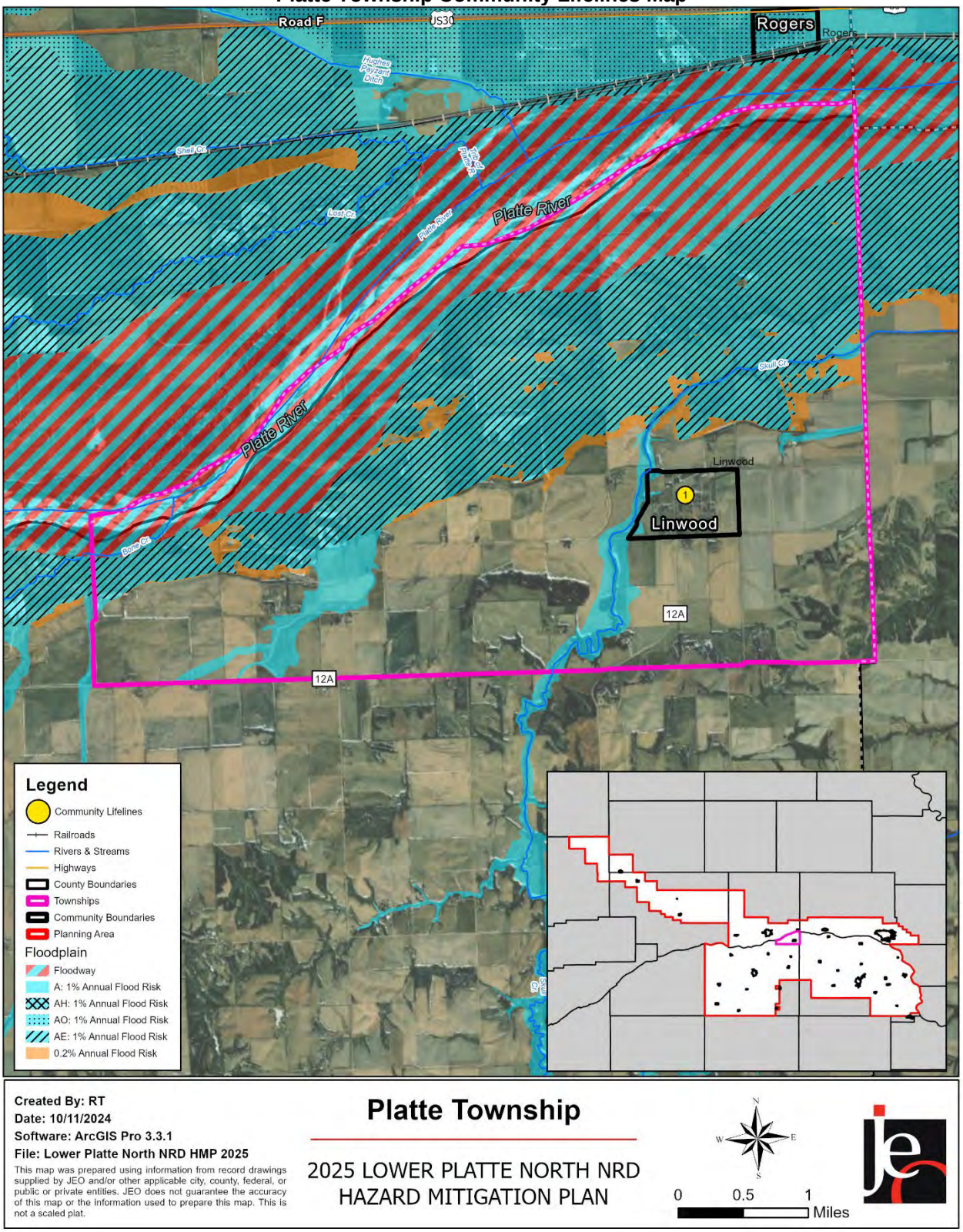
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Platte Township Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Linwood Volunteer Fire Department	Safety and Security	G	N

Platte Township Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Platte Township which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Platte Township. Flooding, grass/wildfire, severe thunderstorms, tornadoes and high winds, and severe winter storms are the only hazards that could impact the Platte Township since their capabilities and responsibilities as a jurisdiction focuses on road maintenance. Each hazard has a mitigation action that addresses it, so no other actions are needed. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Flooding

Platte Township has experienced recurrent flood impacts. The March 2019 flooding event washed out roads throughout the region. Prior to that, Skull Creek flooded repeatedly over the years as it passed through the Village of Linwood. Flash flooding is a larger concern in the community than riverine flooding, impacting the areas adjacent to Skull Creek and the Platte River. Flood reduction projects on Skull Creek have been identified to reduce the risk of this hazard.

Mitigation and Strategic Actions

Action	Stormwater System Improvements
Description & Location	Drainage improvements may include ditch upsizing, ditch cleanout and culvert improvements. Retention and detention facilities may also be implemented to decrease runoff rates while also decreasing the need for other stormwater system improvements.
Hazard(s) Addressed	Flooding, Severe Thunderstorms
Estimated Cost	Varies
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	District Board
Status	This is a project that is consistently being looked at. If a culvert needs to be cleaned or replaced, it is done in a timely manner.

Severe Thunderstorms

Thunderstorm winds, flooding, hail, and downed trees and power lines are the most concerning impacts of severe thunderstorms for the township. Severe thunderstorms are a common occurrence in the region from spring to fall. There are hazardous trees throughout the township that are vulnerable to severe storms. The township does carry insurance in case of damage from events such as severe storms. To prevent flood impacts, the township monitors Skull Creek. Addressing and repairing washouts from floods from severe thunderstorms need to occur to reduce the risk of this hazard.

Mitigation and Strategic Actions

See the *Stormwater System Improvements* action under Flooding.

Severe Winter Storms

Several severe winter storms have occurred in the region, but the most significant was in March 2000 when power was lost for 16 hours. Severe winter storms can cause blocked roads, power

outages, and hazardous travel in the township. This is especially concerning when travel is restricted during an emergency. There are no designated snow routes or snow fences in use in the township to aid in snow removal. The township relies on other townships or the county for snow removal services. A priority for the township is to open and clear roads as soon as possible after a snowstorm. Platte Township maintains its gravel roads and ensures roads are in good condition year-round to improve accessibility and mitigate potential risks from severe winter storms.

Mitigation and Strategic Actions

Action	**Hazardous Tree Removal**
Description & Location	Develop and implement tree maintenance and trimming program to remove hazardous limbs and trees.
Hazard(s) Addressed	Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$100+ per tree
Local Funding	General Fund
Timeline	5+ Years
Priority	Low
Lead Agency	District Board
Status	Still working on removing hazardous tree limbs and trees.

Drainage District Profile

Platte Valley Drainage District

Lower Platte North NRD
Hazard Mitigation Plan 2025

Local Planning Team

Platte Valley Drainage District Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Ron Drews	Board Member	Platte Valley Drainage District	Attended, Materials Development	Attended, Materials Development
Kent Merryweather	Board Member	Platte Valley Drainage District	Materials Development	Materials Development
Daniel Joseph	Board Member	Platte Valley Drainage District	Materials Development	Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The Board Members will be responsible for reviewing and updating the community profile outside of the five-year update. Platte Valley Drainage District will review the plan annually and the public will be notified during board meetings.

Location and Purpose

Platte Valley Drainage District is an organized levee authority that owns and maintains the Platte Valley Drainage District Levee System located in eastern Saunders County. The levee centerline runs approximately north to south from Leshara to Yutan along the Platte River for 6.36 miles. It is estimated that the levee system protects 30 people, and 16 structures with an estimated value of $20,000,000. The district was created in 1918 to protect agricultural land from flooding. A map of the levee and levee protected area can be found under the Community Lifelines section of this profile.

Capability Assessment

Due to the unique structure of the drainage district, the typical capability assessment table was not used. The following table summarizes the district's overall capabilities.

Platte Valley Drainage District Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Limited
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

Plans and Studies

Platte Valley Drainage District does not have any plans or studies. If any plans or studies are created for the district in the future, the local planning team will work to integrate the hazard mitigation plan into them.

Future Development Trends

Over the past five years, repairs to the levee were made after the March 2019 flooding. Future projects for the district include upgrading the levee to USACE standards where the 2019 floods caused weak spots along with continued evaluation of the levee and general maintenance as needed. These repairs and planned projects will help reduce the district's vulnerability to levee failure. For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted regardless of where they are located.

Community Lifelines

As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.

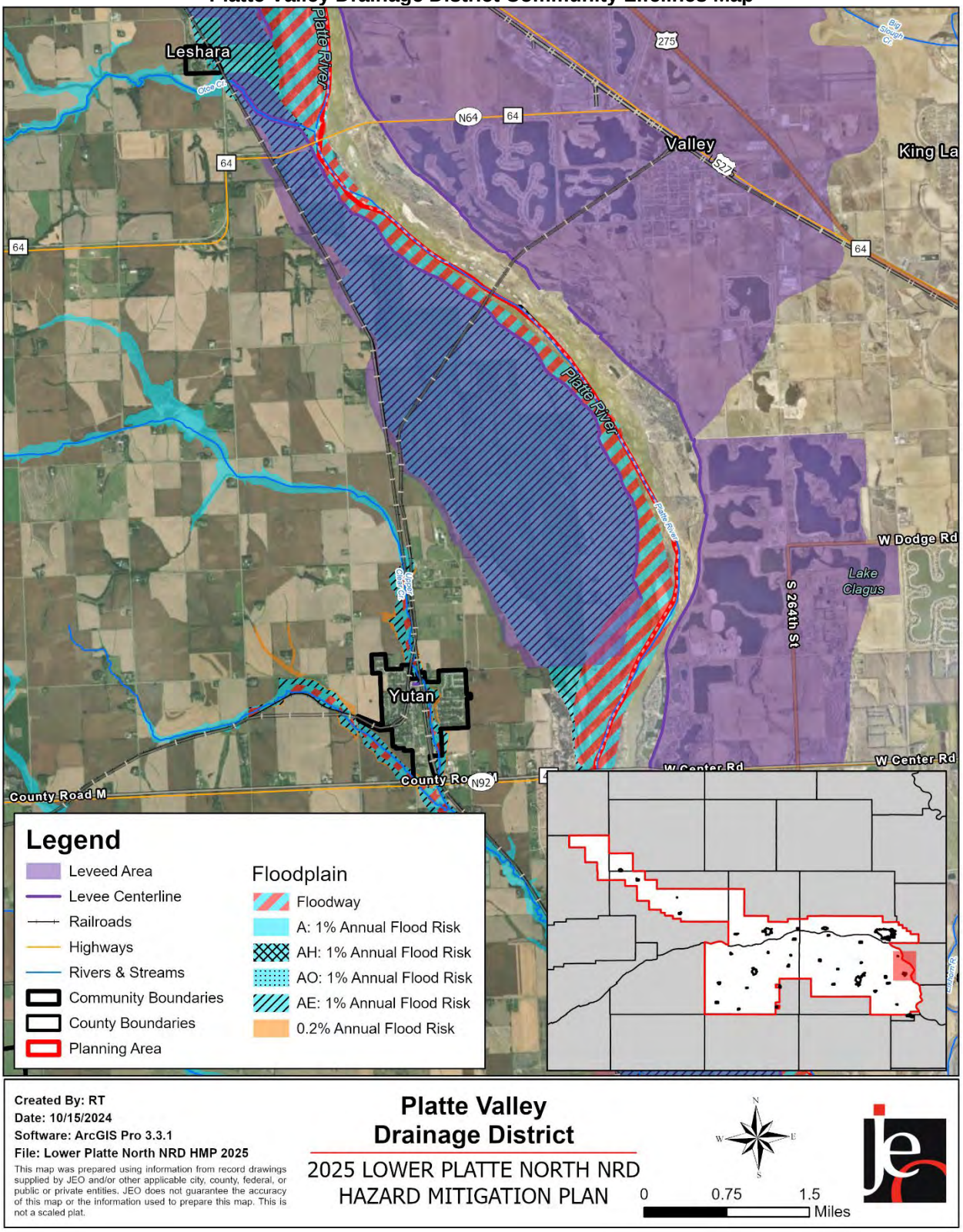


Platte Valley Drainage District Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain
*	Gas Lines	Energy	-	-
*	OPPD Electrical Lines	Energy	-	-
-	Railroad	Transportation	-	Y (1%) Partially

*Not mapped

Platte Valley Drainage District Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for the Platte Valley Drainage District which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Platte Valley Drainage District. Flooding, levee failure, and severe thunderstorms are the only hazards that could impact the dike and the drainage district since their capabilities and responsibilities as a jurisdiction focus on drainage and flood control. Each of those hazards has a mitigation action that addresses it, so no other actions are needed. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of low concern. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Flooding

The 2019 March flooding of the Platte River caused several breaches and eventually put the Platte Valley Drainage District's levee underwater. Every year the district makes repairs to the levee due to high river levels eroding away the bank. There have been no recent evets that have caused concerns for the drainage district. Continued maintenance and improvements to the levee were identified to reduce the risk of future flooding.

Mitigation and Strategic Actions

Action	Hazardous Tree Removal
Description & Location	Develop and implement tree maintenance and trimming program to remove hazardous limbs and trees. Remove trees and shrubs so access on the levee is improved.
Hazard(s) Addressed	Flooding, Levee Failure, Severe Thunderstorms
Estimated Cost	$200 per tree
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Board of Directors
Status	In the process of hiring contractors to remove trees and vegetation.

Levee Failure

The drainage district's levee failed during the 2019 March flood event, flooding farmland, roads and threatening Union Pacific Railroad rail lines and the Keystone oil pipeline. Eight total spots along the levee were either damaged or breached. On the southern tip of the levee, flood waters destroyed a 1,000-foot section. Two other holes (50 feet and 100 feet) were also created on the northern half of the levee. The rail line was closed for a month due to damage. County roads were also washed out and flooded. Water surrounded many houses in the area and most had water in the basements. It took ten days for the water to fully drain out of the district which impacted pastureland and livestock. On the south end of the district many fields had several feet of sand making it impossible to grow crops. The local planning team indicated that the pipeline was not affected by the floodwaters. The levee is not FEMA certified and needed extensive repairs after the floods. The drainage district plans to upgrade the levee to USACE standards in weak spots caused by the 2019 floods.

Mitigation and Strategic Actions

Action	Levee/Floodwall Construction and/or Improvements
Description & Location	Levees and floodwalls serve to provide flood protection to businesses and residents during large storm events. Improvements to existing levees and floodwalls will increase flood protection. The district would like to standardize the height of the levee and fortify it to withstand large flood events.
Hazard(s) Addressed	Flooding, Levee Failure
Estimated Cost	$2,000,000+
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Board of Directors
Status	Dike repairs were initiated in 2024; in a continual maintenance program.

Township Profile

Pohocco Township

Lower Platte North NRD
Hazard Mitigation Plan 2025

Local Planning Team

Pohocco Township Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Jim Ondracek	Treasurer	Pohocco Township	Recording, Materials Development	Attended, Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The township board will be responsible for reviewing and updating the community profile outside of the five-year update. Pohocco Township will review the plan bi-annually and the public will be notified at board meetings.

Location and Purpose

Pohocco Township primarily handles road maintenance within the township boundaries. It is located in northern Saunders County and covers 28 miles of county roads. A map of the township can be found under the Community Lifelines section of this profile. All large culverts and bridges are maintained by the county.

Capability Assessment

Due to the unique structure of townships, the typical capability assessment table was not used. The following table summarizes the township's overall capabilities.

Pohocco Township Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Limited
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

Plans and Studies

Pohocco Township does not have any plans or studies. If any plans or studies are created for the township in the future, the local planning team will work to integrate the hazard mitigation plan into them.

Future Development Trends

No changes have been made over the past five years in Pohocco Township and no new structures are anticipated in the near future. This likely keeps vulnerability to all hazards the same.

Community Lifelines

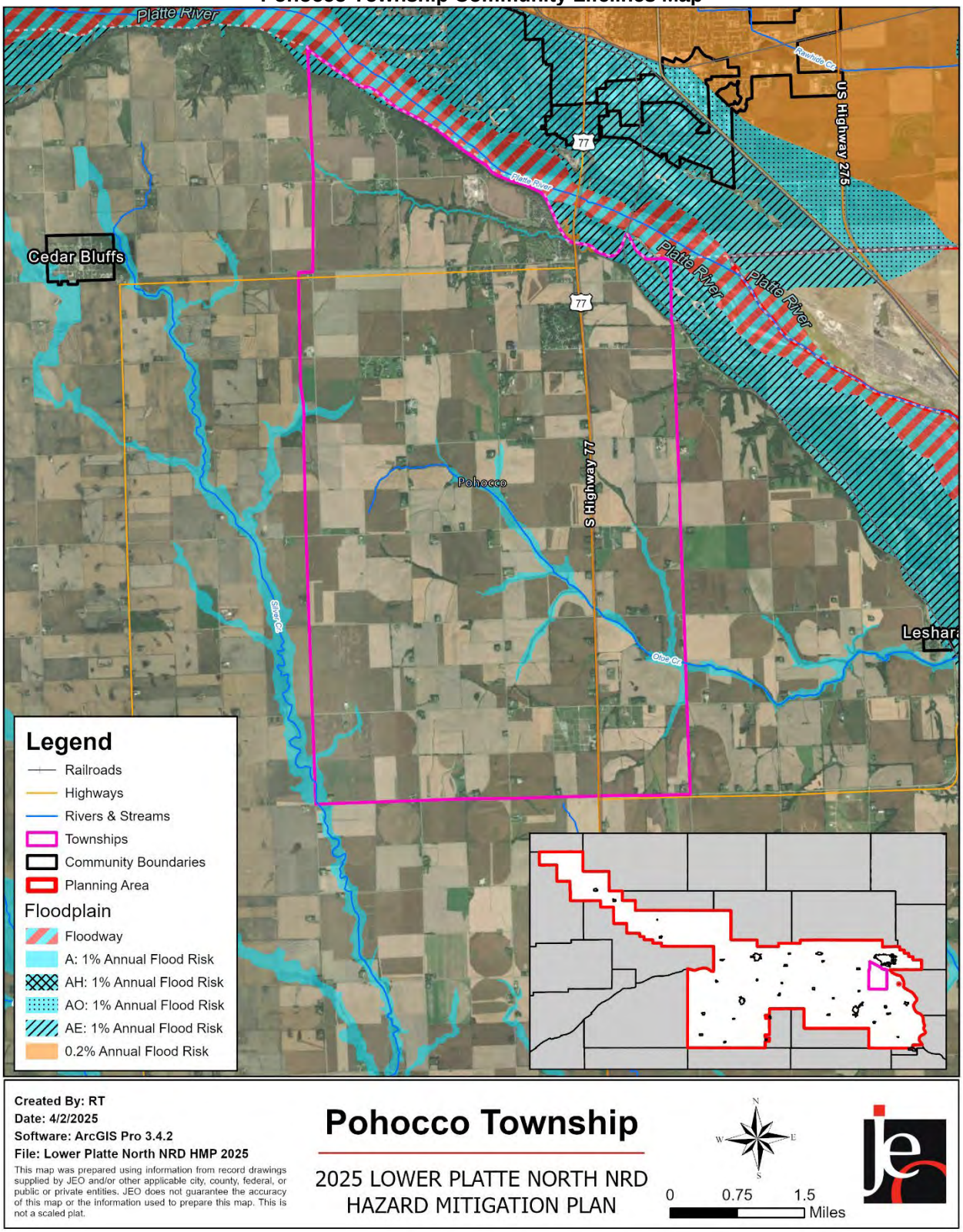
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Pohocco Township Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Township-Maintained Roadways	Transportation	-	Y (1%) Partially

Pohocco Township Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for the Pohocco Township which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Pohocco Township. Flooding, grass/wildfires, severe thunderstorms, tornadoes and high winds, and severe winter storms are the only hazards that could impact Pohocco Township since their capabilities and responsibilities as a jurisdiction focus on road maintenance. Each hazard has a mitigation action that addresses it, so no other actions are needed. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Flooding

Excess amounts of water have the potential to damage roads. The township usually experiences excess water as a result of heavy rains or fast snow melts. The creeks flooding throughout the township are more of a concern than the Platte River. Stormwater drainage is poor throughout the district. Saunders County offers an emergency alert system if flooding were to occur.

Mitigation and Strategic Actions

Action	Ditch Reconstruction
Description & Location	Work with the Saunders County Highway Department to identify and reshape roadway ditches to improve drainage.
Hazard(s) Addressed	Flooding, Severe Thunderstorms
Estimated Cost	Unknown
Local Funding	General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Township Board, Saunders County Highway Department
Status	New Action. Not Started

Severe Winter Storms

Road closures are the major concern for the township regarding severe winter storms. The township has access to a motor grader and a v-plow to remove snow from county roads after a significant event. These resources are not sufficient for the large number of roads under the township's jurisdiction. Often, the township has to request assistance from the county roads department. Drifting is an issue in certain areas; however, snow fences are not installed due to a potential liability issue. Saunders County offers an emergency alert system to inform residents on specific hazards and what actions need to be taken.

Mitigation and Strategic Actions

Action	Improve and Revise Snow/Ice Removal Program
Description & Location	As needed, continue to revise and improve the snow and ice removal program for streets. Revisions should address situations such as plowing snow, ice removal, parking during snow and ice removal, removal of associated storm debris, and rescuing those stranded during winter weather events.
Hazard(s) Addressed	Severe Winter Storms
Estimated Cost	Varies based on program
Local Funding	General Budget
Timeline	Medium
Priority	2-5 Years
Lead Agency	Township Board
Status	New Action. Not Started

Tornadoes and High Winds

No tornadoes have been reported in Pohocco Township, but the event of a tornado or high wind event could be catastrophic. Tornadoes and high winds have the potential to down trees and block roads, down power lines, and damage property. Property owners are responsible for maintaining the trees on their properties but hazardous trees line county roads in many places. Saunders County offers an emergency alert system to inform residents of specific hazards and what actions need to be taken.

Mitigation and Strategic Actions

Action	Hazardous Tree Removal
Description & Location	Reach out and work with landowners to maintain trees near ditches and remove any hazardous branches as needed.
Hazard(s) Addressed	Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$200 per tree
Local Funding	Township Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Township Board, private landowners
Status	New Action. Not Started

Other Mitigation and Strategic Actions

Action	Capacity Building
Description & Location	Improve emergency rescue and response equipment and facilities by providing additional or updating existing equipment. A small backhoe is needed for cleaning out ditches. Additional attachments are also needed for the grader.
Hazard(s) Addressed	Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	Varies
Local Funding	Township Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Township Board
Status	No action has started.

Township Profile

Reading Township

Lower Platte North NRD
Hazard Mitigation Plan 2025

Local Planning Team

Reading Township Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Ted Glock	Treasurer	Reading Township	Attended, Materials Development	Attended, Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or before other funding opportunity cycles start.

The Chairman, Clerk, and Treasurer will review and update this participant profile outside of the five-year update. Reading Township will review the plan annually, and the public will be notified during the Township's public board meetings. The Rising City Library will also partner with the township by having the plan available for inspection, and the Library's social media account and website will be used to keep township patrons informed.

Location and Purpose

Reading Township is a 36-square-mile subdivision of Butler County, located in the eastern corner of the county. The township is responsible for maintaining the gravel roads within its jurisdiction and provides funding for a community library. Reading Township owns one building that is used as a storage site for a maintainer. The figure on the next page shows the location of the township.

Capability Assessment

Due to the unique structure of townships, the typical capability assessment table was not used. The following table summarizes the township's overall capabilities.

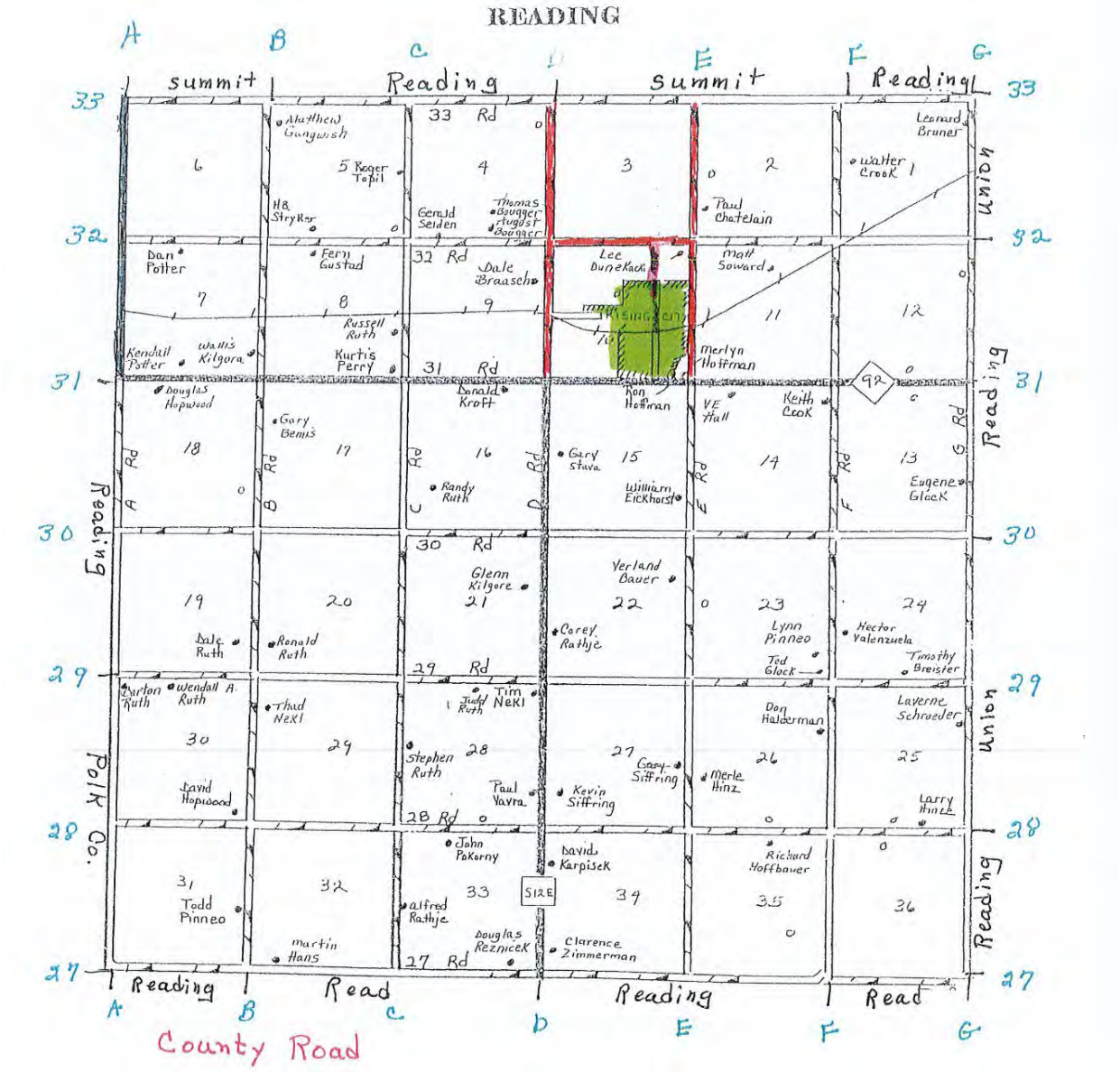
Reading Township Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Limited/Moderate
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

Plans and Studies

Reading Township does not have any plans or studies. If any plans or studies are created for the township in the future, the local planning team will work to integrate the hazard mitigation plan into them.

Reading Township Boundary



Future Development Trends

Over the past five years, commercial traffic has increased road travel throughout the township. This likely increases the vulnerability to the release of hazardous materials. Due to budget constraints, there have been no new structures, and no projects have been planned for future structures. Regardless of location, hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, tornadoes, and high winds could impact all new and future developments.

Community Lifelines

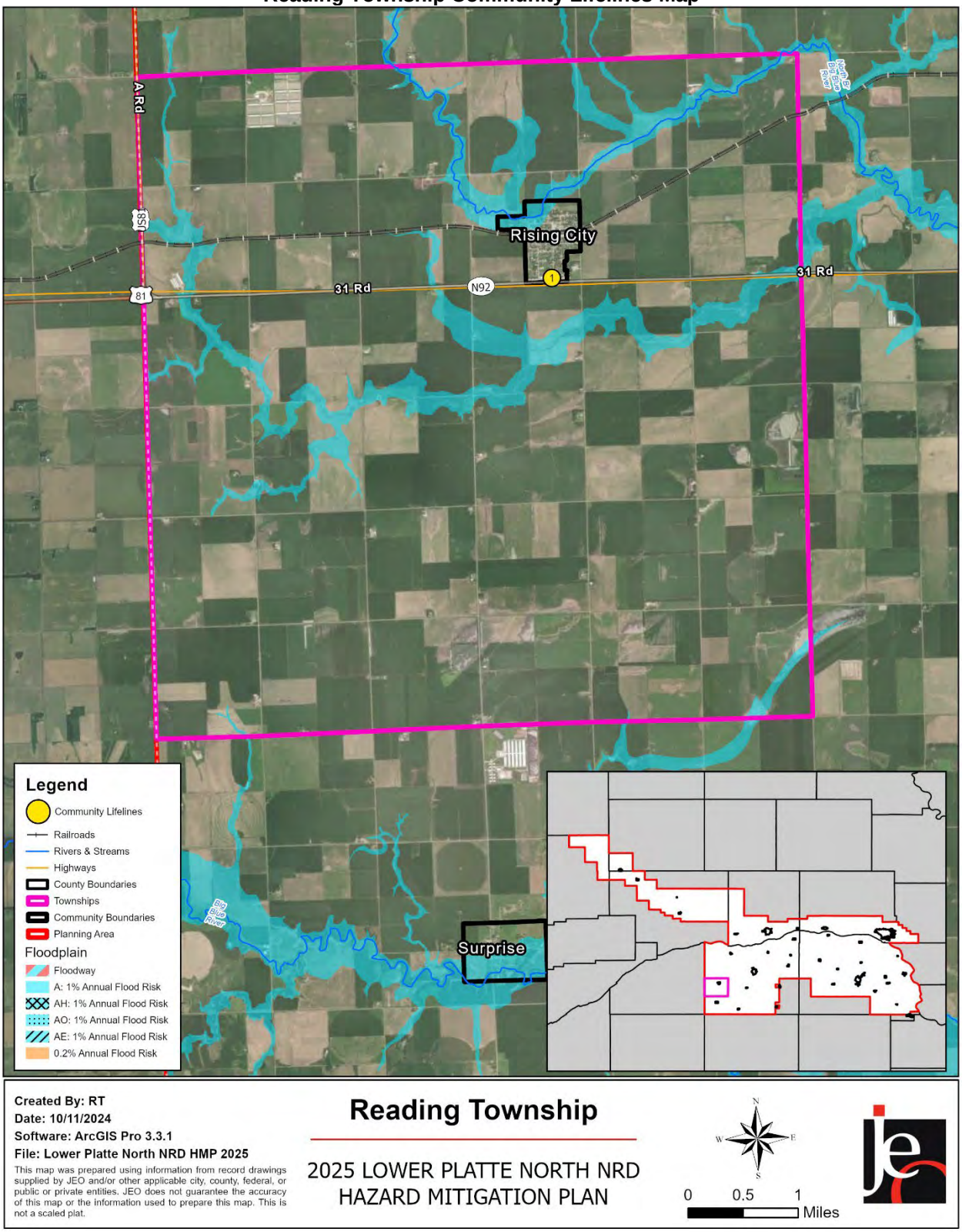
As listed in the following table, each participating jurisdiction identified community lifelines vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Reading Township Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Fire Station	Safety and Security	G	N
-	A Road/Highway 81	Transportation	-	Y (1%) Partially
-	B Road	Transportation	-	Y (1%) Partially
-	C Road	Transportation	-	Y (1%) Partially
-	D Road	Transportation	-	Y (1%) Partially
-	E Road	Transportation	-	Y (1%) Partially
-	F Road	Transportation	-	Y (1%) Partially
-	G Road	Transportation	-	Y (1%) Partially
-	27 Road	Transportation	-	Y (1%) Partially
-	28 Road	Transportation	-	N
-	29 Road	Transportation	-	Y (1%) Partially
-	30 Road	Transportation	-	Y (1%) Partially
-	31 Road/Highway 92	Transportation	-	Y (1%) Partially
-	32 Road	Transportation	-	Y (1%) Partially
-	33 Road	Transportation	-	Y (1%) Partially

Reading Township Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards that pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Reading Township, requiring a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Reading Township. Flooding, grass/wildfire, severe thunderstorms, tornadoes and high winds, and severe winter storms are the only hazards that could impact the Reading Township. Each hazard has a mitigation action that addresses it, so no other actions are needed. Please see *Section Five* and *Appendix A* for a review and analysis of other regional hazards.

Flooding

The 2019 floods caused damage throughout Reading Township. Gravel roads were washed away, and culverts were plugged or washed out. The township provides safe transportation surfaces for daily travel and emergency responses to rural areas, but the costs are causing a strain on the township's budget. A county or township-funded ditch reconstruction project for drainage enhancement has been identified as an opportunity to reduce the future risk of flooding.

Mitigation and Strategic Actions

Action	Clearing Brush
Description & Location	Clear any unwanted brush in the Township Right of Way. This will help to improve drainage and reduce grass/wildfire fuels.
Hazard(s) Addressed	Flooding, Grass/Wildfire, Severe Thunderstorms
Estimated Cost	$1,000 - $5,000 per Linear Mile
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Township Board
Status	New Action. Not Started

Action	Ditch Reconstruction
Description & Location	Work with the Butler County Highway Department to identify and reshape roadway ditches to improve drainage.
Hazard(s) Addressed	Flooding, Severe Thunderstorms
Estimated Cost	Unknown
Local Funding	General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Township Board, Butler County Highway Department
Status	New Action. Not Started

Action	Reshaping Road Surfaces
Description & Location	Work with the Butler County Highway Department to reshape road surfaces to improve drainage.
Hazard(s) Addressed	Flooding, Severe Thunderstorms
Estimated Cost	Unknown
Local Funding	General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Township Board, Butler County Highway Department
Status	New Action. Not Started

Severe Winter Storms

Reading Township experienced two significant snow and wind events during the winters of 2009-10 and 2023-24. Road surfaces were lost due to multiple snow removal passes. The township has difficulties keeping roads cleared and open from snow, and costs are causing a strain on the township budget. Reading Township is a part of an interlocal agreement with a neighboring township for joint ownership of a tractor and blade as a supplemental snow removal unit. Future projects to mitigate risks within the township include brush clearing in the right of ways and reshaping aged road surfaces.

Mitigation and Strategic Actions

Action	Safe Room / Storm Shelter
Description & Location	Currently, there is no structure in the Village of Rising City with a generated power supply, heating and cooling, and fire suppression sprinklers. Work with the Village of Rising City and Rising City Rural Fire Protection District #3 to identify and construct a storm shelter.
Hazard(s) Addressed	Flooding, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$700,000 - $1,000,000
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Township Board, Village of Rising City, Rising City Rural Fire Protection District #3
Status	New Action. In the very early stages of discussion.

Fire District Profile

Rising City Rural Fire Protection District #3

Lower Platte North NRD
Hazard Mitigation Plan 2025

Local Planning Team

Local Planning Team

Name	Title	Fire District	Round 1 Meeting	Round 2 Meeting
Roger Tupil	Chairman	Rising City Rural Fire Protection District #3	Attended, Materials Development	Materials Development
Ted Glock	Secretary / Treasurer	Rising City Rural Fire Protection District #3	-	Attended

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or before other funding opportunity cycles start.

The Chairman, Secretary/Treasurer, and another board member will be responsible for reviewing and updating this participant profile outside of the five-year update. The Rising City Rural Fire Protection District #3 will review the plan bi-annually, and the public will be notified during public rural board meetings.

Capability Assessment

Due to the unique structure of fire districts, the typical capability assessment table was not used. The following table summarizes the department's response vehicles, special teams, and special equipment. The district also has mutual aid agreements with Butler County Mutual Aid and Big 8 Mutual Aid.

Response Vehicles, Special Teams, and Special Equipment

Aerial	Pumper	Tanker	Pumper / Tanker	Grass-Weed Truck	Utility Truck	Rescue Units	Special Teams	Special Equipment
1	2	2	0	2	0	3	0	Light Tower, Hazmat Trailer

Plans and Studies

The Rising City Rural Fire Protection District #3 is part of several planning documents that discuss or relate to hazard mitigation. Each plan is listed below, along with a description of how it is integrated with the hazard mitigation plan or contains hazard mitigation principles. When the department updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update. The department also has maps of all addresses and all roads in its district.

Butler County Local Emergency Operations Plan (2021)

The Butler County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. Flooding, dam failure, and mass shelter information from the LEOP were used to inform hazard prioritization and community lifelines. The hazard mitigation plan has not been integrated with the LEOP.

Southeast Nebraska Community Wildfire Protection Plan (2020)

The Southeast Nebraska Wildfire Protection Plan CWPP aims to help effectively manage wildfires and increase collaboration and communication among organizations that manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP, and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years.

Standard Operating Procedures

The standard operating procedures outline the department's response to various calls that could be received. These procedures are unlikely to be further integrated with the hazard mitigation plan as they deal directly with response efforts.

Future Development Trends

Over the past five years, Rising City Rural Fire Protection District #3 has obtained a new ambulance and two grass rigs in the Rising City and Surprise fire stations. The department plans on having a new 3,000-gallon tanker/pumper combination to better prepare for containing fires in the near future. This will likely help reduce the department's vulnerability to grass/wildfire. Regardless of location, hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds could impact all new and future developments.

Community Lifelines

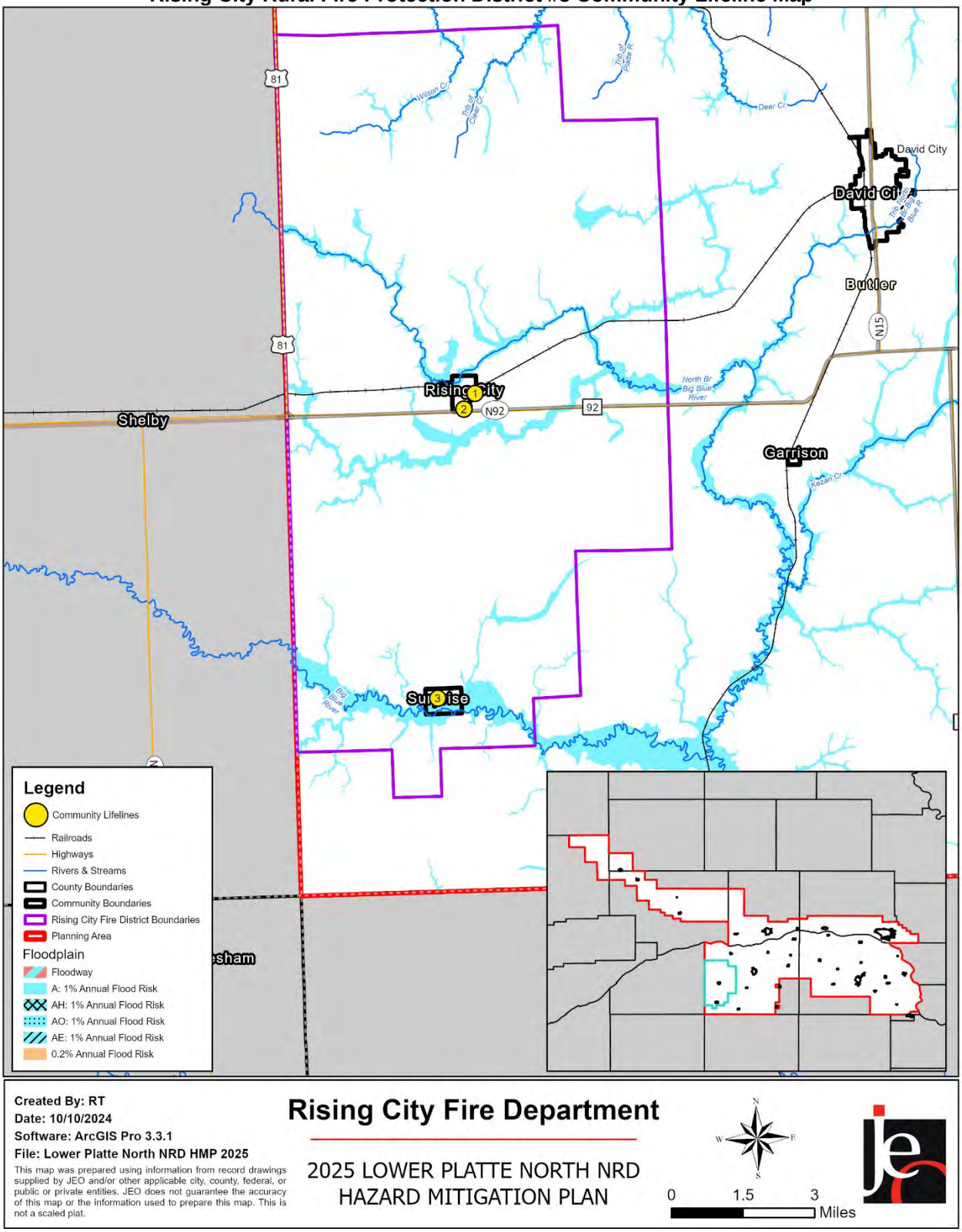
As listed in the table below, the fire district identified community lifelines vital for disaster response and essential for returning the district's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Rising City Rural Fire Protection District #3 Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain
1	Rising City Community Center	Other	-	N
2	Rising City Fire Station	Safety and Security	G	N
3	Surprise Fire Station	Safety and Security	G	N
-	Highway 81	Transportation	-	Y (1%) Partially
-	Highway 92	Transportation	-	Y (1%) Partially
-	NE-12E Spur	Transportation	-	Y (1%) Partially

Rising City Rural Fire Protection District #3 Community Lifeline Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards that pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for the Rising City Rural Fire Protection District #3, which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the fire department. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however Rising City Rural Fire District has identified mitigation actions to reduce the impacts of the hazards. Dam Failure and Levee Failure have been omitted as there are no high hazard dams or levee protected areas within the district according to NeDNR and USACE data. Therefore, no mitigation actions have been identified for those two hazards. Please see *Section Five* and *Appendix A* for a review and analysis of other regional hazards.

Grass/Wildfires

In April 2022, Rising City Rural Fire Department and multiple other volunteer fire departments responded to a farm fire. Cattle housing and feed were lost along with 150 cattle. The fire occurred on an extremely windy day, which caused it to spread rapidly. Without the assistance of nearby farmers providing tractors and disks, nine fire departments, and numerous volunteers, the fire would have spread and impacted housing. Responders were on the scene for 14 hours to control the flame. The department is working on getting more mobile water to better prepare for potential fires. Better water sources and storage solutions for businesses are future projects to reduce the risk of fires.

Mitigation and Strategic Actions

Action	Capacity Building
Description & Location	Increase the fire department's capacity by acquiring additional equipment, such as vehicles and equipment. A new tanker/pumper truck is needed for the fire department.
Hazard(s) Addressed	Grass/Wildfire
Estimated Cost	$600,000
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Rural Fire Board
Status	Not Started. In Progress. The tanker/pumper truck is under construction, with an expected delivery date of December 2026.

Action	Hazardous Fuels Reduction
Description & Location	Identify locations in the district which have high grass/wildfire risk and a buildup of vegetation. Work with landowners to reduce vegetation and thin fuels to reduce the chance of a large grass/wildfire.
Hazard(s) Addressed	Animal & Plant Disease, Drought, Grass/Wildfires
Estimated Cost	$5,000+, Staff Time
Local Funding	General Budget
Timeline	Ongoing
Priority	High
Lead Agency	Fire Chief
Status	New Action. Ongoing. The fire district works to reduce vegetation when funds are available and buy in from local landowners is possible.

Hazardous Materials Release

An anhydrous release in Rising City occurred in May 2024 but left no damage. There are mass storage facilities of chemicals and apparatus within city limits. Social media is the primary source to notify the public of emergency directions. Expanding ways to inform residents has been identified as a potential project once the department has the budget and resources.

Mitigation and Strategic Actions

Action	Resident Notification
Description & Location	Improve residential notification of current or future hazardous situations. Focus notification on grass/wildfire and hazardous materials release incidents.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfire, Hazardous Materials Release, Severe Thunderstorms, Severe Winter Storms, Terrorism & Cyber Attack, Tornadoes and High Wind
Estimated Cost	$500+
Local Funding	General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	Fire Chief
Status	New Action. Not Started.

Severe Thunderstorms

Severe thunderstorms are a common occurrence in the region. Hail, high winds, and lightning can potentially cause extensive property damage. A severe thunderstorm on June 4, 2022, reported 1.25 inch hail. The department has not completed projects to reduce the impact of severe thunderstorms. Future projects include improving warning systems, communications with weather services, and ensuring resource availability after an event.

Mitigation and Strategic Actions

Action	Weather Service Communication
Description & Location	Improve communications with weather services to get more accurate forecasts for the district.
Hazard(s) Addressed	Extreme Temperatures, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	Staff Time
Local Funding	Staff Time
Timeline	2-5 Years
Priority	Low
Lead Agency	Fire Chief
Status	New Action. Not Started.

Tornadoes and High Winds

A tornado was reported in the Village of Surprise in September 2006. The village had tree and structure damage, and a local restaurant was destroyed. The fire department indicated that additional resources are needed to better respond to a tornado or high wind event. Future projects to reduce the risk of this hazard include improving warning systems and communications with weather services and ensuring resource availability after an event.

Mitigation and Strategic Actions

See the *Weather Service Communication* action under Severe Thunderstorms.

Other Mitigation and Strategic Actions

Action	Public Education
Description & Location	Educate staff and residents on drought and agricultural diseases that can increase hazardous fuels and increase vulnerability to grass and wildfires. Also educate the public on how to get information and emergency notifications, what mitigation actions can be taken, and preparedness actions to keep themselves safe. Coordinate outreach and education projects and materials with Butler County and other project partners. Ridgway will amplify and expand on education and outreach strategies created by Butler County. Education and outreach strategies can include: • Educating residents and farmers during droughts or extreme heat days and encourage them to limit activity outdoors • Educate staff on proper procedures during extreme temperatures • Dispersing information on severe weather alerts (thunderstorms, winter weather, tornadoes/high winds) • Develop pamphlets on how to stay safe during floods
Hazard(s) Addressed	Animal & Plant Disease, Drought, Extreme Temperatures, Flooding, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$500
Local Funding	General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Fire Chief
Status	New Action. The fire department shares information on their social media but can expand to provide targeted information and safety measures during extreme weather events.

Fire Districts Profile

Schuyler Volunteer Fire Department Profile

Lower Platte North NRD
Hazard Mitigation Plan 2025

Local Planning Teams

Local Planning Teams

Name	Title	Fire District	Round 1 Meeting	Round 2 Meeting
Brad Sock	Fire Chief	Schuyler Volunteer Fire Department	-	Materials Development
Andrew Jedlicka	2nd Assistant Chief	Schuyler Volunteer Fire Department	-	Attended

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The fire chief, along with the first and second assistant chiefs, will be responsible for reviewing and updating the community profile outside of the five-year update. Schuyler Volunteer Fire Department will review the plan bi-annually and the public will be notified on social media, the department website, and during meetings.

Capability Assessment

Due to the unique structure of fire districts, the typical capability assessment table was not used. The following table summarizes each district's response vehicles, special teams, and special equipment. In addition, each district can utilize mutual aid, county, and state resources if needed during large-scale events.

Response Vehicles, Special Teams, and Special Equipment

Participating Fire District	Aerial	Pumper	Tanker	Pumper / Tanker	Grass-Weed Truck	Utility Truck	Rescue Units	Special Teams	Special Equipment
Schuyler Volunteer Fire Department	1	2	2	0	2	1	2	3	Ice Rescue, Swift water, Special ops

Mutual Aid Agreements

Participating Fire District	Mutual Aid Partnerships
Schuyler Volunteer Fire Department	Howells, Clarkson, Leigh, North Bend

Plans and Studies

Schuyler Volunteer Fire Department has one planning document that discusses or relates to hazard mitigation. The plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the fire department updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Middle Northeast Community Wildfire Protection Plan (2021)
The purpose of the Middle Northeast Community Wildfire Protection Plan CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years.

Future Development Trends

Over the past five years, Schuyler Volunteer Fire Department has obtained a new equipment truck and a new 4-door ATV with a skid unit. These additions will likely reduce the department's vulnerability to grass/wildfire. Regardless of location, hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds could impact all new and future developments.

Community Lifelines

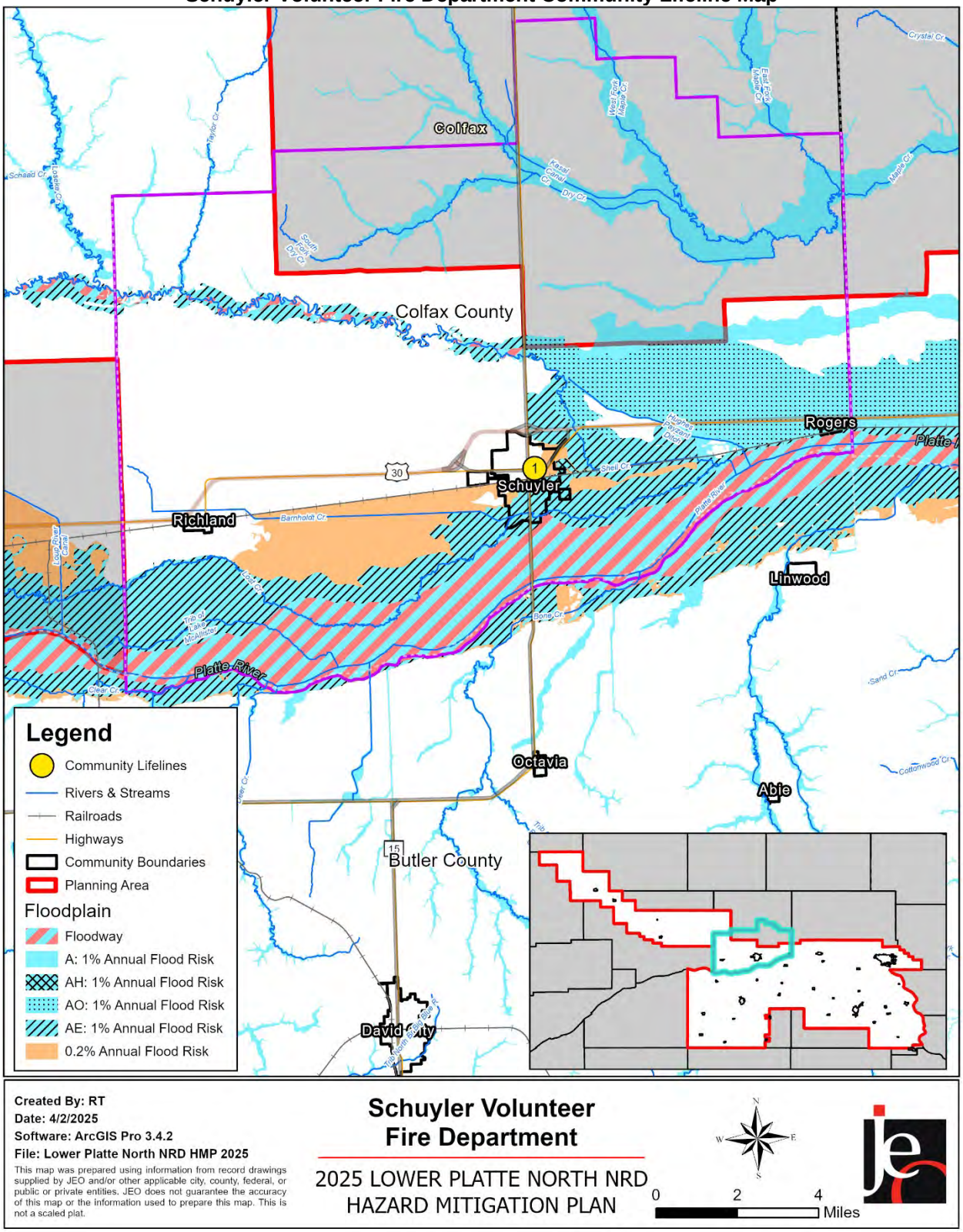
As listed in the tables below, each fire district identified community lifelines that are vital for disaster response and essential for returning the districts' functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Schuyler Volunteer Fire Department Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Fire Hall	Safety & Security	G, S	N

Schuyler Volunteer Fire Department Community Lifeline Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning teams prioritized specific hazards of top concern for the fire districts which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by each fire district. Based on this analysis, the local planning teams determined their vulnerability to all other hazards to be of secondary concern, however, Schuyler Volunteer Fire Department has identified mitigation actions to reduce impacts from those hazards. Dam failure has been omitted from this profile as there are no high hazard dams within the district according to NeDNR data. Therefore, no mitigation actions have been identified for that hazard. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Drought

Drought is a concern for the district when a lack of rain leads to grass and wildfire. The fire department is able to draw water through municipal water systems in its district and rural wells, but may not be able to if severe drought conditions dry out some of the water sources. In the CWPP, the fire department listed water as one of the major concerns for its district.

Mitigation and Strategic Actions

Action	Water System Improvements
Description & Location	Make water system improvements to include additional fire hydrants/increase supply and pressure to effectively fight fires and meet increasing demands.
Hazard(s) Addressed	Drought, Extreme Temperatures, Grass/Wildfires, Hazardous Materials Release
Estimated Cost	Varies by project
Local Funding	General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	Fire Chief
Status	New action. The fire department indicated there are areas in its district where lack of water within an effective distance is a concern.

Flooding

Recent flooding has occurred in 2019, 2010, and 2007. The flooding in 2019 damaged the southern portion of Schuyler, roads, and structures near the Platte River. There were no impacts to the fire hall, but response to calls were impacted due to road closures. Improvements have been made on bridges since the 2019 floods; however, some bridges currently do not support equipment weight. The Platte River and Shell Creek are the water bodies of most concern, but Shell Creek has not been an issue since the levee was built. Much of the district has poor stormwater drainage. When flooding occurs in the district, the fire department helps provide manpower to evacuate residents and sandbag. They also provide additional assistance to County Emergency Management. Training and public meetings to increase preparedness and awareness have been done to reduce risks from flooding events. Cleaning and straightening Shell Creek to improve water flow is an action the planning team identified to reduce impacts from flooding in the future.

Mitigation and Strategic Actions

Action	Capacity Building
Description & Location	Improve emergency rescue and response equipment and facilities by providing additional or updating existing equipment. For example: backup systems for emergency vehicles, training additional personnel, upgrading radio systems, etc. The district would like to upgrade the radio system to digital.
Hazard(s) Addressed	Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$300,000+
Local Funding	General Budget
Timeline	5+ Years
Priority	High
Lead Agency	Fire Chief
Status	In progress. The project is identified in the 5- and 10-year plan. Continue support with county emergency management during hazardous events.

Grass/Wildfires

Wildfires and structure fires are the primary hazards of concern for the Schuyler Fire Department. The department responds to approximately 80 to 100 fires a year. Typically, those are small fires which are easily put out. The district has two pumpers, an aerial, two tankers, a utility truck, two grass rigs, and an ATV for use by the two rescue squads for response. There are usually around 38 volunteer staff. The fire department has continued training and acquired better equipment to lower the risk of grass and wildfires.

Mitigation and Strategic Actions

Action	Hazardous Fuels Reduction
Description & Location	Identify locations in the district that have high grass/wildfire risk and a buildup of vegetation. Work with landowners to reduce vegetation and thin fuels to reduce the chance of a large grass/wildfire.
Hazard(s) Addressed	Animal & Plant Disease, Drought, Grass/Wildfires
Estimated Cost	$5,000+, Staff Time
Local Funding	General Budget
Timeline	Ongoing
Priority	High
Lead Agency	Fire Chief
Status	New Action. Ongoing.

Hazardous Materials Release

Chemicals are often transported on Highway 30 and the Union Pacific Railroad. There are also a couple of Co-ops located in the district. The rail line carries a lot of ethanol; other chemicals are unknown, which concerns the local planning team. Anhydrous ammonia is primarily the chemical that is transported on the highway. There have been small chemical releases due to fires and vehicle wrecks, but no major spills. The fire department has some staff trained to a HazMat awareness level, with minor amounts of technician training. However, if a large spill were to occur, the HazMat team from Columbus or the state would need to be called in. The fire department has two spill kits, blockage devices, and floor dry on hand to clean up small spills. Additional training

to handle hazardous materials release has been ongoing and will continue to occur to reduce risks to this hazard.

Mitigation and Strategic Actions

Action	Build a New Training Facility
Description & Location	Build a new training tower east of 16th Street.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$300,000+
Local Funding	General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	Fire Chief
Status	The department is working with the Schuyler Utility Department on the location.

Severe Winter Storms

The primary concern related to severe winter storms is heavy snow and ice storms affecting the response capabilities of the department. Damage to the fire hall is not a concern as it is a brick building and has not been damaged in the past. Snow removal is done by the communities within their jurisdictions; the State manages the highways, and the county manages the county roads. The local planning team indicated that snow removal could be better across the district, but the fire department does not have control of that. The state does not plow at night, which has impacted road conditions during night calls.

Mitigation and Strategic Actions

Action	Weather Service Communication
Description & Location	Improve communications with weather services to get more accurate forecasts for the district.
Hazard(s) Addressed	Extreme Temperatures, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	Staff Time
Local Funding	Staff Time
Timeline	2-5 Years
Priority	Low
Lead Agency	Fire Chief
Status	New Action. Not Started.

Tornadoes and High Winds

No tornadoes have impacted Schuyler or the other villages, but some have occurred in the rural areas. However, if a tornado were to touch down in a community, the potential damages would be high. The fire department would help in the rescue, recovery, and clean-up stages. Power loss is not a concern as the fire hall has a backup generator. The building is also insured should any damages occur. In the event of a power surge, electronic devices have surge protectors. Records are not backed up. For notification, the fire department does storm spotting on occasion and has a weather radio in the fire hall. The fire department has undergone training to lower the risks of tornado and high wind events.

Mitigation and Strategic Actions

Action	Backup and Emergency Generators
Description & Location	Identify and evaluate current backup and emergency generators. Obtain additional generators based on identification and evaluation. Provide a portable or stationary source of backup power to the fire hall.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	Varies by size
Local Funding	General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Fire Chief
Status	The fire hall has a backup generator

Other Mitigation and Strategic Actions

Action	Public Education
Description & Location	Educate staff, residents, and visitors on their risks to agricultural disease and drought or dry conditions that can increase hazardous fuels for fires and levee failure that can result in flooding. Also educate the public on how to get information and emergency notifications, what mitigation actions can be taken, and preparedness actions to keep themselves safe. Coordinate outreach and education projects and materials with Colfax County, surrounding fire departments, Nebraska Forestry Services, and other project partners.
Hazard(s) Addressed	Animal & Plant Disease, Drought, Flooding, Levee Failure
Estimated Cost	$500
Local Funding	General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Fire Chief
Status	New Action. Not Started

Township Profile

Skull Creek Township

Lower Platte North NRD
Hazard Mitigation Plan 2025

Local Planning Team

Skull Creek Township Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Jim Rerucha	Clerk	Skull Creek Township	Attended, Materials Development	1-on-1, Materials Development
Michael Rerucha	Treasurer	Skull Creek Township	Materials Development	-

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The local planning team will be responsible for reviewing and updating the community profile outside of the five-year update. Skull Creek Township Board will review the plan every six months and the public will be notified using public board agenda posts and public board meetings.

Location and Purpose

Skull Creek Township is located in the eastern part of Butler County and is approximately 36 square miles. The purpose of the township is to maintain roads and road safety. This includes road aggregate, profile roads to standards, and maintaining driveways. Skull Creek Township is responsible for drainage structures 30 inches and under and maintaining signs. The township owns a storage shed/shop used to store a motor grader and basic equipment including fuel storage. The figure below shows the location of the township.

Capability Assessment

Due to the unique structure of townships, the typical capability assessment table was not used. The following table summarizes the township's overall capabilities.

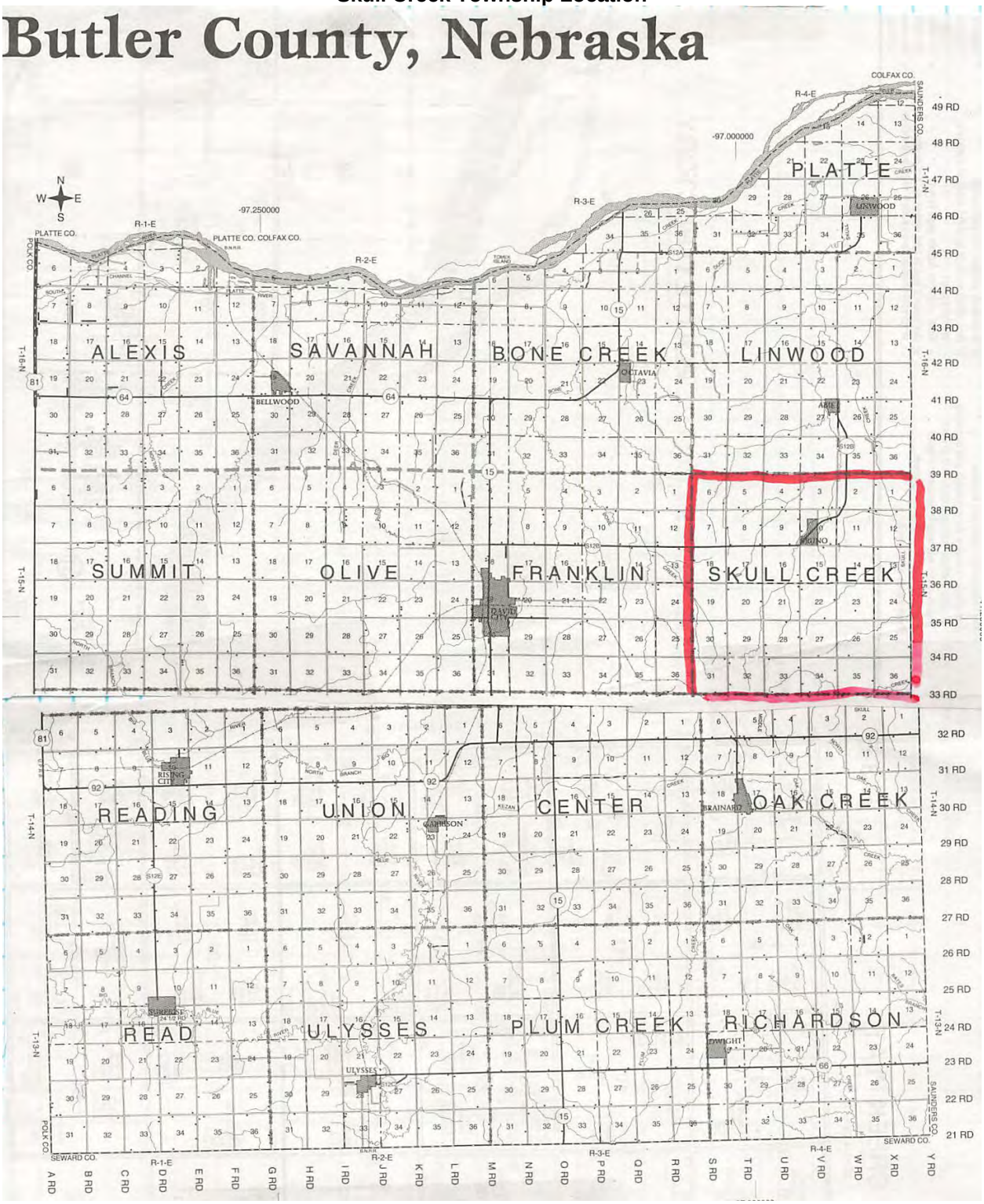
Skull Creek Township Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Moderate
Public Support to Implement Projects	Moderate
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Moderate

Plans and Studies

Skull Creek Township does not have any plans or studies. If any plans or studies are created for the township in the future, the local planning team will work to integrate the hazard mitigation plan into them.

Skull Creek Township Location



Future Development Trends

Over the past five years, there have not been significant changes in Skull Creek Township and no new structures have been developed in the floodplain or other known hazardous areas. The township does not anticipate planned projects for the next five years. This likely keeps the districts vulnerability the same.

Community Lifelines

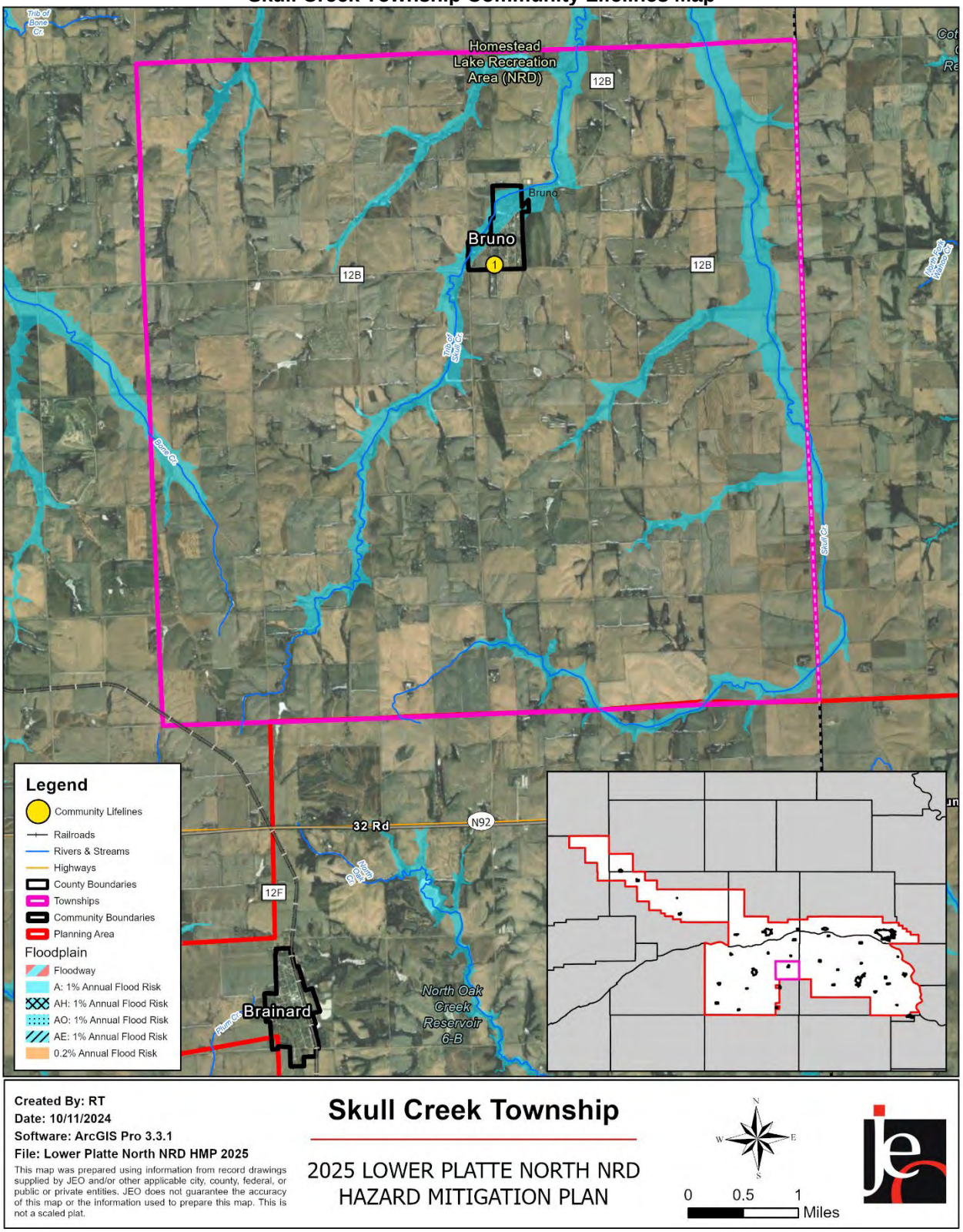
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Skull Creek Township Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain
1	Township Shed	Other	-	N
-	County Road V	Transportation	-	Y (1%) Partially
-	County Road 35	Transportation	-	Y (1%) Partially

Skull Creek Township Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for the Skull Creek Township which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Skull Creek Township. Flooding, grass/wildfire, severe thunderstorms, severe winter storms, and tornadoes and high Winds are the only hazards that could impact Skull Creek Township. Each hazard has a mitigation action that addresses it, so no other actions are needed. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Flooding

On May 20-21, 2024, seven inches of rain fell on already saturated ground. This washed over many roads and drain structures, resulting in loss of road aggregate and incurred unsafe driving conditions to the point of being dangerous. Roads had to be closed due to the hazard. As road integrity is challenged by heavy flooding, safety becomes a concern as roads become difficult to travel on. Closed roads also make accessibility to residents a challenge in case of an emergency. Skull Creek Township is under the county road department contract, and projects are submitted on a work list. With flood damage being countywide, there are other projects that are prioritized. The township identified replacing culverts in several locations, cleaning ditches to give more holding capacity, and lessening the intensity in the watershed as future projects to reduce the risk of future flood impacts. A detailed list of projects include:

1. Extending CMP and raising road on County Road T, from County Road 34 to 35
2. Regrading road aggregate on County Road W, from County Road 33 to 37
3. Installing CMP and grading on County Road Y, from County Road 33 to 34
4. Installing a drain structure on County Road 38, from County Road X to Y
5. Regrading road aggregate from County Road U, from County Road 35 to 37
6. Cleaning ditches, installing CMP, and grading the road from County Road U, from County Road 34 to 35
7. Regrading road aggregate on County Road U, from County Road 38 to 39

Mitigation and Strategic Actions

Action	Culvert and Drainage Ditch Improvements
Description & Location	Expand drainage ditches culverts to increase capacity during flood events. Clean out culverts and ditch which have silted in.
Hazard(s) Addressed	Flooding, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	Varies by project
Local Funding	Board Account
Timeline	5+ Years
Priority	High
Lead Agency	Township Board
Status	New action, locations for improvements have been identified.

Action	Transportation Drainage Improvements
Description & Location	Make drainage improvements to roadways to reduce flooding and damage from flood waters. Drainage improvements will also help to reduce ice and snow buildup on roadways.
Hazard(s) Addressed	Flooding, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	Varies by project
Local Funding	Board Account
Timeline	2-5 Years
Priority	High
Lead Agency	Township Board
Status	New action, locations of improvements have been identified.

Severe Winter Storms

The January 2024 blizzard brought heavy snow, making roads impassable. Road closures were a concern to emergency personnel by making it difficult if not impossible to reach people on gravel roads. The township is under contract with the county roads department, and future projects are submitted to them. Cutting down road embankments, removing hazardous trees and shrubs along roadways, reducing snow traps, and purchasing another snow removal machine are projects the township have been identified to reduce the risk of severe winter storms. A detailed list of projects include:

1. Extending CMP and raising road on County Road T, from County Road 34 to 35
2. Regrading road aggregate on County Road W, from County Road 33 to 37
3. Regrading road aggregate from County Road U, from County Road 35 to 37
4. Cleaning ditches, installing CMP, and grading the road from County Road U, from County Road 34 to 35
5. Regrading road aggregate on County Road U, from County Road 38 to 39
6. Cutting down road embankment on County Road 38, from County Road U to W
7. Raising road and cutting down banks on County Road 37, from County Road W to Y

Mitigation and Strategic Actions

Action	Hazardous Tree Removal
Description & Location	Remove trees near roadways to help prevent snow drifting.
Hazard(s) Addressed	Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$200+ per tree
Local Funding	Board Account
Timeline	2-5 Years
Priority	High
Lead Agency	Township Board, Private Landowners
Status	New action, currently identifying locations where trees need to be removed.

Action	Roadway Bank Improvements
Description & Location	Cutdown tall banks near roadways to help reduce drifting snow on roads.
Hazard(s) Addressed	Severe Winter Storms
Estimated Cost	Varies by Project
Local Funding	Board Account
Timeline	5+ Years
Priority	High
Lead Agency	Township Board, Private Landowners
Status	New action, locations of improvements have been identified.

Action	Snow Removal Equipment
Description & Location	Purchase a tractor and blade to help keep roadways clear of snow.
Hazard(s) Addressed	Severe Winter Storms
Estimated Cost	$100,000+
Local Funding	General Fund, Loan
Timeline	5+ Years
Priority	Medium
Lead Agency	Township Board
Status	New action, not started.

Health Department Profile

Three Rivers Health Department

Lower Platte North NRD
Hazard Mitigation Plan 2025

Local Planning Team

Three Rivers Health Department Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Robert Ball	Emergency Response Coordinator	Three Rivers Health Department	Materials Development	Attended, Materials Development
Terra Uhing	Executive Director	Three Rivers Health Department	Attended, Materials Development	Attended, Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The Executive Director and Emergency Response Coordinator will be responsible for reviewing and updating the community profile outside of the five-year update. Three Rivers Health Department will review the plan annually and the public will be notified on their website and social media pages.

Location

The Three Rivers Health Department is headquartered in the City of Fremont. The district serves the communities and unincorporated areas in Dodge, Saunders, and Washington counties.

Capability Assessment

The mission of the health department is to empower and educate families while promoting healthy living for the improvement of our communities. Due to the unique structure of health departments, the typical capability assessment table was not used. The following table summarizes the district's overall capabilities.

Three Rivers Health Department Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Moderate
Staff/Expertise to Implement Projects	Moderate
Public Support to Implement Projects	Moderate
Time to Devote to Hazard Mitigation	Moderate
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Moderate

Plan Integration

The Three Rivers Health Department has two planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the health department updates these planning mechanisms, the local planning team will review the hazard mitigation

plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Continuity of Operations Plan (2023)

The continuity of operations plan outlines the procedures to carry on necessary processes in the case of a disaster or public health emergency. This document outlines essential functions, what levels of disaster can activate the type of response, alternate facility operations, and other logistics. The hazard mitigation plan is not integrated into the continuity of operations plan but does include how the health department will react if a natural or manmade disaster were to occur. The plan is reviewed annually by the emergency response coordinator.

Emergency Response Plan (2024)

The emergency response plan establishes procedural guidelines within Three Rivers Public Health Department to function when a disaster happens. This hazard mitigation plan is not integrated into the emergency response plan but contains information regarding roles and responsibilities before, during and after an incident, training and exercises, and descriptions of other plans integrated in this document. The plan is reviewed annually by the health department's emergency response coordinator to maintain up-to-date information, training, drills, and exercises.

Future Development Trends

Over the past five years, Three Rivers Public Health Department has experienced ongoing staff turnover and transitions, in part due to the lasting impacts of the COVID-19 pandemic. The department maintains a strong presence in Saunders and Washington counties, with offices located in Wahoo and Blair, respectively both of which are outside designated floodplains or other known hazard areas. Three Rivers hopes to renovate its Fremont office, which is located within a designated flood hazard area, within the next five years—pending available funding and feasibility.

For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all offices could be impacted regardless of where they are located. The Fremont office has an increased risk of flooding as it is in the 500-year floodplain. According to the local planning team any new and future development is not likely to occur in any other known hazard locations.

Community Lifelines

As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.

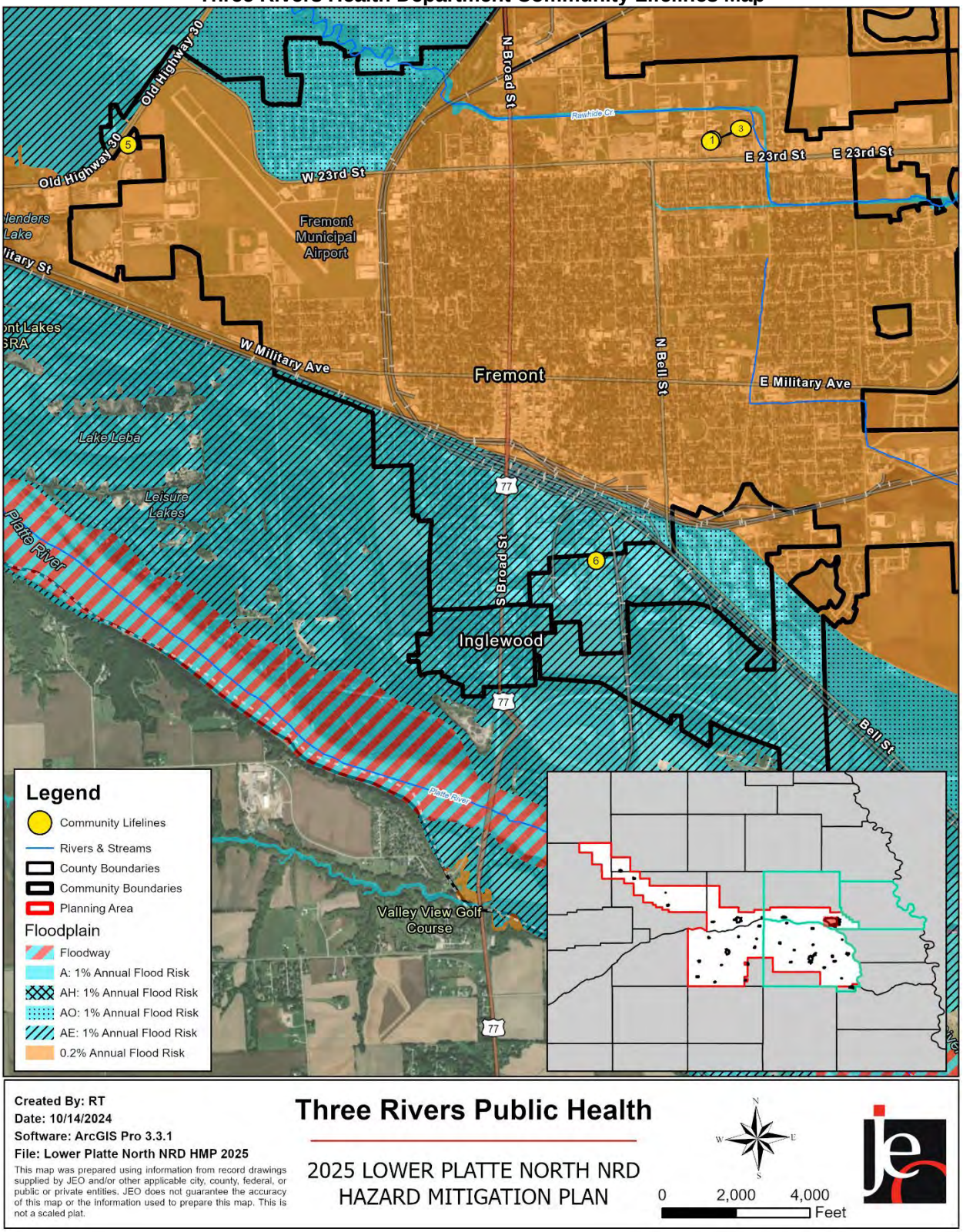


Three Rivers Health Department Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Mobile Clinic Trailer	Health and Medical	G (Mobile)	Y (0.2%)
2	Three Rivers Public Health Department – Blair Office*	Health and Medical	-	N
3	Three Rivers Public Health Department / Clinic – Fremont Office	Health and Medical	G (Mobile)	Y (0.2%)
4	Three Rivers Public Health Department – Wahoo Office**	Health and Medical	-	N
5	Point of Dispensing Storage Unit	Health and Medical	-	Y (0.2%)
6	PPE Warehouse	Health and Medical	-	Y (1%)

**Not mapped, located in Blair, NE.*
***Not mapped, located in Wahoo, NE.*

Three Rivers Health Department Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for the Three Rivers Health Department which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Three Rivers Health Department. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however, Three Rivers Health Department has identified mitigation actions to reduce the impacts of the hazards. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Animal & Plant Disease

The Three Rivers Health Department jurisdiction is primarily rural, and livestock and crops are a main source of the economy. The potential repercussions from this disaster include loss of economic growth, homes, animals, and food shortage which can also negatively impact mental health and wellbeing. Depending on the disease, there can be an increase in illness in people. The spread of disease could cause a surge in medical facilities. Three Rivers continues to work with community partners to plan and implement new strategies, especially for mental health, to lessen the impact of future incidents.

Mitigation and Strategic Actions

Action	Resiliency Plan
Description & Location	Strengthen support for animal, plant, and mental health resilience. Develop a regional mitigation and response plan to protect food systems, agricultural animals, ecosystems, and community mental health.
Hazard(s) Addressed	Animal & Plant Disease, Drought, Flooding
Estimated Cost	$85,000
Local Funding	General Fund, Public Health & Partner Agency Contributions
Timeline	1 Year
Priority	Medium
Lead Agency	Executive Director, Emergency Response Coordinator
Status	Stakeholder engagement in progress; outline under development.

Dam Failure

There are 107 dams in the Dodge, Saunders, and Washington counties. No dam failures have been reported in those counties but impacts from flooding from dam failure include injuries and loss of life, property loss of fields, animals, livestock, and income. There are two high hazard dams in Dodge County, three in Saunders County, and one in Washington County. Evacuating people and their belongings will also be difficult. Major or complete setbacks to power, water, and gas services would make it difficult for staff members to make it to their buildings or provide some of their services. This disaster will also put a strain on the community's mental health which is a service the health department is currently building capacity in. Currently, public health's role is not fully defined by the health department's partners. Three Rivers will continue to collaborate with community partners to plan and implement new strategies and build capacity in mental health services to lessen the impact of dam failure.

Mitigation and Strategic Actions

Action	Capacity Building
Description & Location	Build a Regional Hazard Community Response Team. Form a multi-disciplinary Hazard Community Response Team to guide mitigation, preparedness, and response efforts across the Three Rivers region.
Hazard(s) Addressed	Animal & Plant Disease, Dam Failure, Drought, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$60,000
Local Funding	Staff Time, General Fund
Timeline	1 Year
Priority	High
Lead Agency	Executive Director, Emergency Response Coordinator, County Emergency Management, Behavioral Health Department
Status	Initial planning and outreach to potential partners in progress.

Flooding

The historic 2019 flood impacted the health department, and the health department was also a main responder in its district. Impacts from flooding include injuries and loss of life, property loss of fields, animals, livestock, and income. Evacuating people and their belongings will also be difficult. Major or complete setbacks to power, water, and gas services would make it difficult for staff members to make it to their buildings or provide some of their services. Flooding also puts a strain on the community's mental health which is a service the health department is currently building capacity in. Currently, public health's role is not fully defined by the health department's partners. Three Rivers will continue to collaborate with community partners to plan and implement new strategies and build capacity in mental health services to lessen the impact of flooding.

Mitigation and Strategic Actions

See the *Resiliency Plan* action under Animal & Plant Disease.

Hazardous Materials Release

The three counties Three Rivers serves all listed hazardous materials release on highways and roadways or via rail and have heavy traffic on highways and railways. Potential spills from train derailment in towns would cause multiple injuries, fatalities, loss of properties, economic loss, and impact essential institutions like schools and more. Fatality management would be an issue depending on location and would be one of the primary roles the health department would take on. This disaster would cause interruptions to operations and the possibility of moving to a backup location. Staff may not be able to make it to the health department's facilities and provide all of their services. The event of a hazardous material release could cause a strain in the community's mental health, which is a service the health department is building capacity in. The health department is working on building capacity to have a Hazardous Materials Response Team.

Mitigation and Strategic Actions

See the *Capacity Building* action under Animal & Plant Disease.

Levee Failure

There are seven levee systems in Dodge County, ten in Saunders County, and two in Washington County. During the 2019 flood events, multiple levees in the health department's district breached. Impacts from levee failure include injuries and loss of life, property loss of fields, animals,

livestock, and income. Evacuating people and their belongings will also be difficult if levees breached. Major or complete setbacks to power, water, and gas services would make it difficult for staff members to make it to their buildings or provide some of their services. Levee failures can also put a strain on the community's mental health which is a service the health department is currently building capacity in. Currently, public health's role is not fully defined by the health department's partners. Three Rivers will continue to collaborate with community partners to plan and implement new strategies and build capacity in mental health services to lessen the impact of levee failures.

Mitigation and Strategic Actions
See the *Capacity Building* action under Animal & Plant Disease.

Severe Thunderstorms

Severe thunderstorms happen on an annual basis and are typically associated with heavy rain, lightning, high winds, and hail. Heavy rains commonly flood residential basements, damage trees, and damage or potentially washout unpaved local and county roads. Three Rivers has built up their Medical Reserve Corps for more medical volunteers in a time of need. The health department continues to build mental health capacity and work with community partners to lessen the impact of severe thunderstorms.

Mitigation and Strategic Actions
See the *Resiliency Plan* action under Animal & Plant Disease.

Severe Winter Storms

In March 2025, a significant winter storm caused power outages that lasted three days in the health department service area. There was no internet or telephone connection for a week and staff had to use hot spots for coverage. The health department has a backup generator for the fridges for vaccines but not for the entire building. Educational materials on staying safe during winter storms are shared on the health department's social media pages. The health department continues to build its capacity and partner with other organizations to lessen impacts from severe winter weather. A backup generator is needed for department community lifelines to mitigate future risks.

Mitigation and Strategic Actions

Action	Backup and Emergency Generators
Description & Location	Install and maintain backup generators at critical public health sites, including Fremont and Blair clinics, to ensure uninterrupted services during emergencies.
Hazard(s) Addressed	Dam Failure, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Levee Failure, Severe Thunderstorms, Severe Winter Storms, Terrorism and Cyber-Attack, Tornadoes and High Winds
Estimated Cost	$100,000
Local Funding	General Fund
Timeline	2-5 Years
Priority	High
Lead Agency	Executive Director, Emergency Response Coordinator
Status	Funding has been identified; project design in planning.

Tornadoes and High Winds

Washington County was hit hard by the Arbor Day tornadoes in 2024, and Dodge County has seen several tornadoes over the past several years. There has been no direct impact on the health department; however, they have been instrumental in the recovery efforts. Potential concerns because of tornadoes and high winds include contamination of drinking water, access to clean water and food, trauma for those involved, personal loss of family and property, increase in substance abuse, and desperate need for more mental health agencies. Three Rivers has built up its Medical Reserve Corps for more medical volunteers in a time of need. The health department continues to build mental health capacity and work with community partners to lessen the impact of future tornadoes and high winds events.

Mitigation and Strategic Actions

Action	Safe Room / Storm Shelter
Description & Location	Expand emergency shelter capacity for people and animals. Identify and retrofit shelter sites in Washington and Dodge Counties to support both people and agricultural animals during disasters.
Hazard(s) Addressed	Animal & Plant Disease, Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$250,000
Local Funding	Partnership Contributions County General Fund ($75,000)
Timeline	5+ Years
Priority	High
Lead Agency	Executive Director, Emergency Response Coordinator, County Emergency Management
Status	Concept phase – sites identified, zoning review underway.

Township Profile

Ulysses Township

Lower Platte North NRD
Hazard Mitigation Plan 2025

Local Planning Team

Ulysses Township Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Samuel J. Stara	Chairman	Ulysses Township	Materials Development	Attended, Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The chairperson, clerk, and treasurer will be responsible for reviewing and updating the community profile outside of the five-year update. Ulysses Township will review the plan annually and the public will be notified in posted board meeting notices.

Location and Purpose

Ulysses Township is 36 square miles and is located southeast of Butler County, Nebraska. The purpose of the township is to better serve the citizens of its district. Ulysses Township owns one building accounting for 50% of its interest along with Butler County. There are 50 homes in the district, excluding the Village of Ulysses. The 2020 Census reports 315 people live in Ulysses Township.

Capability Assessment

Due to the unique structure of townships, the typical capability assessment table was not used. The following table summarizes the township's overall capabilities.

Ulysses Township Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Moderate
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

Plans and Studies

Ulysses Township does not have any plans or studies. If any plans or studies are created for the township in the future, the local planning team will work to integrate the hazard mitigation plan into them.

Future Development Trends

Over the past five years, Ulysses Township has cleaned its ditches and replaced culverts. The township plans to continue clearance of ditches in the district, raise the level of the driving surface,

and work with landowners to keep ditches maintained to reduce future risks of flooding. All other vulnerabilities to hazards are likely to remain the same.

Community Lifelines

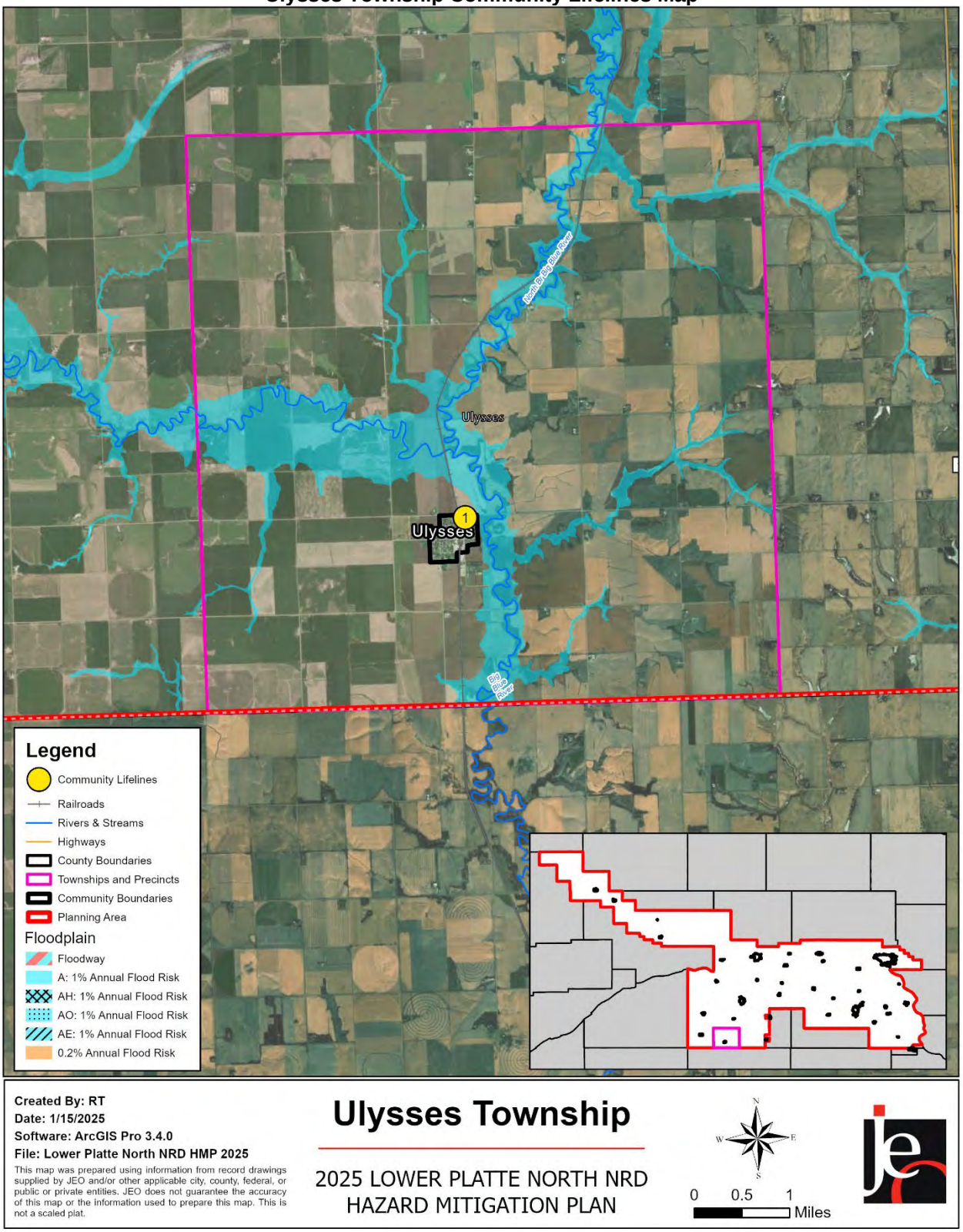
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Ulysses Township Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Ulysses Fire Department	Safety and Security	G	N

Ulysses Township Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards that pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Ulysses Township which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the township. Flooding, grass/wildfire, severe thunderstorms, severe winter storms, and tornadoes and high winds are the only hazards that could impact Ulysses Township since their capabilities and responsibilities as a jurisdiction focus on road maintenance. Each hazard has a mitigation action that addresses it, so no other actions are needed. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Flooding

Ulysses Township experienced flooding from the March 2019 floods that washed out roads in the district. Flooding events have washed out bridges, culverts, and roads. Ulysses Township is vulnerable to riverine flooding due to the Big Blue River and its tributaries within its service area. The township has cleaned its ditches and replaced its culverts for better drainage. Continuous maintenance of the culverts and ditches, along with raising the level of the driving surface to prevent overflow are future projects to reduce risks.

Mitigation and Strategic Actions

Action	Bank Stabilization
Description & Location	Purchase and place riprap along the riverbank on K Road between the east side of 26th and 27th Road, and on the west side between 25th and 26th Road to prevent possible road washout.
Hazard(s) Addressed	Flooding
Estimated Cost	$150,000
Local Funding	General Budget
Timeline	2-5 Years
Priority	Medium
Lead Agency	Township Board
Status	In the planning stages.

Severe Winter Storms

Winter storms and heavy snowfall are an annual occurrence in the region and can cause excessive wear on the township equipment. Increased hours are needed to keep roads open for travel. Snow removal also removes gravel on the road, which needs to be reapplied. The township is working with landowners to keep ditches mowed and clearing tree and shrub growth to prevent snow drifting. Future projects to mitigate risks include keeping landowners in compliance with the removal of snow drifting causes and elevating driving surfaces to allow snow to blow through.

Mitigation and Strategic Actions

Action	Capacity Building
Description & Location	Reduce impacts to roadways by planning for and maintaining adequate road and debris clearing capabilities after a severe weather or technical event (thunderstorm rain, wildfire, winter storm, tornado/high wind, etc.) Add manpower to provide equipment and help operate machines to help clear roads. Throughout the township, upgrade equipment that has wear and tear and acquire a trailer to haul gravel.
Hazard(s) Addressed	Flooding, Grass/Wildfire, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$150,000
Local Funding	General Budget
Timeline	2-5 Years
Priority	High
Lead Agency	Township Board
Status	In the planning stages. Action depends on weather events to determine the severity of the situation.

Action	Transportation Drainage Improvements
Description & Location	Make improvements to roadways and drainage ways to prevent damage to key transportation routes. Utilize geosynthetic products for repair and mitigation of damages. Consider covering of road washouts, culvert sizing headwalls, steep banks, slides, in-road springs, roadway edge armoring, low water crossings, pothole grading, weak foundations, gravel road maintenance, ditch linings, on steep grades, erosion protection, etc.
Hazard(s) Addressed	Flooding, Severe Thunderstorms, Severe Winter Storms
Estimated Cost	Varies by project
Local Funding	General Budget
Timeline	2-5 Years
Priority	High
Lead Agency	Township Board
Status	Ongoing. Ulysses Township works with private landowners to maintain drainage ditches for easy flow. The township also plans to raise road surfaces for snow to blow through.

Other Mitigation and Strategic Actions

Action	Creation of Hazardous Event Procedures
Description & Location	Work with relevant stakeholders to develop a plan for hazardous events that affect the township. The plan can include continuity of operations procedures, post-event response strategies, etc., to minimize impacts. Coordinate with other local jurisdictions and organizations (i.e., fire districts, police departments, Butler County Emergency Manager)
Hazard(s) Addressed	Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	Staff Time
Local Funding	Staff Time
Timeline	5+ Years
Priority	Low
Lead Agency	Township Board
Status	New Action. Not Started

Township Profile

Union Township

Lower Platte North NRD
Hazard Mitigation Plan 2025

Local Planning Team

Union Township Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Marvin Andel	Board Member	Union Township	Materials Development	-
Anthony Fadschild	Board Member	Union Township	Materials Development	-
Marianne Ziethen	Clerk	Union Township	Attended, Materials Development	Attended, Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The township Clerk and Board will review and update this participant profile outside of the five-year update. Union Township will review the plan annually, and the public will be notified during the Township's public board meetings.

Location and Purpose

Union Township is located in southwestern Butler County. The township owns one building in the Village of Garrison, and the purpose of the township is to maintain roads for travel and safety.

Capability Assessment

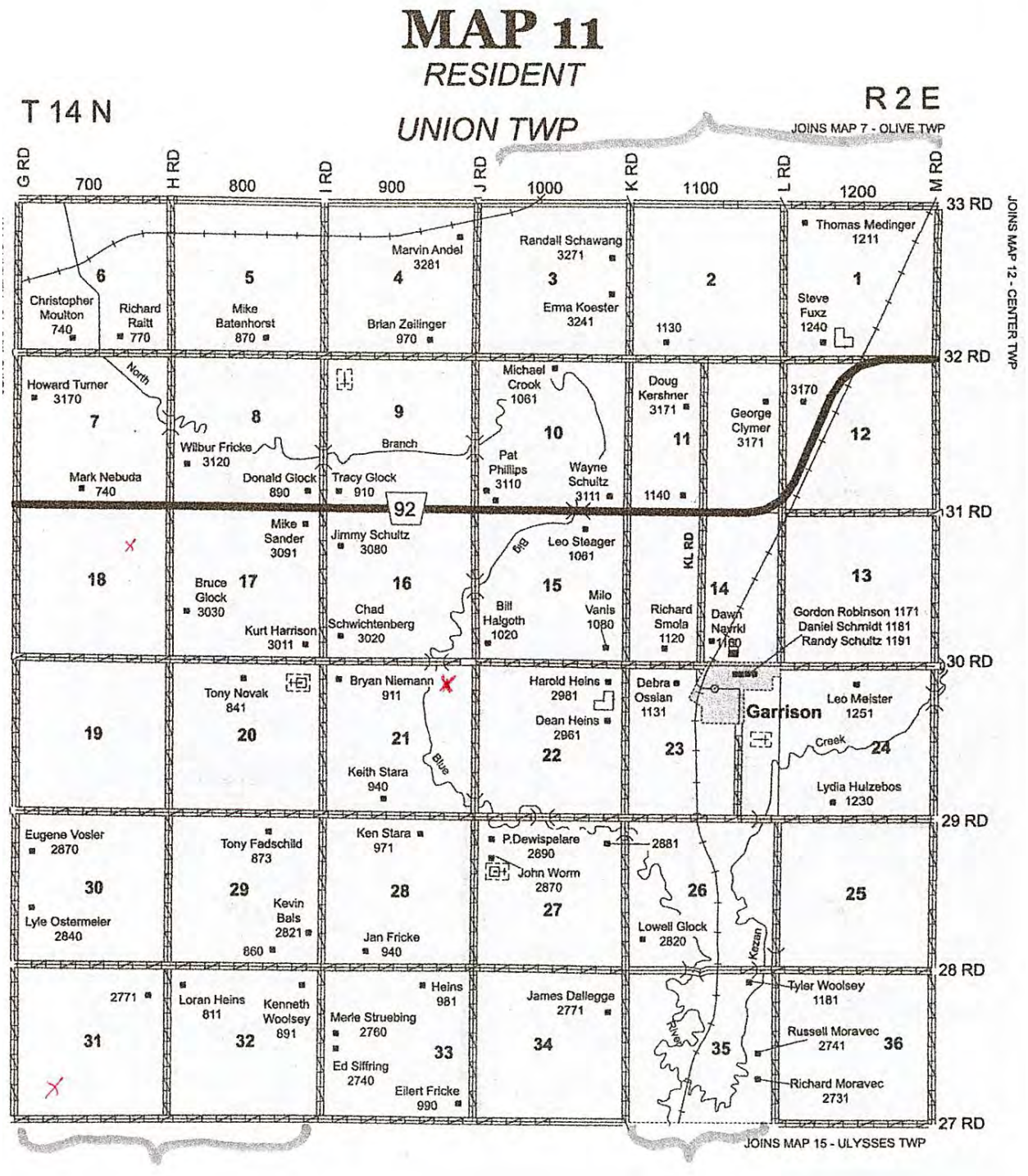
Due to the unique structure of townships, the typical capability assessment table was not used. The following table summarizes the township's overall capabilities.

Union Township Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Public Support to Implement Projects	Limited
Time to Devote to Hazard Mitigation	Limited
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Limited

Plans and Studies

Union Township does not have any plans or studies. If any plans or studies are created for the township in the future, the local planning team will work to integrate the hazard mitigation plan into them.


MAP 11
RESIDENT
UNION TWP
T 14 N
R 2 E
JOINS MAP 7 - OLIVE TWP
JOINS MAP 12 - CENTER TWP
JOINS MAP 15 - ULYSSES TWP
G RD
H RD
I RD
J RD
K RD
L RD
M RD
700
800
900
1000
1100
1200
33 RD
32 RD
31 RD
30 RD
29 RD
28 RD
27 RD
KL RD
92
Garrison
Creek
Blue
Big
North
Branch
Kezan
River
6
5
4
3
2
1
7
8
9
10
11
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18
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32
33
34
35
36
Christopher Moulton 740
Richard Raitt 770
Mike Batenhorst 870
Marvin Andel 3281
Brian Zeilinger 970
Randall Schawang 3271
Erma Koester 3241
1130
Thomas Medinger 1211
Steve Fuxz 1240
Howard Turner 3170
Mark Nebuda 740
Wilbur Fricke 3120
Donald Glock 890
Tracy Glock 910
Michael Crook 1061
Pat Phillips 3110
Wayne Schultz 3111
1140
Doug Kershner 3171
George Clymer 3171
3170
Mike Sander 3091
Jimmy Schultz 3080
Leo Steager 1081
Bruce Glock 3030
Kurt Harrison 3011
Chad Schwichtenberg 3020
Bill Halgoth 1020
Milo Vanis 1080
Richard Smola 1120
Dawn Navrkl 1160
Gordon Robinson 1171
Daniel Schmidt 1181
Randy Schultz 1191
Tony Novak 841
Bryan Niemann 911
Harold Heins 2981
Dean Heins 2961
Keith Stara 940
Debra Ossian 1131
Leo Meister 1251
Lydia Hulzebos 1230
Eugene Vosler 2870
Lyle Ostermeier 2840
Tony Fadschild 873
Kevin Bals 2821
860
Ken Stara 971
Jan Fricke 940
P.Dewispelare 2690
John Worm 2870
2881
Lowell Glock 2820
2771
Loran Heins 811
Kenneth Woolsey 891
Heins 981
Merle Struebing 2760
Ed Siffring 2740
Eilert Fricke 990
James Dallegge 2771
Tyler Woolsey 1181
Russell Moravec 2741
Richard Moravec 2731

Future Development Trends

Over the past five years, several housing developments have been built. None of the new structures were developed in the floodplain or any other hazardous locations based on the knowledge of the local planning team. For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted regardless of where they are located. According to the local planning team any new and future development is not likely to occur in any other known hazard locations.

Community Lifelines

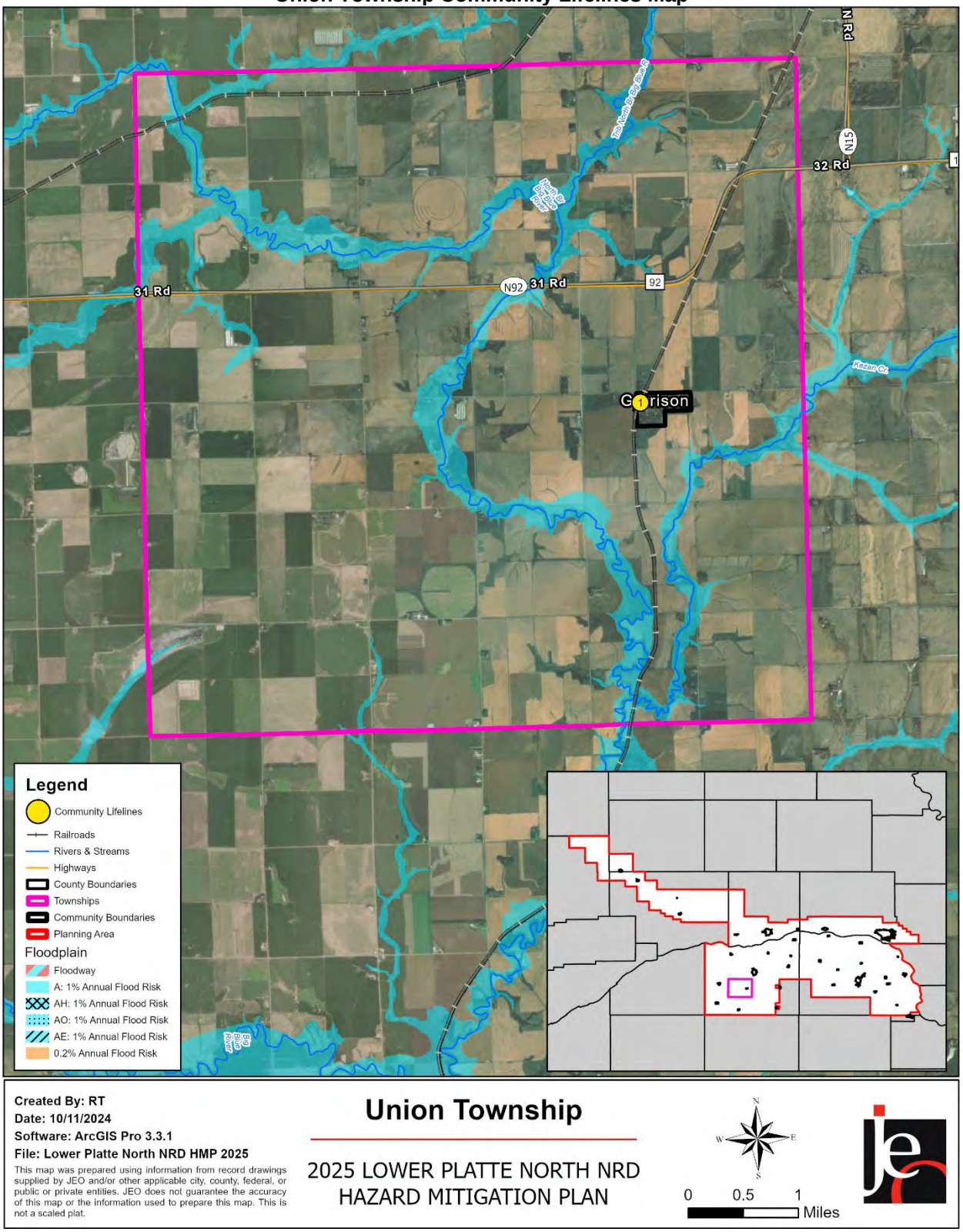
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Union Township Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Butler Public Power District	Energy	G	N

Union Township Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for the township which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by township. Flooding, grass/wildfire, severe thunderstorms, tornadoes and high winds, and severe winter storms are the only hazards that could impact Union Township since their capabilities and responsibilities as a jurisdiction focus on road maintenance. Each hazard has a mitigation action that addresses it, so no other actions are needed. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Flooding

A flooding event caused by heavy rains in August of 2017 caused at least 50 roads in Butler County to close, with about four to six inches of rain reported. The NCEI database reported approximately $100,000 in damages from that event. The spring months of 2024 resulted in heavy amounts of rain. Roads within the township were under water and ditches became silted and no longer able to retain water which washed out the road base. Flooding poses a risk within the township due to road damage and potential drowning. Union Township anticipates ditch cleaning efforts months after the 2024 heavy rains.

Mitigation and Strategic Actions

Action	Drainage Improvements
Description & Location	Expand ditches within the township to allow for better stormwater drainage. Specific locations currently identified include: Road 33 between J and K, Road H between Highway 92 and Road 32, North 29 Road between H and I, and Road 49 between J and K. Also, more storage room is need between roads G and H.
Hazard(s) Addressed	Flooding, Severe Thunderstorms
Estimated Cost	$50,000+
Local Funding	General Budget
Timeline	5+ Years
Priority	High
Lead Agency	Township Board
Status	New Action. Not Started.

Action	Silt and Debris Removal
Description & Location	Remove silt and debris buildup in the township ditches. High wind events can cause debris buildup from tree limbs and other materials after a windstorm.
Hazard(s) Addressed	Flooding, Severe Thunderstorms, Tornadoes and High Winds
Estimated Cost	$10,000+
Local Funding	General Budget
Timeline	Ongoing
Priority	High
Lead Agency	Township Board
Status	Ongoing as funds allow.

Severe Winter Storms

Winter cold and blizzards pose a risk to Union Township because they have the potential to close roads and prevent access to areas. Winter storms in January of 2024 closed roads in Union Township, causing the township to contact Krivanek Construction to help remove snow on some roads. A winter storm event in February of 2002 caused multiple vehicles to be stranded on Highway 92 which was eventually shut down by law enforcement due to the hazardous conditions. The township needs to provide a way for people to get medical assistance and care for livestock and supplies in the event of a winter storm.

Mitigation and Strategic Actions

Action	Capacity Building
Description & Location	Build capacity by hiring a second operator for snow removal.
Hazard(s) Addressed	Flooding, Grass/Wildfire, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	$40,000+
Local Funding	General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Township Board
Status	New Action. Not Started

Other Mitigation and Strategic Actions

Action	Creation of Hazardous Event Procedures
Description & Location	Work with relevant stakeholders to develop a plan for hazardous events that affect the township. The plan can include continuity of operations procedures, post-event response strategies, etc., to minimize impacts. Coordinate with other local jurisdictions and organizations (i.e., fire districts, police departments, Butler County Emergency Manager)
Hazard(s) Addressed	Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	Staff Time
Local Funding	Staff Time
Timeline	5+ Years
Priority	Low
Lead Agency	Township Board
Status	New Action. Not Started

Action	Public Education / Notification
Description & Location	Work with Butler County Emergency Manager to send out pertinent hazard education and response information to residents in the township. Coordinate with local fire departments on fire safety and notification.
Hazard(s) Addressed	Grass/Wildfires
Estimated Cost	Staff Time
Local Funding	Staff Time
Timeline	5+ Years
Priority	Medium
Lead Agency	Township Board
Status	New Action. Not Started

Fire District Profile

Weston Volunteer Fire & Rescue Department Profile

Lower Platte North NRD
Hazard Mitigation Plan 2025

Local Planning Team

Local Planning Team

Name	Title	Fire District	Round 1 Meeting	Round 2 Meeting
Bruce Arp	Fire Chief	Weston Volunteer Fire and Rescue Department	Attended, Materials Development	Attended
Ryan Pokorny	Fire Chief	Weston Volunteer Fire and Rescue Department	-	Attended, Materials Development

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

The fire chief will be responsible for reviewing and updating the community profile outside of the five-year update. Weston Fire District will review the plan bi-annually and the public will be notified during board meetings and on social media.

Capability Assessment

Due to the unique structure of fire districts, the typical capability assessment table was not used. The following table summarizes the department's response vehicles, special teams, and special equipment. In addition, the department has mutual aid agreements with all 12 fire departments in Saunders County

Response Vehicles, Special Teams, and Special Equipment

Aerial	Pumper	Tanker	Pumper / Tanker	Grass-Weed Truck	Utility Truck	Rescue Units	Special Teams	Special Equipment
0	1	1	0	3	1	0	0	0

Plans and Studies

Weston Volunteer Fire and Rescue Department has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the department updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Saunders County Local Emergency Operations Plan

The Saunders County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information,

evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines. The hazard mitigation plan has not been integrated with the LEOP.

Southeast Nebraska Community Wildfire Protection Plan (2020)

The purpose of the Southeast Nebraska Wildfire Protection Plan CWPP is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years.

Standard Operating Procedures

The standard operating procedures outline the department's response to a variety of different calls that could be received. These procedures are unlikely to be further integrated with the hazard mitigation plan as they deal directly with response efforts.

Future Development Trends

There have been no changes within the Weston Volunteer Fire & Rescue Department over the past five years and no new structures have been developed in the floodplain or any hazardous areas. This likely keeps the department's vulnerability to all hazards the same. For hazards like drought, extreme temperatures, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted regardless of where they are located.

Community Lifelines

As listed in the table below, the fire department identified community lifelines that are vital for disaster response and essential for returning the department's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.

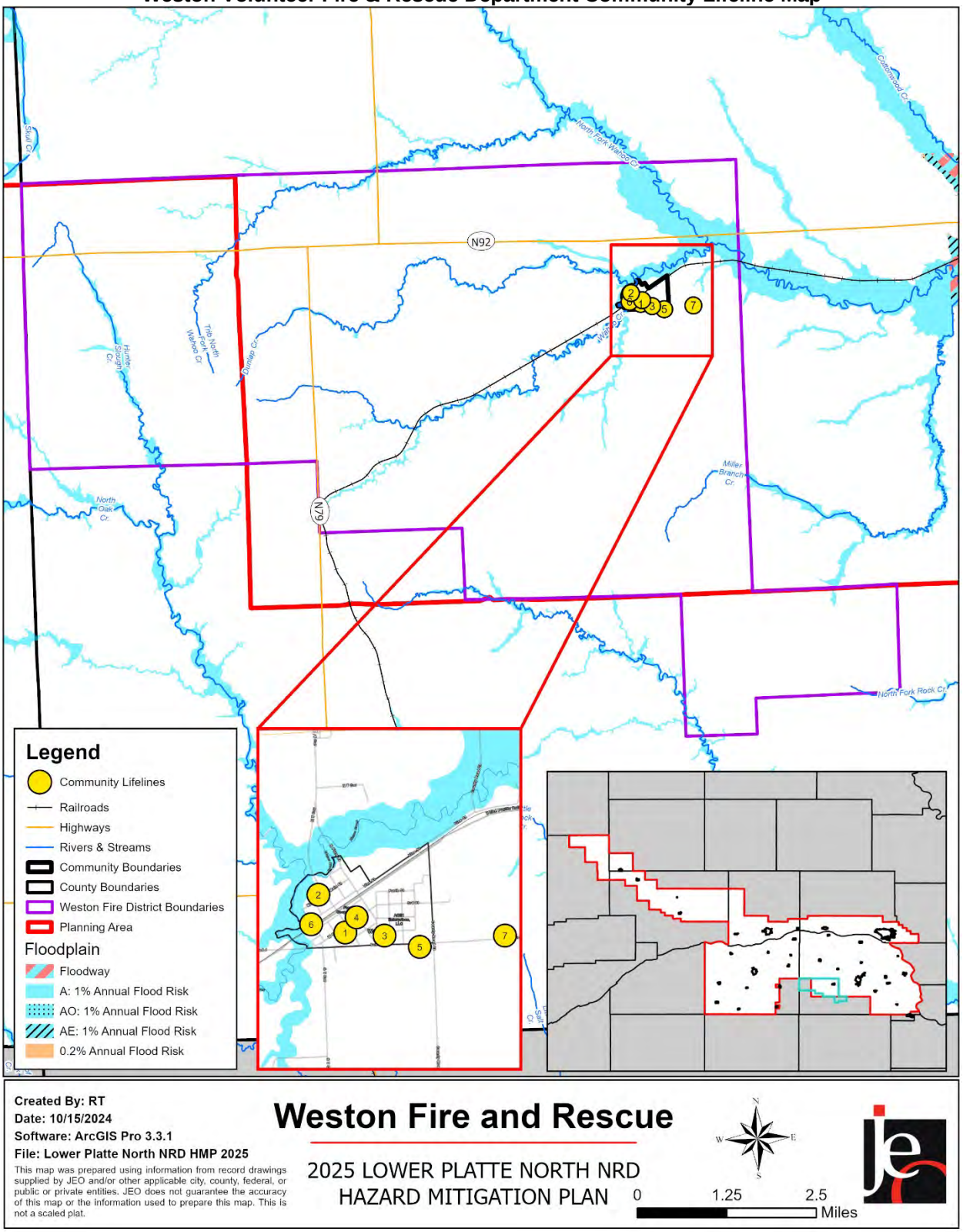


Weston Volunteer Fire & Rescue Department Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Fire Hall	Safety and Security	-	N
2	Lift Station	Food, Water, Shelter	G (Portable)	N

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
3	St. John Nepomucene Catholic School & Church	Other	-	N
4	Village Hall	Safety and Security	-	N
5	Water Tower	Food, Water, Shelter	-	N
6	Water Well	Food, Water, Shelter	-	N
7	Water Well	Food, Water, Shelter	G (Portable)	N

Weston Volunteer Fire & Rescue Department Community Lifeline Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for the Weston Volunteer Fire & Rescue Department which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the department. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however Weston Volunteer Fire & Rescue Department has identified mitigation actions to reduce the impacts of the hazard. Dam Failure and Levee Failure have been omitted from this profile as there are no high hazard dams or any levee protected areas in the district according to NeDNR and USACE data. Therefore, no mitigation actions have been identified for those two hazards. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Flooding

Annual localized flooding occurs along Wahoo Creek because of heavy rain events. Impacts have been limited to several flooded residential basements in the Village of Weston. The spring floods in 2024 caused localized flooding in town and in surrounding roads and highways. The community also has poor stormwater drainage.

Mitigation and Strategic Actions

See the *Resident Notification* action under Hazardous Materials Release.

Grass/Wildfires

Grass and wildfires are a concern for the department, especially when they are on the outskirts of towns, impacting residents and inundating structures. There have been no fires near the Village of Weston but multiple large fires in the surrounding rural areas. The fire department has increased the number of its firefighter membership and has purchased new Brush Trucks to help fight fires.

Mitigation and Strategic Actions

Action	Hazardous Fuels Reduction
Description & Location	Identify locations in the district which have high grass/wildfire risk and a buildup of vegetation. Work with landowners to reduce vegetation and thin fuels to reduce the chance of a large grass/wildfire.
Hazard(s) Addressed	Animal & Plant Disease, Drought, Grass/Wildfires
Estimated Cost	$5,000+, Staff Time
Local Funding	General Budget
Timeline	Ongoing
Priority	High
Lead Agency	Fire Chief
Status	New Action. Ongoing. The Southeast CWPP identified the Village of Weston as a concern for fires due to multiple structures, high home density, and infrastructure.

Hazardous Materials Release

There have been multiple leaks from mobile anhydrous tanks in and around the community at the surrounding co-op facilities. Multiple incidents of mobile anhydrous ammonia leaking have been

reported on the northeast side of town. A semi-tanker that was delivering anhydrous ammonia to a co-op facility got overturned but no leak occurred. These leaks pose a community health threat, with one family already evacuated and treated for ammonia exposure. The entire community is at risk from chemical spills because sites are located in the east and central parts of town. Highway 92, North T Corner Road, South T Corner Road, and the county roads surrounding Weston are all heavily traveled with vehicles transporting chemicals. Well #2 and the fire hall are all located along main transportation routes. Community members need to be educated about the threat of chemical spills and appropriate response measures. The fire department is not trained to respond to a chemical spill and does not have the appropriate gear.

Mitigation and Strategic Actions

Action	Resident Notification
Description & Location	Improve residential notification of current or future hazardous situations. Focus initial notification on grass/wildfire and hazardous materials release incidents.
Hazard(s) Addressed	Drought, Extreme Temperatures, Flooding, Grass/Wildfire, Hazardous Materials Release, Severe Thunderstorms, Severe Winter Storms, Terrorism & Cyber Attack, Tornadoes and High Wind
Estimated Cost	$500+
Local Funding	General Budget
Timeline	5+ Years
Priority	Medium
Lead Agency	Fire Chief
Status	New Action. Not Started.

Severe Thunderstorms

The fire department experiences large, severe storms annually, causing property damage and localized flooding. Lightning is a major cause of grass and wildfires in the planning area. Hail can cause damage to department owned buildings and vehicles. In addition, severe thunderstorms can cause power outages and can knockout communication. The fire hall has purchased and installed a backup generator to protect its power supply in case of a surge from a lightning storm.

Mitigation and Strategic Actions

Action	Infrastructure Hardening
Description & Location	Harden community lifelines to withstand high winds, hail, heavy snow, etc., by hardening roofs, hail resistant barriers to HVAC systems, shatter-proofing windows, building tie-downs and anchors, flood walls, and other architectural designs that reduce damage.
Hazard(s) Addressed	Extreme Temperatures, Flooding, Grass/Wildfires, Hazardous Materials Release, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	Varies by project
Local Funding	Rural Board
Timeline	5+ Years
Priority	Medium
Lead Agency	Weston Volunteer Fire & Rescue Department
Status	New action. Not Started.

Severe Winter Storms

Heavy snow and ice storms occur annually in the district. Severe winter storms can cause power outages and negatively impact response times due to road closures and hazardous travel conditions. Fires have also occurred due to downed power lines during ice storms. Village maintenance and hired contractors are in charge of snow removal in the village.

Mitigation and Strategic Actions

Action	Weather Service Communication
Description & Location	Improve communications with weather services to get more accurate forecasts for the district.
Hazard(s) Addressed	Extreme Temperatures, Severe Thunderstorms, Severe Winter Storms, Tornadoes and High Winds
Estimated Cost	Staff Time
Local Funding	Staff Time
Timeline	2-5 Years
Priority	Low
Lead Agency	Fire Chief
Status	New Action. Not Started.

Tornadoes and High Winds

No tornadoes have occurred in the district in recent years, but a future event could be catastrophic. Tornadoes and high winds can lead to power outages and broken power lines. A warning siren is located in downtown Weston, activated by County Dispatch. There are no FEMA certified safe rooms in the district. In case of a disaster, Mutual Aid Agreements are in place with all surrounding fire departments. A portable backup generator is needed at the fire hall in the event of a power loss event. The fire district does not have a backup generator at this time.

Mitigation and Strategic Actions

Action	Backup and Emergency Generators
Description & Location	Obtain a backup generator for the fire hall.
Hazard(s) Addressed	Extreme Temperatures, Grass/Wildfires, Severe Thunderstorms, Severe Winters, Tornadoes and High Winds
Estimated Cost	Varies by size
Local Funding	Rural Board
Timeline	5+ Years
Priority	Medium
Lead Agency	Weston Volunteer Fire & Rescue Department
Status	Need to begin this process.

Other Mitigation and Strategic Actions

Action	Public Education
Description & Location	Educate staff, residents, and visitors on agricultural diseases and drought or dry conditions that can increase hazardous fuels for fires. Also educate the public on how to get information and emergency notifications, what mitigation actions can be taken, and preparedness actions to keep themselves safe. Coordinate outreach and education projects and materials with Saunders County, surrounding fire departments, Nebraska Forestry Services, and other project partners.
Hazard(s) Addressed	Animal & Plant Disease, Drought
Estimated Cost	$500
Local Funding	General Budget
Timeline	5+ Years
Priority	Low
Lead Agency	Fire Chief
Status	New Action. Not Started

SID Profile

Woodcliff Lakes SID #8

Lower Platte North NRD
Hazard Mitigation Plan 2025

Local Planning Team

Woodcliff Lakes SID #8 Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
Lonnie Mahrt	Chairman	Woodcliff Lakes SID #8	Attended, Materials Development	Attended, Materials Development
Tom Sawyer	Clerk	Woodcliff Lakes SID #8	Materials Development	-
John Menning	HOA	Woodcliff Lakes SID #8 HOA	Materials Development	-
Mary Schlosser	HOA Office Manager	Woodcliff Lakes SID #8 HOA	Materials Development	-

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or before other funding opportunity cycles start.

The Chairman and Office Manager will review and update this participant profile outside of the five-year update. Woodcliff Lakes SID #8 will review the plan bi-annually, and the public will be notified using social media, emails, and public board meetings.

Location

Woodcliff Lakes SID #8 is a private lake community in the northeastern portion of Saunders County, two miles south of the City of Fremont. The district covers approximately 128 acres and surrounds two lakes that cover approximately 145 acres. It lies immediately adjacent to the Platte River, which flows generally from the northwest to the southeast.

Demographics

Woodcliff Lakes SID #8 has 441 housing lots. Although official records are not kept, it is estimated that about 2,000 people live at the SID during the peak summer months, with 700 of those living there year-round. Over summer holidays like Memorial Day and the Fourth of July, the population can swell to 8,000+. The median age of Woodcliff Lakes SID #8's population is estimated to be 45 years old.

Capability Assessment

Due to the unique structure of the SID, the typical capability assessment table was not used. The following table summarizes the district's overall capabilities.

Woodcliff Lakes SID #8 Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Moderate
Staff/Expertise to Implement Projects	Moderate
Public Support to Implement Projects	High
Time to Devote to Hazard Mitigation	High
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	High

Plans and Studies

Woodcliff Lakes SID #8 has one study that discusses or relates to hazard mitigation. The plan is listed below, along with a description of how it is integrated with the hazard mitigation plan or contains hazard mitigation principles. When the SID updates this study, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Woodcliff Lakes SID #8 HOA – Dredging Feasibility Study

This study investigates the feasibility of a hydraulic project to dredge Woodcliff Lake. The goal of the project is to improve boating capabilities and lake accessibility. The study outlines the potential costs and where the sediment spoil areas would be. The hazard mitigation plan was not integrated with this study.

Future Development Trends

Over the past five years, Woodcliff Lakes SID #8 has significantly increased full-time residents post-COVID. Residents have been making substantial property investments, adding increased living space and transitioning from seasonal homes to more traditional permanent residences. All homes lie within the 1% annual flood risk zone.

A new home is currently being constructed on an existing lot. All other new developments are additions and remodels to existing structures. The SID is working with Cedar Bluffs Fire Department on building a fire station within the district, and a location is yet to be determined.

The increased number of full-time residents and property improvements increase vulnerability to flooding. Hazards like drought, extreme temperatures, tornadoes and high winds, severe winter storms, and severe thunderstorms could impact all new and future developments regardless of where they are located.

Community Lifelines

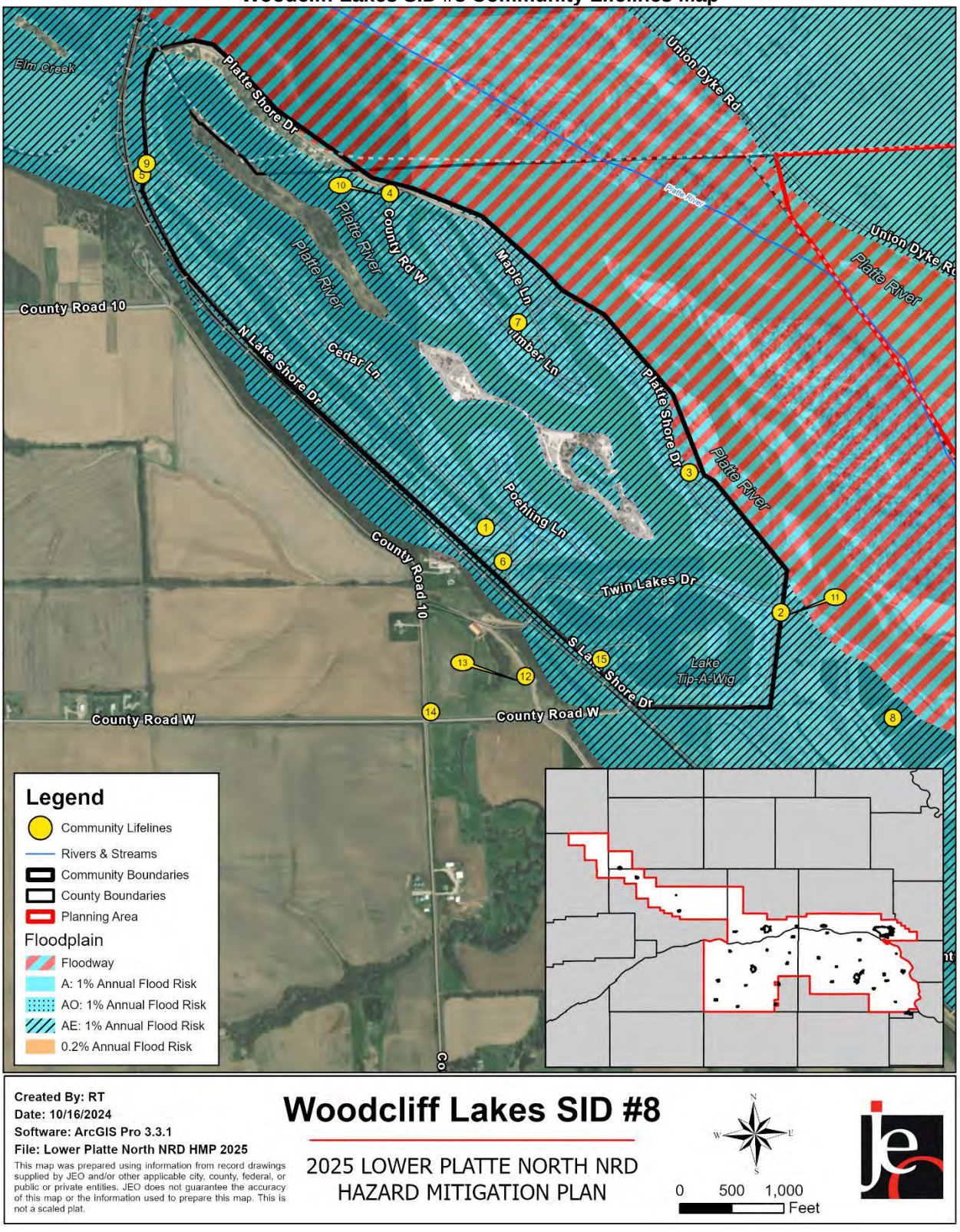
As listed in the following table, each participating jurisdiction identified community lifelines vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Woodcliff Lakes SID #8 Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Community Center	Other	-	Y (1%)
2	Sanitary Lift Station #1	Food, Water, Shelter	-	Y (1%)
3	Sanitary Lift Station #2	Food, Water, Shelter	-	Y (1%)
4	Sanitary Lift Station #3	Food, Water, Shelter	-	Y (1%)
5	Sanitary Lift Station #4	Food, Water, Shelter	-	Y (1%)
6	Sanitary Lift Station #5	Food, Water, Shelter	-	Y (1%)
7	Sanitary Lift Station #6	Food, Water, Shelter	-	Y (1%)
8	Sewage Lagoons	Food, Water, Shelter	-	Y (1%)
9	Tornado Siren	Communications	-	Y (1%)
10	Tornado Siren	Communications	-	Y (1%)
11	Tornado Siren	Communications	-	Y (1%)
12	Water Tower	Food, Water, Shelter	-	N
13	Well #1 East	Food, Water, Shelter	G	N
14	Well #2 West	Food, Water, Shelter	-	N
15	Woodcliff Lakes Association General Office	Other	-	Y (1%)

Woodcliff Lakes SID #8 Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards that pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for the Woodcliff Lakes SID #8, which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by Woodcliff Lakes SID #8. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of secondary concern, however, the SID has identified mitigation actions to reduce the impacts of those hazards. Please see *Section Five* and *Appendix A* for a review and analysis of other regional hazards.

Flooding

Woodcliff experienced flooding because of ice jamming on the Platte River and rapid snow melt in February 2011, March 2019, and March 2020. Emergency berms and sandbagging were needed during each event to prevent significant damage to the community. During the 2012 flood, at least three homes were minimally flooded, and floodwaters retreated within a day. In the 2019 floods, the stream embankment and road adjacent to the Woodcliff lagoon system were significantly damaged, and 12 homes sustained moderate to significant damage. The Platte River, particularly during the spring, is the primary source of flooding for the community. All homes and businesses lie within the 1% annual flood risk area. Woodcliff is working to mitigate future riverine flooding by repairing the jetties and bendway weirs damaged in 2019 and raising the access road to the 100-year flood level. The district needs to evaluate flood risks and river erosion of the levee by hardening and installing additional bendway weirs. Over the past five years, bank stabilization projects have been completed, along with raising the boat ramp and the road to reduce flood risk. The homeowner's association hopes to invest in a Stormwater Management Plan to manage localized flooding.

Mitigation and Strategic Actions

Action	Drainage Study/Stormwater Master Plan
Description & Location	Drainage studies can be conducted to identify and prioritize improvements to address site-specific localized flooding/ drainage problems. Stormwater master plans can be undertaken to perform a community-wide stormwater evaluation, identifying multiple problem areas and potentially multiple drainage improvements for each.
Hazard(s) Addressed	Flooding
Estimated Cost	$150,000
Local Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	SID Board
Status	Not Started. Currently waiting on funding.

Action	Lake Drainage Device
Description & Location	Design and construct a device that would allow the SID to lower and raise lake levels further than it can currently.
Hazard(s) Addressed	Flooding
Estimated Cost	$20,000 - $50,000
Local Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	SID Board
Status	Not Started. Currently waiting on funding.

Action	Levee/Floodwall Construction and/or Improvements
Description & Location	Construct a levee or floodwall to protect critical facilities and residences by raising the roadway of Platte Shore Drive to the 100-year flood level.
Hazard(s) Addressed	Dam Failure, Flooding, Levee Failure
Estimated Cost	$660,000
Local Funding	Bond Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	SID Board
Status	Not Started. Currently waiting on potential state and federal funding.

Action	Parcel Level Evaluation of Flood Prone Properties
Description & Location	Conduct a study examining parcels in flood-prone areas and identify mitigation measures to reduce future impacts.
Hazard(s) Addressed	Flooding
Estimated Cost	$25,000+
Local Funding	General Fund
Timeline	1 Year
Priority	High
Lead Agency	SID Board, HOA
Status	Not Started. Currently waiting on funding.

Action	Stream Bank Stabilization / Grade Control Structures / Channel Improvements
Description & Location	Stabilize banks to protect the sanitary lagoons.
Hazard(s) Addressed	Flooding, Hazardous Materials Release
Estimated Cost	$692,000
Local Funding	Bond Fund
Timeline	2-5 Years
Priority	Medium
Lead Agency	SID Board
Status	Not Started. Currently waiting on funding.

Hazardous Materials Release

The Burlington Northern Santa Fe railway frequently transports a large volume of crude oil, ethanol, and other unknown chemicals directly south of the community, less than 100 yards from homes, and crosses the only access road for Woodcliff. The railroad passes by houses, the HOA offices, sewage treatment facilities, restaurants, and the community center. While there have not been train derailments in the area, a derailment could cause significant damage. The chance of a derailment is increased because of a substantial roadbed embankment, a near 90-degree curve, multiple bridges and culverts leading to the Platte River bridge, and a roadbed lying in the 100-

year floodplain. Woodcliff Lakes SID #8 will continue to discuss planning options to mitigate the risks and impacts of this hazard.

Mitigation and Strategic Actions

Action	Lagoon Improvements
Description & Location	Perform stabilization repairs of the lagoon separation walls. Lagoons are nearing 30 years of age and need repair.
Hazard(s) Addressed	Flooding, Hazardous Materials Release
Estimated Cost	$500,000
Local Funding	Bond Fund
Timeline	1 Year
Priority	High
Lead Agency	SID Board
Status	New Action. Planning Stage. Currently working with a consultant on remediation plans and estimates.

Severe Thunderstorms

A severe thunderstorm in June of 2008 caused property and crop damage throughout Saunders County, but the winds appeared to have been the strongest in the Woodcliff area. Several boats and boat lifts flipped, and many homes sustained damage due to fallen trees. In addition to the tree and subsequent homes damaged by fallen trees, the wind-whipped hail caused additional damage to siding, roofs, and vehicles. Around 160 of the 440 homes in the area sustained damage from the event. All power lines remain overhead, making them vulnerable to severe storms. In addition to these vulnerabilities, hazardous trees are scattered throughout the community.

Mitigation and Strategic Actions

Action	Backup and Emergency Generators
Description & Location	Provide a portable or stationary source of backup power for critical facilities. The planning team wants a permanent generator for Well #2 and the Community Center. A portable backup generator is needed for the sanitary lift stations.
Hazard(s) Addressed	Extreme Temperatures, Grass/Wildfire, Severe Thunderstorms, Severe Winter Storms, Terrorism & Cyber Security, Tornadoes and High Winds
Estimated Cost	$50,000 - $100,000 each
Local Funding	Board Fund
Timeline	1 Year
Priority	High
Lead Agency	SID Board
Status	Not Started. Currently waiting on potential state and federal funding.

Severe Winter Storms

Severe winter storms are a regular occurrence in the region that impede travel and occasionally cause power outages. No power lines in the community are buried, making them vulnerable to severe storms. A contractor does snow removal. A generator was recently installed at the East Well house. The district plans to install more generators at all critical wellhouses and lift stations.

Mitigation and Strategic Actions

See *Backup and Emergency Generators* action under severe thunderstorms.

Tornadoes and High Winds

While no tornadoes have occurred in the community, a future tornado could cause significant damage. Woodcliff has no public safe rooms, so community members must seek shelter from severe weather in their homes. County emergency management offers emergency and severe weather text alerts. Saunders County and the City of Fremont maintain emergency sirens that serve Woodcliff. Some emergency mitigation and disaster preparation are discussed at quarterly HOA meetings. The district is leveraging an emergency notification system to go live in 2024.

Mitigation and Strategic Actions

See *Backup and Emergency Generators* action under severe thunderstorms.

Other Mitigation and Strategic Actions

Action	Public Education
Description & Location	Educate the public and staff on animal/plant diseases, drought conditions, grass/wildfires, hazardous materials release, terrorism, and other hazards that can impact the area along with the SID's response procedures to these events. The SID can coordinate with Saunders County EMA and Nebraska Department of Agriculture on animal and plant disease and drought education and outreach, local fire departments on risks regarding grass/wildfire and hazardous materials release, and local law enforcement on terrorism threats. Education will be through emails, social media, and public board meetings.
Hazard(s) Addressed	Animal & Plant Disease, Drought, Grass/Wildfires, Hazardous Materials Release, Terrorism and Cyber-Attack
Estimated Cost	Staff Time
Local Funding	Staff Time
Timeline	5+ Years
Priority	Low
Lead Agency	SID Chairman
Status	New Action. Not Started.

Appendix A: Full Risk Assessment

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Terms and Definitions

The following table defines terms that will be used throughout the Full Risk Assessment Appendix.

Risk Assessment Definitions

Term	Definition
Hazard	A potential source of injury, death, or damages
Asset	People, structures, facilities, and systems that have value to the community
Risk	The potential for damages, loss, or other impacts created by the interaction of hazards and assets
Vulnerability	Susceptibility to injury, death, or damages to a specific hazard
Impact	The consequence or effect of a hazard on the community or assets
Historical Occurrence	The number of hazard events reported during a defined period of time
Extent	The strength or magnitude relative to a specific hazard
Historical Probability	Likelihood of a hazard occurring based on historical occurrences
Future Likelihood	The probability of a hazard occurring based on historical occurrences, changing extreme weather, and future development

Methodology

The risk assessment methodology utilized for this appendix follows the same methodology as outlined in the FEMA Local Mitigation Planning Handbook. This process consists of four primary steps: 1) Describe the hazard; 2) Identify vulnerable community assets; 3) Analyze risk; and 4) Summarize vulnerability.

When describing the hazard, this appendix will examine the following items: previous occurrences of the hazard within the planning area; locations where the hazard has occurred in the past or is likely to occur in the future; extent of past events and likely extent for future occurrences; and probability of future occurrences. While the identification of vulnerabilities and vulnerable assets will be conducted across the entire planning area, *Section Eight* will discuss jurisdictional-specific vulnerabilities and assets at risk for relevant hazards. Analysis for planning area risk will examine historic impacts and losses and what is possible should the hazard occur in the future. Risk analysis will include both qualitative (i.e., description of historic or potential impacts) and quantitative data (i.e., assigning values and measurements for potential loss of assets).

For each of the hazards profiled, the best and most current appropriate data available has been considered. Further discussion related to each hazard is discussed in the hazard profile portion of this appendix. Unless specifically stated otherwise, each hazard's extent scale(s) applies to all jurisdictions within the planning area.

Hazard Identification

The identification of relevant hazards for the planning area began with a review of the 2021 Nebraska State Hazard Mitigation Plan. The Regional Planning Team reviewed, discussed, and determined the list of hazards to be profiled in this hazard mitigation plan update. The hazards for which a risk assessment was completed are listed below.

Hazards Addressed in the Plan

Hazards Addressed in the Plan		
Animal and Plant Disease	Flooding	Severe Thunderstorms
Dam Failure	Grass/Wildfires	Severe Winter Storms
Drought	Hazardous Materials Release	Terrorism & Cyber-Attack
Extreme Temperatures	Levee Failure	Tornadoes & High Winds

FEMA Risk Assessment Requirements

Requirement §201.6(c)(2): Risk assessment. The plan must include a risk assessment that provides the factual basis for activities proposed in the strategy to reduce losses from identified hazards. Local risk assessments must provide sufficient information to enable the jurisdiction to identify and prioritize appropriate mitigation actions to reduce losses from identified hazards.

Requirement §201.6(c)(2)(i): The risk assessment must include a] description of the type … of all natural hazards that can affect the jurisdiction.

Requirement §201.6(c)(2)(i): The risk assessment must include a] description of the … location and extent of all natural hazards that can affect the jurisdiction. The plan shall include information on previous occurrences of hazard events and on the probability of future hazard events.

Requirement §201.6(c)(2)(ii): The risk assessment must include a] description of the jurisdiction's vulnerability to the hazards described in paragraph (c)(2)(i) of this section. This description shall include an overall summary of each hazard and its impact on the community.

Requirement §201.6(c)(2)(ii): The risk assessment] must also address National Flood Insurance Program insured structures that have been repetitively damaged floods.

Requirement §201.6(c)(2)(ii)(A): The plan should describe vulnerability in terms of the types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard area.

Requirement §201.6(c)(2)(iii): For multi-jurisdictional plans, the risk assessment must assess each jurisdiction's risks where they vary from the risks facing the entire planning area.

Average Annual Damages, Historical Probability, & Future Likelihood

Average Annual Damages

FEMA *Requirement §201.6(c)(2)(ii) (B)* suggests that when the appropriate data is available, hazard mitigation plans should also provide an estimate of potential dollar losses for structures in vulnerable areas. This risk assessment methodology includes an overview of assets at risk and provides historic average annual dollar losses for all hazards for which historic event data are available. Additional loss estimates are provided separately for those hazards for which sufficient data is available. These estimates can be found within the relevant hazard profiles.

Average annual losses from historical occurrences can be calculated for those hazards, which there is a robust historic record and for which monetary damages are recorded. There are two main pieces of data used for this formula.

- **Total Damages in Dollars:** This is the total dollar amount of all property damages and crop damages as recorded in federal, state, and local data sources. The limitation to these

data sources is that dollar figures usually are estimates and often do not include all damages from every event, but only officially recorded damages from reported events.

- **Total Years of Record:** This is the span of years there is data available for recorded events.

An example of the Event Damage Estimate is found below:

$$\textbf{Annual Damages } (\$) = \frac{Total\ Damages\ in\ Dollars\ (\$)}{Total\ Years\ Recorded\ (\#)}$$

FEMA Standard Economic Values

As part of FEMA's Benefit-Cost Analysis Toolkit, standard economic values were developed to help better estimate the avoided loss of services when implementing a hazard mitigation project. These standard economic values can also be used to help estimate potential future economic impacts from a hazard event. The table below gives the economic value for traffic delays for roads and bridges, loss of electric services, loss of wastewater services, loss of potable water services, and loss of communications/IT services. The assumed damages do not consider physical damage to utility equipment and infrastructure but do consider the impact on economic activity and impact on residential customers. To learn more about how these values were calculated visit https://www.fema.gov/sites/default/files/documents/fema-standard-economic-values-methodology-report-v13-2024.pdf.pdf.

FEMA Standard Economic Values

Service Lost	Economic Value
Traffic Delays on Roads and Bridges	$36.63/Vehicle/Hour
Loss of Electric Services	$213/Person/Day
Loss of Wastewater Services	$71/Person/Day
Loss of Potable Water Services	$150/Person/Day
Loss of Communications/IT Services	$151/Person/Day

Source: FEMA, 2024[1]

FEMA's standard economic values will not be used to determine average annual damages and average damage per event estimates for each hazard profile. Past hazard events do not list the total number of people or vehicles impacted, and thus it is impossible to retroactively calculate the total economic impact using these values. The values are provided in this plan so that participants can better estimate potential losses and determine the benefits of potential future mitigation actions.

Historical Probability

Historical probability can be calculated based on the total years of record and the total number of years in which an event occurred. It is important to note for this formula that the number of total events is not used because multiple events may take place in a single year. This would skew the historical probability higher than it is. An example of the historical probability estimate is found below:

1 FEMA. September 2024. "Benefit-Cost Analysis Sustainment and Enhancement". https://www.fema.gov/sites/default/files/documents/fema-standard-economic-values-methodology-report-v13-2024.pdf.pdf.

$$\textbf{Historical Probability}\ (\%) = \frac{Total\ Years\ with\ an\ Event\ Occuring\ (\#)}{Total\ Years\ of\ Record\ (\#)}\ x\ 100$$

Future Likelihood

Future likelihood is the probability that a hazard will occur in the future. While historical probability tells us how often a hazard occurred in the past, it does not provide a full picture of what could happen in the future. Future conditions are likely to change the probability of hazard events. Changes in extreme weather and future changes in development will bring changes to probability, risk, and vulnerability. For this hazard mitigation plan historical probability, extreme weather changes, and future development will be considered when determining the future likelihood of a hazard event occurring. Because future conditions are difficult to quantify with percentages, future likelihood is broken down into the four categories below.

Very Unlikely = Hazard is expected to occur once every 50+ years.

Unlikely = Hazard is expected to occur once every 10+ to 50 years.

Likely = Hazard is expected to occur once every 5+ to 10 years.

Very Likely = Hazard is expected to occur once every 1 to 5 years.

Hazard Profiles

Information from participating jurisdictions was collected and reviewed alongside hazard occurrence, magnitude, and event narratives as provided by local, state, and federal databases. Based on this information, profiled hazards were determined to either have a historical record of occurrence or the potential for occurrence in the future. The following profiles will broadly examine the identified hazards across the planning area. Hazards of local concern or events which have deviated from the norm are discussed in greater detail in each respective jurisdictional profile (see *Section Eight*).

Animal and Plant Disease

Agriculture disease is any biological disease or infection that can reduce the quality or quantity of either livestock or vegetative crops. This section looks at both animal disease and plant disease, as both make up a significant portion of Nebraska's and the planning area's economy. An outbreak of animal-to-animal disease would have significant economic implications that could result in a serious public health risk. Some diseases may be easily contained geographically, while others, due to longer incubation times, may spread due to transfer and sale of livestock between facilities.[2]

The State of Nebraska's and the planning area's economy is heavily invested in both livestock and crop sales. According to the 2022 Census of Agriculture, the market value of agricultural products sold in Nebraska was estimated at over $29 billion; this total is split between crops (estimated $14 billion) and livestock (estimated $15 billion). For the planning area, the market value of sold agricultural products was nearly $750 million.[3] The table below shows the population of livestock and the value of livestock sales within the planning area.

Livestock Inventory

County	Market Value of 2022 Livestock Sales	Cattle and Calves	Hogs and Pigs	Poultry Egg Layers	Sheep and Lambs
Butler	$377,129,000	48,777	59,663	543,468	858
Dodge	$187,304,000	47,195	50,665	855	465
Saunders	$184,203,000	55,262	3,774	2,089	955
Total	**$748,636,000**	**151,234**	**114,102**	**546,412**	**2,278**

Source: U.S. Census of Agriculture, 2022

The following tables provide the value and acres of land in farms for the planning area. Saunders County has both the highest number of farms and the largest number of farm acres in the planning area. Corn is the most prevalent crop type in the region followed by soybeans.

Land and Value of Farms in the Planning Area

County	Number of Farms	Land in Farms (acres)	Market Value of 2022 Crop Sales
Butler	534	296,811	$257,401,000
Dodge	540	303,096	$272,319,000
Saunders	971	404,181	$330,729,000
Total	**2,045**	**1,004,088**	**$860,449,000**

Source: U.S. Census of Agriculture, 2022

2 Nebraska Emergency Management Agency. 2021. "2021 Nebraska State Hazard Mitigation Plan". https://nema.nebraska.gov/assets/files/hazard-mitigation/hazmitplan2021.pdf.

3 US Department of Agriculture, National Agricultural Statistics Service. 2022. "2022 Census of Agriculture". https://www.nass.usda.gov/Publications/AgCensus/2022/.

Crop Values

County	Corn		Soybeans		Wheat	
	Acres Planted	Value (2022)	Acres Planted	Value (2022)	Acres Planted	Value (2022)
Butler	160,044	$176,988,000	123,068	$76,390,000	923	$12,000
Dodge	156,906	$185,313,000	139,477	$83,291,000	582	(D)
Saunders	205,137	$205,407,000	179,590	$111,254,000	3,276	$1,776,000
Total	**522,087**	**$567,708,000**	**442,135**	**$270,935,000**	**4,781**	**$1,788,000**

Source: U.S. Census of Agriculture, 2022
**(D) Withheld to avoid disclosing data for individual farms.*

Location

Given the strong agricultural presence in the planning area, animal and plant diseases have the potential to occur across the planning area. If a major outbreak were to occur, the economy in the entire planning area would be affected. The primary land uses where animal and plant disease will be observed include agricultural lands, range or pasture lands, and feedlots.

There are two cattle feeders in Butler County, one near David City and another near Osceola. Combined there are nearly 13,600 head of cattle. In Saunders County there is a cattle feed near Mead that has about 30,000 head of cattle. There is one cattle feed in Dodge County that has nearly 9,000 head of cattle. In total there are about 52,600 head of cattle in the planning area.[4]

Extent

There is no standard for measuring the magnitude of animal and plant disease. Historical events have impacted livestock ranging from a single animal to 500 animals. The planning area is heavily dependent on the agricultural economy. Any severe plant or animal disease outbreak which may impact this sector would negatively impact the local economy.

Historical Occurrences

Animal Disease

The NDA provides reports on diseases occurring in the planning area. There were 84 instances of animal disease reported between 2014 and 2023. These outbreaks affected 3,141 animals.

Livestock Diseases Reported in the Planning Area

Disease	Year	County	Population Impacted
Anaplasmosis	2014	Saunders	2
	2016	Butler	2
	2016	Dodge	1
	2017	Dodge	3
	2019	Butler	6

4 Nebraska Department of Agriculture. 2020. "2019-2020 Cattle Feeders Directory". https://nda.nebraska.gov/publications/promotion/cattle_feeders/cattle_feeders.pdf.

Disease	Year	County	Population Impacted
	2020	Butler	3
	2020	Saunders	1
	2022	Saunders	1
	2023	Butler	2
	2023	Saunders	1
Bluetongue	2014	Saunders	7
	2016	Saunders	3
	2017	Saunders	5
	2018	Saunders	1
	2020	Butler	1
	2023	Dodge	1
Bovine Viral Diarrhea	2017	Saunders	1
	2018	Dodge	1
	2019	Butler	1
	2023	Saunders	1
Caprine Arthritis/Encephalitis	2017	Dodge	1
	2020	Butler	3
Enzootic Bovine Leukosis	2014	Saunders	6
	2016	Saunders	2
	2017	Saunders	2
	2018	Butler	301
	2020	Butler	1
Epizootic Hemorrhagic Disease	2017	Saunders	1
	2023	Dodge	1
Equine Herpesvirus	2022	Butler	1
Equine Influenza	2016	Dodge	1
Highly Pathogenic Avian Influenza	2022	Butler	1
Leptospirosis	2014	Saunders	4
	2016	Saunders	4
	2017	Saunders	1
Maedi-Visna/Ovine Progressive Pneumonia	2016	Saunders	1
Paratuberculosis	2014	Butler	4
	2014	Dodge	1
	2015	Butler	300
	2016	Butler	2
	2016	Dodge	1
	2016	Saunders	1

Disease	Year	County	Population Impacted
	2017	Butler	2
	2017	Saunders	101
	2018	Butler	50
	2018	Dodge	3
	2018	Saunders	1
	2019	Butler	3
	2019	Dodge	4
	2020	Butler	1
	2020	Dodge	1
	2020	Saunders	1
	2022	Butler	5
	2022	Dodge	5
	2023	Butler	4
	2023	Dodge	1
	2023	Saunders	1
Porcine Circovirus	2014	Butler	51
	2016	Dodge	1
Porcine Circovirus Type 2	2014	Saunders	1
	2017	Butler	260
Porcine Delta Coronavirus	2015	Dodge	500
Porcine Epidemic Diarrhea	2015	Dodge	500
	2016	Butler	1
	2016	Dodge	1
	2017	Dodge	2
	2018	Dodge	1
Porcine Reproductive and Respiratory Syndrome	2014	Butler	1
	2014	Dodge	4
	2015	Dodge	650
	2016	Butler	2
	2016	Dodge	10
	2016	Saunders	1
	2017	Butler	260
	2017	Dodge	7
	2017	Saunders	1
Q Fever	2016	Saunders	1
Seneca Valley Virus	2017	Butler	4
	2017	Dodge	10
	2019	Butler	1

Disease	Year	County	Population Impacted
	2023	Butler	1
West Nile Virus	2016	Saunders	1
	2023	Dodge	1
	2023	Saunders	1

Source: NDA, 2014-2023[5]

In addition to the viral and bacterial diseases that could impact crops, pests can also result in crop loss or detract from crop quality. Possible pests include the following.

- Japanese Beetles
- Grasshoppers
- Western Bean Cutwork
- European Corn Borer
- Corn Rootworm
- Corn Nematodes
- Soybean Aphids
- Rootworm Beetles
- Emerald Ash Borer

The RMA provides data on plant disease events and plant losses in the planning area. There were 45 instances of plant diseases reported from 2000-2023 by the RMA. These outbreaks caused $206,434 in crop losses.[6]

Emerald Ash Borer

The spread and presence of the Emerald Ash Borer (EAB) have become a rising concern for many Nebraskan communities in recent years. The beetle spreads through transport of infected ash trees, lumber, and firewood. All species of North American ash trees are vulnerable to infestation. Confirmed cases of EAB have been found in 39 US states, primarily in the eastern, southern, and midwestern regions. Nebraska's first confirmed cases occurred on private land in Omaha and Greenwood in 2016.[7]

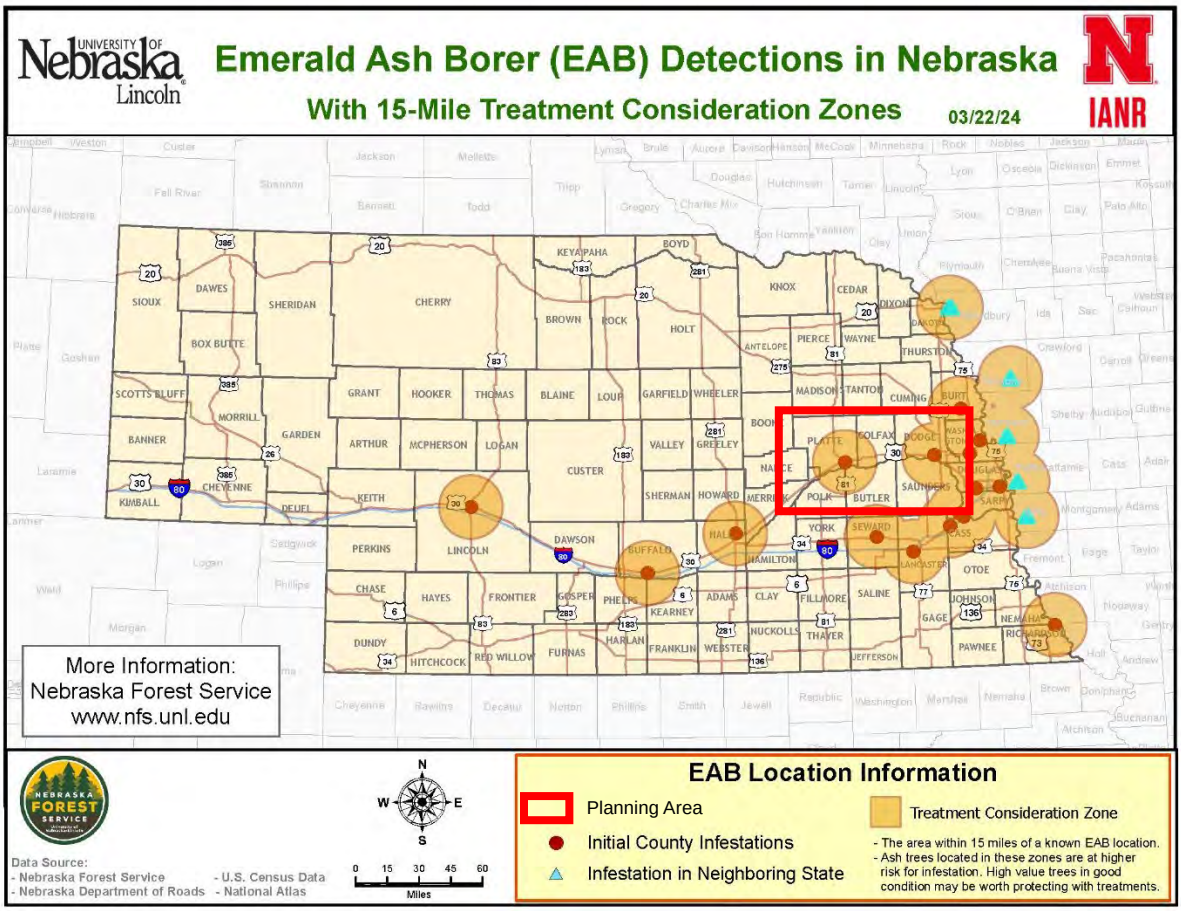
The figure on the next page shows the locations of Nebraska's confirmed EAB cases as of March 2024. Additional confirmed cases have likely occurred and many communities across the state are prioritizing the removal of ash trees to help curb potential infestations and tree mortality. Dodge and Saunders counties have reported confirmed cases of EAB, and parts of Butler County are in a treatment consideration zone. The Nebraska Department of Agriculture regulates and monitors the sale and distribution of firewood in the state to restrict the flow of firewood from outside the state.

While adult beetles cause little damage, larvae damage trees by feeding on the inner bark of mature and growing trees, causing tunnels. Effects of EAB infestation include extensive damage to trees by birds, canopy dieback, bark splitting, and water sprout growth at the tree base, and

5 Nebraska Department of Agriculture. 2023. "Livestock Disease Reporting". http://www.nda.nebraska.gov/animal/reporting/index.html.
6 U.S. Department of Agriculture. 2023. "Cause of Loss Historical Data Files: 2000-2023". https://www.rma.usda.gov/data/cause.html.
7 Emerald Ash Borer Information Network. April 2018. "Emerald Ash Borer." http://www.emeraldashborer.info/.

eventual tree mortality. EAB has impacted millions of trees across North America, killing young trees one to two years after infestation and mature trees three to four years after infestation.[8] Estimated economic impacts to Nebraska's 44 million ash trees exceed $961 million.[9] Dead or dying trees affected by EAB are also more likely to cause damage during high winds, severe thunderstorms, or severe winter storms from weakened or hazardous limbs and can contribute a significant fuel load to grass/wildfire events.

EAB Detections in Nebraska



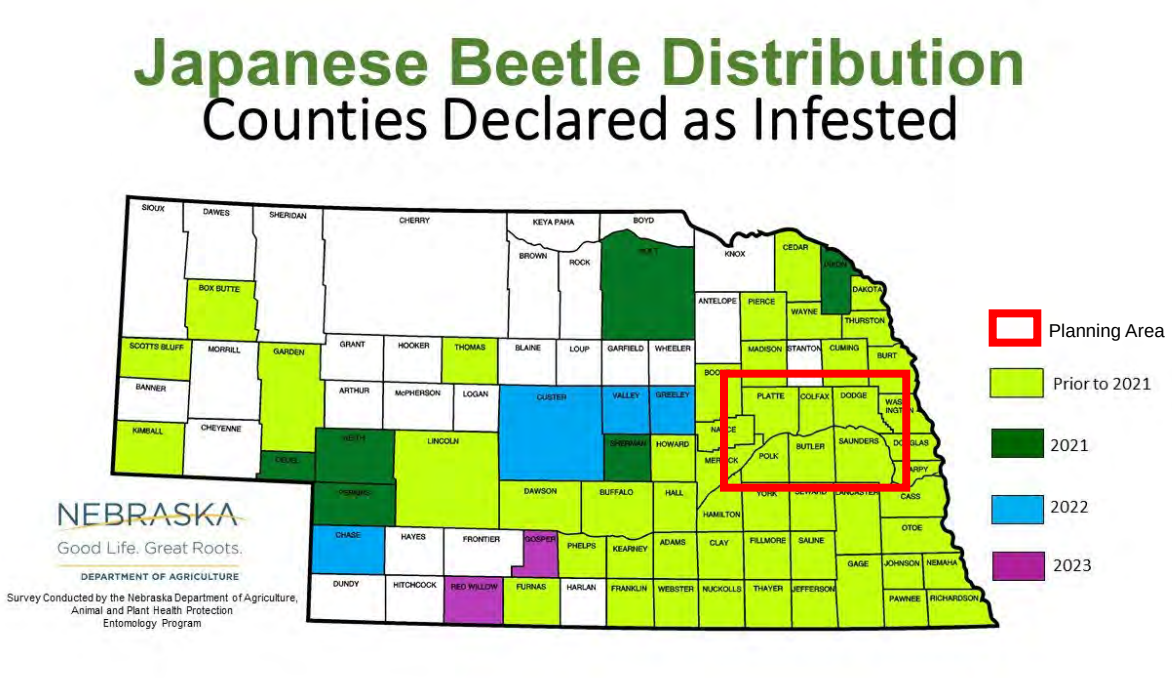
Source: Nebraska Forest Service[10]

<u>Japanese Beetles</u>

Japanese beetles are a rising concern in Nebraska. Japanese beetles are highly destructive invasive pests found in many counties across Nebraska. The figure on the next page shows counties declared as infested by beetles. All three counties were declared infested prior to 2021. These beetles cause damage in the larval state (root damage) and adult stage (defoliation). Adult Japanese beetles can defoliate a tree quickly as other beetles are attracted to feeding sites by both the scent of the plant and pheromones sent out by other beetles. Chemical pesticides provide temporary protection, however there are no long-range protection measures.

8 Arbor Day Foundation. 2015. "Emerald Ash Borer." https://www.arborday.org/trees/health/pests/emerald-ash-borer.cfm.
9 "Nebraska Emerald Ash Borer Response Plan." May 2015. https://nfs.unl.edu/NebraskaEABResponsePlan.pdf.
10 Nebraska Forest Service. March 2024. "Emerald Ash Borer (EAB) Detections in Nebraska". https://nda.nebraska.gov/plant/entomology/eab/EABmap_03-22-24-1.pdf.

Japanese Beetle Distribution



Source: Nebraska Department of Agriculture[11]

Average Annual Losses

According to the USDA RMA (2000-2023) there were 55 plant disease events in the planning area. While the RMA does not track losses for livestock, annual crop losses from plant disease can be estimated. Agricultural livestock disease losses are determined by the Nebraska Department of Agriculture.

Plant Disease Losses

Hazard Type	Number of Events	Events per Year	Total Crop Loss	Average Annual Crop Loss
Plant Disease	55	2.3	$306,967	$12,790

Source: USDA, 2000-2023[12]

Animal Disease Losses

Hazard Type	Number of Events	Events per Year	Total Animal Losses	Average Animal Losses per Event
Animal Disease	84	8.4	3,141	314.1

Source: NDA, 2014-2023[13]

11 Nebraska Department of Agriculture. 2023. "Japanese Beetle Distribution". https://nda.nebraska.gov/plant/entomology/pest_survey/index.html#:~:text=NDA%20continues%20to%20track%20the,the%20results%20of%202022%20survey.&text=Karnal%20Bunt%20sampling%20occurred%20in%20July%202022.

12 U.S. Department of Agriculture. 2023. "Cause of Loss Historical Data Files: 2000-2023". https://www.rma.usda.gov/data/cause.html.

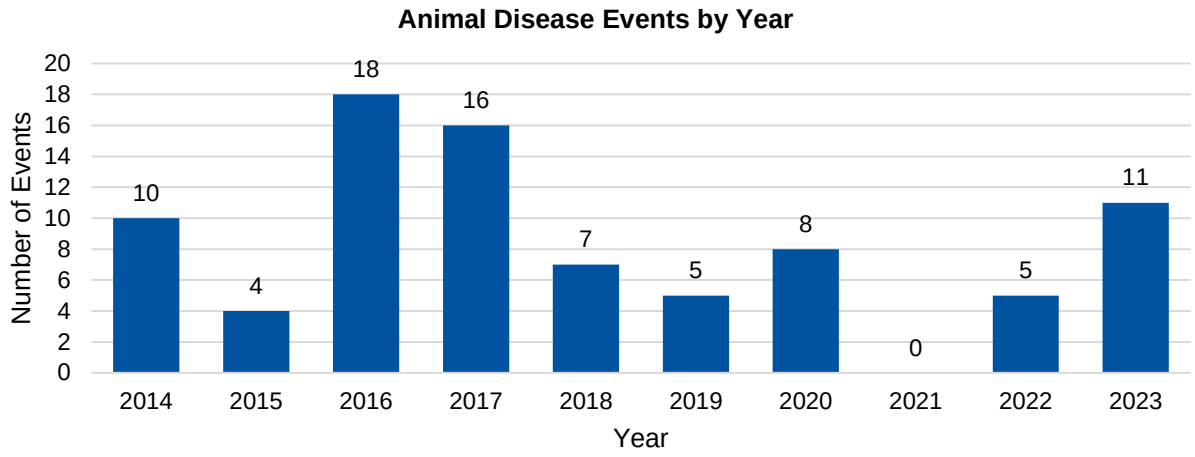
13 Nebraska Department of Agriculture. 2023. "Livestock Disease Reporting". http://www.nda.nebraska.gov/animal/reporting/index.html.

Historical Probability & Future Likelihood

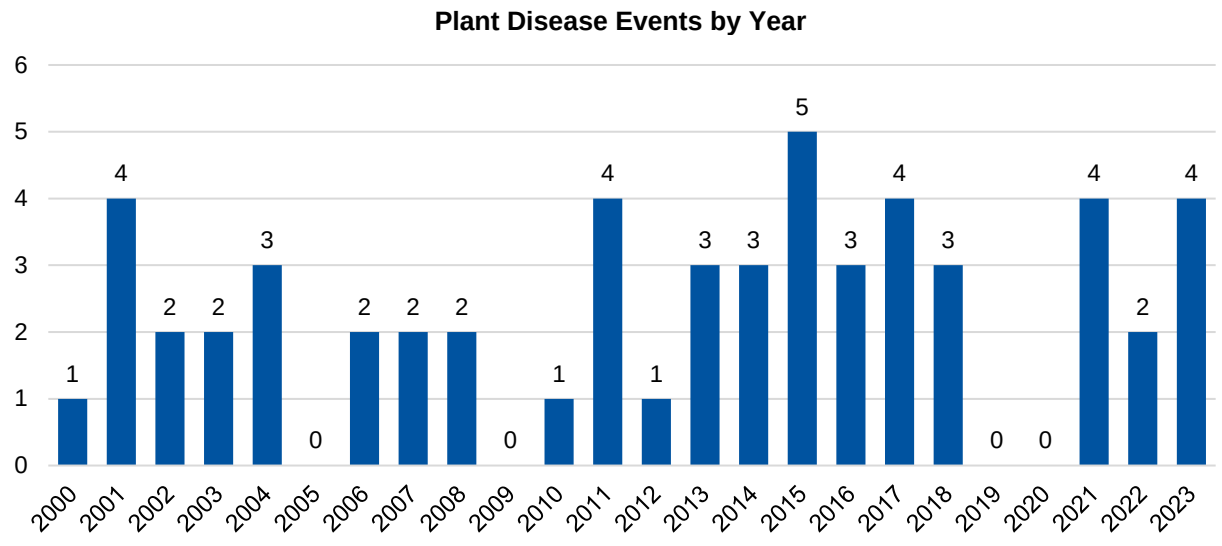
Given the historic record of the occurrence of animal disease as shown in the figure below (nine out of ten years), for the purposes of this plan, the historical probability of animal disease occurrence is 90 percent. Given the historical record of occurrence for agricultural plant disease events as shown in the figure below (20 out of 24 years with a reported event), for the purposes of this plan, the historical probability of agricultural plant disease occurrence is 83%. Due to the anticipated impacts of changing extreme weather and future development, the future likelihood of an agricultural disease event is very likely.

Historical Probability & Future Likelihood – Animal and Plant Disease

Hazard	Historical Probability	Extreme Weather Changes Impact	Future Development Impact	Future Likelihood
Animal Disease	90%	Increase in Frequency and Extent	Increase in Frequency	**Very Likely**
Plant Disease	83%	Increase in Frequency and Extent	Increase in Frequency	**Very Likely**



Source: NDA



Source: USDA[14]

Changing Extreme Weather

The distribution and severity of animal and plant disease outbreaks will likely increase alongside extreme weather change impacts. Shifting conditions will stress existing agricultural populations and plant species, creating vulnerability for new diseases to take hold. Changes in temperature and precipitation will likely increase the spread and types of insects and weeds, which can cause additional stressors to plants and animals.[15] The trend toward higher average temperatures and increased periods of drought[16] increases the stress levels on animal populations, increasing the risk of disease taking hold. Additionally, uncommon diseases may return at higher numbers as changes in the environment cause the release of previously contained diseases or promote the mutation of diseases.

Future Development

The likelihood of agricultural disease outbreaks is likely to remain consistent or increase as future development occurs; particularly if agricultural production remains the driving economic sector in the planning area. Higher production demand will lead farmers, ranchers, or other producers to increase population densities of livestock and crops. For communities, diversification of trees and other landscape vegetation will help reduce the impacts and likelihood of invasive species and plant disease outbreaks. Communities can require new developments to only have a certain percentage of trees from one specific species.

Regional Vulnerabilities

The following table provides information related to regional vulnerabilities; for jurisdictional-specific vulnerabilities, refer to *Section Eight*.

14 U.S. Department of Agriculture. 2023. "Cause of Loss Historical Data Files: 2000-2023". https://old.rma.usda.gov/en/Information-Tools/Summary-of-Business/Cause-of-Loss.

15 EPA. September 2024. "Climate Change Impacts on Agriculture and Food Supply." https://www.epa.gov/climateimpacts/climate-change-impacts-agriculture-and-food-supply.

16 NCEI. 2022. "State Climate Summaries – Nebraska". https://statesummaries.ncics.org/chapter/ne/#:~:text=The%20state%20is%20located%20far,(1895%E2%80%932020)%20averag.

Regional Agricultural Disease Vulnerabilities

Sector	Vulnerability
People	-Those in direct contact with infected livestock -Potential food shortage during prolonged events -Residents in poverty if food prices increase
Economic	-Local and regional economy is reliant on the agricultural industry -Large scale or prolonged events may impact tax revenues and local capabilities -Land value may largely drive population changes within the planning area
Built Environment	- Loss of trees and other vegetation
Community Lifelines	-Transportation routes can be closed during quarantine

Jurisdictions Ranking Agricultural Disease as a Prioritized Hazard of Concern

The following lists jurisdictions and stakeholders which identified agricultural disease as a prioritized hazard of concern.

- Dodge County
- Saunders County
- Three Rivers Public Health Department

Dam Failure

According to the Nebraska Administrative Code, dams are "any artificial barrier, including appurtenant works, with the ability to impound water, wastewater, or liquid-borne materials and which have one of the following elements.

- Twenty-five feet or more in height from the natural bed of the stream or watercourse measured at the downstream toe of the barrier, or from the lowest elevation of the outside limit of the barrier if it is not across a stream channel or watercourse, to the maximum storage elevation.

- Has an impounding capacity at maximum storage elevation of fifty acre-feet or more, except that any barrier described in this subsection which is not in excess of six feet in height or which has an impounding capacity at maximum storage elevation of not greater than fifteen acre-feet shall be exempt, unless such barrier, due to its location or other physical characteristics, is classified as a high hazard potential dam.

Dams do not include the following.

- An obstruction in a canal used to raise or lower water.

- A fill or structure for highway or railroad use, but if such structure serves, either primarily or secondarily, additional purposes commonly associated with dams, it shall be subject to review by the department.

- Canals, including the diversion structure, and levees.

- Water storage or evaporation ponds regulated by the United States Nuclear Regulatory Commission.[17]

Dam failure, as a hazard, is described as a structural failure of a water-impounding structure. Structural failure can occur during extreme conditions, which include, but are not limited to the following list.

- Reservoir inflows in excess of design flows
- Flood pools higher than previously attained
- Unexpected drop in pool level
- Pool near maximum level and rising
- Excessive rainfall or snowmelt
- Large discharge through spillway
- Erosion, landslide, seepage, settlement, and cracks in the dam or area
- Earthquakes
- Vandalism/Terrorism

17 Nebraska Department of Natural Resources. "Department of Natural Resources Rules for Safety of Dam and Reservoirs." Nebraska Administrative Code, Title 458, Chapter 1, Part 001.09.

NeDNR regulates dam safety in Nebraska. Dams are classified by the potential hazard each poses to human life and economic loss. The following are classifications and descriptions for each hazard class:

- **Minimal Hazard Potential:** Failure of the dam would likely result in no economic loss beyond the cost of the dam itself, and losses principally limited to the owner's property.

- **Low Hazard Potential**: Failure of the dam expected to result in no probable loss of human life and in low economic loss. Failure may damage storage buildings, agricultural land, and county roads.

- **Significant Hazard Potential**: Failure of the dam expected to result in no probable loss of human life but could result in major economic loss, environmental damage, or disruption of lifeline facilities. Failure may result in shallow flooding of homes and commercial buildings or damage to main highways, minor railroads, or important public utilities.

- **High Hazard Potential**: Failure of the dam expected to result in loss of human life is probable. Failure may cause serious damage to homes, industrial or commercial buildings, four-lane highways, or major railroads. Failure may cause shallow flooding of hospitals, nursing homes, or schools.

Location

According to the Nebraska Dam Inventory, there are a total of 102 dams located within the planning area, with classifications ranging from minimal to high hazard.[18] The figure on the next page maps the location of these dams in the planning area.

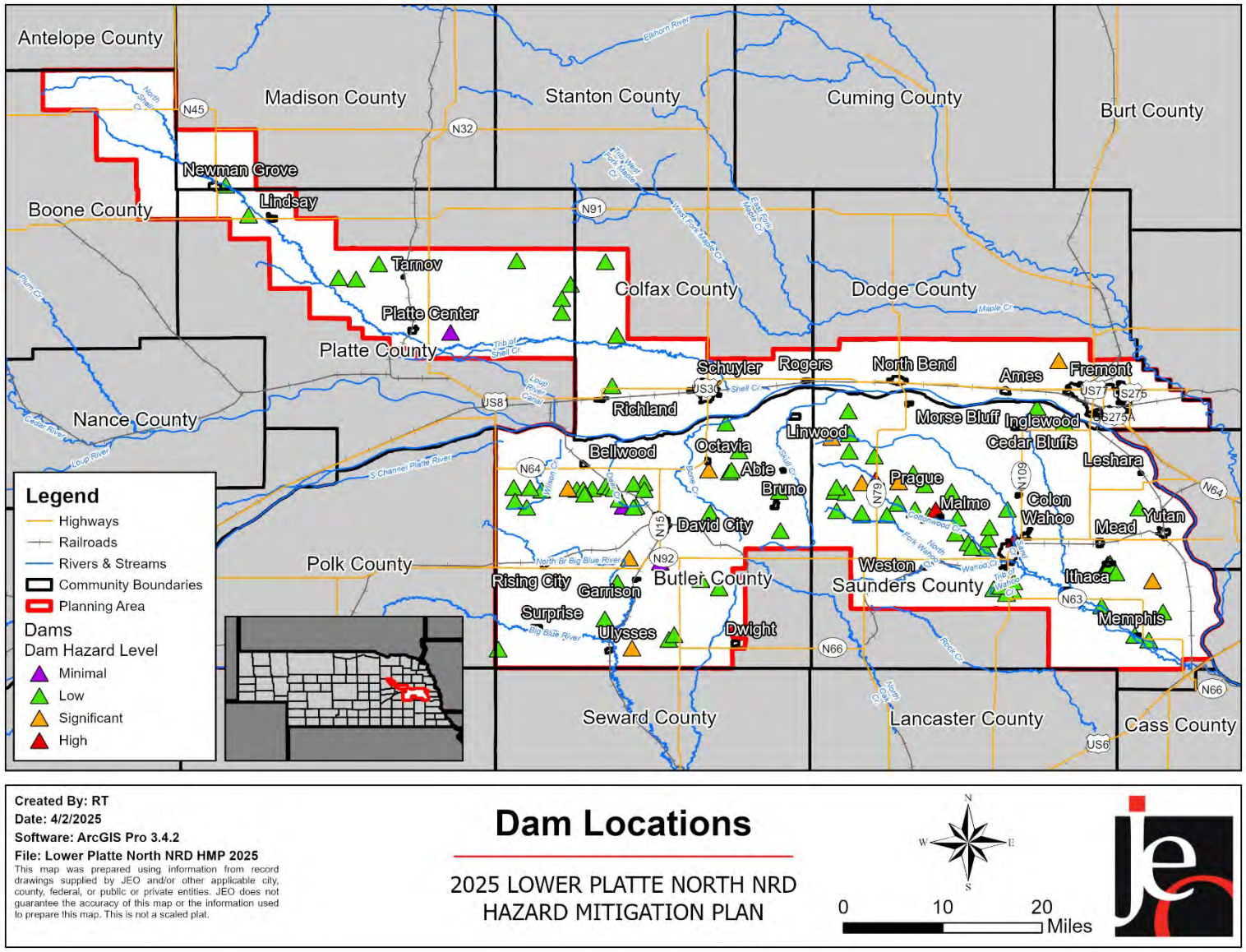
Dams in the Planning Area

County	Minimal Hazard	Low Hazard	Significant Hazard	High Hazard
Butler	2	32	4	0
Colfax	0	3	0	0
Dodge	0	0	1	0
Madison	0	1	0	0
Platte	1	8	0	0
Saunders	0	43	4	3
Total	**3**	**87**	**9**	**3**

Source: NeDNR
Note: only including dams that fall within the planning area boundaries.

18 Nebraska Department of Natural Resources. December 2023. "Nebraska Dam Inventory". https://gis.ne.gov/portal/apps/experiencebuilder/experience/?id=e5cd8e1f09564f38ac730323c28c4f0a&page=Page.

Dam Locations



Created By: RT
Date: 4/2/2025
Software: ArcGIS Pro 3.4.2
File: Lower Platte North NRD HMP 2025

This map was prepared using information from record drawings supplied by JEO and/or other applicable city, county, federal, or public or private entities. JEO does not guarantee the accuracy of this map or the information used to prepare this map. This is not a scaled plat.

Dam Locations

2025 LOWER PLATTE NORTH NRD HAZARD MITIGATION PLAN

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Dams classified with high hazard potential require the creation of an Emergency Action Plan (EAP). The EAP defines responsibilities and provides procedures designed to identify unusual and unlikely conditions which may endanger the structural integrity of the dam within sufficient time to take mitigating actions and to notify the appropriate emergency management officials of possible, impending, or actual failure of the dam. The EAP may also be used to provide notification when flood releases will create major flooding. An emergency can occur at any time; however, emergencies are more likely to happen when extreme conditions are present. There are five high hazard dams located within the planning area, two in Dodge County and three in Saunders County.

High Hazard Dams in the Planning Area

Dam Name	NID ID	Dam Height (Feet)	Max Storage (Acre Ft)	Last Inspection Rating
Cottonwood Creek 21-A	NE01887	37	1043	4/20/2023
Cottonwood Creek 7-A	NE02321	58	2984	4/20/2023
Dodge Dam	NE02637	19	119	4/25/2023
Hooper Dam	NE01277	31	19	10/1/2024
Lake Wanahoo Dam	NE03108	53	27356	8/22/2024

Source: NeDNR

Upstream Dams Outside the Planning Area

According to the Butler and Saunders County Local Emergency Operations Plans, there is one upstream dam (Kingsley Dam) that could impact the planning area. The Kingsley Dam would impact the Platte River in the planning area and would inundate an area slightly greater than the 1 percent annual chance floodplain.[19,20] The Dodge County LEOP indicated that the county will be affected by any upstream dams.[21]

Upstream Dams Outside the Planning Area

County	Dam Name	NID ID	Dam Height (Feet)	Max Storage (Acre Ft)	Last Inspection Rating
Keith	Kingsley Dam	NE01048	163	2,160,970	4/30/2024

Source: NeDNR

Extent

Areas (i.e., agricultural land, out buildings, county roads, and communities) directly downstream of dams are at greatest risk in the case of dam failure. The potential for damage following dam failure is indicated by its hazard classification and is dependent on the dam's size and location. Note that hazard classification does not indicate the likelihood of a dam failure event occurring, but rather the extent of potential damage that may occur in case of a failure. Thus, the high hazard dams in the planning area would have the greatest impact if they were to fail. Inundation maps are not publicly available due to concerns of vandalism and terrorism but can be requested from County Emergency Management. Key facilities located in inundation areas are discussed in each county's LEOP.

19 Butler County Emergency Management Agency. 2021. "Butler County Local Emergency Operations Plan."
20 Saunders County Emergency Management Agency. 2019. "Saunders County Local Emergency Operations Plan."
21 Dodge County Emergency Management Agency. 2021. "Dodge County Local Emergency Operations Plan."

Historical Occurrences

According to the NeDNR, there were two reported dam failures within the planning area. No damage from these events was recorded.

Dam Failures

Dam Name	Hazard Class	County	Failure Year	Failure Mode	Downstream Damage
Hurt Dam	Low	Butler	1995	Seepage; Piping	No Damages Were Reported
Hurt Dam	Low	Butler	2000	Seepage; Piping	No Damages Were Reported

Source: NPDP, 1890-2024[22]

All dams should be inspected by the owner on a regular basis and after heavy rainfall events. If problems are found during an inspection, the dam should be repaired to ensure the structural integrity of the dam is preserved. NeDNR provides periodic inspections of dams and recommendations for repair to the dam owners.

Average Annual Losses

No damage was reported from the dam failure events. In general, dam failure events would be confined to damage in the inundation area. Residents in the planning area that wish to quantify and evaluate the threat of dam failure should contact their County Emergency Management, local NRD, or the NeDNR to view EAPs and breach inundation area maps.

Historical Probability & Future Likelihood

Based on the historic record of reported incidents, there is a 1.5 percent historical probability (2 out of 136 years with an occurrence) that dam failure will occur annually in the planning area. Due to the potential impacts from changes in extreme weather and future development, the future likelihood of future dam events is very unlikely.

Historical Probability & Future Likelihood – Dam

Hazard	Historical Probability	Extreme Weather Changes Impact	Future Development Impact	Future Likelihood
Dam Failure	1.5%	Increase in Frequency	Neither Increase nor Decrease in Frequency. Increase in Exposure	**Very Unlikely**

<u>Changing Extreme Weather</u>

While extreme weather changes do not directly affect dam events, changes in precipitation and temperature swings can affect them. Projected increased rainfall events, either in frequency or in magnitude[23], will lead to exacerbated stress on infrastructure systems including dams. Additionally, historical streamflow records are typically used to design or determine dam

22 Stanford University National Performance of Dams Program. 2018. "NPDP Dam Incident Database." [datafile]. https://npdp.stanford.edu/dam_incidents.

23 NCEI. 2022. “State Climate Summaries – Nebraska”. https://statesummaries.ncics.org/chapter/ne/#:~:text=The%20state%20is%20located%20far,(1895%E2%80%932020)%20averag.

construction requirements and maintenance requirements. Extreme weather changes may impact these systems in the following ways:

- Drought: land subsidence, erosion, embankment settling, or foundation cracking.
- Flooding: increased embankment erosion, sloughing, overtopping risk, or damage from ice jams.

Future Development

Any future growth in dam inundation areas increases the impacts from these events. Additionally, any increase in development downstream of any existing dams may elevate these dams to a high hazard rating. As many dam inundation areas are also identified floodplain locations, developing outside these areas will reduce vulnerability to both hazards. Closer to the dam the breach inundation zone is frequently larger than the identified floodplain, so caution should be used when developing areas just downstream of a dam. Communities could implement requirements for any new development or substantial improvements in dam inundation like floodplain ordinances to minimize the number of people and property impacted during a failure event.

Regional Vulnerabilities

Regional vulnerabilities to dam failure vary based on surrounding development and other flood control measures. The following table provides information related to regional vulnerabilities; for jurisdictional-specific vulnerabilities, refer to *Section Eight*.

Dam Failure Vulnerabilities

Sector	Vulnerability
People	-Those living downstream of any dam -Those at recreational sites situated near dams -Evacuation needs likely with failure events -Hospitals, nursing homes, and the elderly are at greater risk due to low mobility -Those without adequate notification may be at greater risk -Butler County: LEOP estimated 40% of the population could be affected -Dodge County: LEOP estimated 40% of the population could be affected -Saunders County: LEOP estimated 8% of the population could be affected
Economic	-Loss of downstream agricultural land -Businesses or recreation sites located in inundation areas would be impacted and closed for an extended period -Employees of closed businesses may be out of work for an extended period of time
Built Environment	-Damage to buildings, recreation areas, and roads
Community Lifelines	-Transportation routes could be closed for extended period -Any community lifelines in inundation areas are vulnerable to damages

Jurisdictions Ranking Dam Failure as a Prioritized Hazard of Concern

The following lists jurisdictions which identified dam failure as a prioritized hazard of concern.

- Ames Diking and Drainage District
- City of Wahoo
- Dodge County
- Lower Platte North NRD

- Village of Cedar Bluffs
- Village of Malmo
- Village of Prague
- Saunders County
- Three Rivers Public Health Department

Drought

Drought is generally defined as a natural hazard that results from a substantial period of below normal precipitation. Although many inaccurately consider drought a rare and random event, it is actually a normal, recurring feature of climate. Drought can occur in virtually all climatic zones, but its characteristics can vary significantly from one region to another. A drought often coexists with periods of extreme heat, which together can cause significant social stress, economic losses, and environmental degradation.

Drought is a normal, recurrent feature of climate, although many erroneously consider it a rare and random event. It occurs in virtually all climatic zones, but its characteristics vary significantly from one region to another.
~National Drought Mitigation Center

Drought is typically a slow onset, creeping phenomenon that can affect a wide range of people, vegetation, livestock, and industries. However, in some cases "flash droughts" can occur quickly and last for shorter periods of time. While many impacts of these hazards are non-structural, there is the potential that during prolonged drought events structural impacts like foundation cracking can occur from dry soil. Drought normally affects more people than other natural hazards, and its impacts are spread over a larger geographical area. Detection and early warning signs of drought conditions have improved recently but are still more difficult to identify than that of quick-onset natural hazards (e.g., flood, winter storms, tornadoes). According to the National Drought Mitigation Center (NDMC), droughts are classified into four major types.[24]

- **Meteorological Drought** is defined based on the degree of dryness and the duration of the dry period. Meteorological drought is often the first type of drought to be identified and should be defined regionally as precipitation rates, frequencies (norms), and winds vary.

- **Agricultural Drought** occurs when there is deficient moisture that hinders planting germination, leading to low plant population per hectare and a reduction of final yield. Agricultural drought is closely linked with meteorological and hydrological drought, as agricultural water supplies are contingent upon the two sectors.

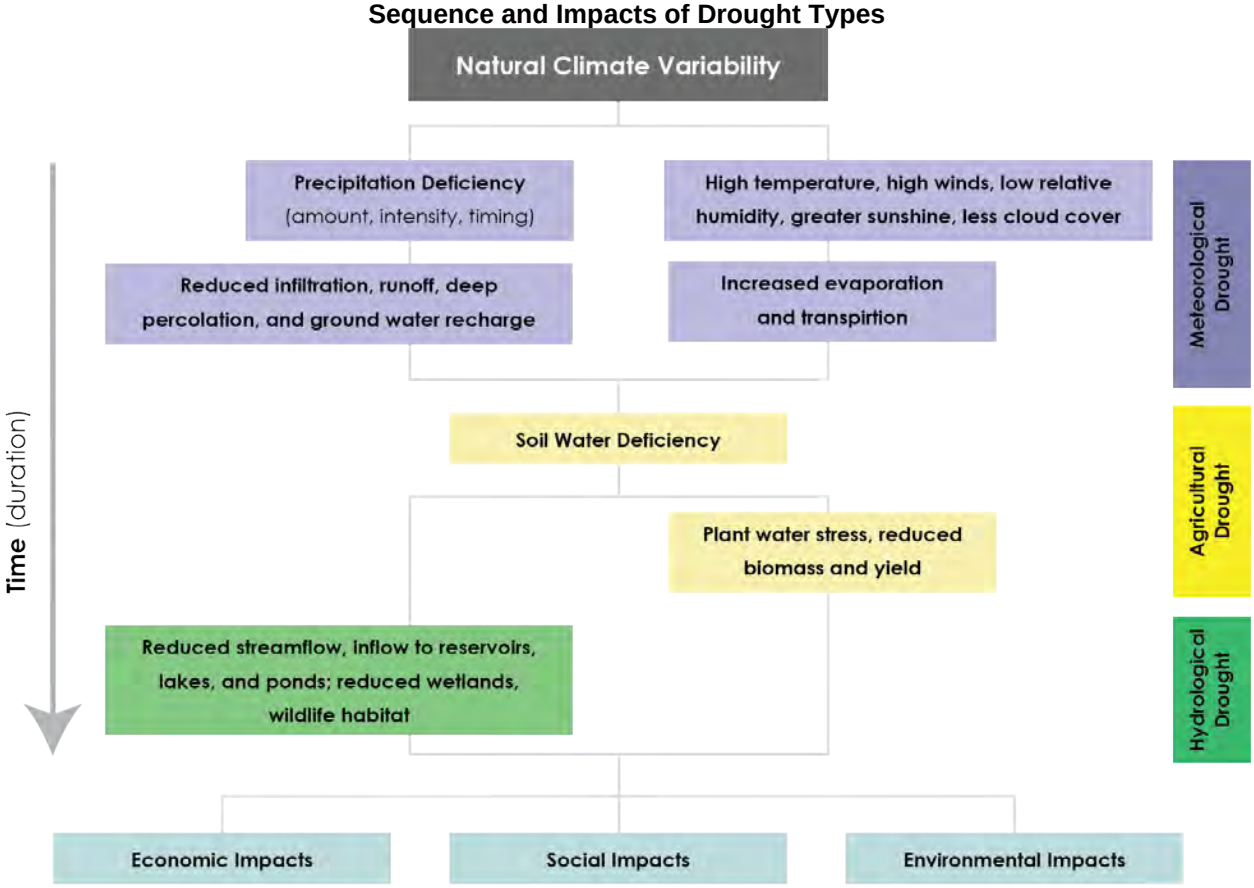
- **Hydrologic Drought** occurs when water available in aquifers, lakes, and reservoirs falls below the statistical average. This situation can arise even when the area of interest receives average precipitation. This is due to the reserves diminishing from increased water usage, usually from agricultural use or high levels of evapotranspiration, resulting from prolonged high temperatures. Hydrological drought often is identified later than meteorological and agricultural drought. Impacts from hydrological drought may manifest themselves in decreased hydropower production and loss of water-based recreation.

- **Socioeconomic Drought** occurs when the demand for an economic good exceeds supply due to a weather-related shortfall in water supply. The supply of many economic goods includes, but is not limited to, water, forage, food grains, fish, and hydroelectric power.

24 National Drought Mitigation Center. 2017. "Drought Basics". https://drought.unl.edu/.

The figure on the next page presents the different types of droughts, their temporal sequence, and the various types of effects they can have.

Sequence and Impacts of Drought Types



Source: National Drought Mitigation Center, University of Nebraska-Lincoln[25]

Location

The entire planning area is susceptible to drought impacts.

Extent

The Palmer Drought Severity Index (PDSI) is utilized by climatologists to standardize global long-term drought analysis. The table below shows the details of the Palmer classifications. The figure on the next page shows drought data from a station that covers the planning area. The negative Y axis represents the extent of a drought, for which '-2' indicates a moderate drought, '-3' a severe drought, and '-4' an extreme drought.

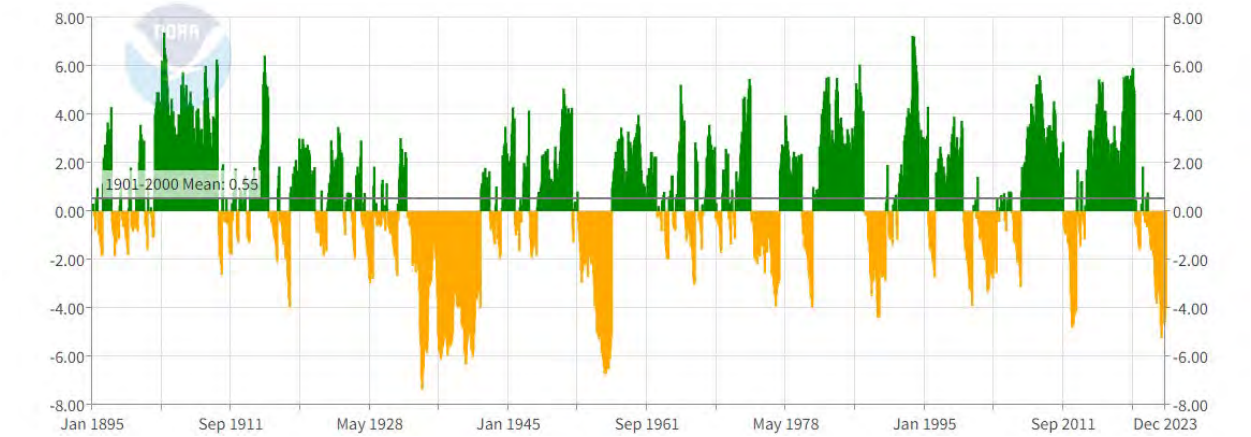
25 National Drought Mitigation Center. 2017. "Types of Drought". https://drought.unl.edu/.

Palmer Drought Severity Index Classification

Numerical Value	Description		Numerical Value	Description
4.0 or more	Extremely wet		**-0.5 to -0.99**	Incipient dry spell
3.0 to 3.99	Very wet		**-1.0 to -1.99**	Mild drought
2.0 to 2.99	Moderately wet		**-2.0 to -2.99**	Moderate drought
1.0 to 1.99	Slightly wet		**-3.0 to -3.99**	Severe drought
0.5 to 0.99	Incipient wet spell		**-4.0 or less**	Extreme drought
0.49 to -0.49	Near Normal		--	--

Source: Climate Prediction Center[26]

Historical Palmer Drought Severe Index – Lower Platte North NRD Planning Area



Source: NCEI, 1895-2023[27]

The U.S. Drought Monitor (USDM) shows where drought is and its extent across the United States. The map uses six classifications shown in the table below. The USDM is produced jointly between the National Drought Mitigation Center, NOAA, and USDA. It uses physical data at multiple scales, drought impacts, and feedback from local experts.[28] Communities and jurisdictions across the planning area are likely to experience similar extent impacts from drought.

United States Drought Monitor Classification

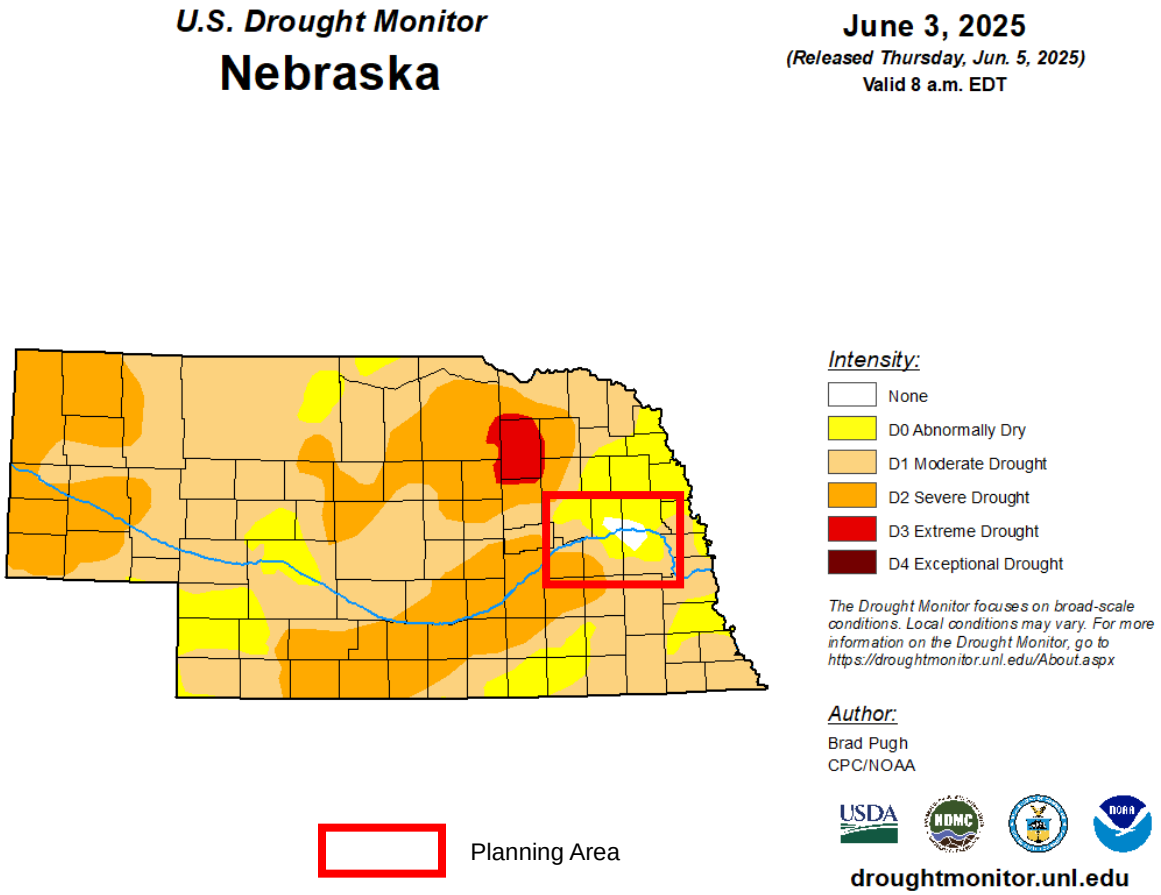
Category	Description	PDSI Ranges	Possible Impacts
None	Normal or wet conditions	-0.49 or above	
D0	Abnormally Dry	-0.5 to 0.79	Going into drought: short-term dryness slowing planting, growth of crops or pastures. Coming out of drought: some lingering water deficits; pastures or crops not fully recovered.

26 National Weather Service. 2017. "Climate Prediction Center". https://www.cpc.ncep.noaa.gov/.
27 National Centers for Environmental Information. 1895-Sept 2023. "County Time Series". https://www.ncei.noaa.gov/access/monitoring/climate-at-a-glance/county/time-series/CO-037/pdsi/all/9/1895-2023?base_prd=true&begbaseyear=1901&endbaseyear=2000.
28 National Drought Mitigation Center. 2023. "What is the USDM?". https://droughtmonitor.unl.edu/About/WhatistheUSDM.aspx.

Category	Description	PDSI Ranges	Possible Impacts
D1	Moderate Drought	-0.8 to -1.29	Some damage to crops, pastures; streams, reservoirs, or wells low, some water shortages developing or imminent; voluntary water-use restrictions requested.
D2	Severe Drought	-1.3 to -1.59	Crop or pasture losses likely, water shortages common; water restrictions imposed.
D3	Extreme Drought	-1.6 to -1.99	Major crop/pasture losses; widespread water shortages or restrictions.
D4	Exceptional Drought	-2.0 or less	Exceptional and widespread crop/pasture losses; shortages of water in reservoirs, streams and wells creating water emergencies.

Source: USDM, 2024[29]

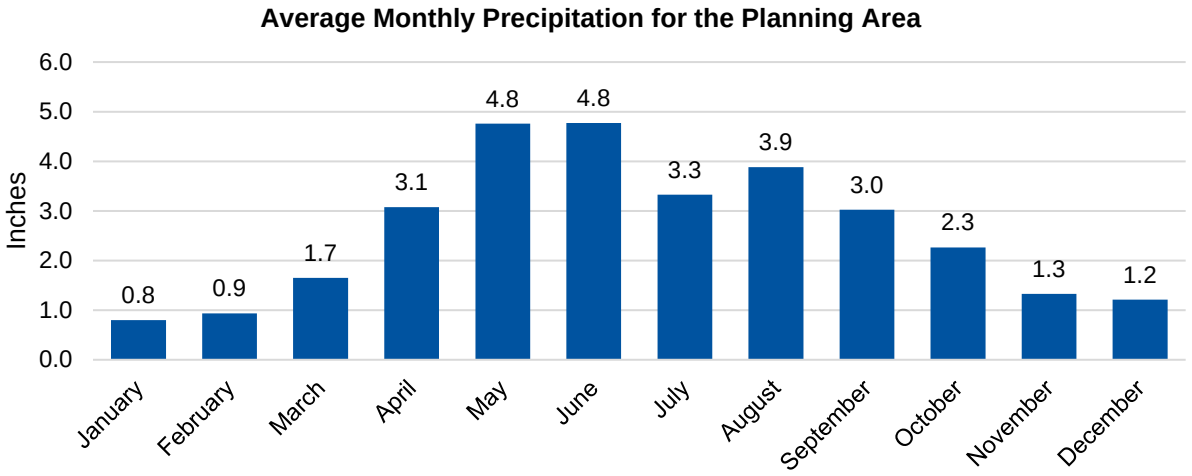
U.S. Drought Monitor for Nebraska



Source: National Drought Mitigation Center[30]

29 National Drought Mitigation Center. 2017. "Drought Classification." https://droughtmonitor.unl.edu/About/AbouttheData/DroughtClassification.aspx.
30 National Drought Mitigation Center. June 2024. "U.S. Drought Monitor Nebraska". https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?NE.

The figure on the next page shows the normal average monthly precipitation for the planning area, which is helpful in determining whether any given month is above, below, or near normal in precipitation. Prolonged negative deviations from the norm showcase possible drought conditions. The average annual precipitation for the planning area is approximately 31.02 inches according to the NCEI.[31]



Source: NCEI, 1991-2020[32]

Historical Occurrences

The table below indicates it is reasonable to expect extreme drought to occur 6.3% of the time for the planning area (97 extreme drought months in 1,548 months). Severe drought occurred in 57 months of the 1,548 months of record (3.7% of months). Moderate drought occurred in 104 months of the 1,548 months of record (6.7% of months), and mild drought occurred in 183 of the 1,548 months of record (11.8% of months). Non-drought conditions occurred in 1,107 months, or 71.5% percent of months. These statistics show that the drought conditions of the planning area are highly variable.

Historical Droughts

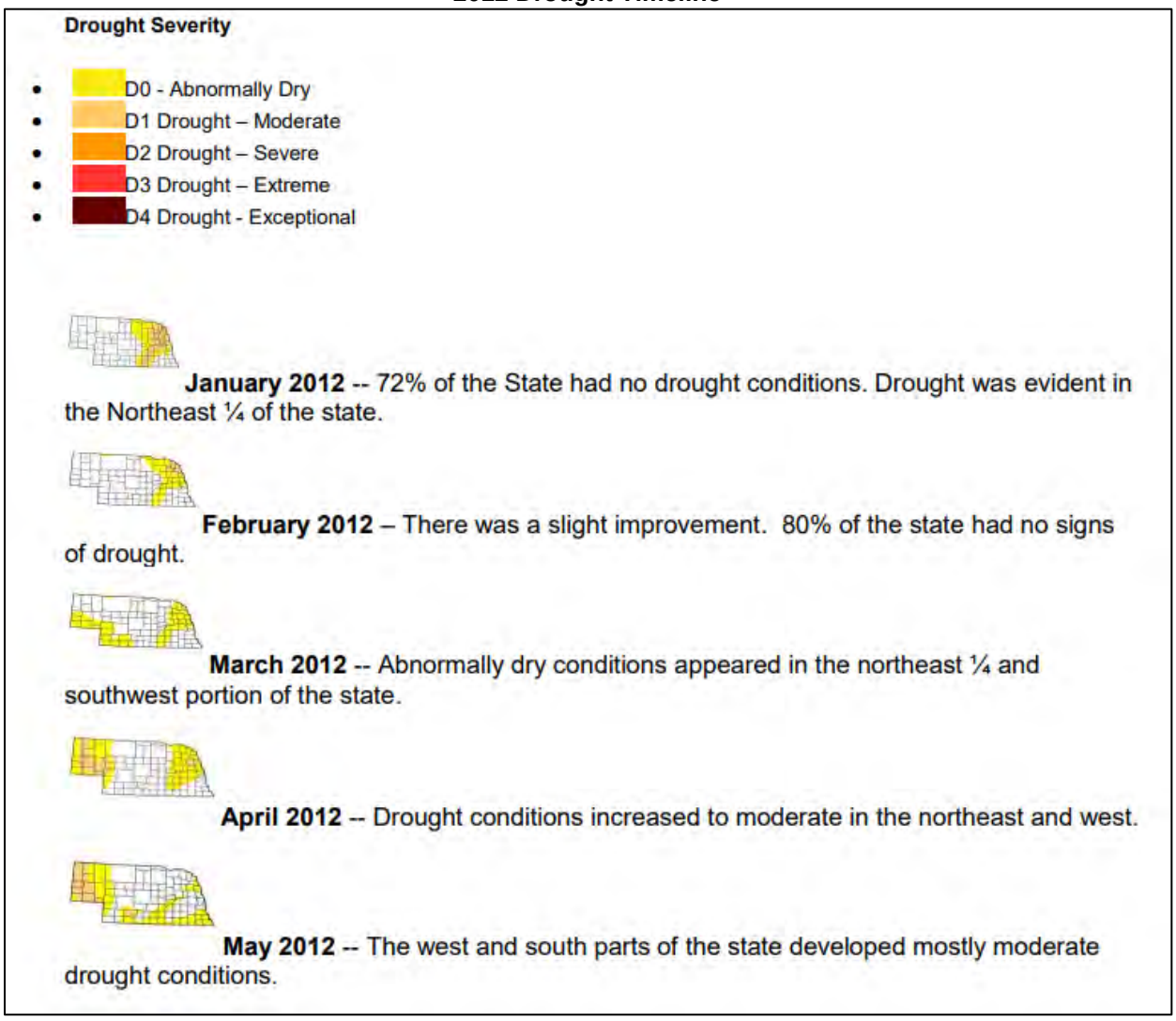
Drought Magnitude	Total Months
-1 Magnitude (Mild)	183
-2 Magnitude (Moderate)	104
-3 Magnitude (Severe)	57
-4 Magnitude or Greater (Extreme)	97
Total Months in Drought	**441**
Total Months Not in Drought	**1,107**

Source: NCEI, 1895-2023[33]

31 NOAA National Centers for Environmental Information. 2023. "U.S. Climate Normals Quick Access". https://www.ncei.noaa.gov/access/us-climate-normals/.
32 NOAA National Centers for Environmental Information. 2024. "U.S. Climate Normals Quick Access". https://www.ncei.noaa.gov/access/us-climate-normals/.
33 NOAA National Centers for Environmental Information. 1895-2023. "Divisional Time Series". https://www.ncei.noaa.gov/access/monitoring/climate-at-a-glance/divisional/time-series.

The 2012 drought was one of the worst recent historical droughts for the planning area and Nebraska; however, it did not warrant a presidential disaster declaration. The whole state of Nebraska was in severe drought conditions from the middle of July in 2012 to the end of May in 2013 and over 70% of the state was in exceptional drought conditions for over eight months. Numerous communities and water providers across the state implemented mandatory water restrictions, and some encouraged voluntary water conservation during that timeframe. As many as 81 municipal water systems in the state experienced drought-related water supply issues in 2012 according to the Nebraska Department of Health and Human Services. The images below show a general timeline of worsening drought conditions from the 2012 drought in Nebraska from the state's 2012 Annual Report.[34]

2012 Drought Timeline



34 Nebraska Department of Health and Human Services. 2012. "Nebraska's Public Water System Program 2012 Annual Report – January 1 to December 31, 2012". https://dhhs.ne.gov/Reports/Public%20Water%20System%20Annual%20Report%202012.pdf.

2012 Drought Timeline (cont.)



June 2012 -- Conditions continued to worsen to severe over 40% of the state, which involved the central and western parts of the state. About 7% of community water systems began asking consumers to voluntarily restrict their use of water.



July 2012 -- The entire state was under some degree of drought conditions. Throughout July, conditions deteriorated to 83% being under extreme conditions with 3.5% being defined as worst case conditions or exceptional drought. Water system restrictions showed a 65% increase. Most (78%) of those systems used voluntary restrictions while 22% went to mandatory restrictions. These restrictions ranged from allowing watering of lawns only on odd/even days to no lawn watering or vehicle washing.



August 2012 -- Exceptional drought conditions expanded to cover the central part of the state running east from Highway 281, west to Colorado and Wyoming. Another 15% of water systems began voluntary restrictions and another 12% began mandatory restrictions.



Sept 2012 -- Approximately 73% of the state experienced exceptional drought conditions. For the most part only the southeast corner of the state had severe to extreme conditions. No additional water systems were added to the list of those using restrictions.



Oct 2012 -- Exceptional drought conditions covered 77.5% of the state.

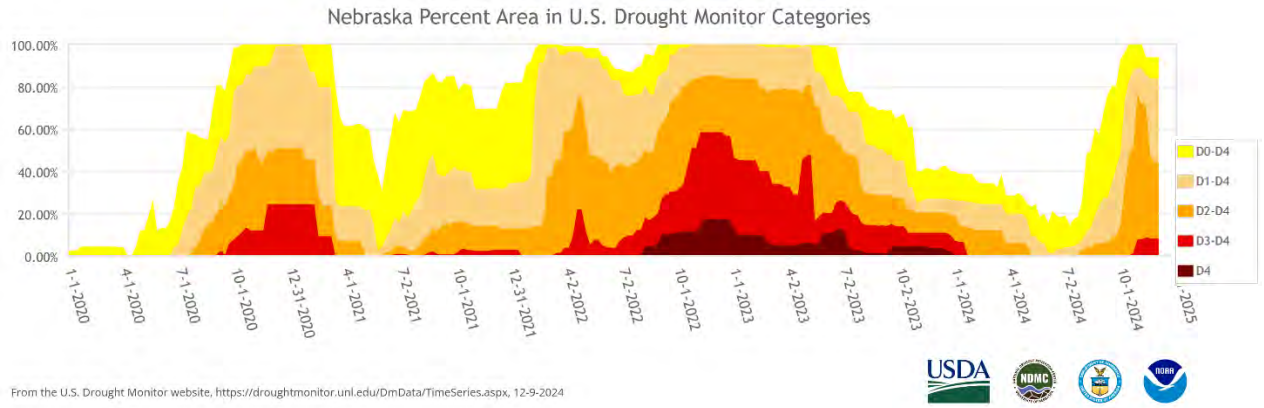


Nov & Dec 2012 – Conditions remained the same.

Source: Nebraska Department of Health and Human Services

The September 2020 - June 2024 drought was one of the worst droughts to impact Nebraska since the 2012 drought. From March 2022 until January 2024 parts of the planning area were in either D3 Extreme Drought or D4 Exceptional Drought. The U.S. Drought Monitor progression from January 2020 to December 2024 in Nebraska is shown in the image below.

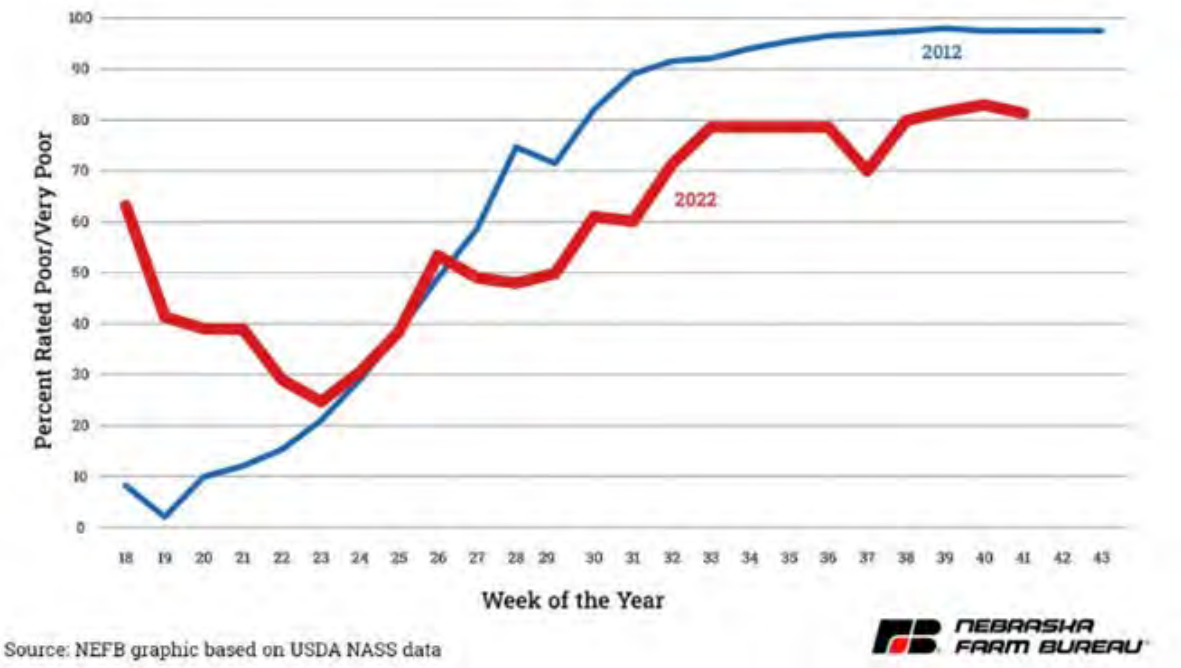
Nebraska Drought Progression 2020 to 2024



Source: National Drought Mitigation Center

As shown in the image above, the most extreme levels of drought can be traced to 2022 and 2023. In 2022, 73 Nebraska counties received a USDA Disaster Designation. When compared to the 2012 drought, this drought differed with cooler temperatures in the spring and early summer, helping alleviate and delay some of the drought impacts as shown in the figure below.

Nebraska Pasture Conditions 2012 & 2022



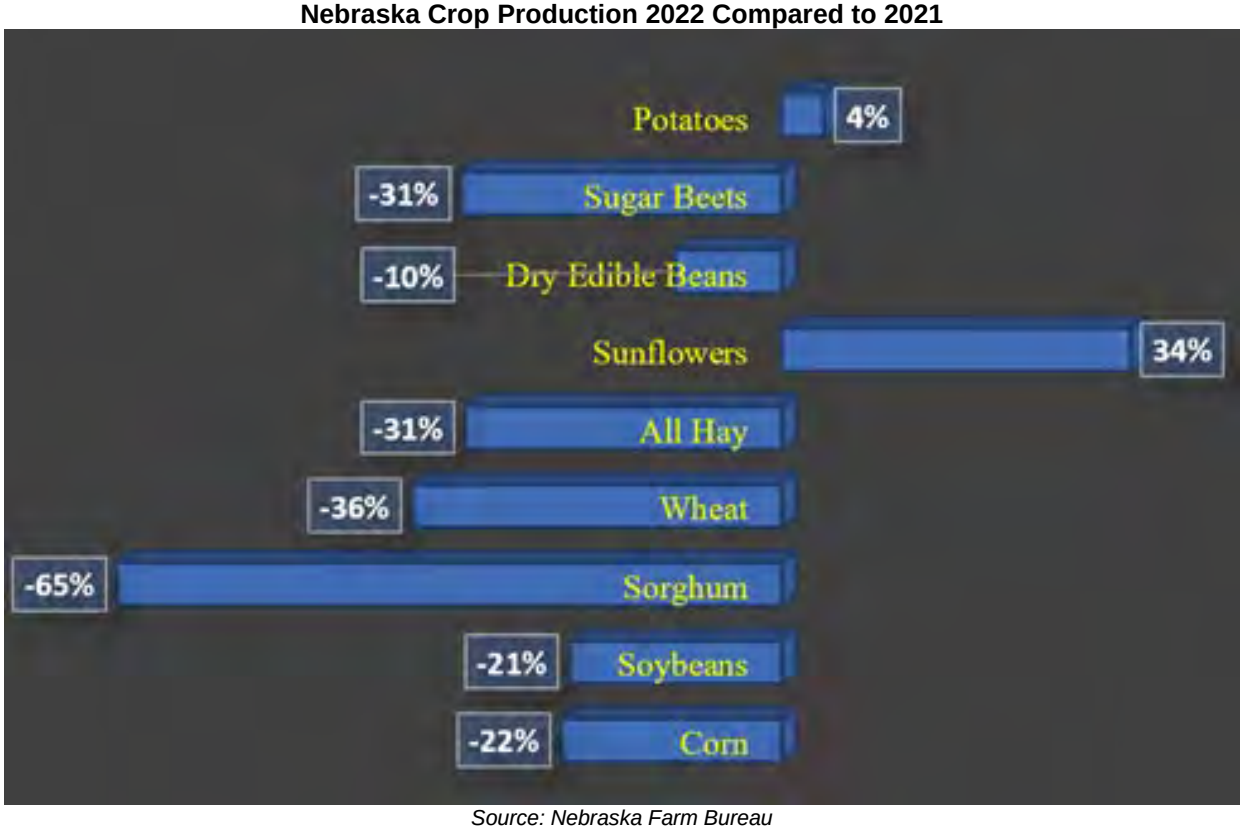
Source: Nebraska Farm Bureau[35]

Despite the cooler temperatures, 2022 was Nebraska's fourth driest year on record and was the driest state in the nation when compared to average annual precipitation, according to the NCEI Climate Monitoring database. The majority of the state was in a stage of drought throughout the year. In addition, over 10% of the state was in D4 (Exceptional Drought) for the last three months

35 Nebraska Farm Bureau. October 27, 2022. "Crop Input Costs, Drought, Top Concerns For Nebraska Farmers, Ranchers." https://www.nefb.org/10/27/2022/crop-input-costs-drought-top-concerns-for-nebraska-farmers-ranchers/.

of 2022. The Nebraska Farm Bureau reported that, except for potatoes and sunflowers, all other crops produced in Nebraska were 10-65% lower than 2021 harvests.[36] Crop production in 2022 compared to 2021 is shown below, with sorghum having the largest drop of 65% and wheat 36%, despite the same number of acres being planted. Neither crop is typically irrigated and was heavily impacted by the drought.

Nebraska Crop Production 2022 Compared to 2021



Source: Nebraska Farm Bureau

According to Nebraska Public Media, in 2022 farmers have seen harvests drop by half and ranchers weaned calves early, relying on more hay and other feed for their cattle.[37] Along with significant impacts on the farming and ranching industries, the drought has also caused extremely dry vegetation leading to an increase in wildland fires. The 2022 wildfire season was Nebraska's second worst in terms of acres burned with 200,000 acres having been burned.[38]

As of October 15, 2024, the planning area is experiencing either severe drought (D2), moderate drought (D1), or D0 Abnormally Dry per the US Drought Monitor.

The Drought Impact Reporter is a database of drought impacts throughout the U.S. with data going back to 2000. The more impacts that are reported to the National Drought Mitigation Center

36 Nebraska Farm Bureau. 2023. "Nebraska Crop Production Off". https://www.nefb.org/01/23/2023/nebraska-crop-production-off/.
37 Nebraska Public Media. 2022. "Some of the worst I've ever seen, Nebraska ranchers, farmers struggle against 5th worst drought on record". https://nebraskapublicmedia.org/en/news/news-articles/some-of-the-worst-ive-ever-seen-nebraska-ranchers-farmers-struggle-against-5th-worst-drought-on-record/.
38 Omaha World-Herald. 2023. "Nebraska's drought among nation's billion-dollar weather disasters". https://omaha.com/news/state-and-regional/nebraskas-drought-among-nations-billion-dollar-weather-disasters/article_ba26ca52-8ddf-11ed-ac57-8b2fd8286d3d.html.

the more severe the drought. Recent examples of reported drought impacts include the following.[39]

- Lower corn yields, earlier harvest along the Platte River in Nebraska (June 2022)
- Brown dryland crops and pastures in northeast Nebraska (September 2022)
- Drought driving up costs, cutting into profits for Nebraska farmers (May 2023)
- Lower Platte River Consortium encourages water conservation as drought conditions worsen (June 2023)

The Drought Impact Reporter has recorded a total of 63 drought-related impacts throughout the three counties. This is not a comprehensive list of droughts which may have impacted the planning area, but only those with reported impacts. The following are the categories and reported number of impacts. Note that some impacts have been assigned to more than one category.

- Agriculture: 32
- Fire: 15
- Plants & Wildlife: 12
- Relief, Response & Restrictions: 35
- Society & Public Health: 7
- Tourism & Recreation: 8
- Water Supply & Quality: 29

Some of these impacts are summarized in the following table:

Drought Impacts in the Planning Area

Category	Date	Title
Agriculture & Relief, Response, and Restrictions	8/30/1953	Nebraska's corn yield estimate revised downward
Fire & Relief, Response, and Restrictions	6/28/2012	Nebraskans urged to leave the fireworks to the professionals
Society and Public Health	9/25/2013	Drought alleviated some of the flooding that would have otherwise occurred along the Platte River in southern Nebraska
Relief, Response, and Restrictions & Water Supply and Quality	12/14/2013	Moratorium on new irrigation in Lower Platte North Natural Resources District in eastern Nebraska
Fire & Relief, Response, and Restrictions	2/6/2022	Burn bans in eastern Nebraska
Agriculture & Plants and Wildlife	5/24/2023	Drought hurting Nebraska farmers, cattlemen
Fire & Relief, Response, and Restrictions & Tourism and Recreation	10/4/2024	Temporary campfire ban at Nebraska state park areas and wildlife management areas

Source: NDMC, 1970-October 2024[40]

39 National Drought Mitigation Center. October 2024. "Drought Impact Reporter". https://droughtreporter.unl.edu/advancedsearch/impacts.aspx.
40 National Drought Mitigation Center. July 2024. "Drought Impact Reporter". https://droughtreporter.unl.edu/advancedsearch/impacts.aspx.

Average Annual Losses

The direct and indirect effects of drought are difficult to quantify. Potential losses such as power outages could affect businesses, homes, and community lifelines. High demand and intense use of air conditioning or water pumps can overload the electrical systems and cause damage to infrastructure. The annual property estimates for the planning area were determined based upon NCEI Storm Events Database since 1996. Annual crop loss for the county was determined based upon the RMA Cause of Loss Historical Database from 2000 to 2023.

Loss Estimate for Drought

Hazard Type	Total Property Loss[1]	Average Annual Property Loss[1]	Total Crop Loss[2]	Average Annual Crop Loss[2]
Drought	$55,000	$1,954	$159,863,886	$6,660,995

Source: 1 Indicates data is from NCEI (1996 to Nov. 2023)[41]; 2 Indicates data is from RMA (2000 to 2023)[42]

Historical Probability & Future Likelihood

The following table summarizes the magnitude of drought and monthly historical probability of occurrence. Annually, the planning area has experienced a drought 74 out of the 129 years on record, causing the annual historical probability 57.4 percent. Due to the anticipated impacts from changes in extreme weather and future development, the future likelihood of drought events is very likely in the planning area.

Drought Probability

PDSI Value	Magnitude	Drought Occurrences by Month	Monthly Historical Probability
4 or more to -0.99	No Drought	1,107/1,548	71.5%
-1.0 to -1.99	Mild Drought	183/1,548	11.8%
-2.0 to -2.99	Moderate Drought	104/1,548	6.7%
-3.0 to -3.99	Severe Drought	57/1,548	3.7%
-4.0 or less	Extreme Drought	97/1,548	6.3%

Source: NCEI, 1895-2023[43]

Historical Probability & Future Likelihood – Drought

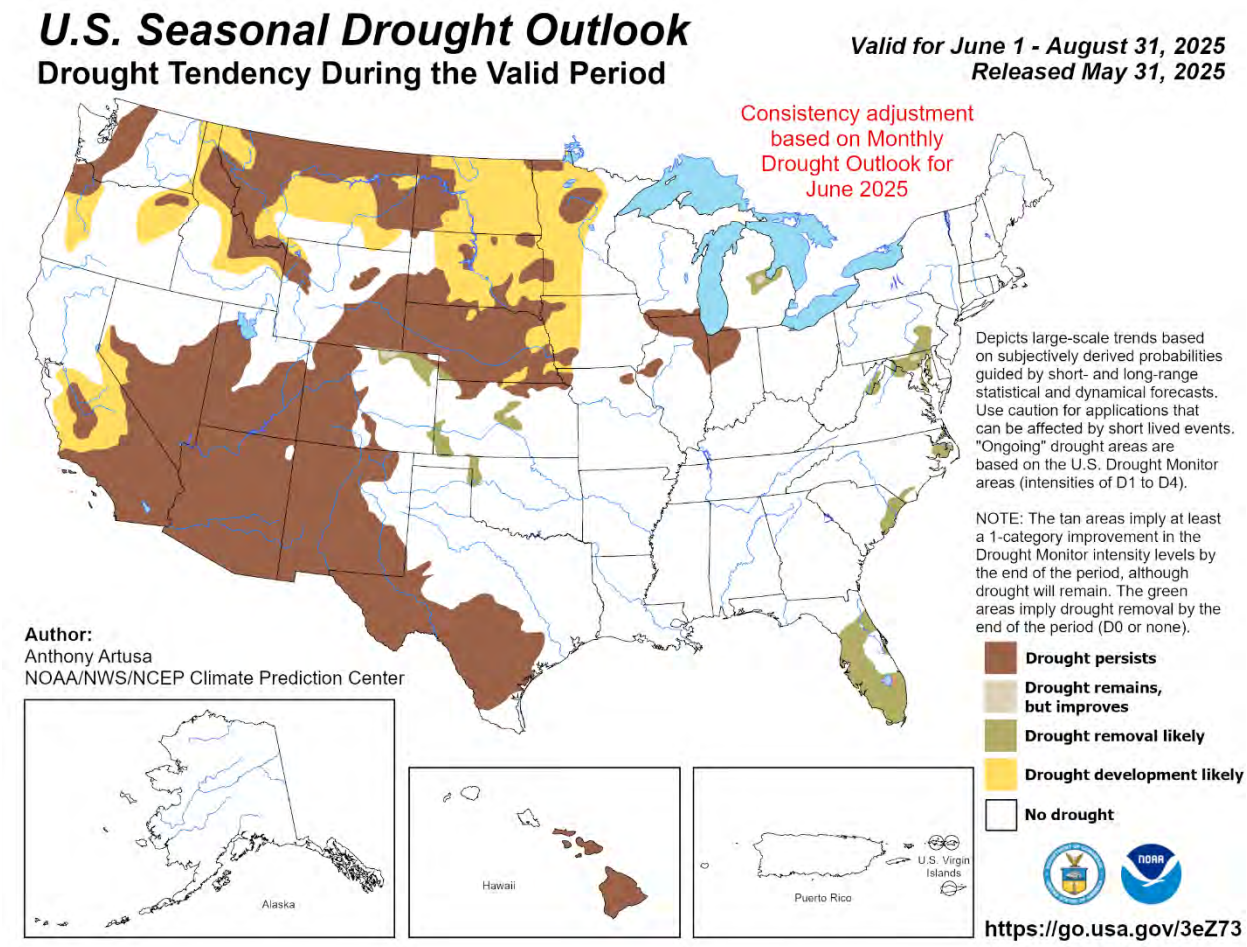
Annual Historical Probability	Extreme Weather Changes Impact	Future Development Impact	Future Likelihood
57%	Increase in Frequency and Extent	Neither Increase nor Decrease in Frequency. Increase Exposure	**Very Likely**

The U.S. Seasonal Drought Outlook provides a short- term drought forecast that can be utilized by local officials and residents to examine the likelihood of drought developing or continuing within three months as based on existing conditions. The drought outlook is updated consistently

41 National Centers for Environmental Information. December 2023. “Storm Events Database”. https://www.ncdc.noaa.gov/stormevents/.
42 U.S. Department of Agriculture Risk Management Agency. 2023. "Cause of Loss Historical Data Files: 2000-2023." https://old.rma.usda.gov/en/Information-Tools/Summary-of-Business/Cause-of-Loss.
43 National Centers for Environmental Information. 1895-Oct 2023. “County Time Series”. https://www.ncei.noaa.gov/access/monitoring/climate-at-a-glance/divisional/time-series.

throughout the year and should be reviewed on an ongoing basis. The following figure provides the drought outlook from October 17, 2024, to January 31, 2025, as an example.

U.S. Seasonal Drought Outlook



Source: NOAA[44]

<u>Changing Extreme Weather</u>

An increase in average temperatures and evaporation rates will likely contribute to the rise in the frequency and intensity of drought, especially during the summer months.[45] This will cause significant economic, social, and environmental impacts on farming and community water systems in the planning area. The increase in droughts will also lead to an increased risk of wildfire events as vegetation becomes drier. The table below shows the likelihood of a year-plus drought and year-plus extreme drought in three-county region with different warming scenarios.

44 NOAA. December 2023. "U.S. Seasonal Drought Outlook". https://www.cpc.ncep.noaa.gov/products/expert_assessment/sdo_summary.php.

45 NCEI. 2022. "State Climate Summaries – Nebraska". https://statesummaries.ncics.org/chapter/ne/#:~:text=The%20state%20is%20located%20far,(1895%E2%80%932020)%20averag.

Likelihood of Drought with Different Warming Scenarios

Likelihood of	Warming Scenarios				
	0.5° C	1° C	2° C	2.5° C	3° C
Year-Plus Drought	11-33%	11-33%	11-33%	11-33%	11-50%
Year-Plus Extreme Drought	0-10%	0-10%	0-10%	0-20%	0-20%

Source: Probable Futures[46]

The U.S. Global Change Research Program has created the Climate Mapping for Resilience and Adaptation tool that looks at how different emission scenarios affect climatological hazards. The table below shows that the annual number of dry days is projected to increase as time goes on in both the lower emissions and higher emissions scenario.

Annual Number of Dry Days

County	Emission Scenario	Historical (1976-2005)	Early Century (2015-2044)	Mid Century (2035-2064)	Late Century (2070-2099)
Butler	Lower Emissions (RCP 4.5)	227.0 Days	228.3 Days	229.5 Days	230.4 Days
	Higher Emissions (RCP 8.5)	227.0 Days	229.2 Days	230.6 Days	232.7 Days
Dodge	Lower Emissions (RCP 4.5)	221.0 Days	222.4 Days	223.7 Days	224.6 Days
	Higher Emissions (RCP 8.5)	221.0 Days	223.3 Days	224.8 Days	227.1 Days
Saunders	Lower Emissions (RCP 4.5)	220.3 Days	221.6 Days	222.8 Days	223.8 Days
	Higher Emissions (RCP 8.5)	220.3 Days	222.5 Days	224.0 Days	226.3 Days

Source: USGCRP, 2024[47]

Future Development

Any future developments are likely to increase water demand, increase travel on local transportation routes, and influence continued growth on economic sectors at risk from the impacts of drought. Growing communities will need to adapt and account for increased water demands for residential, commercial, and industrial development.

Regional Vulnerabilities

The three-county planning area is largely agriculturally based, and any type of drought is likely to have large impacts on the local economy. Although agriculture and ranching are the major sectors affected, impacts on rural and municipal water supplies, fish and wildlife, water-based recreation, water quality, soil erosion, mental health, and the incidence of wildland fires are also significant. Similarly, the indirect impacts of drought on personal and business incomes, tax revenues,

46 Probable Futures. "Maps of Dryness". October 2024. https://probablefutures.org/.
47 USGCRP. October 2024. "Climate Mapping for Resilience and Adaptation". https://livingatlas.arcgis.com/assessment-tool/explore/details.

unemployment, and other areas are also important. In general, drought produces a complex web of impacts that ripple through many sectors of the economy. This is largely due to the dependence of so many sectors on water for producing goods and providing services.

As part of the Hazard Mitigation Plan, a Drought Risk and Resiliency Report was created for the LPNNRD. The purpose of the Drought Risk and Resiliency Report was to better understand drought risks on community water systems within the NRD and establish proactive measures to reduce impacts from drought. During the planning process, the NRD met with every community water system in the district to better understand their water systems and vulnerabilities to drought. Based on those conversations, local plan analysis, and a drought resiliency assessment, the table on the next page was created. This community water system drought resiliency matrix table shows different indicators of drought resiliency and each water system's rating (high = good, medium, low = bad) for each indicator. This is useful in identifying which communities are at higher risk from drought and the specific areas where improvements can be made. Information about how the ratings were determined can be found in the *Drought Risk and Resiliency Report Annex*. Drought mitigation strategies were created based on the outcomes of the drought resiliency analysis and meetings with communities. These strategies were integrated into the mitigation actions identified for each participating community in *Section Eight*. The drought risk and resiliency report also included a community engagement materials kit and a sample drought ordinance for communities to utilize and adapt to fit their local needs. The Lower Platte North NRD Drought Risk and Resiliency Report has been added as an annex to this plan.

The following table provides information related to regional vulnerabilities. For jurisdictional-specific vulnerabilities, refer to *Section Eight*.

Regional Drought Vulnerabilities

Sector	Vulnerability
People	-Insufficient water supply -Loss of jobs in agricultural sector -Residents in poverty if food prices increase
Economic	-Closure of water intensive businesses (carwashes, pools, etc.) -Short-term interruption of business -Decrease in cattle prices -Decrease of land prices→ jeopardizes educational funds -Decrease in recreational outdoor activities
Built Environment	-Cracking foundations (residential and commercial structures) -Damages to landscapes
Community Lifelines	-Damages to waterlines below ground -Damages to roadways (prolonged extreme events) -Loss of power

Community Water System Drought Resiliency Matrix

Community	Water Quantity	Water Quality	Capabilities (Ordinances / Plans)	Capabilities (Staff)	Local Drought Monitoring	Regional Drought Monitoring	Emergency Supply	Local Funding Ability
Abie	High	High	Low	Medium	High	Low	Medium	Low
Bellwood	High	Medium	Medium	Low	High	Low	Medium	Medium
Cedar Bluffs	Low	Low	Low	Medium	Medium	Low	Low	High
David City	Medium	Medium	Medium	High	High	Low	Medium	Medium
Fremont	High	Medium	Low	High	Medium	Low	Medium	Medium
Ithaca	High	Medium	Low	Medium	Medium	Low	Medium	Medium
Lindsay	High	Medium	High	High	High	Medium	Low	Medium
Malmo	High	High	Low	Medium	Medium	Low	Low	Medium
Mead	High	Medium	High	High	High	Low	Medium	Medium
Memphis	High	High	Low	Medium	Medium	Low	Low	Medium
Morse Bluff	High	High	High	Medium	Medium	Low	Medium	Medium
Newman Grove	High	High	High	Medium	Low	Low	Medium	Medium
North Bend	Medium	Medium	Medium	High	Medium	Low	Medium	Medium
Platte Center	High	High	Low	Medium	Medium	Low	Medium	Medium
Prague	Medium	Medium	Medium	High	Medium	Low	Medium	Medium
Rogers	High	High	Low	Low	Low	Low	Low	Medium
Schuyler	High	Medium	Medium	High	High	Medium	Medium	High
Wahoo	High	High	Low	High	High	Low	Medium	Medium
Weston	High	High	Low	Medium	Medium	Low	Medium	Medium
Yutan	Medium	High	Low	High	High	Low	Medium	Medium

Jurisdictions Ranking Drought as a Prioritized Hazard of Concern

The following lists jurisdictions and stakeholders which identified drought as a prioritized hazard of concern.

- David City Public Schools
- Dwight Volunteer Fire Department
- Lake Ventura SID #3
- Lower Platte North NRD
- North Bend Central Public Schools
- Schuyler Volunteer Fire Department
- Village of Bruno
- Village of Cedar Bluffs
- Village of Dwight
- Village of Prague
- Village of Rising City

Extreme Temperatures

Extreme temperatures include durations of time at both the low and high ends of the thermometer. What constitutes extreme temperatures varies from region to region but is generally accepted as being temperatures that are significantly lower or higher than the average. For the purposes of this plan, extreme cold is defined as the high temperature being at or below 0°F, while extreme heat is defined as low temperatures being 100°F or higher.

Extreme cold can be dangerous to the well-being of people and animals as prolonged exposure to cold causes the human body to lose heat faster than it can be produced and use up the body's stored energy. As a result, abnormally low body temperature can lead to hypothermia and frostbite. Cold can cause fuel to congeal in storage tanks and supply lines, stop electric generators, overpower a building's heating system, and cause water and sewer pipes to freeze and rupture. Extreme cold also increases the likelihood of ice jams on flat rivers or streams. When combined with high winds from winter storms, extreme cold becomes extreme wind chill, which is extremely hazardous to health and safety.

Extreme heat is often associated with periods of drought but can also be characterized by long periods of high temperatures in combination with high humidity. During these conditions, the human body has difficulty cooling through the normal method of evaporation of perspiration. Health risks including heatstroke, sunstroke, cramps, exhaustion, and fatigue may arise when a person is overexposed to heat.

Extreme temperatures can also cause people to overuse furnaces and air conditioners, which can lead to power failures. Power outages for prolonged periods increase the risk of health events such as heat stroke or hypothermia and subsequent fatalities.

Along with humans, animals also can be affected by extreme temperatures and humidity. Cattle and other farm animals respond to heat by reducing feed intake, increasing their respiration rate, and increasing their body temperature. These responses assist the animal in cooling itself, but this is usually not sufficient. When animals overheat, they will begin to shut down body processes that are not vital to survival, such as milk production, reproduction, or muscle building.

Location

The entire planning area is susceptible to extreme temperature impacts.

Extent

The National Weather Service (NWS) is responsible for issuing excessive heat or cold temperature outlooks, forecasts, watches, or warnings. The NWS definitions are provided below.[48,49]

- **Heat Advisories** are issued for dangerous heat conditions that are not expected to reach warning criteria. Consider postponing or rescheduling outdoor activities, especially during the heat of the day. If you must be outside, be sure to drink plenty of water and take

48 National Weather Service. 2025. "Understanding Cold Weather Alerts." https://www.weather.gov/safety/cold-ww.
49 National Weather Service. 2025. "Understanding Heat Alerts." https://www.weather.gov/safety/heat-ww.

frequent breaks in the shade. Stay in a cool place, especially during the heat of the day and evening.

- **Cold Weather Advisory** is issued for dangerously cold conditions that are not expected to reach warning criteria. Be sure you and your loved ones dress appropriately and cover exposed skin when venturing outdoors.

- **Frost Advisory** means areas of frost are expected or occurring, posing a threat to sensitive vegetation.

- **Extreme Heat Watches** are issued when conditions are favorable for an extreme heat event but its occurrence and timing is still uncertain. Plan to suspend all major outdoor activities if a warning is issued. If you do not have air conditioning, locate the nearest cooling shelter or discuss staying with nearby family or friends who have air conditioning.

- **Extreme Cold Watch** is issued when extremely dangerous cold conditions or wind chill values are possible, but the occurrence, location, and/or timing is still uncertain. As with a Warning, adjust your plans to avoid being outside during the coldest parts of the day. Make sure your car has at least half a tank of gas and update your winter survival kit.

- **Freeze Watch** is issued when there is a potential for significant, widespread freezing temperatures within the next 24-36 hours. A Freeze Watch is issued in autumn until the end of the growing season and in the spring at the start of the growing season.

- **Extreme Heat Warnings** are issued when extremely dangerous heat conditions are expected or occurring. Avoid outdoor activities, especially during the heat of the day. If you must be outside, be sure to drink plenty of water and take frequent breaks in the shade. Stay indoors in an air-conditioned space as much as possible, including overnight. Check on family and neighbors.

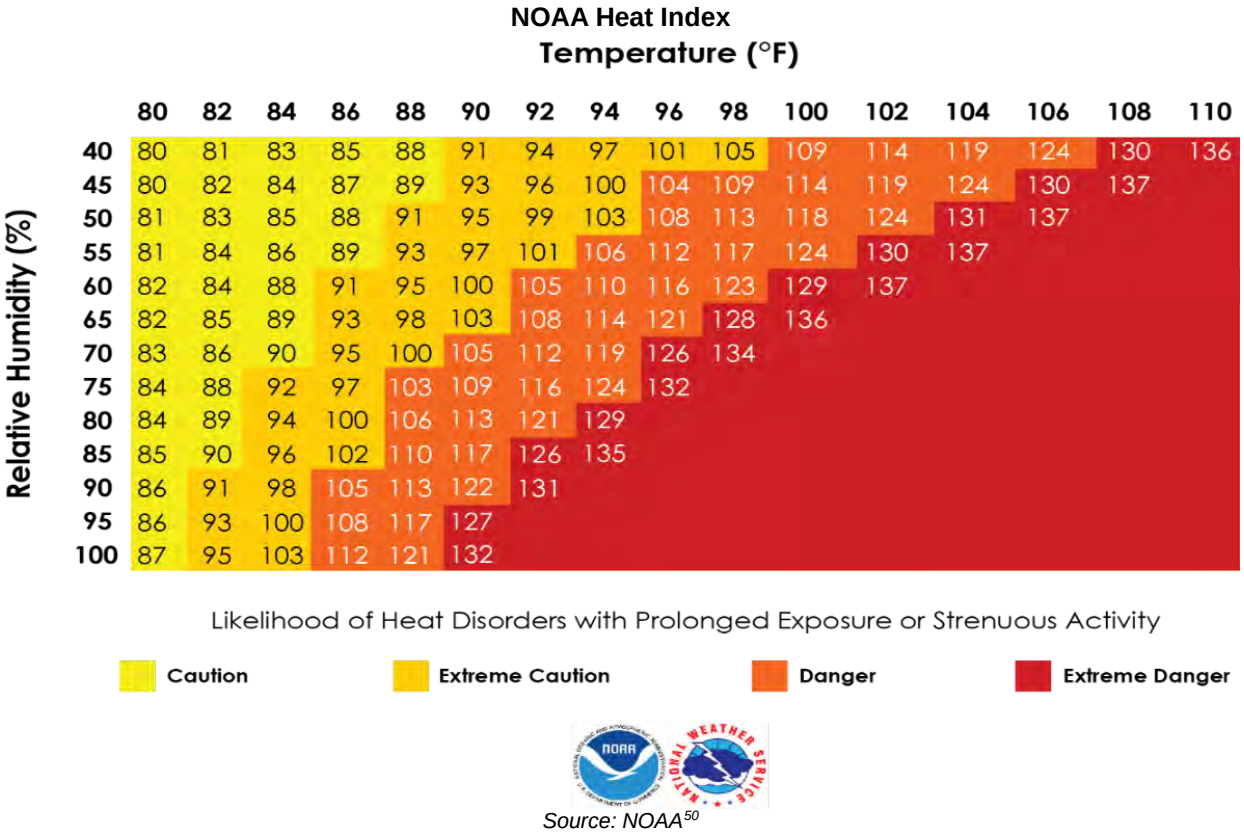
- **Extreme Cold Warning** is issued when extremely dangerous cold conditions or wind chill values are expected or occurring. If you are in an area with an Extreme Cold Warning, avoid going outside. If you have to go outside, dress in layers, cover exposed skin, and make sure at least one other person knows your whereabouts. Update them when you arrive safely at your destination.

- **Freeze Warnings** are issued when temperatures are forecasted to go below 32°F for a long period of time. This temperature threshold kills some types of commercial crops and residential plants, while temperatures below 28°F for an extended period of time can kill most types of commercial crops and residential plants.

A key factor to consider regarding extreme heat situations is the humidity level relative to the temperature. As is indicated in the following figure from the National Oceanic and Atmospheric Administration, as the relative humidity increases, the temperature needed to cause a dangerous situation decreases. For example, for 100% relative humidity, dangerous levels of heat begin at 86°F whereas a relative humidity of 50% starts at 96°F. The figure below is designed for shady and light wind conditions. Exposure to full sunshine or strong winds can increase hazardous conditions and raise heat index values by up to 15°F.

Wind chill is a key factor to consider regarding extreme cold situations. The Wind Chill Index was developed by the NWS to determine the decrease in air temperature felt by the body on exposed skin due to wind. The wind chill is always lower than the air temperature and can quicken the effects of hypothermia or frostbite as it gets lower. The figure on the next page shows the Wind Chill Index used by the NWS.

The impacts of extreme temperatures, specifically extreme heat, are exacerbated by other risk factors such as diabetes, obesity, heart disease, or other health equity concerns. Many vulnerable communities and populations at-risk face greater exposure to heat or cold, have fewer resources to respond or escape conditions, and are more likely to suffer severe consequences if left unassisted. Populations at highest risk are those without shelter or who are stranded, or who live in a home that is poorly insulated or without adequate HVAC systems. Other impacts of extreme temperatures include asphyxiation (unconsciousness or death from a lack of oxygen) from toxic fumes from emergency heaters; household fires, which can be caused by fireplaces and emergency heaters; and frozen/burst pipes. Elderly populations are considered particularly vulnerable to the impacts of extreme temperature events.



Source: NOAA[50]

50 National Oceanic and Atmospheric Administration, National Weather Service. 2020. "Heat Index". https://www.weather.gov/ama/heatindex.

Wind Chill Index Chart

Wind (mph) \ Temperature (°F)	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
5	36	31	25	19	13	7	1	-5	-11	-16	-22	-28	-34	-40	-46	-52	-57	-63
10	34	27	21	15	9	3	-4	-10	-16	-22	-28	-35	-41	-47	-53	-59	-66	-72
15	32	25	19	13	6	0	-7	-13	-19	-26	-32	-39	-45	-51	-58	-64	-71	-77
20	30	24	17	11	4	-2	-9	-15	-22	-29	-35	-42	-48	-55	-61	-68	-74	-81
25	29	23	16	9	3	-4	-11	-17	-24	-31	-37	-44	-51	-58	-64	-71	-78	-84
30	28	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53	-60	-67	-73	-80	-87
35	28	21	14	7	0	-7	-14	-21	-27	-34	-41	-48	-55	-62	-69	-76	-82	-89
40	27	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57	-64	-71	-78	-84	-91
45	26	19	12	5	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79	-86	-93
50	26	19	12	4	-3	-10	-17	-24	-31	-38	-45	-52	-60	-67	-74	-82	-89	-95
55	25	18	11	4	-3	-11	-18	-25	-32	-39	-46	-54	-61	-68	-75	-82	-89	-97
60	25	17	10	3	-4	-11	-19	-26	-33	-40	-48	-55	-62	-69	-76	-84	-91	-98

Frostbite Times — 30 Minutes — 10 Minutes — 5 Minutes

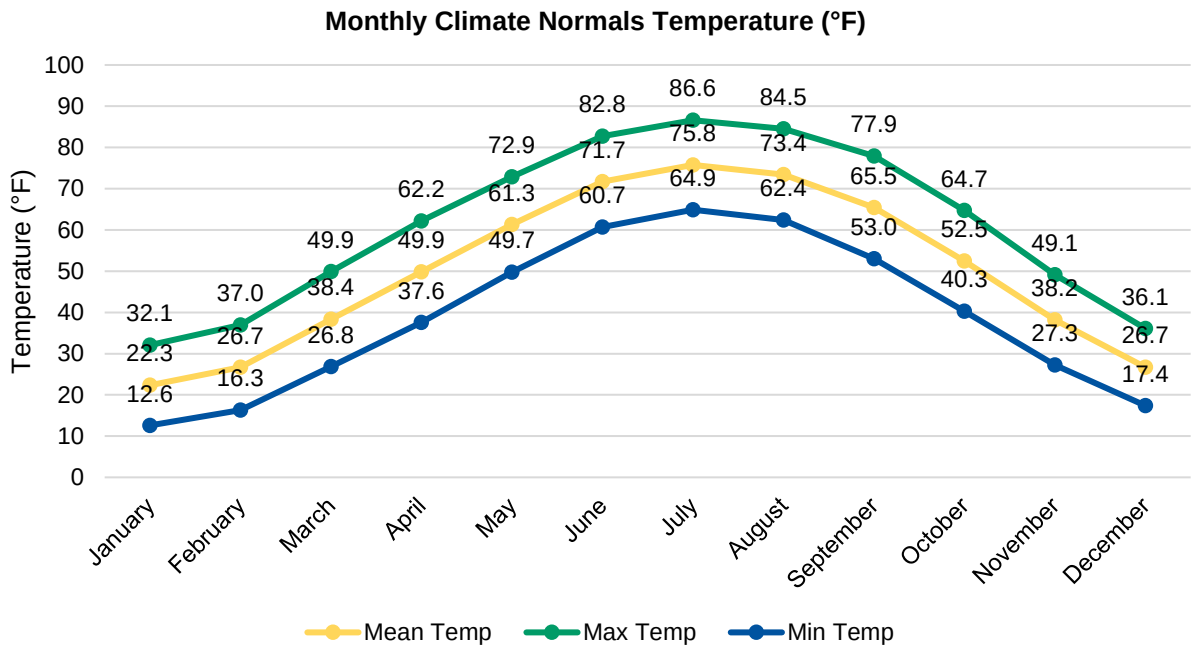
$$\text{Wind Chill (°F)} = 35.74 + 0.6215T - 35.75(V^{0.16}) + 0.4275T(V^{0.16})$$

T = Air Tempurature (°F) **V** = Wind Speed (mph)

Source: NWS[51]

For the planning area, the coldest months of the year are December, January, and February. The average low temperatures for these months are all below freezing (average low for the three months 15.4°F). The average high temperature for these months is 35.0°F. In the planning area, the months with the highest temperatures are June, July, and August. The average high temperature for these months is approximately 84.6°F while the average low temperature for these months is 62.7°F.

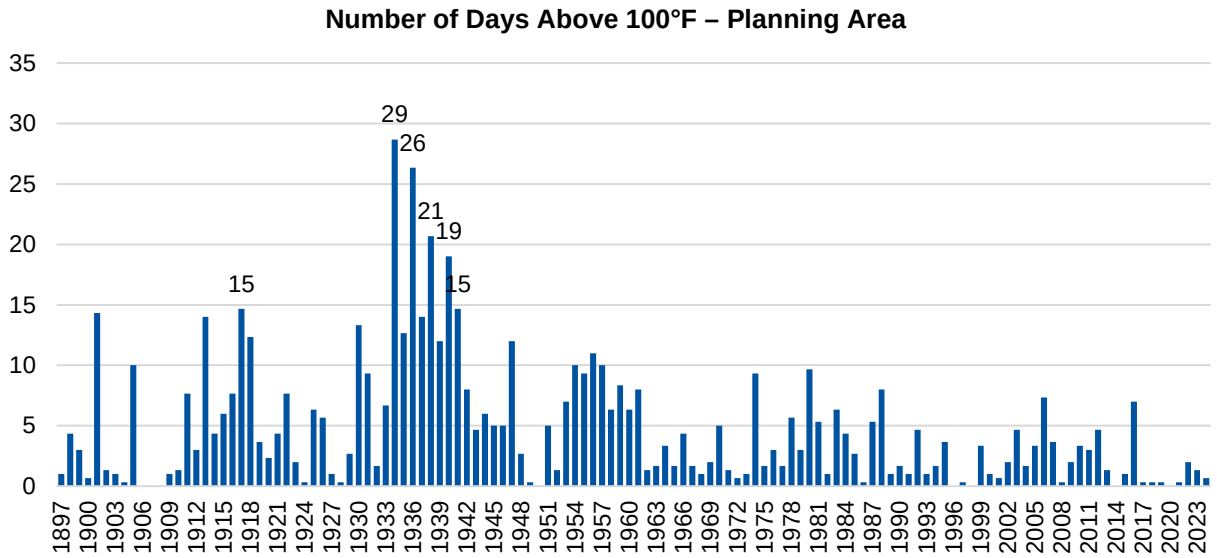
51 NOAA National Weather Service. 2001. "Wind Chill Chart". https://www.weather.gov/safety/cold-wind-chill-chart.



Source: NOAA, 1991-2020[52]

Historical Occurrences

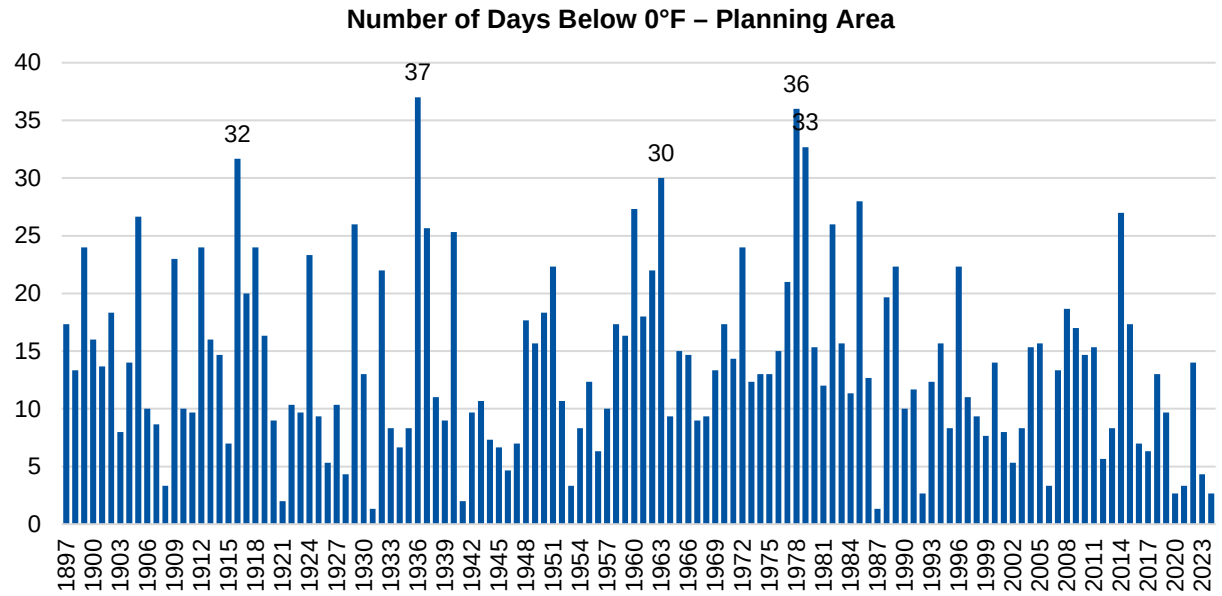
According to the NOAA Northeast Regional Climate Center (NOAA RCC), on average, the planning area experiences five days above 100°F per year. The planning area experienced the most days on record above 100°F in 1934 with 29 days. On average, the planning area experiences 14 days with high temperatures below 0°F per year. The planning area experienced the most days on record below 0°F in 1936 with 37 days.



Source: NOAA RCC, 1897-2024[53]

52 NOAA National Centers for Environmental Information. 2023. "U.S. Climate Normals Quick Access". https://www.ncei.noaa.gov/access/us-climate-normals/.

53 NOAA Regional Climate Centers. December 2024. "SC ACIS, 1897-2024." [datafile]. https://scacis.rcc-acis.org/.



Source: NOAA RCC, 1897-2024[54]

Average Annual Losses

Average annual property loss is not available through the NCEI Storm Events Database or other sources. The annual crop loss was determined based on the RMA Cause of Loss Historical Database from 2000 to 2023. This does not include losses from displacement, functional downtime, economic loss, injury, or loss of life. The direct and indirect effects of extreme temperatures are difficult to quantify. Potential losses such as power outages could affect businesses, homes, and community lifelines. High demand and intense use of air conditioning, heaters, and water pumps can overload the electrical systems and damage infrastructure.

Loss Estimate for Extreme Temperatures

Hazard Type	Avg. Number of Days Above 100°F or Below 0°F[1]	Total Crop Loss[2]	Average Annual Crop Loss[2]
Extreme Heat	5 days	$20,194,663	$1,841,444
Extreme Cold	14 days	$320,710	$13,363

Source: 1 NOAA RCC (1897-2024)[55]*; 2 Indicates data is from USDA RMA (2000 to 2023)*[56]

Historical Probability & Future Likelihood

Extreme temperatures are a regular part of the climate for the planning area. With 97 years out of 128 having at least one day of 100°F temperatures, the historical probability for extreme heat is 76%. Every year out of 128 has had at least one day of high temperatures less than 0°F temperatures, the historical probability for extreme cold is 100%. Due to the anticipated impacts from changes in extreme weather and future development, the future likelihood of extreme temperature events is very likely in the planning area.

54 NOAA Regional Climate Centers. December 2024. "SC ACIS, 1897-2024." [datafile]. https://scacis.rcc-acis.org/.
55 NOAA Regional Climate Centers. December 2024. "SC ACIS, 1897-2024." [datafile]. https://scacis.rcc-acis.org/.
56 U.S. Department of Agriculture Risk Management Agency. 2023. "Cause of Loss Historical Data Files: 2000-2023." https://old.rma.usda.gov/en/Information-Tools/Summary-of-Business/Cause-of-Loss.

Historical Probability & Future Likelihood – Extreme Temperatures

Hazard	Historical Probability	Extreme Weather Changes Impact	Future Development Impact	Future Likelihood
Extreme Heat	76%	Increase in Frequency and Extent	Neither Increase nor Decrease in Frequency. Increase Exposure	**Very Likely**
Extreme Cold	100%	Decrease in Frequency and Extent	Neither Increase nor Decrease in Frequency. Increase Exposure	**Very Likely**

Changing Extreme Weather

The Union for Concerned Scientists released a report in July 2019 titled *Killer Heat in the United States: Climate Choices and the Future of Dangerously Hot Days*[57] which included predictions for extreme heat events in the future dependent on future climate actions. The table below summarizes those findings for the planning area.

Extreme Heat Predictions for Days over 100F

County	Midcentury Prediction 2036-2065 (Days per year)	Late Century Prediction 2070-2099 (Days per year)
Butler	35	61
Dodge	34	59
Saunders	36	62

Source: Union of Concerned Scientists

Impacts from changing extreme weather will significantly affect the prevalence and extent of extreme temperature conditions. The Fifth National Climate Assessment noted numerous impacts from extreme heat including higher rates of illness and death, infrastructure damage, and increased severe wildfire events with hot dry conditions.[58] Jurisdictions across the planning area may also experience more than one climate related impact simultaneously such as drought and extreme heat. The assessment found that overall cold extremes are becoming less frequent and milder with the number of days below freezing going down. However, some studies found that arctic warming results in the polar vortex spilling down over the United States, as seen in February 2021.

Future Development

Any increases in population and development will elevate exposure levels to extreme heat or cold. There are several ways for communities to minimize the impacts of extreme heat. Communities can plant trees and other vegetation to provide more natural shade and make green infrastructure improvements. Many of these options can be required during new development but can also be added to areas that are already developed. Facilities such as nursing homes, hospitals, clinics, and day cares should be designed with access to back up power generation. Public cooling or warming centers should be established across the planning area for residents.

57 Union of Concerned Scientists. 2019. "Killer Heat in the United States: Climate Choices and the Future of Dangerously Hot Days". https://www.ucsusa.org/sites/default/files/attach/2019/07/killer-heat-analysis-full-report.pdf.
58 U.S. Global Change Research Program. 2023. "Fifth National Climate Assessment". https://nca2023.globalchange.gov/.

Regional Vulnerabilities

The nonprofit First Street Foundation has developed a Risk Factor tool to help understand risks from a changing climate at the county or community level. The following table outlines key risk factors from heat risk for each county.

Heat Risk

Heat Risk Factors	Butler County	Dodge County	Saunders County
Overall Heat Risk	Moderate Risk	Moderate Risk	Moderate Risk
Likelihood of 3+ Day Heat Wave (>100°F)	82% this year 25% in 30 years	26% this year 282% in 30 years	25% this year 53% in 30 years
Health Caution Days	8 days this year 0 days in 30 years	39 days this year 43 days in 30 years	39 days this year 42 days in 30 years
Dangerous Days	44 days this year 70 days in 30 years	14 days this year 26 days in 30 years	15 days this year 28 days in 30 years
Hot Days	7 days this year 16 days in 30 years	7 days this year 16 days in 30 years	7 days this year 16 days in 30 years
Number of Cooling Days (requiring AC)	158 days this year 167 days in 30 years	160 days this year 169 days in 30 years	161 days this year 170 days in 30 years

Source: Risk Factor[59]
Note: Health Caution Days = days where "feels like" temperature exceeds 90°F-100°F; Dangerous Days = days where "feels like" temperature exceeds 100°F; Hot Days = days where "feels like" temperature exceeds 104°F.

The planning area is a mixture of rural farmland and small to medium sized communities, which presents an added vulnerability to extreme temperature events. In rural areas those suffering from an extreme temperature event may be farther away from medical resources causing dangerous situations for the elderly and those with preexisting conditions. The following table provides information related to regional vulnerabilities. For jurisdictional-specific vulnerabilities, refer to *Section Eight*.

Regional Extreme Temperature Vulnerabilities

Sector	Vulnerability
People	-Heat exhaustion -Heat stroke Vulnerable populations include: -People working outdoors -People without air conditioning or heating -Young children outdoors or without air conditioning or heating -Elderly outdoors or without air conditioning or heating
Economic	-Short-term interruption of business -Loss of power -Agricultural and livestock losses
Built Environment	-Damage to air conditioning and heating systems if overworked -Frozen and broken pipes -Fuel congealed

59 Risk Factor. January 2024. "Risk Factor". https://riskfactor.com/.

Sector	Vulnerability
Community Lifelines	-Damages to roadways (prolonged extreme events) -Stressing electrical systems (brownouts during peak usage) -Loss of power

Jurisdictions Ranking Extreme Temperature as a Prioritized Hazard of Concern

The following lists jurisdictions and stakeholders which identified extreme temperatures as a prioritized hazard of concern.

- Village of Mead
- Mead Public Schools

Flooding

Flooding can occur on a local level, sometimes affecting only a few streets, but can also extend throughout a large area, affecting whole drainage basins and impacting property in multiple states. Heavy accumulations of ice or snow can also cause flooding during the melting and freezing stages. These events are complicated by the freeze/thaw cycles characterized by moisture thawing during the day and freezing at night. There are four main types of flooding in Nebraska: riverine flooding, flash flooding, stormwater flooding, and ice jam flooding.

Riverine Flooding

Riverine flooding, typically slower developing with a moderate to long warning time, is defined as the overflow of rivers, streams, drains, and lakes due to excessive rainfall, rapid snowmelt or ice melt. The areas adjacent to rivers and stream banks that carry excess floodwater are called floodplains. A floodplain or flood risk area is defined as the lowland and relatively flat area adjoining a river or stream. The terms “base flood” and “100-year floodplain” refer to the area in the floodplain that is subject to a one percent or greater chance of flooding in any given year. In some areas there may also be a “500-year floodplain” which refers to the area in the floodplain that is subject to a 0.2 percent chance of flooding in any given year. Floodplains are part of a larger entity called a basin or watershed, which is defined as all the land drained by a particular river and its tributaries.

Flash Flooding

Flash floods, typically rapidly developing with little to no warning time, result from convective precipitation usually due to intense thunderstorms or sudden releases due to a failure of an upstream impoundment created behind a dam, landslide, or levee. Flash floods are distinguished from regular floods by a timescale of fewer than six hours. Flash floods cause the most flood-related deaths because of this shorter timescale.

Stormwater Flooding

In some cases, flooding may not be directly attributable to a river, stream, or lake overflowing its banks. Rather, it may simply be the combination of excessive rainfall or snowmelt, saturated ground, and inadequate drainage capacity. With no place to go, the water will find the lowest elevations – areas that are often not in a floodplain. This type of flooding, often referred to as stormwater flooding, is becoming increasingly prevalent as development exceeds the capacity of drainage infrastructure, therefore limiting its ability to convey stormwater. Flooding also occurs due to combined storm and sanitary sewers being overwhelmed by the high flows that often accompany storm events. Typical impacts range from dangerously flooded roads to water backing up into homes or basements, which damages mechanical systems and can create serious public health and safety concerns.

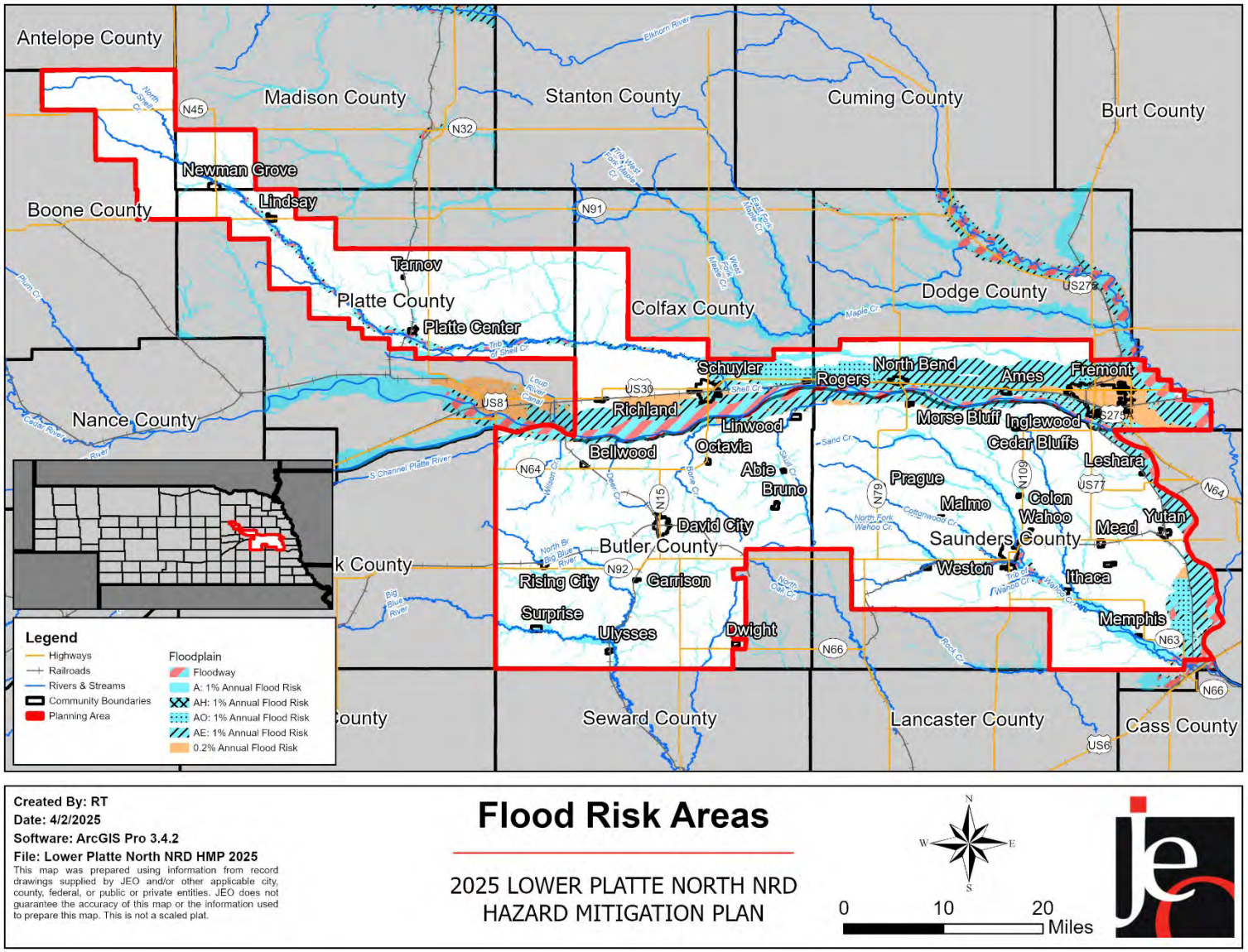
Ice Jam Flooding

Ice jams occur when ice breaks up in moving waterways, and then stacks on itself where channels narrow, or human-made obstructions constrict the channel. This creates an ice dam, often causing flooding within minutes of the dam formation. The thickness of this ice sheet depends upon the degree and duration of cold weather in the area. This ice sheet can freeze to the bottom of the channel in places. During spring thaw or winter freezing, rivers frequently become clogged with this accumulation of ice. Because of relatively low stream banks and channels blocked with ice, rivers overtop existing banks and flow overland. This type of flooding tends to frequently occur on wide, shallow rivers such as the Platte River, although other rivers can be impacted.

Location

Major waterways in the district include the Big Blue River, Elkhorn River, Loup River, North Fork Elkhorn River, and the Platte River. There are 82 creeks and tributaries within the planning area, which include Pebble Creek, Shell Creek, and Wahoo Creek which have a history of flooding. These rivers and creeks are potential locations for flooding to occur. Major lakes in the area include Homestead Lake in Skull Creek Township, Czechland Lake near Prague, Lake Wanahoo near Wahoo, Pioneer Lake near North Bend, Fremont Lakes, and Woodcliff Lakes. The table below shows current statuses of Flood Insurance Rate Map (FIRM) panels. The Flood Risk Areas – Planning Area figure below shows the mapped floodplain for the planning area. For jurisdictional-specific maps, please refer to *Section Eight*.

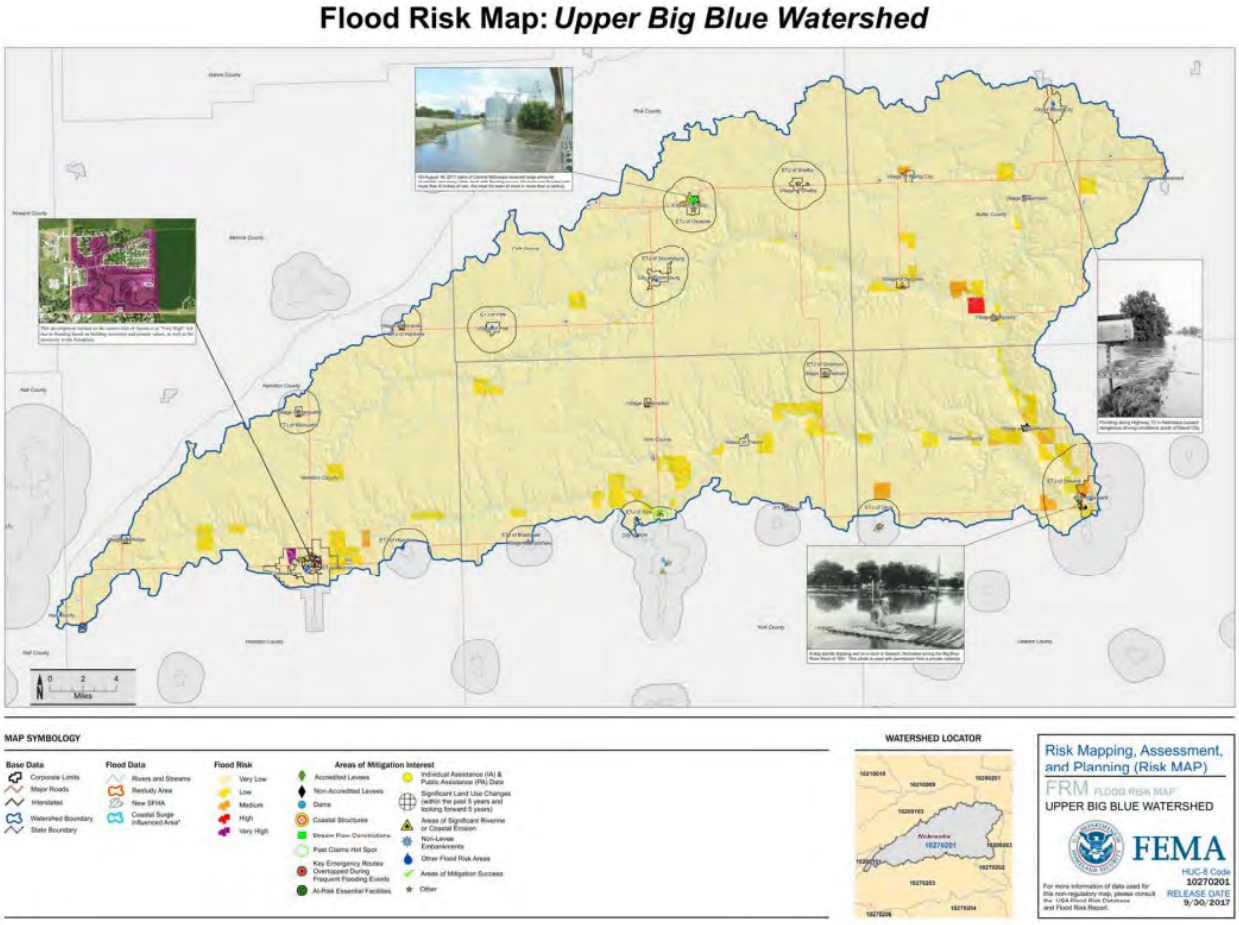
Flood Risk Areas



Risk MAP Products

Risk Mapping, Assessment, and Planning (Risk MAP) is a FEMA program that provides communities with flood information and additional flood risk data (e.g., flood depth grids, percent chance grids, areas of mitigation interest, etc.) that can be used to better protect their citizens. Portions of Butler County including David City, Village of Garrison, Village of Rising City, Village of Surprise, and Village of Ulysses have Risk MAP products available. NeDNR hosts the Risk MAP products on an interactive web map, which can be viewed on their webpage: https://dnr.nebraska.gov/floodplain.

Flood Risk Map – Upper Big Blue Watershed



Source: FEMA[60]

60 FEMA. September 2017. "Flood Risk Report: Upper Big Blue, 10270201". https://map1.msc.fema.gov/data/FRP/FRR_10270201_20170930.pdf?LOC=502abe4d7229f6c146635a23d3f18946.

Butler County – Estimated Potential Losses for Flood Event Scenarios

Type	Inventory Estimated Value	% of Total	10% (10-yr) Dollar Losses[1]	10% Loss Ratio[2]	2% (50-yr) Dollar Losses[1]	2% Loss Ratio[2]	1% (100-yr) Dollar Losses[1]	1% Loss Ratio[2]	0.2% (500-yr) Dollar Losses[1]	0.2% Loss Ratio[2]	Annualized Losses[1] ($/yr)	Ann. Loss Ratio[2]
Residential Building & Contents	$154,000,000	70%	$500,000	0%	$1,000,000	1%	$1,200,000	1%	$2,000,000	1%	$60,000	0%
Commercial Building & Contents	$23,800,000	11%	$200,000	1%	$300,000	1%	$400,000	1%	$500,000	2%	$30,000	0%
Other Building & Contents	$42,700,000	19%	$800,000	2%	$1,400,000	3%	$1,600,000	4%	$2,000,000	4%	$200,000	0%
Total Building & Contents[4]	$220,400,000	100%	$1,500,000	1%	$2,600,000	1%	$3,100,000	1%	$4,000,000	2%	$200,000	0%
Business Disruption[4]	N/A	N/A	$0	N/A	$0	N/A	$0	N/A	$0	N/A	$0	N/A
TOTAL[5]	**$220,400,000**		**$1,500,000**	**1%**	**$2,700,000**	**1%**	**$3,200,000**	**1%**	**$4,100,000**	**2%**	**$200,000**	**0%**

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

[1]Losses shown are rounded to nearest $10,000 for values under $100,000 and to the nearest $100,000 for values over $100,000.
[2]Loss ratio = Dollar Losses ÷ Estimated Value. Loss Ratios are rounded to the nearest integer percent.
[3]Total Building and Contents = Residential Building and Contents + Commercial Building and Contents + Other Building and Contents.
[4]Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.
[5]Total = Total Building and Contents + Business Disruption

The figures in this table only represent information within the Upper Big Blue Watershed.

Source: FEMA[61]

David City – Estimated Potential Losses for Flood Event Scenarios

Type	Inventory Estimated Value	% of Total	10% (10-yr) Dollar Losses[1]	10% Loss Ratio[2]	2% (50-yr) Dollar Losses[1]	2% Loss Ratio[2]	1% (100-yr) Dollar Losses[1]	1% Loss Ratio[2]	0.2% (500-yr) Dollar Losses[1]	0.2% Loss Ratio[2]	Annualized Losses[1] ($/yr)	Ann. Loss Ratio[2]
Residential Building & Contents	$308,200,000	61%	$80,000	0%	$200,000	0%	$200,000	0%	$300,000	0%	$20,000	0%
Commercial Building & Contents	$87,500,000	17%	$10,000	0%	$20,000	0%	$20,000	0%	$30,000	0%	$10,000	0%
Other Building & Contents	$113,700,000	22%	$10,000	0%	$20,000	0%	$20,000	0%	$30,000	0%	$10,000	0%
Total Building & Contents[3]	$509,400,000	100%	$90,000	0%	$200,000	0%	$300,000	0%	$400,000	0%	$20,000	0%
Business Disruption[4]	N/A	N/A	$0	N/A	$0	N/A	$0	N/A	$0	N/A	$0	N/A
TOTAL[5]	**$509,400,000**		**$90,000**	**0%**	**$200,000**	**0%**	**$300,000**	**0%**	**$400,000**	**0%**	**$20,000**	**0%**

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

[1]Losses shown are rounded to nearest $10,000 for values under $100,000 and to the nearest $100,000 for values over $100,000.
[2]Loss ratio = Dollar Losses ÷ Estimated Value. Loss Ratios are rounded to the nearest integer percent.
[3]Total Building and Contents = Residential Building and Contents + Commercial Building and Contents + Other Building and Contents.
[4]Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.
[5]Total = Total Building and Contents + Business Disruption

The figures in this table only represent information within the Upper Big Blue Watershed

Source: FEMA[62]

61 FEMA. September 2017. "Flood Risk Report: Upper Big Blue, 10270201". https://map1.msc.fema.gov/data/FRP/FRR_10270201_20170930.pdf?LOC=502abe4d7229f6c146635a23d3f18946.
62 FEMA. September 2017. "Flood Risk Report: Upper Big Blue, 10270201". https://map1.msc.fema.gov/data/FRP/FRR_10270201_20170930.pdf?LOC=502abe4d7229f6c146635a23d3f18946.

Village of Garrison – Estimated Potential Losses for Flood Event Scenarios

Type	Inventory Estimated Value	% of Total	10% (10-yr) Dollar Losses[1]	10% Loss Ratio[2]	2% (50-yr) Dollar Losses[1]	2% Loss Ratio[2]	1% (100-yr) Dollar Losses[1]	1% Loss Ratio[2]	0.2% (500-yr) Dollar Losses[1]	0.2% Loss Ratio[2]	Annualized Losses[1] ($/yr)	Ann. Loss Ratio[2]
Residential Building & Contents	$10,300,000	98%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Commercial Building & Contents	$200,000	2%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Other Building & Contents	$0	0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Building & Contents[3]	$10,500,000	100%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Business Disruption[4]	$0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TOTAL[5]	**$10,500,000**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

[1]Losses shown are rounded to nearest $10,000 for values under $100,000 and to the nearest $100,000 for values over $100,000.
[2]Loss ratio = Dollar Losses ÷ Estimated Value. Loss Ratios are rounded to the nearest integer percent.
[3]Total Building and Contents = Residential Building and Contents + Commercial Building and Contents + Other Building and Contents.
[4]Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.
[5]Total = Total Building and Contents + Business Disruption

The figures in this table only represent information within the Upper Big Blue Watershed.

Source: FEMA[63]

Village of Rising City – Estimated Potential Losses for Flood Event Scenarios

Type	Inventory Estimated Value	% of Total	10% (10-yr) Dollar Losses[1]	10% Loss Ratio[2]	2% (50-yr) Dollar Losses[1]	2% Loss Ratio[2]	1% (100-yr) Dollar Losses[1]	1% Loss Ratio[2]	0.2% (500-yr) Dollar Losses[1]	0.2% Loss Ratio[2]	Annualized Losses[1] ($/yr)	Ann. Loss Ratio[2]
Residential Building & Contents	$57,000,000	70%	$60,000	0%	$100,000	0%	$200,000	0%	$300,000	0%	$20,000	0%
Commercial Building & Contents	$5,800,000	7%	$0	0%	$0	0%	$0	0%	$0	0%	$0	0%
Other Building & Contents	$18,600,000	23%	$0	0%	$0	0%	$0	0%	$0	0%	$0	0%
Total Building & Contents[3]	$81,400,000	100%	$60,000	0%	$100,000	0%	$200,000	0%	$300,000	0%	$20,000	0%
Business Disruption[4]	$0	N/A	$0	N/A	$0	N/A	$0	N/A	$0	N/A	$0	N/A
TOTAL[5]	**$81,400,000**		**$60,000**	**0%**	**$100,000**	**0%**	**$200,000**	**0%**	**$300,000**	**0%**	**$20,000**	**0%**

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

[1]Losses shown are rounded to nearest $10,000 for values under $100,000 and to the nearest $100,000 for values over $100,000.
[2]Loss ratio = Dollar Losses ÷ Estimated Value. Loss Ratios are rounded to the nearest integer percent.
[3]Total Building and Contents = Residential Building and Contents + Commercial Building and Contents + Other Building and Contents.
[4]Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.
[5]Total = Total Building and Contents + Business Disruption

The figures in this table only represent information within the Upper Big Blue Watershed.

Source: FEMA[64]

63 FEMA. September 2017. "Flood Risk Report: Upper Big Blue, 10270201". https://map1.msc.fema.gov/data/FRP/FRR_10270201_20170930.pdf?LOC=502abe4d7229f6c146635a23d3f18946.
64 FEMA. September 2017. "Flood Risk Report: Upper Big Blue, 10270201". https://map1.msc.fema.gov/data/FRP/FRR_10270201_20170930.pdf?LOC=502abe4d7229f6c146635a23d3f18946.

Village of Surprise – Estimated Potential Losses for Flood Event Scenarios

Type	Inventory Estimated Value	% of Total	10% (10-yr) Dollar Losses[1]	10% Loss Ratio[2]	2% (50-yr) Dollar Losses[1]	2% Loss Ratio[2]	1% (100-yr) Dollar Losses[1]	1% Loss Ratio[2]	0.2% (500-yr) Dollar Losses[1]	0.2% Loss Ratio[2]	Annualized Losses[1] ($/yr)	Ann. Loss Ratio[2]
Residential Building & Contents	$7,800,000	69%	$60,000	0%	$200,000	3%	$300,000	3%	$500,000	6%	$20,000	0%
Commercial Building & Contents	$2,300,000	20%	$0	0%	$50,000	2%	$200,000	8%	$400,000	17%	$10,000	0%
Other Building & Contents	$1,200,000	11%	$0	0%	$20,000	1%	$60,000	5%	$200,000	14%	$10,000	0%
Total Building & Contents[3]	$11,300,000	100%	$60,000	0%	$300,000	3%	$500,000	4%	$1,000,000	9%	$20,000	0%
Business Disruption[4]	N/A	N/A	$0	N/A	$0	N/A	$0	N/A	$0	N/A	$0	N/A
TOTAL[5]	**$11,300,000**		**$60,000**	**0%**	**$300,000**	**3%**	**$500,000**	**4%**	**$1,000,000**	**9%**	**$20,000**	**0%**

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

[1]Losses shown are rounded to nearest $10,000 for values under $100,000 and to the nearest $100,000 for values over $100,000.
[2]Loss ratio = Dollar Losses ÷ Estimated Value. Loss Ratios are rounded to the nearest integer percent.
[3]Total Building and Contents = Residential Building and Contents + Commercial Building and Contents + Other Building and Contents.
[4]Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.
[5]Total = Total Building and Contents + Business Disruption

The figures in this table only represent information within the Upper Big Blue Watershed.

Source: FEMA[65]

Village of Ulysses – Estimated Potential Losses for Flood Event Scenarios

Type	Inventory Estimated Value	% of Total	10% (10-yr) Dollar Losses[1]	10% Loss Ratio[2]	2% (50-yr) Dollar Losses[1]	2% Loss Ratio[2]	1% (100-yr) Dollar Losses[1]	1% Loss Ratio[2]	0.2% (500-yr) Dollar Losses[1]	0.2% Loss Ratio[2]	Annualized Losses[1] ($/yr)	Ann. Loss Ratio[2]
Residential Building & Contents	$36,700,000	72%	N/A	N/A	$0	0%	$10,000	0%	$20,000	0%	$0	0%
Commercial Building & Contents	$3,700,000	7%	N/A	N/A	$0	0%	$10,000	0%	$40,000	1%	$0	0%
Other Building & Contents	$10,900,000	21%	N/A	N/A	$0	0%	$0	0%	$20,000	0%	$0	0%
Total Building & Contents[3]	$51,300,000	100%	N/A	N/A	$0	0%	$10,000	0%	$60,000	0%	$0	0%
Business Disruption[4]	N/A	N/A	N/A	N/A	$0	N/A	$0	N/A	$0	N/A	$0	N/A
TOTAL[5]	**$51,300,000**		**N/A**	**N/A**	**$0**	**0%**	**$10,000**	**0%**	**$60,000**	**0%**	**$0**	**0%**

Source: Hazus analysis results stored as the Flood Risk Assessment Dataset in the Flood Risk Database.

[1]Losses shown are rounded to nearest $10,000 for values under $100,000 and to the nearest $100,000 for values over $100,000.
[2]Loss ratio = Dollar Losses ÷ Estimated Value. Loss Ratios are rounded to the nearest integer percent.
[3]Total Building and Contents = Residential Building and Contents + Commercial Building and Contents + Other Building and Contents.
[4]Business Disruption = Inventory Loss + Relocation Cost + Income Loss + Rental Income Loss + Wage Loss + Direct Output Loss.
[5]Total = Total Building and Contents + Business Disruption

The figures in this table only represent information within the Upper Big Blue Watershed.

Source: FEMA[66]

Extent

The Federal Emergency Management Agency and state agencies such as the Nebraska Department of Natural Resources develop mapped floodplain maps which identify the areas at greatest risk to flooding in Nebraska. These maps are called Flood Insurance Rate Map (FIRM) panels. Most of the jurisdictions throughout the planning area also have FIRMs at the municipal level. The extent of flooding varies greatly by location in the planning area depending on identified flood risk hazard areas as identified by FEMA's Flood Insurance Rate Maps. Refer to community

65 FEMA. September 2017. "Flood Risk Report: Upper Big Blue, 10270201". https://map1.msc.fema.gov/data/FRP/FRR_10270201_20170930.pdf?LOC=502abe4d7229f6c146635a23d3f18946.
66 FEMA. September 2017. "Flood Risk Report: Upper Big Blue, 10270201". https://map1.msc.fema.gov/data/FRP/FRR_10270201_20170930.pdf?LOC=502abe4d7229f6c146635a23d3f18946.

specific FIRMs for extent of identified 1% or 0.2% annual flood chance. For jurisdictional-specific maps as well as an inventory of structures in the floodplain, refer to *Section Eight*.

FEMA FIRM Panel Status

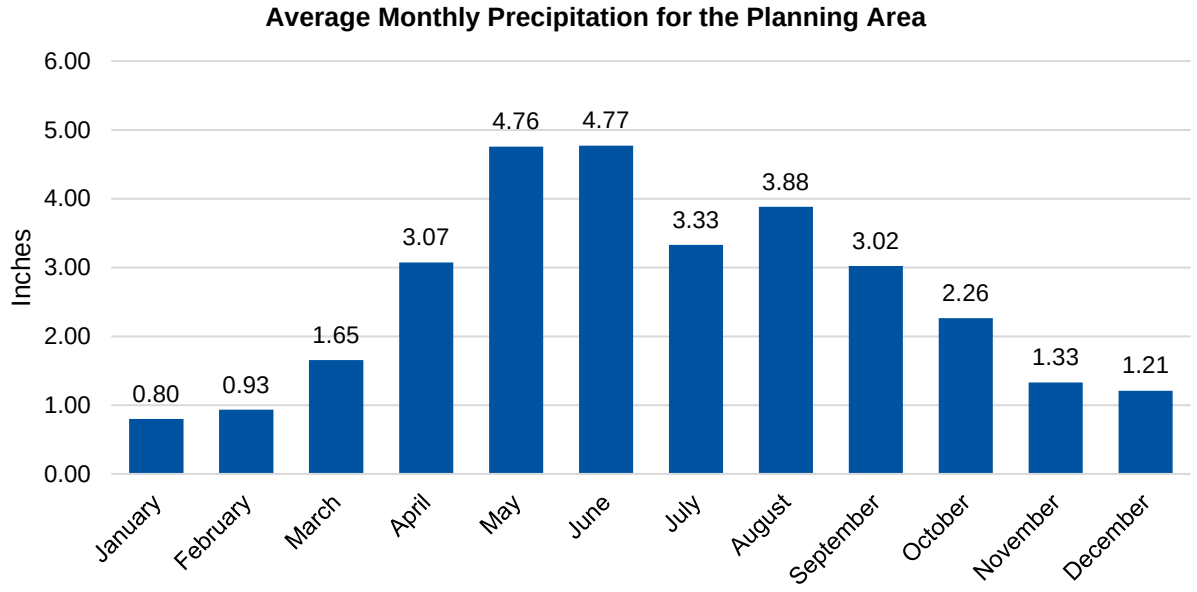
Jurisdiction	Panel Number	Effective Date
Butler County	31023C0015C, 31023C0020C,31023C0040C, 31023C0045C, 31023C0065C, 31023C0070C, 31023C0080C, 31023C0085C, 31023C0090C, 31023C0095C, 31023C0125C, 31023C0130C, 31023C0135C, 31023C0140C, 31023C0145C, 31023C0155C, 31023C0160C, 31023C0165C, 31023C0170C, 31023C0180C, 31023C0190C, 31023C0200C, 31023C0210C, 31023C0225C, 31023C0235C, 31023C0245C, 31023C0250C, 31023C0255C. 31023C0260C, 31023C0265C, 31023C0270C, 31023C0290C, 31023C0300C, 31023C0305C, 31023C0310C, 31023C0325C, 31023C0330C, 31023C0350C, 31023C0360C, 31023C0375C, 31023C0400C, 31023CIND0A	08/16/2011
Abie	31023CIND0A, 31023C0180C	08/16/2011
Bellwood	31023CIND0A, 31023C0130C	08/16/2011
Bruno	31023CIND0A, 31023C0190C	08/16/2011
David City	31023CIND0A, 31023C0145C, 31023C0165C, 31023C0235C, 31023C0255C	08/16/2011
Dwight	31023CIND0A, 31023C0360C	08/16/2011
Garrison	31023CIND0A, 31023C0245C	08/16/2011
Linwood	31023CIND0A, 31023C0090C, 31023C0095C	08/16/2011
Octavia	31023CIND0A, 31023C0155C, 31023C0160C	08/16/2011
Rising City	31023CIND0A, 31023C0210C	08/16/2011
Surprise	31023CIND0A, 31023C0305C, 31023C0310C	08/16/2011
Ulysses	31023CIND0A, 31023C0330C	08/16/2011
Dodge County	31053C0025E, 31053C0050E, 31053C0060E, 31053C0075E, 31053C0080E, 31053C0085E, 31053C0100E, 31053C0135E, 31053C0175E, 31053C0200E, 31053C0225E, 31053C0250E, 31053C0290E, 31053C0300E, 31053C0310E, 31053C0335E, 31053C0350E, 31053C0375E, 31053C0380E, 31053C0385E, 31053C0390E, 31053C0395E, 31053C0405E, 31053C0415E, 31053C0425E, 31053C0450E	01/02/2008
	31053C0125F, 31053C0150F, 31053C0275F	05/04/2009
	31053C0120G	03/03/2011
	31053CIND0D, 31053C0260G	04/17/2020
Fremont	31053CIND0D	04/17/2020

Jurisdiction	Panel Number	Effective Date
	31053C0380E, 31053C0385E, 31053C0390E, 31053C0395E, 31053C0405E, 31053C0415E, 31053C0425E	01/02/2008
Inglewood	31053C0395E, 31053C0415E	01/02/2008
	31053CIND0D	04/17/2020
North Bend	31053C0335E, 31053C0350E, 31053C0375E	01/02/2008
	31053CIND0D	04/17/2020
Saunders County	1155C0025D, 31155C0045D, 31155C0050D, 31155C0075D 31155C0090D, 31155C0100D, 31155C0125D, 31155C0150D, 31155C0155D, 31155C0160D, 31155C0165D, 31155C0170D, 31155C0200D, 31155C0235D, 31155C0250D, 31155C0275D, 31155C0300D, 31155C0325D, 31155C0400D, 31155C0425D, 31155C0450D, 31155C0475D, 31155C0500D, 31155C0525D, 31155C0535D, 31155C0545D, 31155C0550D, 31155C0555D, 31155C0565D, 31155C0575D	04/05/2010
	31155CIND0B, 31155C0225E, 31155C0335E, 31155C0350E, 31155C0355E, 31155C0375E	08/03/2016
Cedar Bluffs	31155C0075D, 31155C0090D	04/05/2010
	31155CIND0B	08/03/2016
Colon	31155C0200D	04/05/2010
	31155CIND0B, 31155C0225E	08/03/2016
Ithaca	31155CIND0B, 31155C0375E	08/03/2016
Leshara	31155C0235D, 31155C0250D	04/05/2010
	31155CIND0B	08/03/2016
Malmo	31155C0200D	04/05/2010
	31155CIND0B	08/03/2016
Mead	31155C0400D	04/05/2010
	31155CIND0B, 31155C0375E	08/03/2016
Memphis	31155C0535D, 31155C0550D	04/05/2010
	31155CIND0B	08/03/2016
Morse Bluff	31155C0045D	04/05/2010
	31155CIND0B	08/03/2016
Prague	31155C0155D, 31155C0160D, 31155C0165D, 31155C0170D	04/05/2010
	31155CIND0B	08/03/2016
Wahoo	31155CIND0B, 31155C0225E, 31155C0335E, 31155C0350E, 31155C0355E, 31155C0375E	08/03/2016
Weston	31155C0325D	04/05/2010

Jurisdiction	Panel Number	Effective Date
	31155CIND0B, 31155C0350E	08/03/2016
Yutan	31155C0250D, 31155C0275D, 31155C0400D, 31155C0425D	04/05/2010
	31155CIND0B	08/03/2016

Source: FEMA, 2024[67]

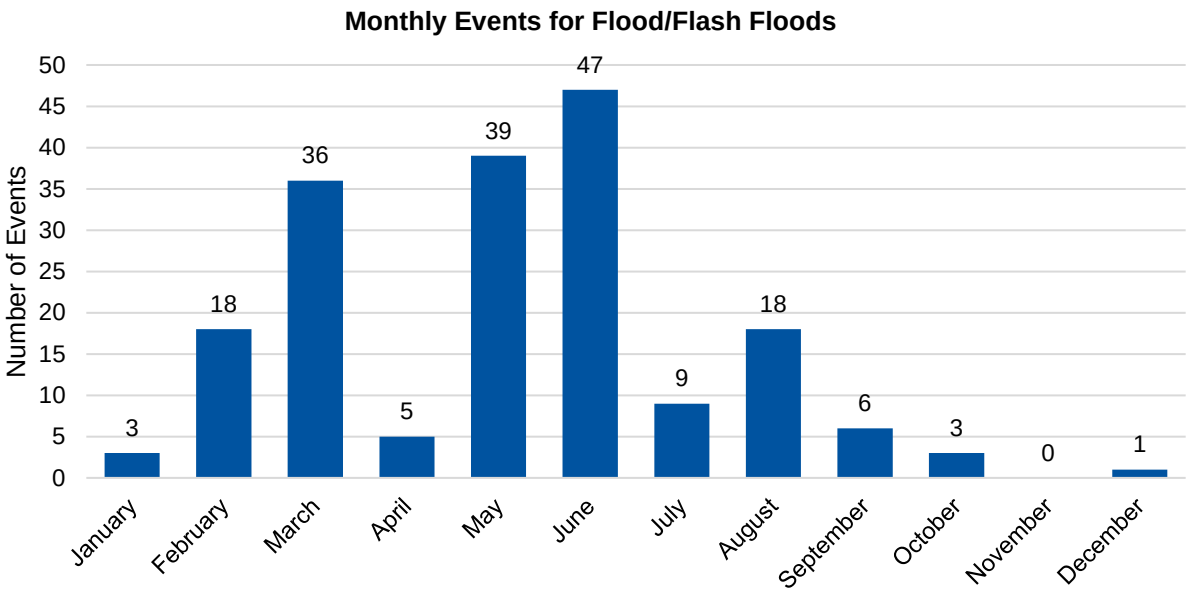
The figure below shows the normal average monthly precipitation for the planning area, which is helpful in determining whether any given month is above, below, or near normal in precipitation. The most common months for flooding in the planning area are in May, June, and August.



Source: NCEI, 1991-2020[68]

67 Federal Emergency Management Agency. February 2024. "FEMA Flood Map Service Center". http://msc.fema.gov/portal/advanceSearch.

68 NOAA National Centers for Environmental Information. 2023. "U.S. Climate Normals Quick Access". https://www.ncei.noaa.gov/access/us-climate-normals/.



Source: NCEI, 1996-December 2023[69]

Historical Occurrences

The NCEI reports flood events as they occur in each community. A single flood event can affect multiple communities and counties at a time; the NCEI reports these large scale, multi-county events as separate events. The result is a single flood event covering a large portion of the planning area could be reported by the NCEI as several events. According to the NCEI, 58 flash flood events resulted in $492,500 in property damage, while 127 riverine flood events resulted in $58,763,000 in property damage in the planning area from 1996 to December 2023. USDA RMA data does not distinguish the difference between riverine flood damage and flash flood damage. The total crop loss according to the RMA is $17,252,866.[70] Descriptions of the most damaging flood events from the NCEI and planning team are listed below.

- **August 4, 1996 – Flood:** Heavy rains dropped four to nine inches of rain in east central Nebraska, causing record flooding to the Pebble and Maple Creeks. Dodge reported a little more than 6 inches of rain. Extensive damage was done to the homes and businesses in Nickerson and Winslow. Major flooding occurred in Winslow, where all 40 homes and businesses reported flooding. One hundred and fifty residents were evacuated. County-wide, it was estimated that 100 homes were affected. Numerous roads were closed with damage to roads and bridges around $500,000. The cities of Nickerson and Winslow reported damage of $170,000. Damage to 50,000 acres of crops was estimated at $2.25 million for corn and $3 million for soybeans.[71]

- **June 10-21, 2010 – Flood, Flash Flood:** A warm front lifted northeast into eastern Nebraska during the morning hours of June 10th. This brought scattered heavy rain producing thunderstorms to the region. A few of the storms were severe with large hail

69 NOAA National Centers for Environmental Information. December 2023. “Storm Events Database”. https://www.ncdc.noaa.gov/stormevents/.
70 U.S. Department of Agriculture Risk Management Agency. 2023. "Cause of Loss Historical Data Files: 2000-2023." https://old.rma.usda.gov/en/Information-Tools/Summary-of-Business/Cause-of-Loss.
71 NOAA National Centers for Environmental Information. December 2023. “Storm Events Database”. https://www.ncdc.noaa.gov/stormevents/.

and damaging winds, but they generally dropped very heavy rainfall which began a two week or so period of heavy rain and flooding over much of eastern Nebraska and parts of southwest Iowa. Overall, the flooding damage in Nebraska alone in June was estimated to be at least $20 million to public property which not including private property or crop damage. The White House declared a federal disaster in 53 Nebraska counties for flooding in June.[72]

- **August 14, 2017- Flood, Flash Flood:** Heavy rainfall fell on August 15th through the 16th. The heaviest rains were focused over western Butler and Polk counties. A cooperative weather observer in David City measured 6.01 inches of rain for this event. This rain caused the Big Blue River and nearby tributaries to reach flood stage, which lasted until August 23rd. Many roads were flooded and closed for several days in the affected area. Highway 30 was flooded near Richland and Highway 15 had water over it in both Butler and Colfax counties. In total, three flash flood warnings were issued for this event and an estimated $250,000 in property damages were reported.

- **March 13-14, 2019 – Flood:** A bomb cyclone moved out of the central Rockies on Wednesday, March 13, 2019, and helped to create widespread, moderate to major, and in many cases historic, flooding across eastern Nebraska and western Iowa. From four to 15 inches of snow cover remained across the mid Missouri River Valley, and the ground was frozen with existing frost depths of 15 to 23 inches. Warm temperatures allowed all of the snow to rapidly melt, and record moisture allowed one to 2.5 inches of rain to fall over 48 hours. Due to the frozen ground, and one to two feet of thick ice remained in area rivers, widespread, and in many cases, catastrophic flooding developed. Due to expansive levee breaches on many rivers and streams, the flood damage was particularly devastating to many communities. Four individuals lost their lives due to the extreme conditions, and several hundred people required rescue via air or boat. Tens of thousands of people were evacuated from their homes or businesses. Nearly 50 levees were breached on the Platte, Elkhorn and Missouri rivers due to the large volume of water. One such levee breach along the Platte River near Leshara, Nebraska forced the evacuation of National Weather Service Omaha, located in Valley, Nebraska for eight days. Former Nebraska Governor Pete Ricketts presented $1.3 billion in preliminary damage estimates for the entire state. About 2,000 miles of state roads including 15 Nebraska state highway bridges and numerous local bridges, roughly 20% of the entire state road system were impacted.[73]

  Major highways throughout eastern Nebraska were closed either from being washed away or floodwaters impeding traffic. Dozens of communities were inundated, with some requiring full or partial evacuations. A levee along Shell Creek overtopped, and the Village of Rogers evacuated residents before floodwaters entered the community. Shortly after the March floods, Shell Creek flooded again in May, causing the southbound lane of Highway 81 to close. Additionally, Fremont was isolated from access due to flooded highways preventing people from entering and leaving. Multiple levee breaches in the planning area contributed to widespread economic loss as many properties and agricultural lands were destroyed. Hundreds of people in the state had to be rescued by air or boat, and tens of thousands had to evacuate their communities. Over 1,500 homes

72 NOAA National Centers for Environmental Information. December 2023. “Storm Events Database”. https://www.ncdc.noaa.gov/stormevents/.
73 NOAA National Centers for Environmental Information. December 2023. “Storm Events Database”. https://www.ncdc.noaa.gov/stormevents/.

and buildings were impacted, and 247 structures were red-tagged.[74] A StoryMap of the March 2019 floods from the Nebraska Department of Natural Resources describes the leading causes and impacts from this event can be found here: https://arcg.is/mCDb.[75]

- **May 20-21, 2024 – Flash Flood:** Numerous rounds of thunderstorms caused flash flooding in multiple areas. Many roads were under water in Fremont, Bruno, and near Skull Creek. Water levels at Lake Wanahoo reached several feet higher than levels during the March 2019 flooding event. In Leshara, 14 people needed to be rescued and many homes were damaged. In Wahoo, many buildings were flooded, and nearby fields and roads were washed out. Lake Wanahoo water levels reached several feet higher than levels during the March 2019 floods, nearing three feet from the edge of Highway 77/92. Many areas surrounding Lake Wanahoo were under water, including the Breakwater Trail which was designed to slow the flow of incoming water and sediment from flood events. LPNNRD has an agreement with Houston Engineering to repair damages at the Wanahoo Dam Stilling Basin and the Breakwater Trail. Despite the damage that did occur, it is estimated that NRD flood structures prevented $1.3 million dollars in downstream property and infrastructure damage in the planning area. A disaster declaration was issued due to this event.[76]

May 2024 flooding in Wahoo, NE



Source: KOLN

Average Annual Damages

The average damage per event estimate was determined based on the NCEI Storm Events Database since 1996 and the number of historical occurrences. This does not include losses from displacement, functional downtime, economic loss, injury, or loss of life. Floods caused a total of $59,255,500 in property damage and $5,736,483 in crop losses per year for the planning area.

Floods Loss Estimate

Hazard Type	Number of Events[1]	Average Events Per Year	Total Property Loss[1]	Average Annual Property Loss [1]	Total Crop Loss[2]	Average Annual Crop Loss[2]
Flooding	185	6.6	$59,255,500	$2,116,268	**$5,736,483**	$239,020

Source: 1 Indicates data is from NCEI (1996 to Dec 2023)[77]; 2 Indicates data is from USDA RMA (2000 to 2023)[78]

Historical Probability & Future Likelihood

The NCEI reports 58 flash floods and 127 riverine flood events for a total of 185 events from 1996 to December 2023. Some years had multiple flood events. The figure below shows the events

74 Nebraska Department of Natural Resources. 2022. "2022 Nebraska State Flood Hazard Mitigation Plan". https://dnr.nebraska.gov/sites/dnr.nebraska.gov/files/doc/floodplain/resources/2022_SFHMP_FINAL_20220630_Ver2.pdf.

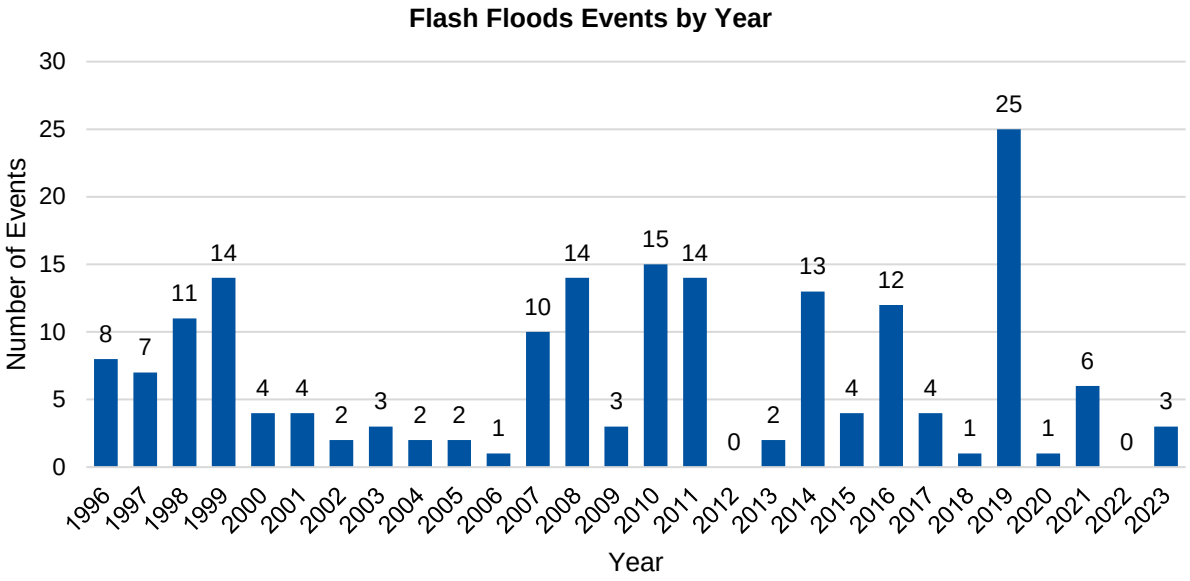
75 Nebraska Department of Natural Resources. March 2024. "Nebraska Flooding: March 2019." https://storymaps.arcgis.com/stories/9ce70c78f5a44813a326d20035cab95a.

76 Lower Platte North Natural Resources District. 2025. "Disaster Declaration for May's Significant Rainfall Event." *The Viaduct*. https://lpnnrd.org/wp-content/uploads/2025/01/2024-25-Viaduct-website.pdf.

77 NOAA National Centers for Environmental Information. December 2023. "Storm Events Database". https://www.ncdc.noaa.gov/stormevents/.

78 U.S. Department of Agriculture Risk Management Agency. 2023. "Cause of Loss Historical Data Files: 2000-2023." https://old.rma.usda.gov/en/Information-Tools/Summary-of-Business/Cause-of-Loss.

broken down by year. Based on the historic record, there is a 93 percent historical probability (26 out of the 28 years) that floods will occur annually in the planning area. Due to the anticipated impacts from changes in extreme weather and future development, the future likelihood of flooding events is highly likely.



Source: NCEI, 1996-Dec 2023

Historical Probability & Future Likelihood – Flooding

Historical Probability	Extreme Weather Changes Impact	Future Development Impact	Future Likelihood
93%	Increase in Frequency and Intensity	Increase in Frequency. Increase Exposure	**Very Likely**

Changing Extreme Weather

In the warmer months, convective storms are common and include flash flood-producing rainstorms. If temperatures continue to rise, more water vapor evaporates into the atmosphere, creating increased humidity, which can increase the frequency and intensity of these storms. An increase in heavy rain events will lead to more flooding and larger magnitude flood events. Changes will likely occur in timing and intensity. Winter and spring will be 15-25% wetter, summer will be 5-15% drier, and fall will be 5% wetter.[79] The U.S. Global Change Research Program has created the Climate Mapping for Resilience and Adaptation tool that looks at how different emission scenarios affect climatological hazards. The table below shows that the annual total precipitation is expected to increase in both low emissions and high emission scenarios. The Annual Days that Exceed 99th Precipitation table shows the annual number of days that exceed the 99th percentile precipitation increases as time goes on in both the lower emissions and higher emissions scenario.[80]

79 NCEI. 2022. "State Climate Summaries – Nebraska". https://statesummaries.ncics.org/chapter/ne/#:~:text=The%20state%20is%20located%20far,(1895%E2%80%932020)%20averag.

80 USGCRP. October 2024. "Climate Mapping for Resilience and Adaptation". https://livingatlas.arcgis.com/assessment-tool/explore/details.

Average Annual Total Precipitation

County	Emission Scenario	Historical (1976-2005)	Early Century (2015-2044)	Mid Century (2035-2064)	Late Century (2070-2099)
Butler	Lower Emissions (RCP 4.5)	26.9 Inches	28.6 Inches	28.7 Inches	28.9 Inches
	Higher Emissions (RCP 8.5)	29.1 Inches	28.3 Inches	28.9 Inches	29.4 Inches
Dodge	Lower Emissions (RCP 4.5)	28.3 Inches	30.0 Inches	30.1 Inches	30.3 Inches
	Higher Emissions (RCP 8.5)	30.3 Inches	29.7 Inches	30.3 Inches	30.9 Inches
Saunders	Lower Emissions (RCP 4.5)	30.3 Inches	30.4 Inches	27.7 Inches	30.4 Inches
	Higher Emissions (RCP 8.5)	30.0 Inches	30.4 Inches	27.8 Inches	30.9 Inches

Source: NOAA[81]

Annual Days that Exceed 99th Precipitation

County	Emission Scenario	Historical (1976-2005)	Early Century (2015-2044)	Mid Century (2035-2064)	Late Century (2070-2099)
Butler	Lower Emissions (RCP 4.5)	4.6 Days	5.6 Days	5.9 Days	6.2 Days
	Higher Emissions (RCP 8.5)	6.3 Days	5.6 Days	6.2 Days	6.9 Days
Dodge	Lower Emissions (RCP 4.5)	4.7 Days	5.4 Days	5.7 Days	6.0 Days
	Higher Emissions (RCP 8.5)	5.5 Days	5.5 Days	6.1 Days	6.6 Days
Saunders	Lower Emissions (RCP 4.5)	4.7 Days	5.6 Days	5.9 Days	6.1 Days
	Higher Emissions (RCP 8.5)	5.7 Days	5.6 Days	6.2 Days	6.6 Days

Source: USGCRP

Future Development

Any future building or development inside of the floodplain should be discouraged to protect future assets. Land-use regulations should be used to limit development in floodplains and other flood prone areas as well as protecting natural flood mitigation features. Buyout programs can be used to eliminate properties located in floodplains, especially properties that have experienced repetitive losses. Communities may also consider incorporating "green infrastructure" to address flooding concerns. Examples of green infrastructure include using permeable surfaces for parking

81 USGCRP. October 2024. "Climate Mapping for Resilience and Adaptation". https://livingatlas.arcgis.com/assessment-tool/explore/details.

areas, using rainwater retention swales, developing rain gardens, developing green roofs, and establishing greenways. To further reduce future risk to floods, communities can implement stormwater management plans, participate in the National Pollutant Discharge Elimination System program, or participate in the National Flood Insurance Program (NFIP) or Community Rating System (CRS).

Nebraska's minimum standards for floodplain management require that all new construction and substantial improvements of residential structures shall have the lowest floor (including basements) elevated at least one foot above the base flood elevation. Nebraska standards also prohibit new structures for human habitation in the floodway.[82] These requirements will help reduce flood impacts and damages by requiring a one foot "freeboard" to allow for known flood hazards and result in lower premiums for those participating in the NFIP.

Regional Vulnerabilities

An updated national study examining social vulnerability as it relates to flood events found that low-income and minority populations are disproportionately vulnerable to flood events.[83] These groups may lack the necessary resources needed to mitigate potential flood events as well as resources that are necessary for evacuation and response. In addition, low-income residents are more likely to live in areas vulnerable to the threat of flooding but lack the resources necessary to purchase flood insurance. The study found that flash floods are more often responsible for a higher rate of injuries and fatalities than prolonged flood events.

Other groups that may be more vulnerable to floods, specifically flash floods, include the elderly, those outdoors during rain events, and those in low-lying areas. Elderly residents may suffer from a decrease or complete lack of mobility and as a result, be caught in flood-prone areas. Residents in campgrounds or public parks may be more vulnerable to flooding events. Many of these areas exist in natural floodplains and can experience rapid rise in water levels resulting in injury or death.

GIS parcel data was acquired from each County Assessor and Microsoft building footprint data to analyze the location, number, and value of buildings located in the 100-year and 500-year floodplains. A summary of the results of this analysis is provided in the following tables. Note: Some parcels may be in both the 100-year and 500-year floodplains and are included in both tables.

Exposure in the 100-Year Floodplain (1% Annual Flood Risk Area)

Jurisdiction	Number of Buildings	Total Value of Buildings	Percentage of Buildings
Butler County	791	$68,059,495	7.2%
Abie	1	$28,250	1.1%
Bellwood	1	$ 281,145	0.4%
Bruno	27	$2,951,615	21.3%
David City	6	$407,435	0.4%

82 Nebraska Department of Natural Resources. June 27, 2008. "Rules and regulations Concerning Minimum Standards for Floodplain Management Programs". https://dnr.nebraska.gov/sites/dnr.nebraska.gov/files/doc/desk-reference/legal-authority/Title_455_0708.pdf.

83 Tate, E., Rahman, M.A., Emrich, C.T. et al. Flood exposure and social vulnerability in the United States. Nat Hazards (2021). https://doi.org/10.1007/s11069-020-04470-2.

Jurisdiction	Number of Buildings	Total Value of Buildings	Percentage of Buildings
Dwight	0	$0	0%
Garrison	0	$0	0%
Linwood	0	$0	0%
Octavia	0	$0	0%
Rising City	28	$2,963,975	10.3%
Surprise	35	$1,269,505	63.6%
Ulysses	0	$0	0%
Dodge County	5,149	$1,015,427,925	22.7%
Fremont	1,518	$425,377,724	14.6%
Inglewood	179	$23,075,287	100%
North Bend	703	$73,565,975	100%
Saunders County	1,642	$355,445,689	8.3%
Cedar Bluffs	10	$977,224	3.0%
Colon	22	$2,763,044	20.2%
Ithaca	32	$2,053,417	32%
Leshara	16	$1,050,983	20.3%
Malmo	0	$0	0%
Mead	0	$0	0%
Memphis	12	$574,470	18.2%
Morse Bluff	4	$233,205	3.7%
Prague	1	$126,235	0.4%
Wahoo	80	$9,400,932	3.8%
Weston	9	$440,869	4.2%
Yutan	12	$237,511	2.1%

County Assessor, 2024; Microsoft, 2024

Exposure in the 500-Year (0.2% Annual Flood Risk Area)

Jurisdiction	Number of Structures	Total Value of Structures	Percentage of Structures
Butler County	72	$6,174,565	0.7%
Abie	0	$0	0%
Bellwood	0	$0	0%
Bruno	0	$0	0%
David City	0	$0	0%
Dwight	0	$0	0%
Garrison	0	$0	0%

Jurisdiction	Number of Structures	Total Value of Structures	Percentage of Structures
Linwood	0	$0	0%
Octavia	0	$0	0%
Rising City	0	$0	0%
Surprise	0	$0	0%
Ulysses	0	$0	0%
Dodge County	10,635	$2,345,768,414	46.9%
Fremont	8,889	$1,980,096,376	85.6%
Inglewood	0	$0	0%
North Bend	0	$0	0%
Saunders County	171	$40,421,868	0.9%
Cedar Bluffs	0	$0	0%
Colon	0	$0	0%
Ithaca	0	$0	0%
Leshara	0	$0	0%
Malmo	0	$0	0%
Mead	0	$0	0%
Memphis	0	$0	0%
Morse Bluff	0	$0	0%
Prague	5	$662,276	2.2%
Wahoo	36	$2,959,857	1.7%
Weston	0	$0	0%
Yutan	21	$2,960,636	3.7%

County Assessor, 2024; Microsoft, 2024

For additional flooding risk information see the *2022 Nebraska State Flood Hazard Mitigation Plan*.[84] The following table is a summary of regional vulnerabilities. For additional jurisdictional-specific flood vulnerabilities, refer to *Section Eight*.

Regional Flooding Vulnerabilities

Sector	Vulnerability
People	-Low income and minority populations may lack the resources needed for evacuation, response, or to mitigate the potential for flooding -Elderly or residents with decreased mobility may have trouble evacuating -Residents in low-lying areas, especially campgrounds, are vulnerable during flash flood events

84 Nebraska Department of Natural Resources. 2022. "2022 Nebraska State Flood Hazard Mitigation Plan". https://dnr.nebraska.gov/sites/dnr.nebraska.gov/files/doc/floodplain/resources/2022_SFHMP_FINAL_20220630_Ver2.pdf.

Sector	Vulnerability
	-Residents living in the floodplain may need to evacuate for extended periods -Butler County: LEOP estimates 40% of people reside within the one percent annual chance floodplain -Dodge County: LEOP estimates 40% of people reside within the one percent annual chance floodplain -Saunders County: LEOP estimates 8% of people reside within the one percent annual chance floodplain
Economic	-Business closures or damages may have significant impacts -Agricultural losses from flooded fields or cattle loss -Closed roads and railways would impact commercial transportation of goods
Built Environment	-Buildings may be damaged
Community Lifelines	-Damages to roadways, bridges, and railways -Wastewater facilities are at risk, particularly those in the floodplain -Community Lifelines, especially those in the floodplain, are at risk of damage (specific community lifelines located in the floodplain are noted within individual community profiles)

National Flood Insurance Program (NFIP)

The NFIP was established in 1968 to reduce flood losses and disaster relief costs by guiding future development away from flood hazard areas where feasible; by requiring flood resistant design and construction practices; and by transferring the costs of flood losses to the owners of structures located in floodplains through flood insurance premiums.

In return for availability of federally backed flood insurance, jurisdictions participating in the NFIP must agree to adopt and enforce floodplain management standards to regulate development in special flood hazard areas as defined by FEMA's flood maps. One of the strengths of the program has been keeping people away from flooding rather than keeping the flooding away from people, through historically expensive flood control projects. The following tables summarize NFIP participation and active policies within the county. Additional information about NFIP participation, implementation, and enforcement can be found in *Section Eight*.

NFIP Participation

Jurisdiction	Participate in NFIP	Eligible-Regular Program	Date Current Map	Sanction	Suspension	Rescinded
Butler County	Yes	08/16/2011	08/16/2011	-	-	-
Abie	No	-	08/16/2011	08/16/2012	-	-
Bellwood	Yes	08/16/2011	08/16/2011(M)	-	-	-
Bruno	Yes	01/01/1987	08/16/2011(M)	-	-	-
David City	Yes	08/24/2012	08/16/2011(M)	-	-	-
*Dwight	No	-	08/16/2011	-	-	-
*Garrison	No	-	08/16/2011	-	-	-
Linwood	Yes	01/01/1987	08/16/2011(M)	-	-	-
*Octavia	No	-	08/16/2011	-	-	-

Jurisdiction	Participate in NFIP	Eligible-Regular Program	Date Current Map	Sanction	Suspension	Rescinded
Rising City	Yes	02/28/2012	08/16/2011(M)	-	-	-
Surprise	Yes	08/16/2011	08/16/2011(M)	-	-	-
Ulysses	Yes	10/31/1983	08/16/2011(M)	-	-	-
Dodge County	Yes	08/17/1981	04/17/2020	-	-	-
Fremont CRS Entry Date: 10//01/1991 CRS Current Class: 8	Yes	02/01/1979	01/02/2008	-	-	-
Inglewood	Yes	05/04/2007	01/02/2008	-	-	-
North Bend	Yes	03/18/1980	01/02/2008	-	-	-
Saunders County	Yes	12/01/1978	08/03/2016	-	-	-
Cedar Bluffs	Yes	09/24/1984	04/05/2010	-	-	-
Colon	Yes	09/21/2010	08/03/2016	-	-	-
Ithaca	Yes	05/01/1987	08/03/2016	-	-	-
Leshara	Yes	04/05/2010	04/05/2010	-	-	-
Malmo	Yes	09/04/1986	04/05/2010(M)	-	-	-
Mead	Yes	09/24/1984	08/03/2016	-	-	-
Memphis	No	-	04/05/2010	04/05/2011	-	-
Morse Bluff	No	-	04/05/2010	04/05/2011	-	-
Prague	Yes	12/29/2000	04/05/2010	-	-	-
Wahoo	Yes	12/01/1977	08/03/2016	-	-	-
Weston	Yes	07/03/1985	08/03/2016	-	-	-
Yutan	Yes	04/04/1983	04/05/2010	-	-	-

Source: Federal Emergency Management Agency, National Flood Insurance Program[85]
Note: (M) is "No Elevation Determined - All Zone A, C and X"
**No Special Flood Hazard Areas identified*

NFIP Policies in Force and Total Payments

Jurisdiction	Policies In-force	Total Coverage	Total Losses	Total Payments
Butler County	19	$2,991,000	3	$83,688
Abie	N/A	N/A	N/A	N/A
Bellwood	N/A	N/A	N/A	N/A
Bruno	1	$85,000	0	$0

85 Federal Emergency Management Agency. February 2024. "Community Status Book Report". https://www.fema.gov/cis/NE.html.

Jurisdiction	Policies In-force	Total Coverage	Total Losses	Total Payments
David City	N/A	N/A	N/A	N/A
Dwight	N/A	N/A	N/A	N/A
Garrison	N/A	N/A	N/A	N/A
Linwood	0	$0	4	$4,433
Octavia	N/A	N/A	N/A	N/A
Rising City	3	$382,000	0	$0
Surprise	N/A	N/A	N/A	N/A
Ulysses	N/A	N/A	N/A	N/A
Dodge County	87	$17,716,000	151	$1,724,487
Fremont	650	$137,420,000	529	$7,693,830
Inglewood	28	$4,010,000	19	$355,056
North Bend	166	$27,802,000	85	$1,058,845
Saunders County	342	$97,109,000	207	$3,882,316
Cedar Bluffs	1	$140,000	8	$6,326
Colon	3	$690,000	0	$0
Ithaca	5	$580,000	0	$0
Leshara	4	$742,000	0	$0
Malmo	N/A	N/A	N/A	N/A
Mead	N/A	N/A	N/A	N/A
Memphis	N/A	N/A	N/A	N/A
Morse Bluff	N/A	N/A	N/A	N/A
Prague	N/A	N/A	N/A	N/A
Wahoo	4	$1,515,000	3	$3,600
Weston	N/A	N/A	N/A	N/A
Yutan	2	$850,000	0	$0

Source: FEMA - 2024

It should be noted that while the number of policies in force may change monthly and annually as representatives enroll, maintain, or lapse policies, the total number of losses and payments are cumulative over time.

This plan strongly encourages the county and all communities to participate in the NFIP. All participating counties and communities have confirmed that they will remain in good standing and continue involvement with the NFIP. Compliance with the NFIP should remain a top priority for each participant. Jurisdictions are encouraged to initiate activities above the minimum participation requirements, which are described in the Community Rating System Coordinator's Manual (FIA-15/2017) and its 2021 Addendum. The City of Fremont is the only community in the planning area participating in the CRS Program and is a Class 8.

NFIP Repetitive Loss Structures

NeDNR, and NEMA were contacted to determine if any existing properties are classified as NFIP Repetitive Loss Structures. Note there are two definitions for repetitive loss structures. Severe repetitive loss is a grant definition for HMA purposes that has specific criteria while repetitive loss is a general NFIP definition. There are 78 repetitive loss properties, and seven severe repetitive loss properties located in the planning area as of 2025. Only jurisdictions with reported properties are included in the following table.

Repetitive Loss Structures

Jurisdiction	Repetitive Loss Structures	Repetitive Loss Structure Type	Severe Repetitive Loss Structures	Severe Repetitive Loss Structure Types	Total Losses	Total Payments
Dodge County	15	Single Family	1	Single Family	36	$519,143
Fremont	1	Residential Mobile	4	Single Family	92	$1,615,767
	29	Single Family				
Newman Grove	1	Single Family	0	-	2	$5,930
Platte Center	1	Single Family	0	-	2	$14,064
Saunders County	13	Single Family	1	Single Family	36	$899,072
	0	-	1	Other – Non Residential		
Schuyler	13	Single Family	0	-	36	$367,185
	4	Other – Non Residential				
	1	Business				

Source: NEMA, 2025

NFIP RL: Repetitive Loss Structure refers to a structure covered by a contract for flood insurance under the NFIP that has incurred flood-related damage on two occasions during a 10-year period, each resulting in at least a $1,000 claim payment.

NFIP SRL: Severe Repetitive Loss Properties are defined as single or multifamily residential properties that are covered under an NFIP flood insurance policy and:

(1) That have incurred flood-related damage for which four or more separate claims payments have been made, with the amount of each claim (including building and contents payments) exceeding $5,000, and with the cumulative amount of such claim payments exceeding $20,000; or

(2) For which at least two separate claims payments (building payments only) have been made under such coverage, with cumulative amount of such claims exceeding the market value of the building.

(3) In both instances, at least two of the claims must be within 10 years of each other, and claims made within 10 days of each other will be counted as one claim.

HMA RL: A repetitive loss property is a structure covered by a contract for flood insurance made available under the NFIP that:

(1) Has incurred flood-related damage on two occasions, in which the cost of the repair, on the average, equaled or exceeded 25 percent of the market value of the structure at the time of each such food event; and

(2) At the time of the second incidence of flood-related damage, the contract for flood insurance contains Increased Cost of Compliance Coverage.

HMA SRL: A severe repetitive loss property is a structure that:

(1) Is covered under a contract for flood insurance made available under the NFIP.

(2) Has incurred flood related damage –

(a) For which four or more separate claims payments (includes building and contents) have been made under flood insurance coverage with the amount of each such claim exceeding $5,000, and with the cumulative amount of such claim payments exceeding $20,000; or

(b) For which at least two separate claims payments (including only building) have been made under such coverage, with the cumulative amount of such claims exceeding the market value of the insured structure.

Jurisdictions Ranking Flooding as a Prioritized Hazard of Concern

The following lists jurisdictions and stakeholders which identified flooding as a prioritized hazard of concern.

- Ames Diking and Drainage District
- Butler County
- City of Fremont
- City of North Bend
- City of Wahoo
- City of Yutan
- Colon Volunteer Fire District
- Cotterel Diking and Drainage District
- David City
- David City Public Schools
- Dodge County
- Lake Ventura SID #3
- Lower Platte North NRD
- Mead Public Schools
- Morse Bluff Township
- North Bend Central Public Schools
- North Bend Drainage District
- North Bend Volunteer Fire Department
- Platte Township
- Platte Valley Drainage District
- Pohocco Township
- Reading Township
- Rising City Rural Fire Department
- Saunders County
- Schuyler Volunteer Fire Department
- Skull Creek Township
- Three Rivers Public Health Department
- Village of Bruno
- Village of Cedar Bluffs
- Village of Colon
- Village of Inglewood
- Village of Leshara

- Village of Lindsay
- Village of Linwood
- Village of Morse Bluff
- Village of Platte Center
- Village of Prague
- Village of Rogers
- Village of Surprise
- Village of Ulysses
- Ulysses Township
- Union Township
- Weston Volunteer Fire and Rescue
- Woodcliff Lakes SID #8

Grass/Wildfire

Wildfires, also known as grassfires, brushfires, forest fires, or wildland fires, are any uncontrolled fire that occurs in the countryside, agricultural fields, or wildland. Wildland areas may include but are not limited to grasslands, forests, woodlands, pastures, and other vegetated areas. Wildfires range in size from a few acres (the most common) to thousands of acres. Fire events can quickly spread from their original source, change direction, and jump gaps such as roads, rivers, and fire breaks. Wildfire behavior is particularly dependent on the local conditions including temperature, humidity, wind speed, wind direction, slope, topography, and available fuel load. While some wildfires burn in remote forested regions, others can cause extensive destruction of homes and other structures located in the wildland-urban interface (WUI), the zone of transition between developed areas and undeveloped land. Although fire is a natural and often beneficial process, fire suppression can lead to more severe fires due to the buildup of vegetation, which creates more fuel and increases the intensity and devastation of future fires.

Fire Protection

There are 24 local fire districts identified in the planning area. The following is a list of the fire districts and the figure on the next page shows their district boundaries.

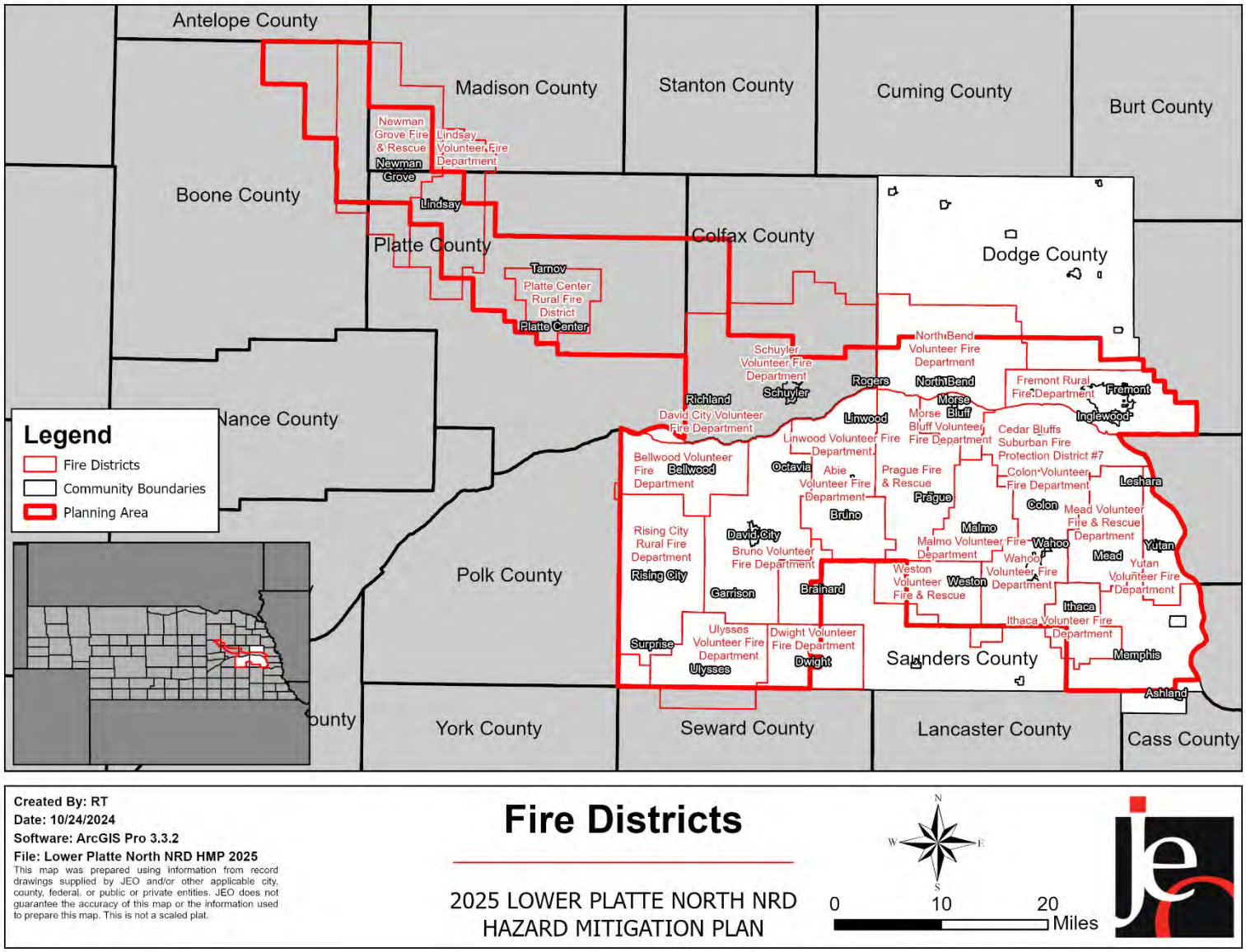
- Abie Volunteer Fire Department
- Bellwood Volunteer Fire Department
- Bruno Volunteer Fire Department
- Cedar Bluffs Suburban Fire Protection District #7
- Colon Volunteer Fire District
- David City Volunteer Fire Department
- Dwight Volunteer Fire Department
- Fremont Rural Fire Department
- Ithaca Volunteer Fire Department
- Lindsay Fire & Rescue
- Linwood Volunteer Fire Department
- Malmo Volunteer Fire Department
- Mead Volunteer Fire & Rescue Department
- Morse Bluff Volunteer Fire Department
- Newman Grove Fire & Rescue
- North Bend Volunteer Fire Department
- Platte Center Rural Fire District
- Prague Fire & Rescue
- Rising City Rural Fire Department
- Schuyler Volunteer Fire Department
- Ulysses Volunteer Fire Department
- Wahoo Volunteer Fire Department
- Weston Volunteer Fire & Rescue
- Yutan Volunteer Fire Department

Community Wildfire Protection Plans

Even though grass/wildfire is a natural part of the ecosystem, it can present a substantial hazard to life and property, especially in the WUI. The planning area is covered by two Community Wildfire Protection Plans (CWPPs): the 2022 Missouri River East CWPP and the 2020 Southeast Nebraska CWPP.[86] The purpose of the CWPPs is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPPs discuss county-specific historical wildfire occurrences and impacts, identify areas most at risk from wildfires, discuss protection capabilities, and identify wildfire mitigation strategies.

86 Nebraska Forest Service. 2024. “Community Wildfire Protection Plans.” https://nfs.unl.edu/Nebraska-community-wildfire-protection-plan/.

Fire Districts in the Planning Area



Firewise USA

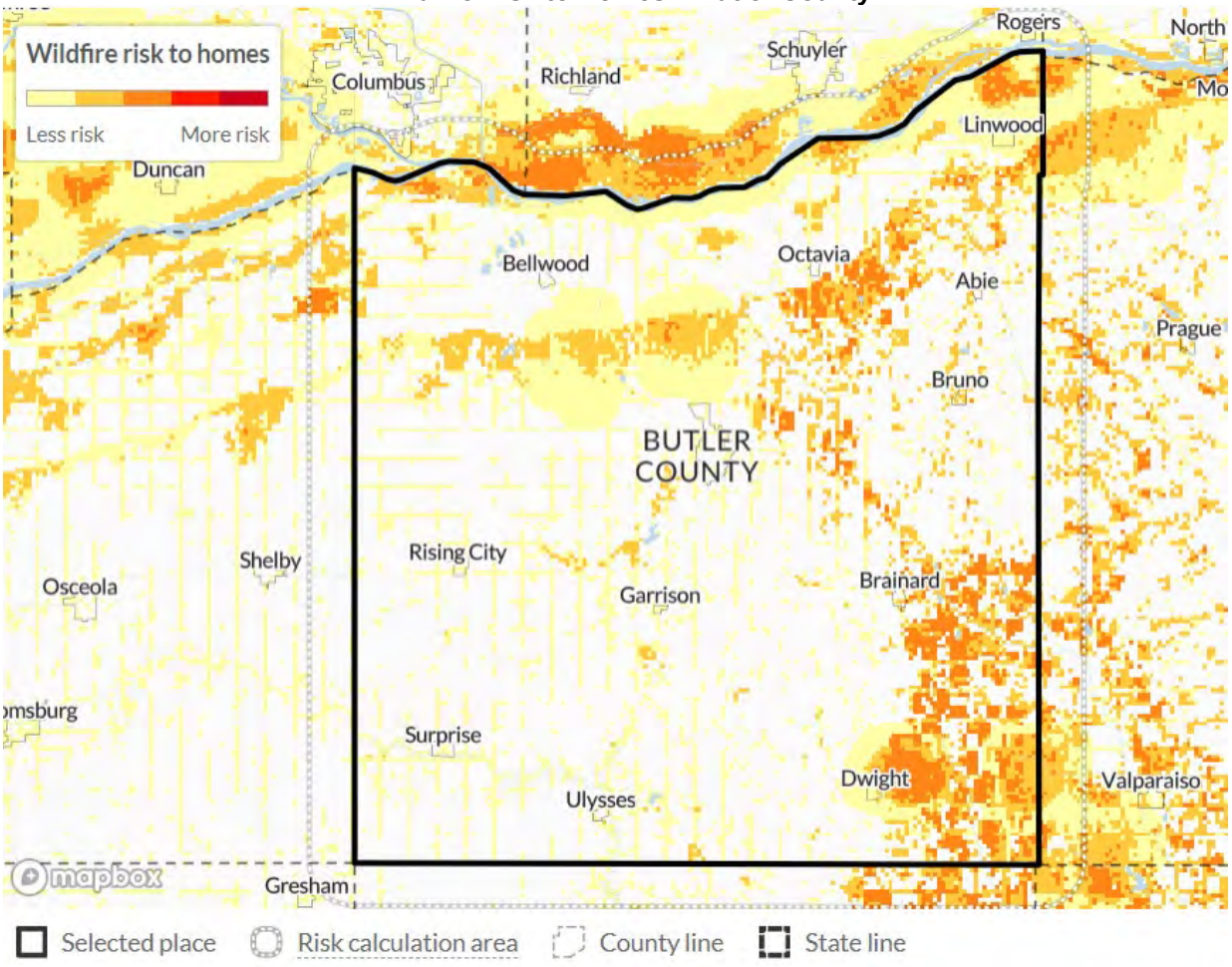
Firewise USA is a national recognition program that provides resources to inform communities how to adapt to living with wildfire and encourages neighbors to take action together to reduce their wildfire risk. There are no Firewise USA sites in the planning area.[87]

Location

Wildfires can occur throughout the planning area. The United States Department of Agriculture and United States Forest Service created the interactive web resource *Wildfire Risk to Communities* to help communities and jurisdictions understand, explore, and reduce wildfire risk. The following figures show wildfire risk to homes by county in the planning area.

The figure below shows the greatest wildfire risk to homes is located primarily along the Platte River and in densely vegetated areas in the southeast of Butler County. According to *Wildfire Risk to Communities*, Butler County has medium risk of wildfire – higher than 50% of counties in the United States.

Wildfire Risk to Homes – Butler County



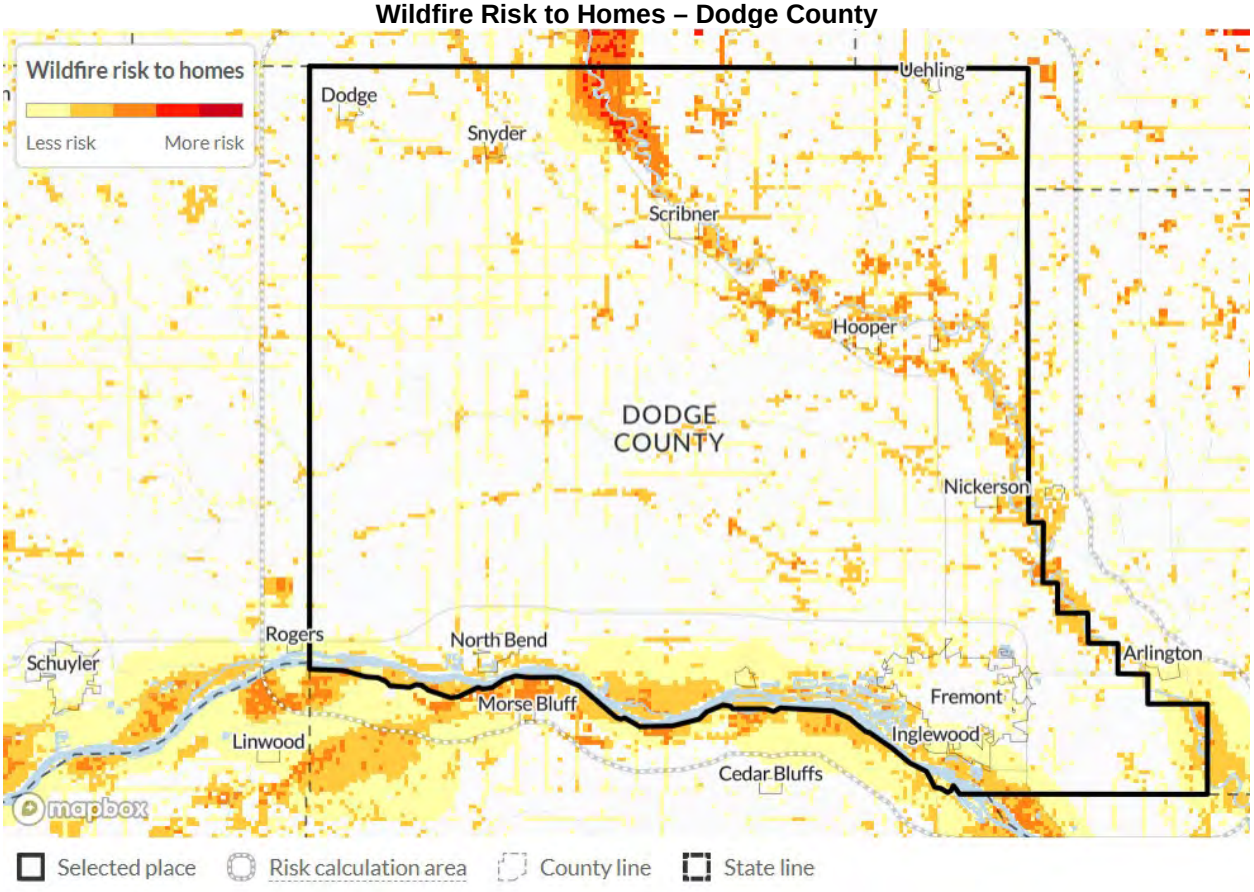
Source: Wildfire Risk to Communities[88]

87 National Fire Protection Association. July 2024. "Firewise USA Sites". https://www.nfpa.org/education-and-research/wildfire/firewise-usa/firewise-usa-sites.

88 USDA & US Forest Service. July 2024. "Wildfire Risk to Communities. https://wildfirerisk.org/.

The figure below shows the greatest wildfire risk to homes is located primarily from the north to southeast of Dodge County along the Elkhorn River and to the south along the Platte River. According to *Wildfire Risk to Communities*, Dodge County has a medium risk of wildfire – higher than 44% of counties in the United States.

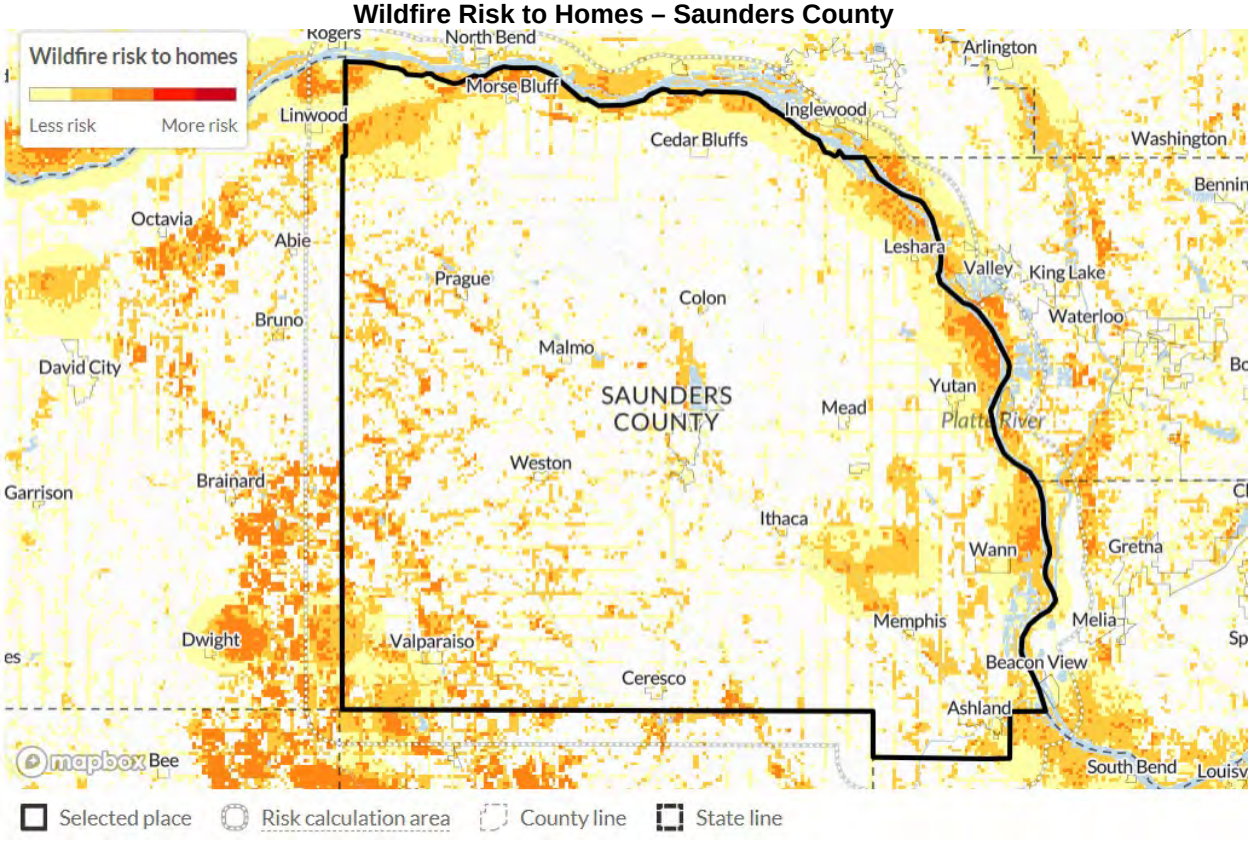
Wildfire Risk to Homes – Dodge County



Source: Wildfire Risk to Communities

The figure below shows the greatest wildfire risk to homes is primarily along the Platte River along the east of Saunders County and in the southwest. According to *Wildfire Risk to Communities*, Saunders County has medium risk of wildfire – higher than 48% of counties in the United States.

Wildfire Risk to Homes – Saunders County



Source: Wildfire Risk to Communities

Wildland-Urban Interface

In recent decades, as the population of the United States has become more decentralized and residents have moved farther away from the center of villages and cities, the areas known as the WUI has developed significantly. The WUI is defined as the zone of transition between developed areas and undeveloped land, where structures and other human development meet wildland. The expansion of the WUI increases the likelihood that wildfires will threaten people and homes, making it the focus of most wildfire mitigation efforts.

According to the 2022 Missouri River East CWPP and the 2020 Southeast Nebraska CWPP, the entire three-county planning area has been designated as WUI. This is because intense fire behavior can start in rural areas, move quickly over large areas, and threaten population centers.

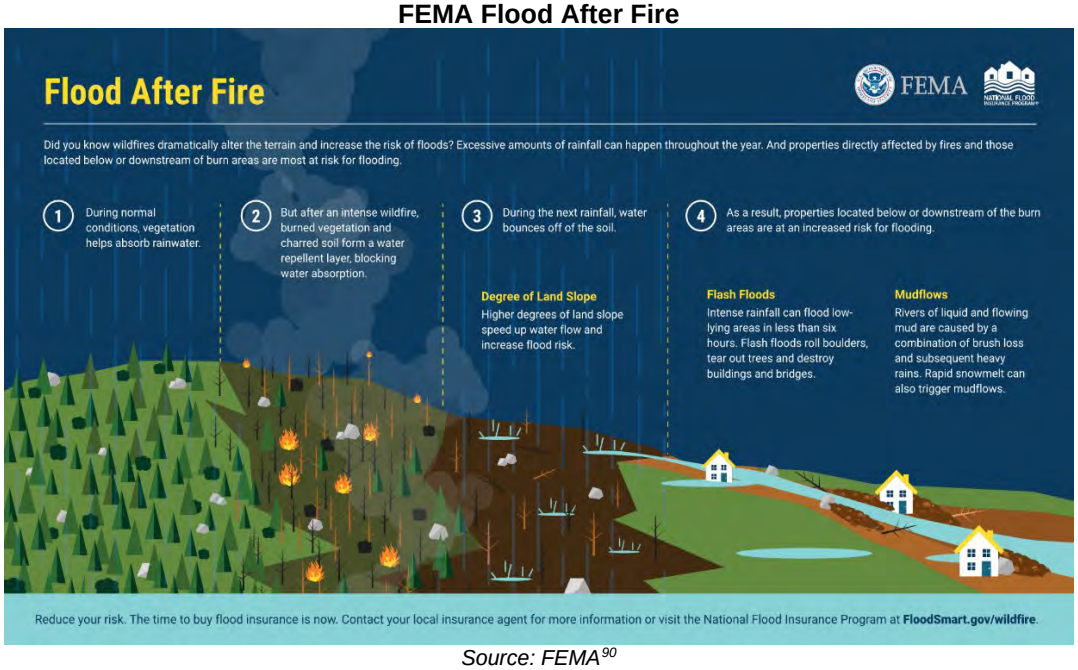
Extent

From 2000-2023, 1,086 wildfires were reported in the planning area and burned 6,366 acres in total.[89] Of these, nine fires burned 100 acres or more, with the largest wildfires burning 630 acres in Saunders County in March of 2021. The average area burned per wildfire was approximately six acres.

89 Nebraska Forest Service. 2024. "Fire Incident Type Summary." Data Files 2000-2023 provided by NFS.

Wildfire also contributes to an increased risk from other hazard events, compounding damage and straining resources. FEMA has provided additional information in recent years detailing the relationship between wildfire and flooding. Wildfire events remove vegetation and harden soil, reducing infiltration capabilities during heavy rain events. Subsequent severe storms that bring heavy precipitation can then escalate into flash flooding, dealing additional damage to jurisdictions.

FEMA Flood After Fire



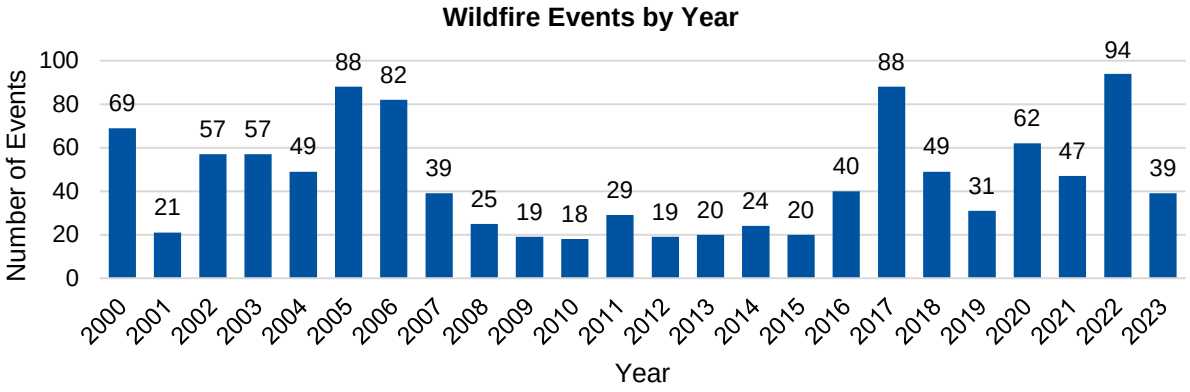
Source: FEMA[90]

Historical Occurrences

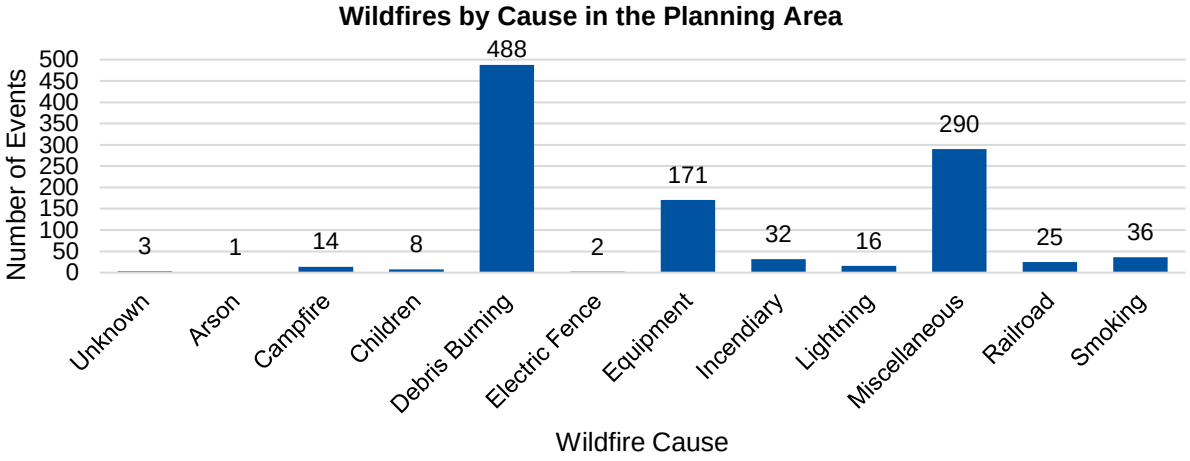
For the planning area, 24 different fire departments reported a total of 1,086 wildfires between 2000 and 2023, according to the Nebraska Forest Service. The reported events burned 6,366 acres in total. Two injuries and two fatalities were reported from these events. Most fires occurred in 2005, 2006, 2017, and 2022. Most reported wildfires were caused by debris burning or from miscellaneous causes. Wildfires have ranged from less than one acre to 630 acres, with an average burned area of three acres. It is important to note that there is no comprehensive fire event database. Fire events, magnitude, and local responses were reported voluntarily by local fire departments to the Nebraska Forest Service and local reporting standards can vary between departments. Actual fire events and their impacts are likely underreported in the available data.

The fire event that burned 630 acres was located south of Prague. Prague Fire and Rescue reported the fire on March 10, 2021. Cropland was the most affected area, with 530 acres burned, followed by 80 acres of grassland and 20 acres of forestland. There were no injuries, deaths, or destroyed structures reported from the incident. Another significant fire occurred in Butler County south of David City and east of Garrison in October 2024. Butler County Emergency Management issued a warning as the fire was traveling north. A portion of Highway 92 was closed, and multiple fire departments were called to help fight the fire. The fire was eventually contained with no reported injuries or deaths.

90 FEMA. 2023. “Flood After Fire”. https://agents.floodsmart.gov/marketing/participate-in-campaigns/flood-after-fire.



Source: NFS, 2000-2023



Source: NFS, 2000-2023

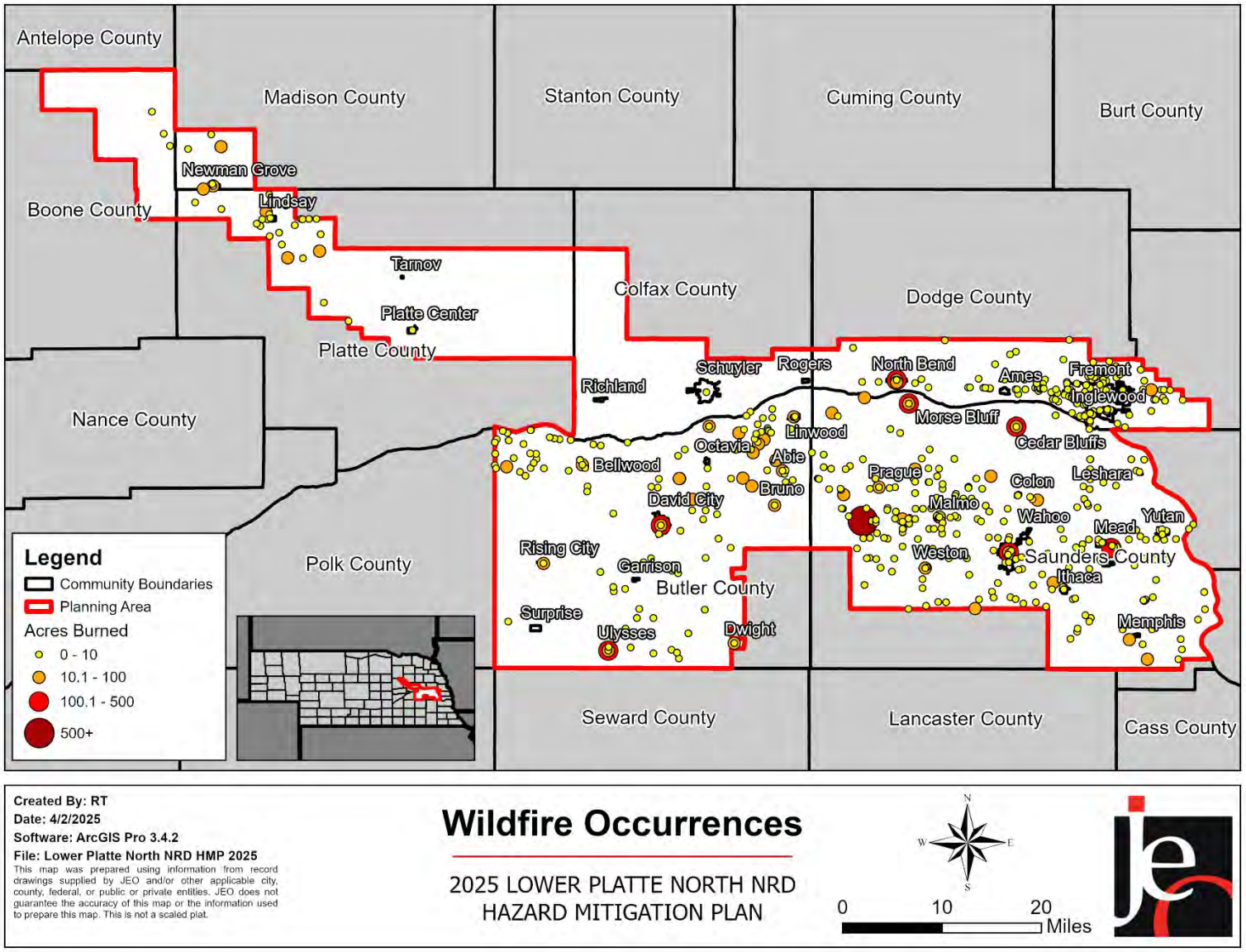
The map on the next page shows the location and general size of wildfires provided to the Nebraska Forest Service from 2000 to 2023. As the number of reported wildfires in the planning area indicates, wildfire events can occur in any county within the planning area. Saunders County has reported the greatest number of fires and largest number of acres burned.

Reported Wildfires by County

County	Reported Wildfires	Acres Burned	Other Impacts
Boone*	3	20	-
Butler	277	2,171	8 Homes Threatened, 13 Other Structures Threatened, 1 Home Destroyed, 4 Other Structures Destroyed, 1 Injury
Colfax*	2	<1	-
Dodge*	289	459	7 Homes Threatened, 10 Other Structures Threatened, 1 Other Structure Destroyed
Madison*	28	215	3 Homes Threatened
Platte*	55	130	-
Saunders	432	3,372	28 Homes Threatened, 33 Other Structures Threatened, 3 Homes Destroyed, 9 Other Structures Destroyed, 1 Injury, 2 Fatalities

*Source: NFS, 2000-2023. *Only includes incidents that occurred within the planning area boundary.*

Historical Wildfire Occurrences



Average Annual Losses

The average damage per event estimate was not able to be determined as property and crop damage estimates are not tracked or accurately tracked by the Nebraska Forest Service, RMA, or NCEI. However, the number of homes and other structures destroyed is tracked from reports submitted to the Nebraska Forest Service. In the planning area, 1,086 reported wildfires destroyed four homes, destroyed 14 other structures, and burned a total of 6,366 acres from 2000 to 2023. Two injuries and two fatalities were reported from these events.

Damages caused by wildfires extend beyond the loss of building stock, recreation areas, timber, forage, wildlife habitat, and scenic views. Secondary effects of wildfires, including erosion, landslides, introduction of invasive species, and changes in water quality, all increase due to the exposure of bare ground and loss of vegetative cover following a wildfire, and can often be more disastrous than the fire itself in long-term recovery efforts.

Wildfire Loss Estimation

Hazard Type	Number of Events	Events Per Year	Number of Acres Burned	Average Acres Per Fire
Wildfire	1,086	45.3	6,366	5.9

Source: NFS, 2000-2023

Wildfire Event Impacts and Threats

Hazard Type	Injuries	Fatalities	Homes Destroyed	Homes Threatened	Other Structures Destroyed	Other Structures Threatened
Wildfire	2	2	4	46	14	56

Source: NFS, 2000-2023

Historical Probability & Future Likelihood

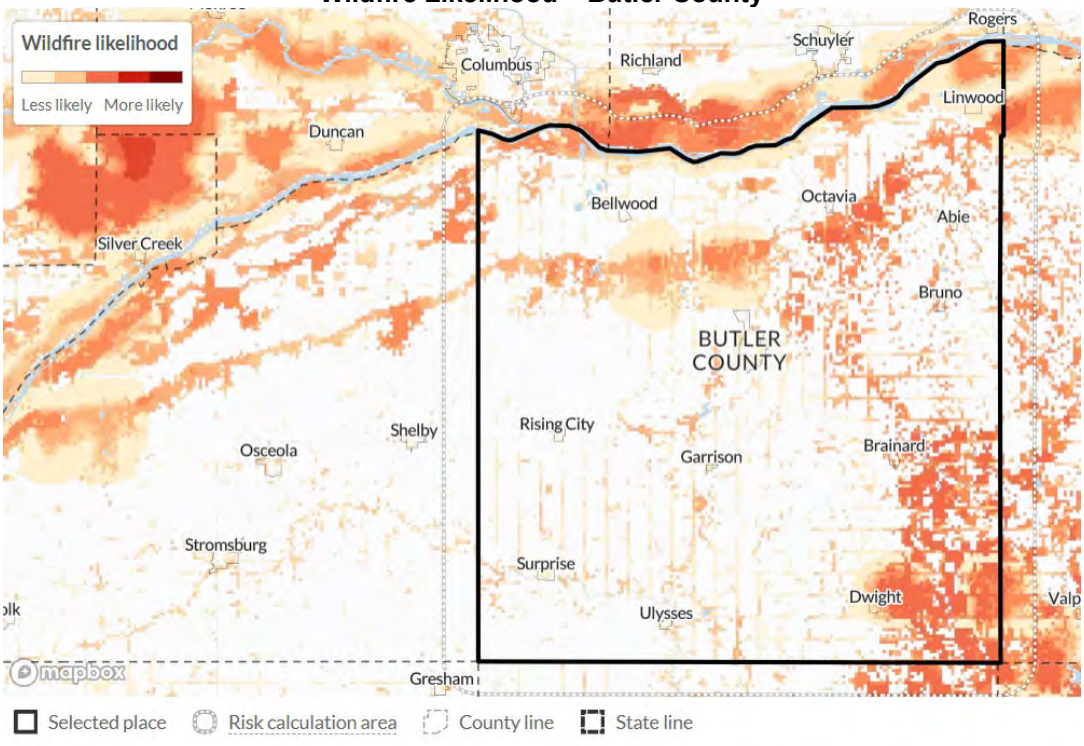
The historical probability of wildfire occurrence is based on the historic record provided by the Nebraska Forest Service and reported potential by participating jurisdictions. With a grass/wildfire occurring each reported year there is a 100 percent annual historical probability of wildfires occurring in the planning area each year. Due to the anticipated impacts from changes in extreme weather and future development, the future likelihood of grass/wildfire events is very likely.

Historical Probability & Future Likelihood – Grass/Wildfire

Historical Probability	Extreme Weather Changes Impact	Future Development Impact	Future Likelihood
100%	Increase in Frequency and Intensity	Neither Increase nor Decrease in Frequency. Increase Exposure	**Very Likely**

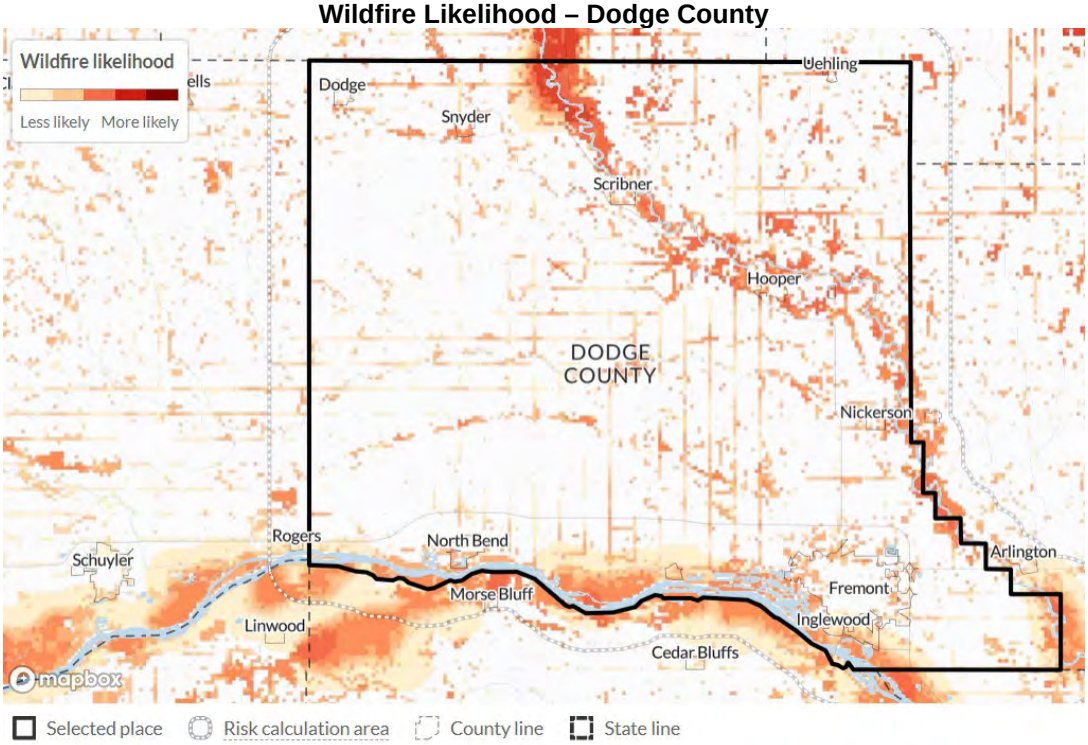
The USDA's and the U.S. Forest Service's *Wildfire Risk to Communities* also includes wildfire likelihood. The maps on the next couple of pages show the probability by location of wildfire burning in any given year for each of the three counties. Both Butler and Saunders counties were given medium wildfire likelihood and Dodge County was given low wildfire likelihood.

Wildfire Likelihood – Butler County



Source: Wildfire Risk to Communities[91]

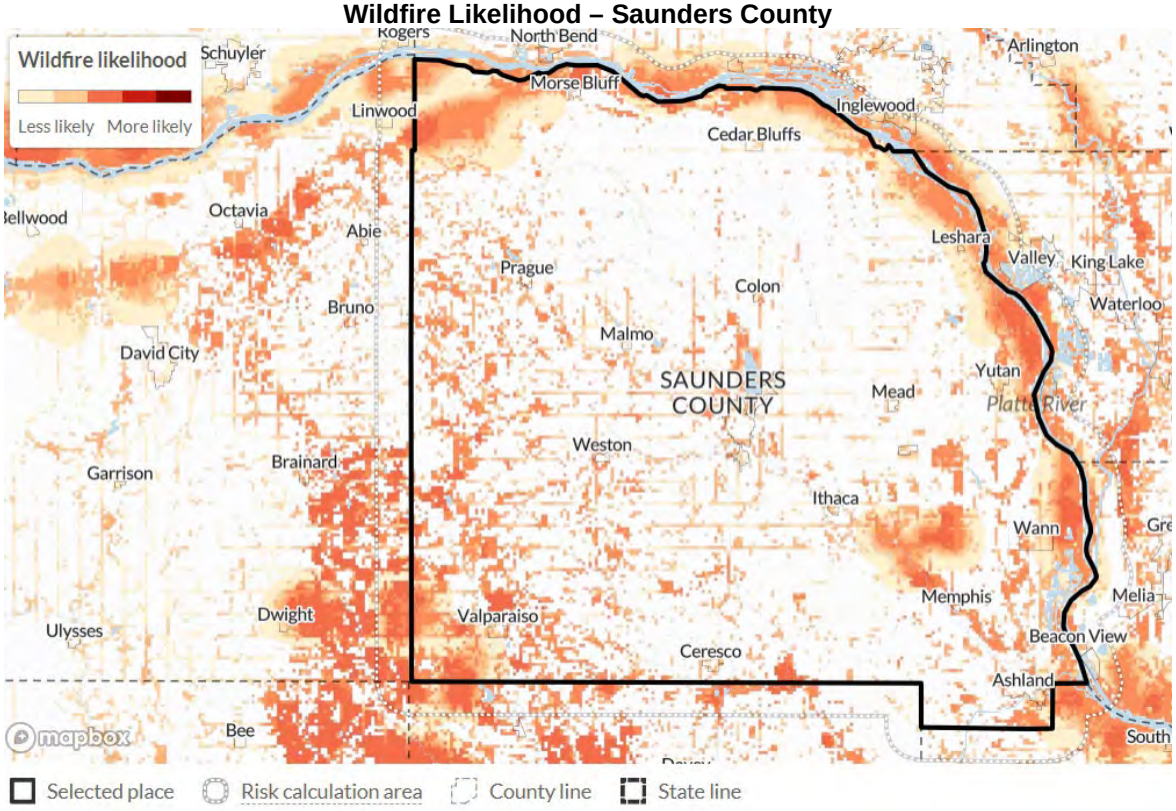
Wildfire Likelihood – Dodge County



Source: Wildfire Risk to Communities

91 USDA & US Forest Service. July 2024. "Wildfire Risk to Communities. https://wildfirerisk.org/.

Wildfire Likelihood – Saunders County



Source: Wildfire Risk to Communities

Changing Extreme Weather

Rising temperatures will likely increase the frequency and intensity of grass/wildfires. Warmer temperatures cause snow to melt sooner and create drier soils and forests, which can ignite fires quickly and cause them to spread rapidly. Additionally, warmer nighttime temperatures contribute to the continued spread of wildfires over multiple days.[92] As mentioned in the drought section, changes in extreme weather will likely contribute to the rise in the frequency and intensity of drought, especially during the summer months.[93] With increased drought conditions, grass/wildfires will also likely increase due to dry vegetation and less access to water. Additionally, changes in climate can lead to the spread of invasive species, increasing potential fuel loads in wildland areas. The table below shows the change in wildfire danger days in three-county region with different warming scenarios.

Change in Wildfire Danger Days

		Warming Scenarios			
	1° C	1.5° C	2° C	2.5° C	3° C
Change in Wildfire Danger Days	-6 to 6 Days per Year	-6 to 13 Days per Year	7 to 13 Days per Year	7 to 13 Days per Year	14 to 29 Days per Year

Source: Probable Futures[94]

92 NASA Global Climate Change. September 2019. "Satellite Data Record Shows Climate Change's Impact on Fires." Accessed 2022. https://climate.nasa.gov/news/2912/satellite-data-record-shows-climate-changes-impact-on-fires/.

93 NCEI. 2022. "State Climate Summaries – Nebraska". https://statesummaries.ncics.org/chapter/ne/#:~:text=The%20state%20is%20located%20far,(1895%E2%80%932020)%20averag.

94 Probable Futures. "Maps of Temperature". Accessed January 2024. https://probablefutures.org/.

Future Development

Any new development across the planning area would be located within the WUI. Of most concern would be development on the edges of communities or other areas that encroach on wildland or natural areas. Local officials can adopt codes and ordinances that can guide growth in ways to mitigate potential losses from wildfires. These may include more stringent building code standards, setback requirements, or zoning regulations. Problems can arise if new development increases without coordinated fuels reduction and the creation of defensible space around homes.

In the event of a grass/wildfire, vegetation, structures, and other flammables can combine to create unwieldy and unpredictable events. Factors relevant to the fighting of such fires include access, firebreaks, proximity of water sources, distance from fire stations, and available firefighting personnel and equipment. The vulnerability of structures and homes is increased by combustible roofing and construction material; no/insufficient defensible space; poor access to structures; heavy natural fuel types; limited water supply; and winds over 30 miles per hour.

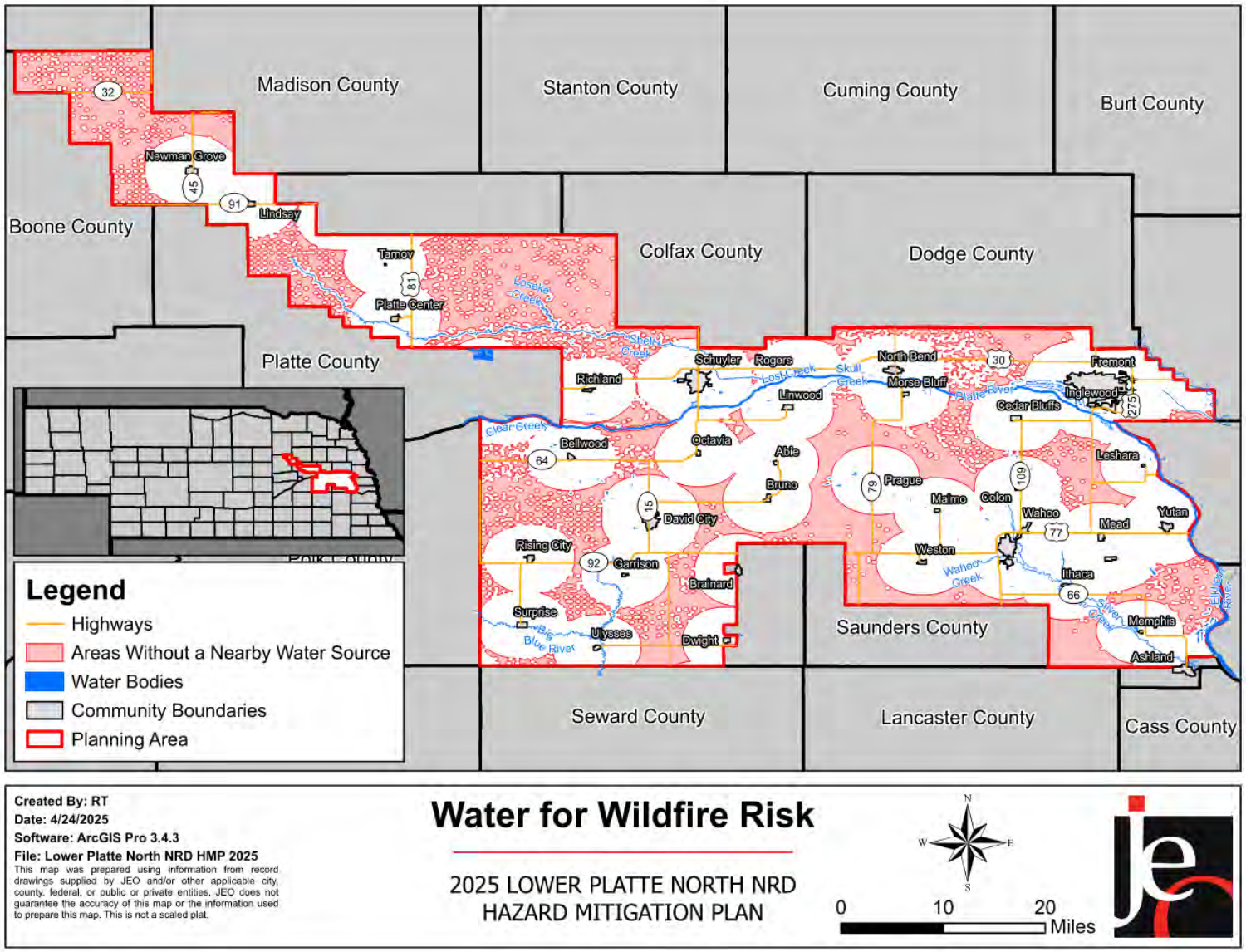
Regional Vulnerabilities

Grass/wildfire poses a threat to a range of demographic groups. Wildfire and urban fire could result in major evacuations of residents in impacted and threatened areas. Groups and individuals lacking reliable transportation could be trapped in dangerous locations. Lack of transportation is common among the elderly, low-income individuals, and racial minorities. Wildfires can cause extensive damage to both urban and rural building stock and properties including community lifelines, as well as agricultural producers which support the local industry and economy. Damaged homes can reduce available housing stock for residents, causing residents to leave the area. Additionally, fire events threaten the health and safety of residents and emergency response personnel.

Other notable vulnerabilities exist for fire departments which service both urban and rural areas as many fire districts lack adequate resources and staff to respond to multi-fire complexes or events in separate areas. The utilization and development of mutual aid agreements or memorandum of understandings are an important tool for districts to share resources and coverage. Smoke and air pollution from wildfires can be a severe health hazard, especially for sensitive populations, including children, the elderly, and those with respiratory and cardiovascular diseases. Smoke generated by wildfire consists of visible and invisible emissions that contain particulate matter, gases, and toxics. Public health impacts associated with wildfire include difficulty in breathing, odor, and reduction in visibility.

One of the wildfire concerns for the LPNNRD is the availability of water in rural areas. Areas without a nearby water source have a higher risk of a grass/wildfire event spreading quickly and not being able to contain it. The map below shows locations in the planning area where there may not be a nearby water source. Potential sources of water include hydrants, wells, ponds, streams, lakes, and rivers. When creating the map areas, anywhere within three miles of a community was deemed near a water source, as fire districts could quickly drive to the community to fill tankers. Areas within 1,000 feet of a well that pumped more than 200gpm, a pond or lake, or a stream or river with an average flow of 200gpm were deemed near a water source as hoses and pumps could be used to fill portable tanks or fight the fire directly. These distances and flow requirements were determined based on research into rural wildfire response. While reviewing the map, it should be noted that all wells that pumped more than 200gpm were used in the analysis; however, only wells with electrical center pivots can be used. Electrical versus gas powered well data was not available, so the area without a nearby water source will likely be larger than shown. Local fire districts should work with farmers in their districts to identify specific wells that can be utilized in the event of a wildfire.

Water for Wildfire Risk

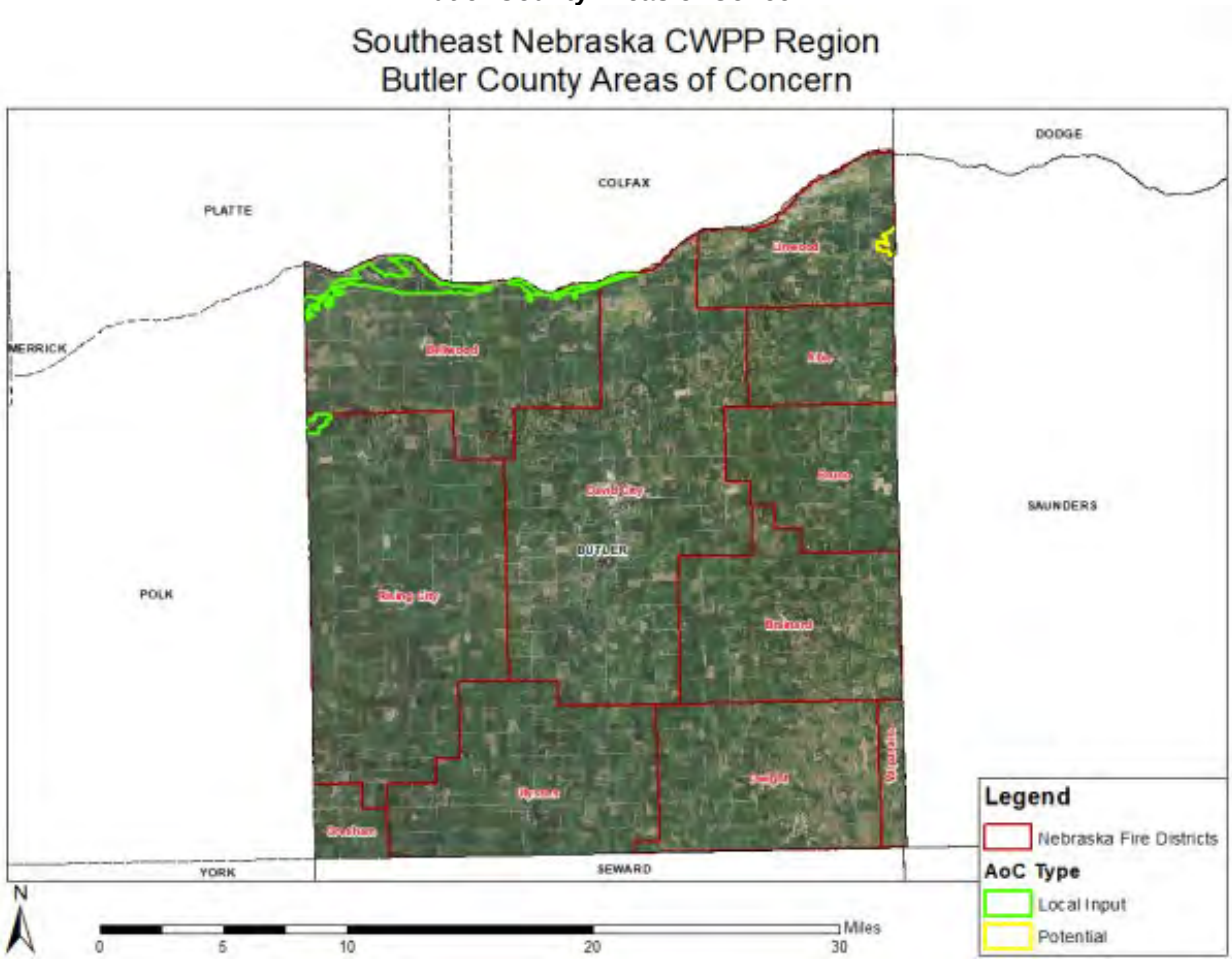


Identified in the local CWPPs are locations of concern as identified by local fire districts. These locations of concern are listed below by county along with maps of their location.

Butler County

According to the 2020 Southeast Nebraska CWPP, locations of special concern include "lands surrounding municipalities and recreational and residential areas along the rivers where there are heavy fuels and limited access. The Rising City Fire Department identified Summit Township, Adamy Addition and all along the south bluffs of the Platte River Valley east of Adamy Addition as areas of particular concern due to multiple structures, difficult access, rough terrain, one way in/out, heavy fuels, and lack of water within effective distance."[95]

Butler County Areas of Concern



Source: Nebraska Forest Service

Dodge County

According to the 2022 Missouri River East CWPP, locations of special concern include "population centers adjacent to wildlands where topography is rough and woody fuels are dense." Areas most at-risk from wildfire are along rivers and major creeks. The Fremont Rural Fire Department listed sites in Platte Township as of concern due to multiple structures, difficulty to access, rough terrain,

[95] Nebraska Forest Service. 2024. "Community Wildfire Protection Plans." https://nfs.unl.edu/Nebraska-community-wildfire-protection-plan/.

one way in and out, heavy fuels, and lack of water within effective distances. The Meadowbrook Mobile Home Park on West Highway 30 is near three railroad lines and two chemical and fuel distribution centers. The North Bend fire chief mentioned areas along the Platte River as a concern due to difficulty to access, rough terrain, one way in and out, heavy fuels, and lack of water within effective distances."[96]

Dodge County Areas of Concern



Source: Nebraska Forest Service

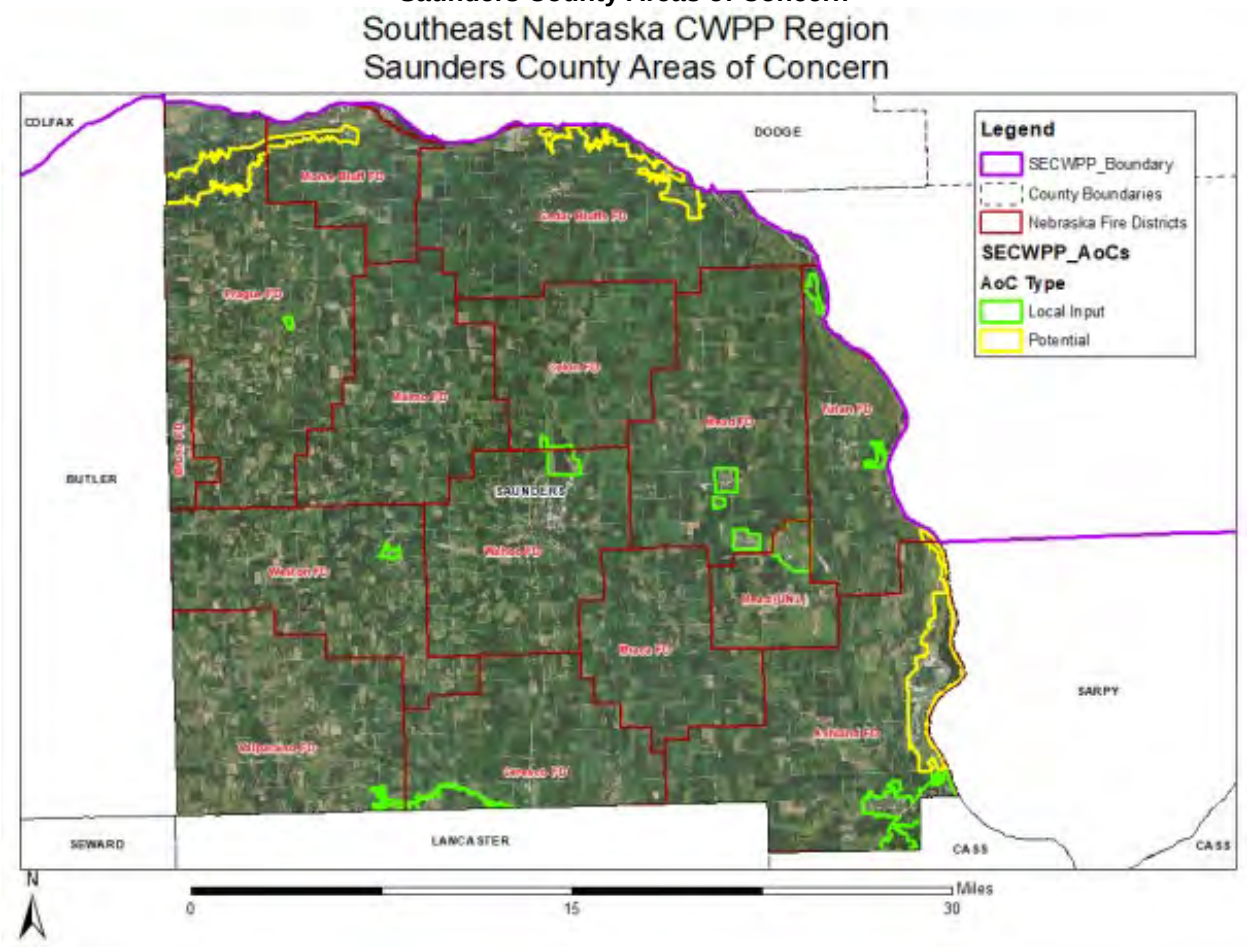
[96] Nebraska Forest Service. 2024. "Community Wildfire Protection Plans." https://nfs.unl.edu/Nebraska-community-wildfire-protection-plan/.

Saunders County

According to the 2020 Southeast Nebraska CWPP, locations of concern "include population centers adjacent to wildlands, croplands, and wooded areas along the rivers and streams." The Lower Platte North NRD has concerns about the Czechland Lake and Wanahoo Lake campgrounds, along with the bluff homes neighboring Wanahoo Lake on the west side.

The Mead VFD identified several locations in and near the Village of Mead as having multiple structures, many residents, and being difficult to access. The Weston fire chief identified the Village of Weston as at-risk due to multiple structures, high home density, and infrastructure. Yutan Volunteer Fire Department listed several developments in their district that have multiple structures, rough terrain, heavy fuels, are difficult to access and/or lack of water within an effective distance. The Ashland VFD included area lake communities with high home density, infrastructure or other resources are at high risk, some with one way in and out as locations of special concern.[97]

Saunders County Areas of Concern



Source: Nebraska Forest Service

The following table provides information related to regional vulnerabilities; for jurisdictional-specific vulnerabilities, refer to *Section Eight.*

97 Nebraska Forest Service. 2024. "Community Wildfire Protection Plans." https://nfs.unl.edu/Nebraska-community-wildfire-protection-plan/.

Regional Grass/Wildfire Vulnerabilities

Sector	Vulnerability
People	-Risk of injury or death for residents and firefighting personnel -Displacement of people and loss of homes -Lack of transportation poses risk to low-income individuals, families, and elderly -Transportation routes may be blocked by fire, preventing evacuation efforts
Economic	-Damages to buildings and property can cause significant losses to business owners -Loss of businesses
Built Environment	-Property damages
Community Lifelines	-Damage to power lines and utility structures -Potential loss of firefighting equipment and resources -Risk of damages to buildings
Other	-May lead to poor water quality -Post fire, flash flooding events may be exacerbated

Jurisdictions Ranking Grass/Wildfire as a Prioritized Hazard of Concern

The following lists jurisdictions and stakeholders which identified grass/wildfire as a prioritized hazard of concern.

- City of Yutan
- Colon Volunteer Fire District
- Dwight Volunteer Fire Department
- Malmo Volunteer Fire Department
- North Bend Volunteer Fire Department
- Rising City Rural Fire Department
- Schuyler Volunteer Fire Department
- Village of Linwood
- Weston Volunteer Fire & Rescue

Hazardous Materials Release

The following description for hazardous materials is provided by the Federal Emergency Management Agency (FEMA):

> Chemicals are found everywhere. They purify drinking water, increase crop production and simplify household chores. But chemicals also can be hazardous to humans or the environment if used or released improperly. Hazards can occur during production, storage, transportation, use or disposal. You and your community are at risk if a chemical is used unsafely or released in harmful amounts into the environment where you live, work or play.[98]

Hazardous materials in various forms can cause fatalities, serious injury, long-lasting health effects, and damage to buildings, homes, and other property. Many products containing hazardous chemicals are used and stored in homes routinely. Chemicals posing a health hazard include carcinogens, toxic agents, reproductive toxins, irritants, and many other substances that can harm human organs or vital biological processes.

Chemical manufacturers are one source of hazardous materials, but there are many others, including service stations, hospitals, and hazardous materials waste sites. Varying quantities of hazardous materials are manufactured, used, or stored in an estimated 4.5 million facilities in the United States—from major industrial plants to local dry-cleaning establishments or gardening supply stores.

Hazardous materials come in the form of explosives, flammable and combustible substances, poisons, and radioactive materials. Hazardous materials incidents are technological (meaning non-natural hazards created or influenced by humans) events that involve large-scale releases of chemical, biological or radiological materials. Hazardous materials incidents generally involve releases at fixed-site facilities that manufacture, store, process or otherwise handle hazardous materials or along transportation routes such as major highways, railways, navigable waterways, and pipelines. A large number of spills also occur during the loading and unloading of chemicals.

Fixed sites are those that involve chemical manufacturing sites and stationary storage facilities. The Environmental Protection Agency (EPA) requires the submission of the types and locations of hazardous chemicals being stored at any facility within the state over the previous calendar year. This is completed by submitting a Tier II form to the EPA as a requirement of the Emergency Planning and Community Right-to-Know Act of 1986.[99]

Likewise, the U.S. Department of Transportation, through the U.S. Pipeline and Hazardous Materials Safety Administration (PHMSA), has broad jurisdiction to regulate the transportation of hazardous materials, including the discretion to decide which materials shall be classified as hazardous. These materials are placed into one of nine hazard classes based on their chemical and physical properties. The hazard schedules may be further subdivided into divisions based on their characteristics. Because the properties and characteristics of materials are crucial in

98 Federal Emergency Management Agency. 2017. “Technological Hazards”. https://www.fema.gov/pdf/areyouready/technohazards.pdf.
99 Emergency Planning and Community Right-to-Know Act of 1986, Pub. L. No. 116 § 10904. (1986).

understanding the dynamics of a spill during a transportation incident, it is important for response personnel to understand the hazard classes and their divisions.

The table below shows the nine classes of hazardous material according to the 2024 Emergency Response Guidebook.

Hazardous Materials Classes

Class	Type of Material	Divisions
1	Explosives	1.1 Explosives which have a mass explosion hazard 1.2 Explosives which have a projection hazard but not a mass explosion hazard 1.3 Explosives which have a fire hazard and either a minor blast hazard or a minor projection hazard or both, but not a mass explosion hazard 1.4 Explosives which present no significant hazard 1.5 Very insensitive explosives with a mass explosion hazard 1.6 Extremely insensitive articles which do not have a mass explosion hazard
2	Gases	2.1 Flammable gases 2.2 Non-flammable, non-toxic gases 2.3 Toxic gases
3	Flammable liquids (and Combustible liquids)	-
4	Flammable solids; Substances liable to spontaneous combustion; Substances which, on contact with water, emit flammable gases	4.1 Flammable solids, self-reactive substances and solid desensitized explosives 4.2 Substances liable to spontaneous combustion 4.3 Substances which in contact with water emit flammable gases
5	Oxidizing substances and Organic peroxides	5.1 Oxidizing substances 5.2 Organic peroxides
6	Toxic Substances and infectious substances	6.1 Toxic substances 6.2 Infectious substances
7	Radioactive materials	-
8	Corrosive substances	-
9	Miscellaneous hazardous materials/dangerous goods and articles	-

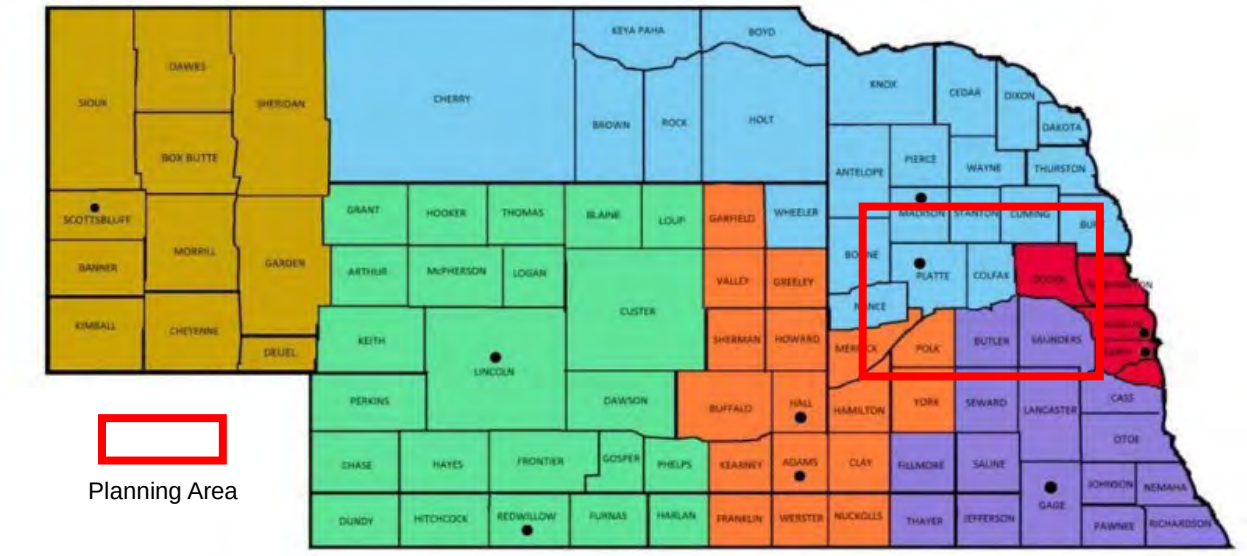
Source: Emergency Response Guidebook, 2024[100]

There are ten State Emergency Response Teams (SERTs) stationed across the State of Nebraska which are trained to respond to large-scale hazardous material incidents. Each department

100 U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration. 2024. "2024 Emergency Response Guidebook". https://www.phmsa.dot.gov/hazmat/erg/emergency-response-guidebook-erg.

includes personnel at the technical, incident commander, and safety officer levels. There are three SERT districts which cover the planning area. There is a team located in Platte County.

Nebraska SERTs Map



Source: NEMA[101]

Location

Fixed Site

There are 129 facility locations across the planning area that submitted Tier II reports to the Nebraska Department of Environment and Energy (NDEE) in 2022 and 2023.[102] These locations are shown in the figure on the next page. The locations include a half mile buffer to show the potential evacuation area during a hazardous materials release. A half mile was chosen because, in the 2024 Emergency Response Guidebook, the initial evacuation area for a "Mixed Load/Unidentified Cargo" involved in a fire is a half mile in all directions.[103]

Transportation

A large number of spills typically occur during the loading and unloading of chemicals for highway and pipeline chemical transport. Hazardous materials releases during transportation primarily occur on major transportation routes as identified in the figure Major Transportation Routes.

Pipelines

According to the National Pipeline Mapping System, there are multiple gas transmission and hazardous liquid pipelines located in the NRD.[104] Maps of the pipelines can be seen over the next several pages.

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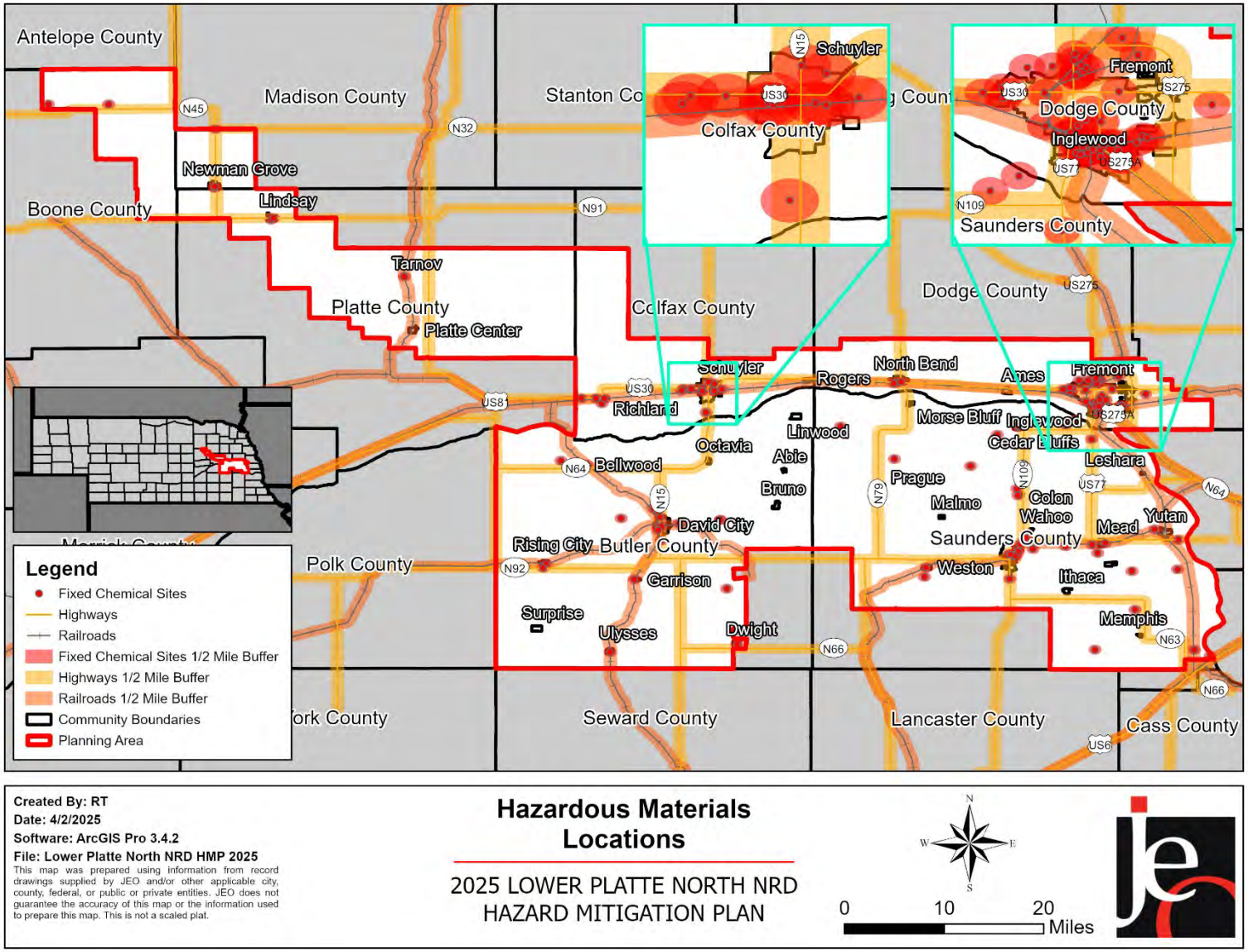
101 Nebraska Emergency Management Agency. June 2020. "Emergency Assistance to a Hazardous Materials Incident". https://nema.nebraska.gov/assets/files/publications/hazmat-blue-book.pdf.

102 Nebraska Department of Environment and Energy. 2024. "Nebraska DEE Tier 2 Data Download". https://deq-iis.ne.gov/tier2/tier2Download.html.

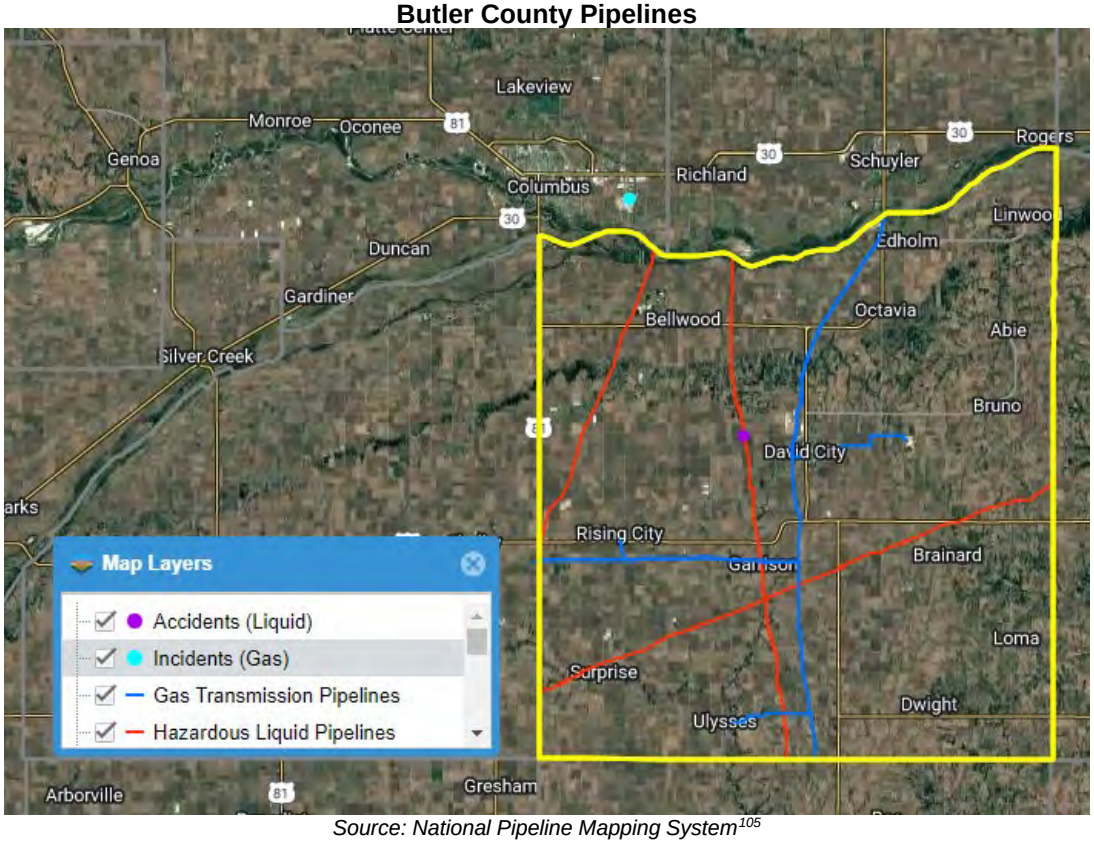
103 U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration. 2024. "2024 Emergency Response Guidebook". https://www.phmsa.dot.gov/hazmat/erg/emergency-response-guidebook-erg.

104 National Pipeline Mapping System. October 2024. "National Pipeline Mapping System Public Viewer". https://pvnpms.phmsa.dot.gov/PublicViewer/.

Hazardous Material Locations

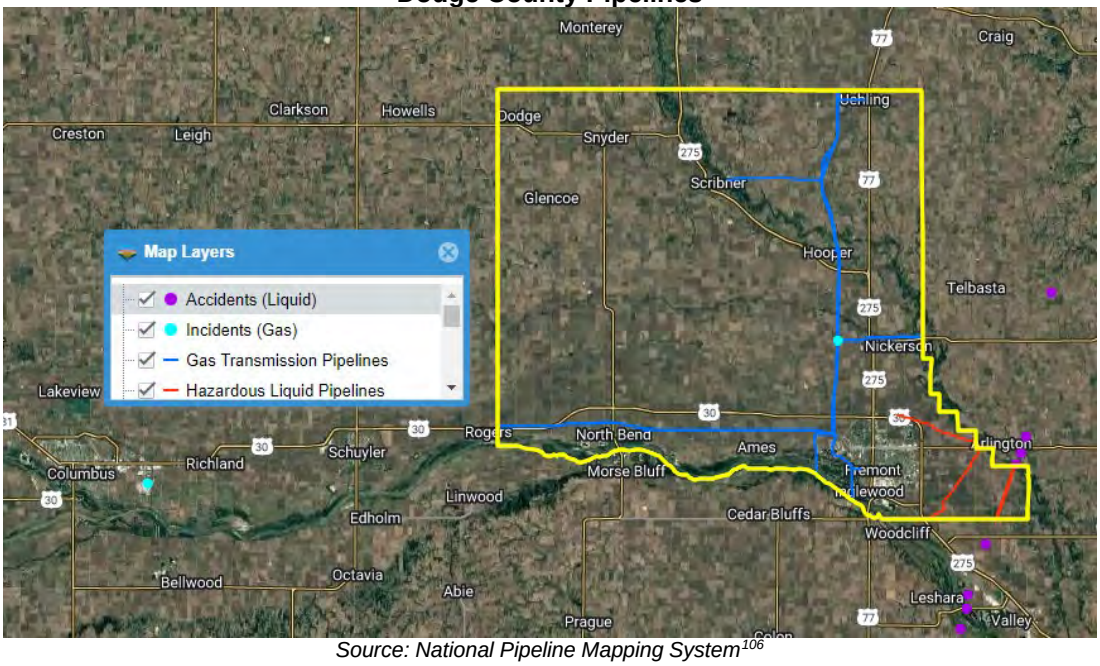


Butler County Pipelines



Source: National Pipeline Mapping System[105]

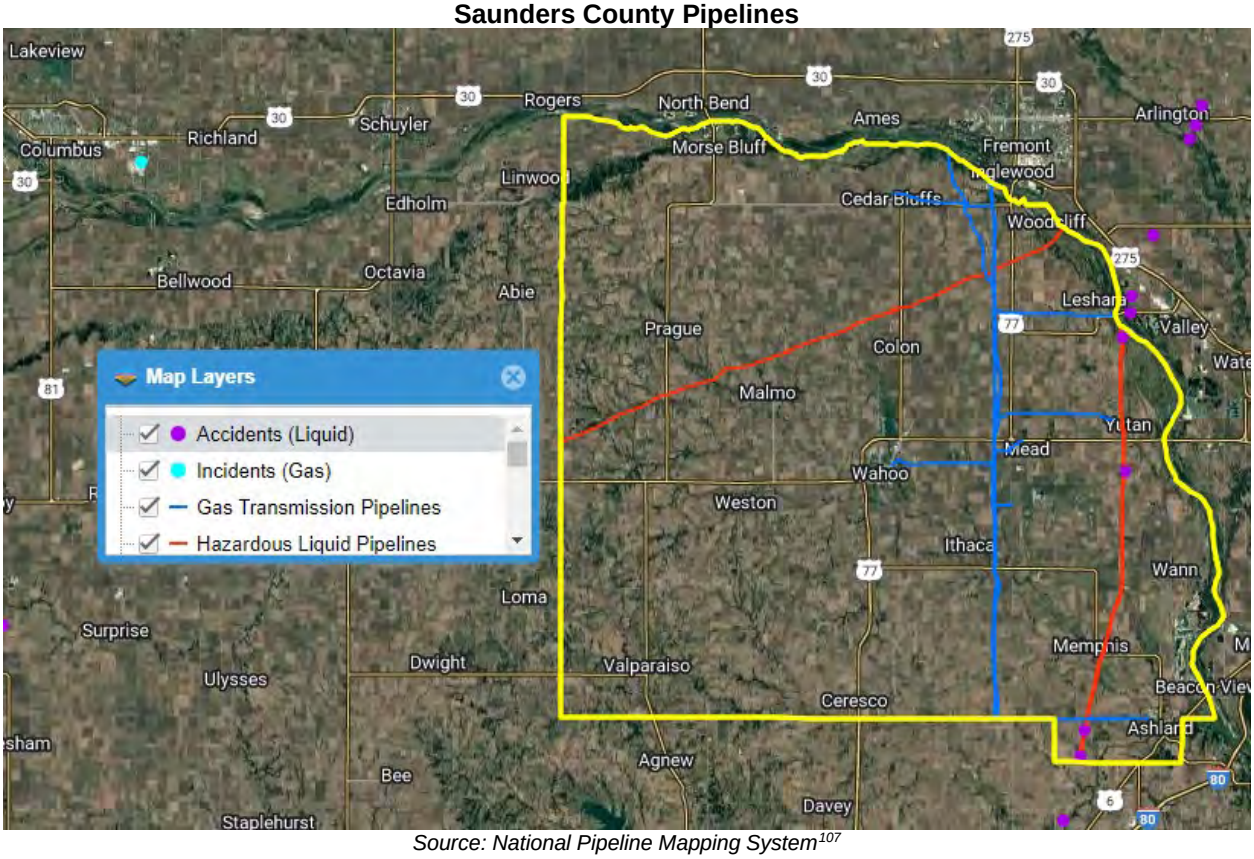
Dodge County Pipelines



Source: National Pipeline Mapping System[106]

105 National Pipeline Mapping System. October 2024. "National Pipeline Mapping System Public Viewer". https://pvnpms.phmsa.dot.gov/PublicViewer/.
106 National Pipeline Mapping System. October 2024. "National Pipeline Mapping System Public Viewer". https://pvnpms.phmsa.dot.gov/PublicViewer/.

Saunders County Pipelines



Source: National Pipeline Mapping System[107]

Extent

The extent of hazardous materials releases varies and depends on the type of chemical that is released with most events localized to the facility or container. In total 119 fixed site and transportation releases have occurred in the planning area, and the total amount spilled ranged from less than one gallon to 2,000 gallons, and less than an ounce to 20,000 pounds. Of the 119 chemical spills, three spills resulted in evacuations, four spills reported injuries, and one fatality was reported from an incident.

Historical Occurrences

Fixed Site

According to the U.S. Coast Guard's National Response Center database (NRC), there have been 84 hazardous materials releases at fixed sites from 1990 to December 2023 in the planning area. There was no property damage but one fatality, six reported injuries, and 93 people evacuated. The incident that led to one fatality was due to a train striking a passenger truck at a crossing.[108] The following table displays the more serious spills that have occurred throughout the planning area (>500 gallons/pounds, or if an injury, fatality, or evacuation occurred).

107 National Pipeline Mapping System. October 2024. "National Pipeline Mapping System Public Viewer". https://pvnpms.phmsa.dot.gov/PublicViewer/.

108 U.S. Coast Guard National Response Center. December 2023. "Chemical Pollution and Railroad Incidents, 2000-2023." [datafile]. https://nrc.uscg.mil/.

Fixed Site Hazardous Material Releases

Year of Event	Location of Release	Quantity Spilled	Material Involved	Injury	Fatality	Evacuations
1991	Schuyler	Unknown	Chlorine	1	0	0
1992	Fremont	2,000 gallons	Diesel Oil	0	0	0
1997	Fremont	650 gallons	Fuel Oil	0	0	0
1999	David City	20,000 pounds	Anhydrous Ammonia	0	0	0
2009	Fremont	100 pounds	Anhydrous Ammonia	0	0	30
2012	Fremont	Unknown	Sewage	2	0	0
2022	Fremont	Unknown	Anhydrous Ammonia	3	0	50
2023	North Bend	Unknown	Unknown	0	1	0
2023	Schuyler	Unknown	Anhydrous Ammonia	0	0	13

Source: National Response Center, 1990-December 2023

Transportation

According to the Pipeline and Hazardous Materials Safety Administration (PHMSA), 35 hazardous materials releases occurred during transportation in the planning area between 1971 and June 2024. During these events, there was one reported injury, no fatalities, no evacuations, and $100,104 in damages. The incident with the reported injury was due to a leak from a tank car carrying anhydrous ammonia.[109] The following table provides information about the more serious spills that have occurred throughout the planning area (>500 gallons spilled, or if an injury or evacuation occurred).

Transportation Hazardous Materials Release

Year of Event	Location of Release	Material Involved	Method of Transportation	Amount	Total Damage	Injury	Evacuation
1978	Weston	Fuel Oil	Highway	800 pounds	$0	No	No
1978	Schuyler	Ammonium Nitrate	Rail	500 pounds	$0	No	No
1992	North Bend	Fuel Oil	Highway	1,000 gallons	$5,000	No	No
1995	Fremont	Anhydrous Ammonia	Rail	0	$0	Yes	No

Source: PHMSA, 1971–June 2024[110]

Average Annual Damages

Using data from the tables above, average annual damage from hazardous materials releases can be estimated. There have been 84 fixed site spills in the planning area reported from the NRC and 35 transportation spills as reported by PHMSA. Neither the NRC nor PHMSA track crop

109 U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration. June 2024. "Incident Statistics: Nebraska". https://www.phmsa.dot.gov/hazmat-program-management-data-and-statistics/data-operations/incident-statistics.

110 U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration. June 2024. "Incident Statistics: Nebraska". https://www.phmsa.dot.gov/hazmat-program-management-data-and-statistics/data-operations/incident-statistics.

losses from chemical spills. These events reported $100,104 in property damage. This does not include losses from displacement, functional downtime, economic loss, injury, or loss of life.

Hazardous Materials Release Loss Estimate

Hazard Type	Number of Events	Events Per Year	Injuries	Fatalities	Total Damages	Average Annual Chemical Spill Loss
Hazardous Materials Release (Fixed Site)	84	2.5	6	1	$0	$0
Hazardous Materials Release (Transportation)	35	0.6	1	0	$100,104	$1,854

Source: National Response Center, 1990-Dec 2023[111]; PHMSA, 1971-June 2024

Historical Probability & Future Likelihood

Given the historic record of occurrence 30 years with a fixed chemical spill out of 34 years (many years had several chemical spills occur), the annual historical probability of occurrence for hazardous materials releases at fixed sites is 88 percent. Due to the anticipated impacts from future development, the future likelihood of fixed site chemical spills is very likely.

Given the historical record of occurrence 20 years with a transportation chemical spill out of 54 years (many years had several chemical spills occur), the annual historical probability of occurrence for hazardous materials releases during transportation is 37 percent. Due to changes in future development, the future likelihood of a transportation release event is likely.

Historical Probability & Future Likelihood – Hazardous Materials Release

Hazard	Historical Probability	Extreme Weather Changes Impact	Future Development Impact	Future Likelihood
Fixed Site	88%	Neither Increase nor Decrease in Frequency	Increase in Frequency and Exposure	**Very Likely**
Transportation	37%	Neither Increase nor Decrease in Frequency	Increase in Frequency and Exposure	**Likely**

Changing Extreme Weather

Climate trends are not anticipated to have a direct impact on hazardous materials releases. However, as events continue to impact infrastructure used by and for hazardous materials, future spills will likely occur. For example, flooding is likely to increase,[112] which could damage roadways and pipelines causing more spills to occur.

Future Development

Future development is likely to increase the frequency of hazardous materials release because there will be more traffic and likely more chemical storage sites. To reduce the risk to people and property damage, future development should encourage chemical storage and manufacturing facilities to be built away from community lifelines such as hospitals, schools, daycares, nursing homes, and other residential areas. Likewise, residential development and locations that house

111 U.S. Coast Guard National Response Center. December 2023. "Chemical Pollution and Railroad Incidents, 2000-2023." [datafile]. https://nrc.uscg.mil/.

112 NOAA. January 2024. “Climate Mapping for Resilience and Adaptation”. https://livingatlas.arcgis.com/assessment-tool/explore/details.

vulnerable populations should be built away from major transportation corridors used for chemical transportation.

Regional Vulnerabilities

Using the half mile buffers for both the major transportation routes and fixed chemical sites, an analysis was performed to identify community lifelines that are located within those buffer areas. The half mile buffer was chosen because, in the 2024 Emergency Response Guidebook, the initial evacuation area for a "Mixed Load/Unidentified Cargo" involved in a fire is a half mile in all directions.[113] While some of the fixed chemical sites may not house chemical types or quantities that would require a half mile evacuation area, this does give an idea of what may need to be evacuated until the impacted or spilled material is identified. This does not mean that all of the identified community lifelines will be impacted by every hazardous materials release, it merely shows the lifelines that are more vulnerable to hazardous materials release due to their proximity to these locations. In total, 330 out of 398 community lifelines are located within a half mile of a major transportation route and 222 out 398 community lifelines are located within a half mile of a fixed chemical site.

The following table provides information related to regional vulnerabilities; for jurisdictional-specific vulnerabilities, refer to *Section Eight*.

Regional Hazardous Materials Release Vulnerabilities

Sector	Vulnerability
People	-Those in proximity to chemical fixed sites or transportation corridors could have minor to moderate health impacts -Possible evacuation -Hospitals, nursing homes, and the elderly at greater risk due to low mobility
Economic	-A chemical plant shutdown in smaller communities would have significant impacts to the local economy -Evacuations and closed transportation routes could impact businesses near spill
Built Environment	-Risk of fire or explosion
Community Lifelines	-Transportation routes can be closed during evacuations -Community lifelines are at risk of evacuation

Jurisdictions Ranking Hazardous Materials Release as a Prioritized Hazard of Concern

The following lists jurisdictions and stakeholders which identified hazardous materials release as a prioritized hazard of concern.

- Butler County
- City of Fremont
- Colon Volunteer Fire District
- Dodge County
- Mead Public Schools
- North Bend Volunteer Fire Department
- Rising City Volunteer Fire Department

113 U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration. 2024. "2024 Emergency Response Guidebook". https://www.phmsa.dot.gov/hazmat/erg/emergency-response-guidebook-erg.

- Schuyler Volunteer Fire Department
- Three Rivers Public Health Department
- Union Township
- Village of Abie
- Village of Prague
- Village of Richland
- Village of Rogers
- Weston Volunteer Fire and Rescue
- Woodcliff Lakes SID #8

Levee Failure

According to FEMA:

> "The United States has thousands of miles of levee systems. These manmade structures are most commonly earthen embankments designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of water to provide some level of protection from flooding. Some levee systems date back as far as 150 years. Some levee systems were built for agricultural purposes. Those levee systems designed to protect urban areas have typically been built to higher standards. Levee systems are designed to provide a specific level of flood protection. No levee system provides full protection from all flooding events to the people and structures located behind it. Thus, some level of flood risk exists in these levee-impacted areas."

Levee failure can occur several ways. A breach of a levee is when part of the levee breaks away, leaving a large opening for floodwaters to flow through. A levee breach can be gradual by surface or subsurface erosion, or it can be sudden. A sudden breach of a levee often occurs when there are soil pores in the levee that allow water to flow through causing an upward pressure greater than the downward pressure from the weight of the soil of the levee. This under seepage can then resurface on the backside of the levee and can quickly erode a hole to cause a breach. Sometimes the levee actually sinks into a liquefied subsurface below.

Another way a levee failure can occur is when the water overtops the crest of the levee. This happens when the flood waters simply exceed the lowest crest elevation of the levee. An overtopping can lead to significant erosion of the backside of the levee and can result in a breach and thus a levee failure.

Location

There are 15 non-federally accredited levees and three federally accredited levees located in the planning area. The three accredited levees include Clear Creek – Platte River RB in southeast Saunders County; Schuyler – Lost Creek & Platte River LB in Colfax County; and Schuyler – Shell Creek Levee in Schuyler. In total, these levee segments are 15.8 miles long and protect 3,251 people; 2,176 buildings; and approximately $703 million in property value according to the 2023 USACE National Inventory. The following two tables provide a list of the accredited and non-accredited levees in the planning area.

Accredited Levee Systems in Planning Area

Name	Sponsor	Location	River	Length (Miles)
Clear Creek - Platte River RB	Lower Platte North NRD	Wann, Saunders County	Platte River	11.76
Schuyler – Shell Creek RB	Schuyler	Schuyler, Colfax County	Shell Creek	2.16
Schuyler – Lost Creek & Platte River LB	Platte Valley Drainage District	Schuyler, Colfax County	Platte River	1.88

Source: USACE Levee Database[114]

Non-Accredited Levee Systems in Planning Area

Name	Sponsor	Location	River	Length (Miles)
AMES (Ames/Lake Timberwood Levee)	N/A	Dodge County	Platte River	1.03
Ames Diking - Platte River LB (Ames Drainage and Diking District)	Ames Diking District	Dodge County	Platte River	2.29
Clear Creek	N/A	Venice, Saunders County	Platte River	0.36
Fremont, Farmland, and Railroad Levee*	N/A	Fremont, Dodge County	Platte River	2.9
Leshara Drainage District	N/A	Leshara	Platte River	4.09
Morse Bluff Drainage District	N/A	Morse Bluff	Platte River	2.03
Platte River Levee 1 (Cotterell Diking and Drainage District Levee)	N/A	North Bend, Dodge County	Platte River	3.14
Platte River Levee 3 (North Bend Levee)	N/A	Dodge County	Platte River	4.75
Platte Valley Drainage District	N/A	Valley	Platte River	6.36
Platte Valley Drainage District 2	N/A	Leshara	Platte River	0.75
Skull Creek Levee 1	N/A	Butler County, Saunders County	Skull Creek	1.79
Skull Creek Levee 2	N/A	Butler County, Saunders County	Skull Creek	2.04
Upper Clear Creek	N/A	Yutan	Clear Creek	0.06
Valley - Union Dike - Platte River LB (NF) (Union Levee)	Papio-Missouri River NRD	Dodge County	Platte River	11.8
Woodcliff	N/A	Fremont	Platte River	1.87

Source: USACE Levee Database
**Levee is not in the National Levee Database; location is from the Fremont local planning team.*

114 U.S. Army Corps of Engineers. January 2024. "Levees of Nebraska". https://levees.sec.usace.army.mil/#/.

Beyond the USACE's National Levee Database, there is no known comprehensive list of levees that exists in the planning area, especially for private agricultural levees. Thus, it is not possible currently to document the location of all levees, the areas they provide for flood risk reduction, nor the potential impact of these levees. The map below shows all the known levee systems in the planning area.

Extent

USACE, who is responsible for federally accredited levee oversite and inspection of levees, has three safety ratings for levee inspections. Any levee failure events in the planning area will fall within USACE's rating system; however, it is not currently possible to determine what level of damage each levee system will experience. Non-accredited levees are not inspected and thus do not have ratings.

USACE Levee Safety Rating Categories

Ratings	Description
Acceptable	All inspection items are rated as Acceptable
Minimally Acceptable	One or more inspection items are rated as Minimally Acceptable, or one or more items are rated as Unacceptable and an engineering determination concludes that the Unacceptable inspection items would not prevent the segment/system from performing as intended during the next flood event
Unacceptable	One or more items are rated as Unacceptable and would prevent the segment/system from performing as intended, or a serious deficiency noted in past inspections has not been corrected within the established timeframe, not to exceed two years

Source: USACE[115]

Historical Occurrences

As there is no formal database of historical levee failures, the following sources were consulted: members of the Planning Team, local newspapers and media outlets, and the USACE. In 1972, the Ames Diking – Platte River LB levee was breached due to an ice jam. Then in 1978, it overtopped again because of an ice jam. After the March 2019 flood event, USACE reported 41 breaches and numerous damages to federal and non-federal levees across the State of Nebraska. The failure of these structures significantly impacted subsequent flooding in neighboring communities. For a complete event narrative, refer to the Flooding hazard profile. As reported by USACE and the Planning Team, several levees in Dodge County and Saunders County were breached due to ice jams. The breaches are listed below:[116]

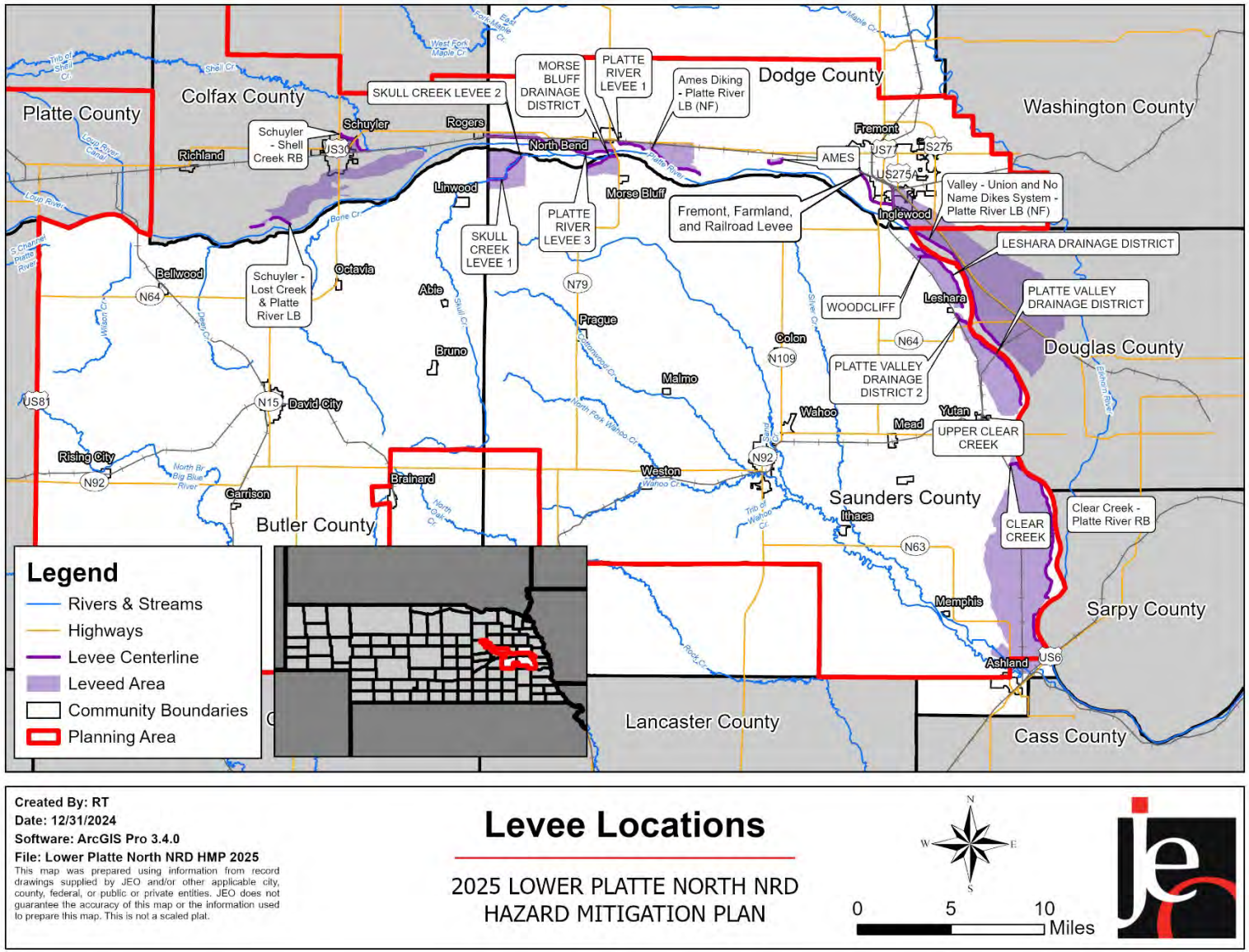
- In Dodge County, Morse Bluff's Ames Diking – Platte River LB (NF): The Ames Diking – Platte River Left Bank Levee System was damaged during the 2019 Flood Event, leading to the Levee Sponsor submitting a Public Law (PL) 84-99 Rehabilitation Assistance request to the US Army Corps of Engineers – Omaha District. The levee repair project was completed on August 14, 2020, with a final contract amount of $1.26 million.[117]

115 U.S. Army Corps of Engineers. Accessed June 2024. "Levee Safety Program". https://www.mvd.usace.army.mil/Portals/52/docs/Levee%20Safety%20Program.pdf.

116 U.S. Army Corps of Engineers. 2019. "Omaha District System Restoration Team: Levee System Status as of October 3, 2019." https://www.nwo.usace.army.mil/Omaha-District-System-Restoration-Team/.

117 U.S. Army Corps of Engineers. 2021. "Ames Diking Levee Restoration Information." https://www.nwo.usace.army.mil/Omaha-District-System-Restoration-Team/Ames-Diking/.

Planning Area Levees



- In Dodge County, Leshara's Valley - Union and No Name Dike System – Platte River LB (NF) experienced significant damage during the 2019 flood event. This led to one breach and substantial other damage occurring throughout the Levee System. A priority breach impacting the property and infrastructure behind the Union and No Name Levee System was identified for initial repairs. Construction on initial repairs was completed on March 28, 2019, and was directed at stopping the flow from the Platte River into the area behind the levee system and providing an incremental level of flood risk management. Final repairs to further repair the levee system and provide additional flood risk management were completed on September 13, 2020, with the final contract amount of $1.67 million.[118]

- In Saunders County, Wann's Clear Creek Platte River RB breached four times during the major flooding of 2019. Initial breach repairs began in March 2019 and were completed in April 2019, totaling $1.37 million. The final levee repair project was completed on October 17, 2020, with the full repair contract totaling $9.2 million.[119]

Average Annual Losses

Total contract amounts for repairing the historical levee failures were $12,130,000. NCEI and RMA data do not delineate damages from flood with flood damages from levee failure. Average annual loss information from flooding due to levee failure is included in the Flooding hazard section. It is possible to determine potential losses from a levee failure event. The USACE Levee Database was used to determine the number of buildings, property value, and population located in the leveed area. The table below shows potential loss information for the planning area.

Potential Losses in Levee Breach Area

Levee	Number of Buildings in Leveed Area	Property Value in Leveed Area	Population in Leveed Area
Ames	25	$9,758,106	44
Ames Diking - Platte River LB	54	$16,544,560	92
Clear Creek	6	$17,157,848	2
Clear Creek - Platte River RB	1,801	$638,089,966	2,496
Fremont, Farmland, and Railroad Levee	-	-	-
Leshara Drainage District	32	$18,206,666	33
Morse Bluff Drainage District	29	$14,788,918	21
Platte River Levee 1	0	$0	0
Platte River Levee 3	131	$79,878,188	46
Platte Valley Drainage District	36	$29,546,407	34

118 U.S. Army Corps of Engineers. 2021. "Union Dike and No Name Levee Restoration Information." https://www.nwo.usace.army.mil/Omaha-District-System-Restoration-Team/Union-Dike/.

119 U.S. Army Corps of Engineers. 2020. "Clear Creek Levee Restoration Information." https://www.nwo.usace.army.mil/Omaha-District-System-Restoration-Team/Clear-Creek/.

Levee	Number of Buildings in Leveed Area	Property Value in Leveed Area	Population in Leveed Area
Platte Valley Drainage District 2	1	$469,683	4
Schuyler - Lost Creek & Platte River LB	118	$12,694,259	135
Schuyler - Shell Creek RB	257	$52,081,043	620
Skull Creek Levee 1	8	$4,313,910	10
Skull Creek Levee 2	14	$5,477,782	15
Upper Clear Creek	1	$496,895	7
Valley - Union and No Name Dikes System - Platte River LB	1,747	$581,259,037	3,040
Woodcliff	1	$387,363	2
Total	**5,086**	**$1,654,611,791**	**7,942**

Source: USACE Levee Database[120]

Historical Probability & Future Likelihood

With three historical levee failures over the past 53 years, there is a six percent historical probability that a levee failure will occur annually in the planning area. Due to the potential impacts from changes in extreme weather and future development, the future likelihood of future levee failure events is unlikely.

Historical Probability & Future Likelihood – Levee Failure

Hazard	Historical Probability	Extreme Weather Changes Impact	Future Development Impact	Future Likelihood
Levee Failure	6%	Increase in Frequency	Neither Increase nor Decrease in Frequency. Increase in Exposure	**Unlikely**

Changing Extreme Weather

While the changes in extreme weather do not directly affect levee failure events, changes in precipitation and temperature swings can affect them. Projected increased rainfall events, either in frequency or in magnitude[121], will lead to exacerbated stress on infrastructure systems including levees. Additionally, historical streamflow records are typically used to design or determine levee construction requirements and maintenance requirements. Changes in extreme weather may impact these systems in the following ways.

- Drought: land subsidence, erosion, embankment settling, or foundation cracking.

120 U.S. Army Corps of Engineers. October 2024. "Levees of Nebraska". https://levees.sec.usace.army.mil/#/.
121 NCEI. 2022. "State Climate Summaries – Nebraska". https://statesummaries.ncics.org/chapter/ne/#:~:text=The%20state%20is%20located%20far,(1895%E2%80%932020)%20averag.

- Flooding: increased embankment erosion, sloughing, overtopping risk, or damage from ice jams.

Future Development
Any future growth in levee-protected areas increases the impacts of these events. Communities could implement requirements for any new development or substantial improvements in levee-protected areas like floodplain ordinances to minimize the number of people and property impacted during a failure event.

Regional Vulnerabilities

Regional vulnerabilities to levee failure vary based on surrounding development and other flood control measures. The following table provides information related to regional vulnerabilities; for jurisdictional-specific vulnerabilities, refer to *Section Eight*.

Levee Failure Vulnerabilities

Sector	Vulnerability
People	-Those living in levee protected areas -Those at recreational sites situated near levees -Evacuation needs likely with failure events -Hospitals, nursing homes, and the elderly are at greater risk due to low mobility -Those without adequate notification may be at greater risk
Economic	-Loss of levee protected agricultural land -Businesses or recreation sites located in levee protected areas would be impacted and closed for an extended period -Employees of closed businesses may be out of work for an extended period of time
Built Environment	-Damage to buildings, recreation areas, and roads
Community Lifelines	-Transportation routes could be closed for extended period -Any community lifelines in levee protected areas are vulnerable to damages

Jurisdictions Ranking Levee Failure as a Prioritized Hazard of Concern

The following lists jurisdictions which identified levee failure as a prioritized hazard of concern.

- Ames Diking and Drainage District
- City of Fremont
- City of North Bend
- City of Schuyler
- City of Yutan
- Cotterell Diking and Drainage District
- Dodge County
- Lake Ventura SID #3
- Lower Platte North NRD
- North Bend Drainage District
- Platte Valley Drainage District
- Saunders County
- Three Rivers Public Health Department
- Village of Inglewood
- Village of Leshara
- Village of Morse Bluff

Severe Thunderstorms

Severe thunderstorms are common and unpredictable seasonal events throughout Nebraska. The NWS defines a severe thunderstorm as a storm that produces one inch hail or larger in diameter and/or winds equal or exceeding 58 mph.[122]

Thunderstorms can develop in fewer than 30 minutes and can grow to an elevation of eight miles into the atmosphere. Lightning can be present in thunderstorms and can cause harm to humans and animals, fires to buildings and agricultural lands, and electrical outages in municipal electrical systems. Lightning can strike up to 10 miles from the portion of the storm depositing precipitation. There are three primary types of lightning: intra-cloud, inter-cloud, and cloud to ground. While intra and inter-cloud lightning are more common, communities are potentially impacted when lightning contacts the ground. Lightning generally occurs when warm air mixes with colder air masses resulting in atmospheric disturbances necessary for polarizing the atmosphere. Additionally, hail is a common component of thunderstorms and often occurs in series, with one area having the potential to be hit multiple times in one day. Hail can destroy property and crops with sheer force, as some hail stones can fall at speeds up to 100 mph.

Damage from severe thunderstorms can include crop losses from wind and hail; property losses due to building and automobile damages from hail; high wind; flash flooding; death or injury to humans and animals from lightning or getting struck by falling or flying debris; and personal injury from people without shelter during these events or standing near windows. The potential for damage increases as the size of the hail increases. The figure on the next page displays the average number of days with thunderstorms across the country each year. The planning area experiences an average of 36 to 54 thunderstorms over the course of one year.

Location

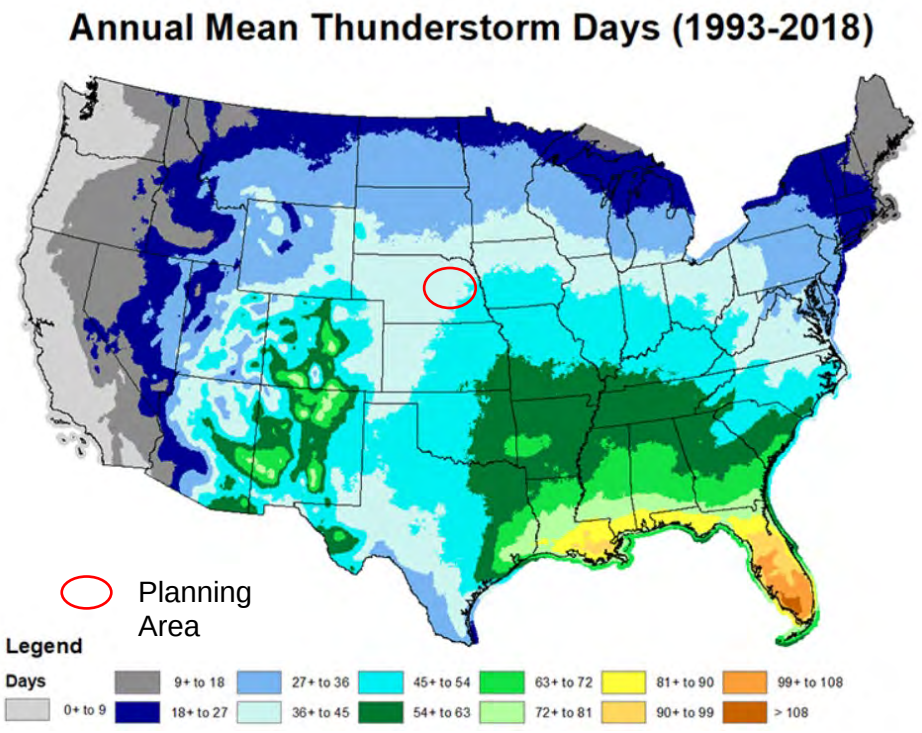
The entire planning area is at risk to thunderstorms due to the regional nature of this type of event.

Extent

The geographic extent of a severe thunderstorm event may be large enough to impact the entire planning area (such as in the case of a squall line, derecho, or long-lived supercell) or just a few square miles, in the case of a single cell that marginally meets severe criteria. The NWS defines a thunderstorm as severe if it contains hail that is one inch in diameter or capable of winds gusts of 58 mph or higher. The Tornado and Storm Research Organization (TORRO) scale is used to classify hailstones and provides some detail related to the potential impacts from hail. The table on the next page outlines the TORRO Hail Storm Intensity Scale.

122 National Weather Service. 2024. “Severe Weather Definitions”. https://www.weather.gov/bgm/severedefinitions#:~:text=Severe%20Thunderstorm%20Watch-,This%20is%20issued%20by%20the%20National%20Weather%20Service%20when%20conditions,exceed%2058%20miles%20an%20hour.

Average Number of Thunderstorms



Source: NWS[123]

TORRO Hail Scale

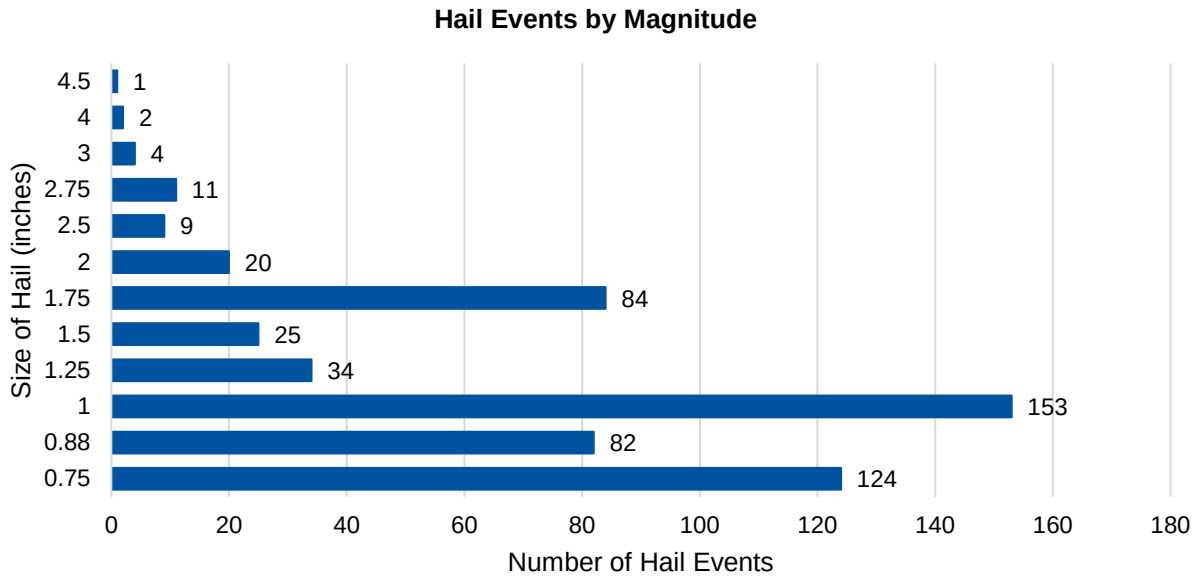
Class	Type of Material	Divisions
H0: Hard Hail	5 mm; (Pea size); 0.2 in	No damage
H1: Potentially Damaging	5 -15 mm (Marble) 0.2 – 0.6 in	Slight general damage to plants and crops
H2: Significant	10 -20 mm (Grape) 0.4 – 0.8 in.	Significant damage to fruit, crops, and vegetation
H3: Severe	20 -30 mm (Walnut) 0.8 – 1.2 in	Severe damage to fruit and crops, damage to glass and plastic structures
H4: Severe	30 -40 mm (Squash Ball) 1.2 – 1.6 in	Widespread damage to glass, vehicle bodywork damaged
H5: Destructive	40 – 50 mm (Golf ball) 1.6 – 2.0 in.	Wholesale destruction of glass, damage to tiled roofs; significant risk or injury
H6: Destructive	50 – 60 mm (chicken egg) 2.0 – 2.4 in	Grounded aircrafts damaged, brick walls pitted; significant risk of injury
H7: Destructive	60 – 75 mm (Tennis ball) 2.4 – 3.0 in	Severe roof damage; risk of serious injuries
H8: Destructive	75 – 90 mm (Large orange) 3.0 – 3.5 in.	Severe damage to structures, vehicles, airplanes; risk of serious injuries

123 NOAA National Weather Service. 2019. “Thunderstorms”. https://www.noaa.gov/jetstream/thunderstorms.

Class	Type of Material	Divisions
H9: Super Hail	90 – 100 mm (Grapefruit) 3.5 – 4.0 in	Extensive structural damage; risk of severe or even fatal injuries to persons outdoors
H10: Super Hail	>100 mm (Melon) > 4.0 in	Extensive structural damage; risk or severe or even fatal injuries to persons outdoors

Source: TORRO[124]

The NCEI reported 549 individual hail events across the planning area since 1996.[125] As the NCEI reports events per county, this value overestimates the total amount of thunderstorm events. The average hailstone size in the planning area was 1.2 inches. Events of this magnitude correlate to an H3 or H4 Severe classification. It is reasonable to expect H3 to H4 classified events to occur several times in a year throughout the planning area. In addition, it is reasonable, based on the number of occurrences, to expect larger hailstones to occur in the planning area annually. Severe thunderstorms in this category can cause severe damage to glass, vehicles, and crops which can be applied to all jurisdictions in the planning area. There have been three H10 hail events (>4.0 inches) in the planning area during the period of record. The figure below shows hail events based on the size of the hail.



Source: NCEI, 1996-Dec 2023

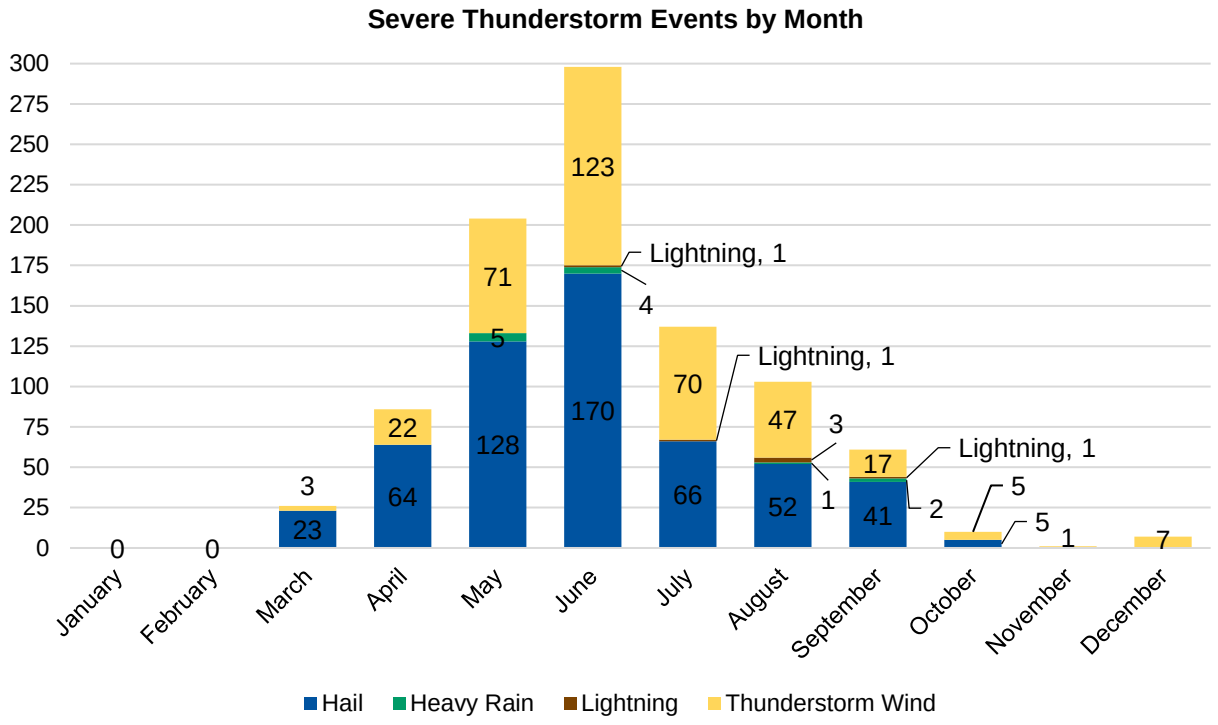
Communities and jurisdictions across the planning area are likely to experience similar impacts from severe thunderstorms. However, communities or areas with poor stormwater management systems may be at higher risk during heavy rain events.

Historical Occurrences

The NCEI reports events as they occur in each community. A single severe thunderstorm event can affect multiple communities and counties at a time; the NCEI reports these large scale, multi-county events as separate events. The result is a single thunderstorm event covering the entire

124 Tornado and Storm Research Organization. 2024. "Hail Scale". https://www.torro.org.uk/research/hail/hscale.
125 NOAA National Centers for Environmental Information. May 2024. "Storm Events Database". https://www.ncdc.noaa.gov/stormevents/.

region that could be reported by the NCEI as several events. Severe thunderstorms in the planning area usually occur in the afternoon and evening during the late spring and summer months.



Source: NCEI, 1996-Dec 2023[126]

The NCEI reports a total of 366 thunderstorm wind, 12 heavy rain, six lightning, and 549 hail events in the planning area from 1996 to December 2023. In total these events were responsible for $15,404,000in property damage. The USDA RMA data shows that severe thunderstorms caused $75,332,602 in crop damage.[127] There were 17 injuries reported in association with these storms. Event descriptions from NCEI for the most damaging events are provided below.

- **June 20, 1996 – Hail & Thunderstorm Wind:** $10,005,000 of property damage was reported in Dodge County. Hail up to 2.75 inches in diameter did considerable damage to thousands of acres of crops from Hooper to Fremont. Estimates of 4,000 homes and countless vehicles had damage from the winds and hail. Strong winds peeled off part of a business building's roof in Snyder.[128]

- **June 20, 1997 – Hail & Thunderstorm Wind:** $225,000 of property damage was reported in Butler ($103,000), Dodge ($2,000), and Saunders ($120,000) counties. Hail broke some windows in a home and thunderstorm winds blew a door off a machine shed on a farm in

126 NOAA National Centers for Environmental Information. May 2024. “Storm Events Database”. https://www.ncdc.noaa.gov/stormevents/.
127 U.S. Department of Agriculture Risk Management Agency. 2023. "Cause of Loss Historical Data Files: 2000-2023." https://old.rma.usda.gov/en/Information-Tools/Summary-of-Business/Cause-of-Loss.
128 NOAA National Centers for Environmental Information. December 2023. “Storm Events Database”. https://www.ncdc.noaa.gov/stormevents/.

northern Dodge County. In Butler County, strong winds collapsed a large airport hangar in David City and toppled at least five center pivots irrigation systems. Trees fell on two homes in the Surprise area causing damage. Severe tree damage occurred throughout the planning area and many power lines were downed.

- **September 24, 2007 – Hail:** $4,000,000 of property damage was reported in Butler County. Hail up to two inches in diameter damaged at least several hundred vehicles in town and also caused roof damage to a few hundred homes. The main damage path was from the southwest into the northeast part of David City.

- **September 13, 2010 – Hail & Thunderstorm Wind:** $750,000 in property damage was reported in Saunders County. Thunderstorm winds and hail up to two inches in diameter caused substantial damage to the University of Nebraska agricultural research center. Winds were estimated to have gusted between 70 and 80 mph. Damage estimates to the center included $800,000 in crop damage, $500,000 in building damage and $250,000 in vehicle damage. Thirty-seven buildings had broken windows, siding and/or roof damage. Several horses were injured and had to be euthanized when the open-front portable building they were in was toppled.

- **July 28, 2023 – Hail:** Supercell storms developed near Dodge County and produced a large amount of hail near Fremont. Over 50 reports were submitted to the office, with the largest being 4.5 inches near Fremont in Dodge County.

Average Annual Damages

The average damage per event estimate was determined based upon recorded damages from NCEI Storm Events Database since 1996. This does not include losses from displacement, functional downtime, economic loss, injury, or loss of life. Severe thunderstorms cause an average of $550,142 per year in property damage[129] and $5,260,555 in crop damage.[130]

Severe Thunderstorms Loss Estimate

Hazard Type	Number of Events[1]	Average Events Per Year	Total Property Loss[1]	Average Annual Property Loss	Total Crop Loss[2]	Average Annual Crop Loss
Hail	549	19.6	$14,251,000	$508,964	$25,485,345	$1,061,889
Heavy Rain	12	0.4	$0	$0	$37,666,301	$1,569,429
Lightning	6	0.2	$303,000	$10,821		
Thunderstorm Wind	366	13.1	$850,000	$30,357		
Total	**933**	**33.3**	**$15,404,000**	**$550,142**	**$63,151,646**	**$2,631,318**

Source: 1 Indicates data is from NCEI (1996 to Dec 2023); 2 Indicates data is from USDA RMA (2000 to 2023)

Historical Probability & Future Likelihood

Based on historical records and reported events, severe thunderstorms events are likely to occur on an annual basis. The NCEI reported a total of 993 severe thunderstorm events between 1996

129 NOAA National Centers for Environmental Information. December 2023. “Storm Events Database”. https://www.ncdc.noaa.gov/stormevents/.

130 U.S. Department of Agriculture Risk Management Agency. 2023. "Cause of Loss Historical Data Files: 2000-2023." https://old.rma.usda.gov/en/Information-Tools/Summary-of-Business/Cause-of-Loss.

and December 2023 with multiple occurring each year, resulting in 100% historical probability for thunderstorms. Even with the uncertainty about how changes in extreme weather and future development will impact severe thunderstorms, the future likelihood of severe thunderstorms is very likely.

Historical Probability & Future Likelihood – Severe Thunderstorms

Historical Probability	Extreme Weather Changes Impact	Future Development Impact	Future Likelihood
100%	Uncertain	Neither Increase nor Decrease in Frequency. Increase Exposure	**Very Likely**

Changing Extreme Weather

For extreme events like severe thunderstorms there is "considerable uncertainty about how projected changes in the climate will affect these events". However, severe thunderstorms will "continue to be a normal feature for Nebraska."[131] According to the Fifth National Climate Assessment, "severe thunderstorms in the United States during spring and fall will increase under stronger warming scenarios. These changes are likely to lengthen the severe thunderstorm season in the Midwest during cool-season months."[132]

Future Development

All future development could be impacted by severe thunderstorms. The ability to withstand major damage lies in sound land use practices and consistent enforcement of building codes and regulations for new construction. Municipalities that have adopted the current International Building Codes have a lower risk of damage as the code has sections designed to deal with the impacts of hail events. Lightning rods, protected rooftop utilities, and surge protectors, are possible steps new developments can take to reduce impacts from lightning and severe thunderstorms.

Regional Vulnerabilities

The following table provides information related to regional vulnerabilities; for jurisdictional-specific vulnerabilities, refer to *Section Eight*.

Regional Thunderstorm Vulnerabilities

Sector	Vulnerability
People	-Elderly citizens with decreased mobility may have trouble evacuating or seeking shelter -Mobile home residents are risk of injury and damage to their property if the mobile home is not anchored properly -Injuries can occur from not seeking shelter, standing near windows, and shattered windshields in vehicles
Economic	-Damages to buildings and property can cause significant losses to business owners and employees
Built Environment	-Buildings are at risk of hail damage -Downed trees and tree limbs -Roofs, siding, windows, gutters, HVAC systems, etc. can incur damage

131 University of Nebraska-Lincoln. 2014. "Understanding and Assessing Climate Change: Implications for Nebraska". http://snr.unl.edu/download/research/projects/climateimpacts/2014ClimateChange.pdf.

132 U.S. Global Change Research Program. 2023. "Fifth National Climate Assessment". https://nca2023.globalchange.gov/.

Sector	Vulnerability
Community Lifelines	-High winds and lightning can cause power outages and down power lines -Roads may wash out from heavy rains and become blocked from downed tree limbs -Community lifelines may sustain damage from hail, lightning, and wind

Jurisdictions Ranking Severe Thunderstorms as a Prioritized Hazard of Concern

The following lists jurisdictions and stakeholders which identified severe thunderstorms as a prioritized hazard of concern.

- Cedar Bluffs Public School
- City of Fremont
- City of North Bend
- City of Schuyler
- City of Wahoo
- City of Yutan
- Colon Volunteer Fire District
- David City
- David City Public Schools
- Educational Service Unit #2
- Lake Ventura SID #3
- Malmo Volunteer Fire Department
- Mead Public Schools
- North Bend Central Public Schools
- Platte Township
- Rising City Rural Fire Department
- Saunders County
- Three Rivers Public Health Department
- Village of Abie
- Village of Bruno
- Village of Cedar Bluffs
- Village of Dwight
- Village of Inglewood
- Village of Leshara
- Village of Lindsay
- Village of Linwood
- Village of Malmo
- Village of Mead
- Village of Morse Bluff
- Village of Octavia
- Village of Platte Center
- Village of Prague
- Village of Richland
- Village of Rising City
- Village of Surprise
- Village of Ulysses
- Weston Volunteer Fire and Rescue
- Woodcliff Lakes SID #8

Severe Winter Storms

Severe winter storms are an annual occurrence in Nebraska. Winter storms can bring extreme cold, freezing rain, heavy or drifting snow, and blizzards. Generally, winter storms occur between the months of November and March but may occur as early as October and as late as April. Heavy snow is usually the most defining element of a winter storm. Large snow events can cripple an entire jurisdiction by hindering transportation, knocking down tree limbs and utility lines, and structurally damaging buildings.

Freezing Rain

Along with snow events, winter storms also have the potential to deposit significant amounts of ice. Ice buildup on tree limbs and power lines can cause them to collapse. This is most likely to occur when rain falls that freezes upon contact, especially in the presence of wind. Freezing rain is the name given to rain that falls when surface temperatures are below freezing. Unlike a mixture of rain and snow, ice pellets or hail, freezing rain is made entirely of liquid droplets. Freezing rain can also lead to many problems on the roads, as it makes them slick, causing automobile accidents, and making vehicle travel difficult.

Blizzards

Blizzards are particularly dangerous due to drifting snow and the potential for rapidly occurring whiteout conditions, which greatly inhibits vehicular traffic. Defined by the NWS as a combination of sustained winds or frequent gusts of 35 mph or greater, and visibilities of less than a quarter mile from falling or blowing snow for three hours or more.[133] Blizzards can cripple an entire jurisdiction for several days by hindering transportation, knocking down tree limbs and utility lines, structurally damaging buildings, and injuring or killing crops and livestock.

Location

The entire planning area is at risk of severe winter storms.

Extent

The Sperry-Piltz Ice Accumulation Index (SPIA) was developed by the NWS to predict the accumulation of ice and resulting damages. The SPIA assesses total precipitation, wind, and temperatures to predict the intensity of ice storms. Ice Storm Warnings are issued when accumulation of at least 0.25 inches is expected from a storm, which controlling for high winds, would tend to classify ice storms in Nebraska as SPIA Level 2 or higher. NCEI does not report local ice accumulation data. However, based on the most common accumulation during ice storms in the planning area equaling a quarter of an inch, coupled with average wind speeds being between 25 to 35 mph, communities in the planning area will likely experience scattered utility issues along with dangerous road conditions. The figure below shows the SPIA index.

133 NOAA National Weather Service. 2024. “Winter Storms and Blizzards”. https://www.weather.gov/fgz/WinterStorms#:~:text=Officially%2C%20the%20National%20Weather%20Service,(at%20least%203%20hours).

SPIA Index

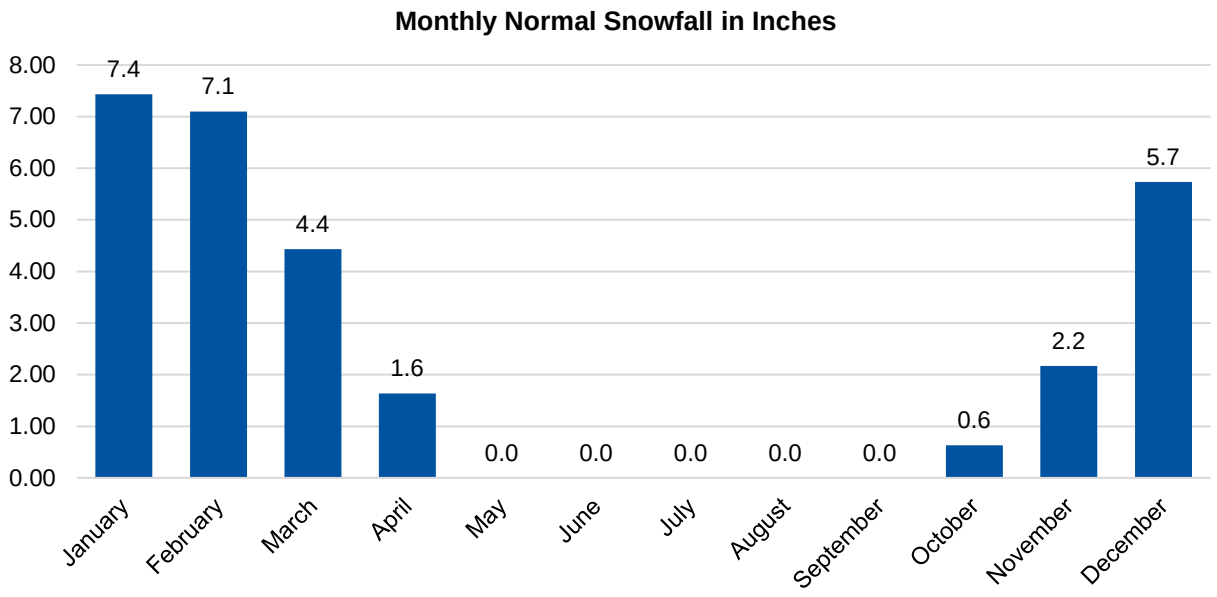
ICE DAMAGE INDEX	*AVERAGE ICE AMOUNT (in inches) Revised: Oct. 2011	WIND (mph)	DAMAGE AND IMPACT DESCRIPTIONS
0	<0.25	<15	Minimal risk of damage to exposed utility systems; no alerts or advisories needed for crews, few outages.
1	0.10 – 0.25	15 – 25	Some isolated or localized utility interruptions are possible, typically lasting only a few hours. Roads and bridges may become slick and hazardous.
	0.25 – 0.50	>15	
2	0.10 – 0.25	25 – 35	Scattered utility interruptions expected, typically lasting 12 to 24 hours. Roads and travel conditions may be extremely hazardous due to ice accumulation.
	0.25 – 0.50	15 – 25	
	0.50 – 0.75	>15	
3	0.10 – 0.25	> – 35	Numerous utility interruptions with some damage to main feeder lines and equipment expected. Tree limb damage is excessive. Outages lasting 1 – 5 days.
	0.25 – 0.50	25 – 35	
	0.50 – 0.75	15 – 25	
	0.75 –1.00	>15	
4	0.25 – 0.50	> – 35	Prolonged and widespread utility interruptions with extensive damage to main distribution feeder lines and some high voltage transmission lines/structures. Outages lasting 5 – 10 days.
	0.50 – 0.75	25 – 35	
	0.75 –1.00	15 – 25	
	1.00 –1.50	>15	
5	0.50 – 0.75	> – 35	Catastrophic damage to entire exposed utility systems, including both distribution and transmission networks. Outages could last several weeeks in some areas. Shelters needed.
	0.75 –1.00	> – 25	
	1.00 –1.50	> – 15	
	> 1.50	Any	

(Categories of damage are based upon combinations of precipitation totals, temperatures and wind speeds/directions.)

Source: SPIA-Index[134]

Average monthly snowfall for the planning area is shown in the figure below. It shows the snowiest months are between December and February. Communities and jurisdictions across the planning area are likely to experience similar extent impacts from severe winter storms.

134 SPIA-Index. 2009. "Sperry-Piltz Ice Accumulation Index". Accessed June 2017. http://www.spia-index.com/index.php.



Source: NOAA, 1991-2020[135]

Historical Occurrences

According to the NCEI, there were a combined 262 severe winter storm events for the planning area from 1996 to December 2023. These recorded events caused a total of $3,000,000 in reported property damage[136] and $4,243,283 in crop damage.[137] According to the NCEI, there was one fatality associated severe winter storms in the planning area. Event descriptions from the NCEI for major damaging events, injuries, and fatalities are listed below.

- **October 25, 1997 – Heavy Snow:** $2,000,000 of property damage in Saunders County and $1,000,000 in Butler County. A major early season snowstorm struck the area. A heavy wet snowfall of 6 to 14 inches fell on trees, many of which were still fully or partially leafed, and caused extensive damage and/or total destruction.[138]

- **December 30, 2006 – Extreme Cold/Wind Chill:** With temperatures below freezing for most of the planning area. The freezing rain mixed with sleet and snow fell briefly before ending over northeast Nebraska Sunday morning on December 31st. The freezing rain caused widespread major damage to trees and power poles and lines across a large part of central into northeast Nebraska. NPPD, the power company that absorbed much of the damage from this storm, called it the worst in the company's history, a fact echoed by many people that lived across the area. In total over Nebraska, the ice storm knocked 37 main high-voltage transmission lines across 600 miles out of service, snapped or toppled more than 6,000 utility poles, including large steel structures, caused power outages for over 15,000 homes and businesses in over 30 communities and did an estimated $240

135 NOAA National Centers for Environmental Information. 2023. "U.S. Climate Normals Quick Access". https://www.ncei.noaa.gov/access/us-climate-normals/.
136 NOAA National Centers for Environmental Information. December 2023. "Storm Events Database". https://www.ncdc.noaa.gov/stormevents/.
137 U.S. Department of Agriculture Risk Management Agency. 2023. "Cause of Loss Historical Data Files: 2000-2023." https://old.rma.usda.gov/en/Information-Tools/Summary-of-Business/Cause-of-Loss.
138 NOAA National Centers for Environmental Information. December 2023. "Storm Events Database". https://www.ncdc.noaa.gov/stormevents/.

million in utility damage alone. Some communities remained without power for days afterward, and some more remote customers remained without power for weeks.

- **December 1, 2007 – Ice Storm:** Freezing rain accumulated around a quarter of an inch over much of the planning area. The freezing precipitation began over much of the area between two and four a.m. and was preceded or initially mixed with a little sleet. Surface temperatures and dew points climbed to freezing or a bit above about five to 12 hours after the precipitation began, first over southeast Nebraska. Although there were reports of the ice downing tree limbs and causing scattered power outages and traffic accidents, the rise in temperatures to freezing and above helped mitigate a lot of the damage.[139]

- **February 23, 2019 – Blizzard:** A strong storm moved through the region, bringing mixed wintry precipitation, heavy snow, and very strong winds. The storm created widespread blizzard conditions and six to 12 inches of snow. Twenty-four hours of freezing fog, freezing rain, and a wintry mix led up to the blizzard, which compounded travel problems. One quarter mile visibility and wind gusts 35 mph and higher created whiteout conditions across the planning area.[140]

Average Annual Damages

The average damage per event estimate was determined based upon NCEI Storm Events Database since 1996 and includes aggregated calculations for each of the five types of winter weather as provided in the database. This does not include losses from displacement, functional downtime, economic loss, injury, or loss of life. Severe winter storms have caused an average of $107,143 per year in property damage and $75,039 per year in crop damage for the planning area.

Severe Winter Storms Loss Estimate

Hazard Type	Number of Events[1]	Average Events Per Year[1]	Total Property Loss[1]	Average Annual Property Loss[1]	Total Crop Loss[2]	Average Annual Crop Loss[2]
Blizzard	27	0.96	$0	$0	$1,837,180	$76,549
Heavy Snow	16	0.6	$3,000,000	$107,143		
Ice Storm	11	0.4	$0	$0		
Winter Storm	148	5.3	$0	$0		
Winter Weather	40	1.4	$0	$0		
Total	**242**	**8.7**	**$3,000,000**	**$107,143**	**$1,837,180**	**$76,549**

Source: 1 Indicates data is from NCEI (1996 to Dec 2023)[141]; 2 Indicates data is from RMA (2000-2023)[142]

139 NOAA National Centers for Environmental Information. December 2023. "Storm Events Database". https://www.ncdc.noaa.gov/stormevents/.
140 NOAA National Centers for Environmental Information. December 2023. "Storm Events Database". https://www.ncdc.noaa.gov/stormevents/.
141 NOAA National Centers for Environmental Information. December 2023. "Storm Events Database". https://www.ncdc.noaa.gov/stormevents/.
142 U.S. Department of Agriculture Risk Management Agency. 2023. "Cause of Loss Historical Data Files: 2000-2023." https://old.rma.usda.gov/en/Information-Tools/Summary-of-Business/Cause-of-Loss.

Historical Probability & Future Likelihood

Based on historical records, severe winter storm events are likely to occur on an annual basis. The NCEI reported a severe winter storm event every year, resulting in a 100% historical probability for severe winter storms. Even with the uncertainty about how changes in extreme weather and future development will impact severe winter storms, the future likelihood of events is very likely.

Historical Probability & Future Likelihood – Severe Winter Storms

Historical Probability	Extreme Weather Changes Impact	Future Development Impact	Future Likelihood
100%	Uncertain	Neither Increase nor Decrease in Frequency. Increase Exposure	**Very Likely**

Changing Extreme Weather

For extreme events like severe winter storms, "it is difficult to know what will happen to the frequency and intensity" of these events. However, winter storms will "continue to be a normal feature for Nebraska."[143] Although severe winter weather projections are uncertain, winter precipitation is expected to increase across Nebraska. Heavier winter precipitation can be beneficial in improving soil moisture for winter crops but potentially delay planting for the summer crops.[144]

Future Development

All future developments will be affected by winter storms. More buildings and infrastructure in the planning area creates a higher probability of damage to occur from winter weather as more property is exposed to risk. The ability to withstand impacts lies in sound land use practices and consistent enforcement of codes and regulations for new construction.

Regional Vulnerabilities

Severe winter storms that bring snow, ice, and high winds can cause significant impacts on life and property. Many severe winter storm deaths occur because of traffic accidents on icy roads, heart attacks when shoveling snow, and hypothermia from prolonged exposure to the cold. The temporary loss of home heating can be particularly hard on the elderly, young children, and other vulnerable individuals.

Severe winter storm also can cause the temporary closure of key roads, highways, the interstate, train operations, businesses, schools, government offices, and other important community services. These effects, if lasting more than several days, can create significant economic impacts for the communities affected as well as for the surrounding region.

The following table provides information related to regional vulnerabilities. For jurisdictional-specific vulnerabilities, refer to *Section Eight*.

143 University of Nebraska-Lincoln. 2014. "Understanding and Assessing Climate Change: Implications for Nebraska". http://snr.unl.edu/download/research/projects/climateimpacts/2014ClimateChange.pdf.

144 NCEI. 2022. "State Climate Summaries – Nebraska". https://statesummaries.ncics.org/chapter/ne/#:~:text=The%20state%20is%20located%20far,(1895%E2%80%932020)%20averag.

Regional Severe Winter Storm Vulnerabilities

Sector	Vulnerability
People	-Elderly citizens are at higher risk to injury or death, especially during extreme cold and heavy snow accumulations -Exposure or injury to first responders during working conditions -Exposure to motorists or other people outdoors
Economic	-Closed roads and power outages can cripple a region for days, leading to significant revenue loss and loss of income for workers
Built Environment	-Heavy snow loads can cause roofs to collapse -Significant tree damage possible, downing power lines and blocking roads
Community Lifelines	-Heavy snow and ice accumulation can lead to downed power lines and prolonged power outages -Transportation, especially on major transportation routes, may be difficult or impossible during blizzards, heavy snow, and ice events -Emergency response and recovery operations, communications, water treatment plants, and others are at risk to power outages, impassable roads, and other damages

Jurisdictions Ranking Severe Winter Storms as a Prioritized Hazard of Concern

The following lists jurisdictions and stakeholders which identified severe winter storms as a prioritized hazard of concern.

- City of Fremont
- City of North Bend
- City of Wahoo
- City of Yutan
- Colon Volunteer Fire District
- David City Public Schools
- Malmo Volunteer Fire Department
- Mead Public Schools
- Morse Bluff Township
- North Bend Central Public Schools
- Platte Township
- Pohocco Township
- Reading Township
- Schuyler Volunteer Fire Department
- Skull Creek Township
- Ulysses Township
- Union Township
- Village of Abie
- Village of Bruno
- Village of Cedar Bluffs
- Village of Dwight
- Village of Garrison
- Village of Inglewood
- Village of Leshara
- Village of Lindsay
- Village of Linwood
- Village of Malmo
- Village of Mead
- Village of Morse Bluff
- Village of Platte Center
- Village of Prague
- Village of Richland
- Village of Rising City
- Village of Rogers
- Village of Surprise
- Weston Volunteer Fire and Rescue
- Woodcliff Lakes SID #8

Terrorism and Cyber-Attack

For the purposes of this plan, this hazard is going to include terrorism, cyber-attack, active shooter incidents, and other intentional human-caused threats that pose a significant hazard to life safety, property, infrastructure, or the environment.

Active Shooter
One or more individuals actively engaged in killing or attempting to kill people in a populated area.

Domestic Terrorism
Violent, criminal acts committed by individuals and/or groups to further ideological goals stemming from domestic influences within the United States, such as those of a political, religious, social, racial, or environmental nature.

International Terrorism
Violent, criminal acts committed by individuals and/or groups who are inspired by, or associated with, designated foreign terrorist organizations or nations.

Intentional attacks and terrorist activity may be based on ideology (i.e. religious fundamentalism, national separatist movements, and social revolutionary movements), but attacks can also be random with no ties to ideological reasoning.

Threat assessment, mitigation, and response to terrorism are federal and state directives that work in conjunction with local law enforcement and county emergency management.

Cyber-Attack
Cyber-attack is an incident involving the theft or modification of information on computer systems that can compromise the system or potentially disrupt essential services. A cyber-attack incident can impact governmental agencies, private utilities, or critical infrastructure/key resources like a power grid, public transportation system, and wireless networks. Cyber infrastructure includes electronic information and communications systems, and the information contained in those systems. Computer systems, control systems, and networks such as the internet are all part of cyber infrastructure.

> "Many of the Nation's essential and emergency services, as well as our critical infrastructure, rely on the uninterrupted use of the Internet and the communications systems, data, monitoring, and control systems that comprise our cyber infrastructure. A cyber-attack could be debilitating to our highly interdependent critical infrastructure and key resources and ultimately to our economy and national security."
>
> - National Strategy for Homeland Security

Nation-states, criminal organizations, terrorists, and other malicious actors conduct attacks against critical cyber infrastructure on an ongoing basis. The impact of a serious cyber incident or successful cyber-attack would be devastating to regional and local governments' assets, systems, and/or networks; the information contained in those networks; and the confidence of those who trust governments to secure those systems.

A cyber-attack can affect a system's:

- Confidentiality: protecting a user's private information
- Integrity: ensuring that data is protected and cannot be altered by unauthorized parties
- Availability: keeping services running and giving administration access to key networks and controls.

Location

Terrorism and cyber-attacks can occur throughout the entire planning. Most attacks in the United States have taken place in business/commercial sites, public open spaces, and schools. However, government buildings, healthcare facilities, and houses of worship can also be targets for ideologically motivated attacks. Critical infrastructure and commercial, private, and government computer systems may also be targeted for physical or cyber-attacks.[145]

According to the 2023 data from the Southern Poverty Law Center, there are seven hate and antigovernmental groups in Nebraska. Data is collected from pubic displays of hate groups and organizations. Information is collected through social media platforms, news articles, and tips submitted to the SPLC.[146]

Antigovernmental Groups in the Planning Area

Title	Ideology
Eagle Forum	Antigovernment General
Institute on the Constitution	Antigovernment General
Nebraska Parents Involved in Education	Antigovernment General
MSR Productions	Hate Music
Asatru Folk Assembly	Neo-VÃlkisch
National Justice Party - Nebraska	White Nationalist
Patriot Front	White Nationalist

Source: Southern Poverty Law, 2023

Extent

Terrorist and cyber-attacks can vary greatly in scale and magnitude, depending on the location, method, and target of the attack. They can range from an entire water system to a single building or structure.

Historical Occurrences

Previous accounts of terrorism in the planning area were gathered from the Global Terrorism Database, maintained by the University of Maryland and the National Consortium for the Study of Terrorism and Responses to Terrorism. According to this database, there has been one terrorist incident in the planning area since 1970.[147] A cyber-attack event was also provided that occurred in Butler County and is included below.

145 Federal Bureau of Investigation. 2022. "Active Shooter Incidents in the United States in 2022". https://www.fbi.gov/file-repository/active-shooter-incidents-in-the-us-2022-042623.pdf/view.
146 Southern Poverty Law Center. 2023. "Map of Hate Groups in the U.S." https://www.splcenter.org/.
147 University of Maryland and National Consortium for the Study of Terrorism and Response to Terrorism. 1970-2020. "Global Terrorism Database". https://www.start.umd.edu/gtd/.

- **May 4, 2002:** Between the dates of May 3-7, 2002, eighteen pipe bombs were found in rural mailboxes in five Midwestern states in the U.S.A., collectively causing seven injuries and leading to widespread panic in the region. Most of the explosives came with typewritten notes that bemoaned the power of the government and threatened more attacks. In the incidents that occurred on May 4-5, 2002, seven bombs were found in mailboxes in the southern and central counties of Nebraska. None of these bombs detonated and no injuries were suffered. On May 7, 2002, the FBI and Nevada state authorities arrested a 21-year-old college student, who confessed to being responsible for all of the bombs.[148]

- **July 2022:** The FBI announced that they assisted in stopping a cyber-attack on the Butler County Health Care Center in early July. The infected server was taken offline so no malware could spread to the rest of the hospital's network.[149]

Cyber-attacks are a common occurrence, and government and private sector organizations are targeted by various types of cyber-attacks regularly. Most of these attacks have been stopped prior to any impacts, however the threat is continual and constantly evolving.

Average Annual Damages

According to the Global Terrorism Database, the 2002 pipe bombs were the only known terrorism event in planning area. This event did not result in any property damage as the bombs detonated. However, a terrorist or cyber-attack event could range from less than $1 million in rural areas to more than $10 million in urban areas.

Historical Probability & Future Likelihood

Based on historical occurrences, the historical probability is four percent. However, historical occurrences may not be a useful measure of future likelihood. At the national level, the annual occurrence of active shooter attacks and ideologically motivated violence in the United States has increased substantially over the past 20 years.[150,151]

Cyber-attacks are occurring continuously across the state and region. While defense systems become more adept at catching cyber-attacks before they cause significant infrastructure or service disruption, the frequency and sophistication of cyber-attacks is expected to continue to increase.[152] Due to the anticipated impacts from changes in extreme weather, future development and increasing events nationally, the future likelihood of terrorism and cyber-attack is Unlikely.

148 University of Maryland and National Consortium for the Study of Terrorism and Response to Terrorism. 1970-2020. "Global Terrorism Database". https://www.start.umd.edu/gtd/.
149 WOWT. "Cyberattacks targeting ag co-ops, Nebraska hospital thwarted by FBI." August 10, 2022. https://www.wowt.com/2022/08/10/fbi-helps-stop-cyberattack-targeting-nebraska-hospital/.
150 Federal Bureau of Investigation. 2022. "Active Shooter Incidents in the United States in 2022". https://www.fbi.gov/file-repository/active-shooter-incidents-in-the-us-2022-042623.pdf/view.
151 Federal Bureau of Investigation. May 2021. "Active Shooter Incidents 20-Year Review, 2000-2019". https://www.fbi.gov/file-repository/active-shooter-incidents-20-year-review-2000-2019-060121.pdf/view.
152 Internet Crime Complaint Center. "2023 ICS Annual Report." 2023. https://www.ic3.gov/AnnualReport/Reports/2023_IC3Report.pdf.

Historical Probability & Future Likelihood – Terrorism and Cyber-Attack

Historical Probability	Extreme Weather Changes Impact	Future Development Impact	Future Likelihood
4%	Neither Increase nor Decrease in Frequency	Neither Increase nor Decrease in Frequency. Increase Exposure	**Unlikely**

Changing Extreme Weather

Changes in extreme weather will likely have very limited direct impact on terrorism and cyber-attacks. However, the impacts of these changes in extreme weather will likely put additional stress on social structures and may contribute to an increase in social disenfranchisement and politically motivated violence.

Future Development

Increased security measures at vulnerable locations such as schools or government buildings will reduce the likelihood and impacts of terrorism and cyber-attacks. Measures can include bollards to protect from vehicles, fencing, security cameras, advanced locks, etc. Having strong cyber security can keep bad actors from taking control of virtual systems with the intent to cause harm to humans and damage to buildings.

Regional Vulnerabilities

The following table provides information related to regional vulnerabilities. For jurisdictional-specific vulnerabilities, refer to *Section Eight.*

Regional Terrorism and Cyber-Attack Vulnerabilities

Sector	Vulnerability
People	-Civilians at risk of injury or death -Students and staff at school facilities at risk of injury or death from school shootings -Police officers and first responders at risk of injury or death
Economic	-Damaged businesses can cause loss of revenue and loss of income for workers -Risk of violence in an area can reduce income flowing into and out of that area -Agricultural attacks could cause significant economic losses for the region
Built Environment	-Targeted buildings may sustain heavy damage
Community Lifelines	-Water supply, power plants, utilities may be damaged -Police stations, schools, and government offices are at a higher risk

Jurisdictions Ranking Terrorism and Cyber-Attack as a Prioritized Hazard of Concern

The following lists jurisdictions and stakeholders which identified terrorism and cyber-attack as a prioritized hazard of concern.

- Cedar Bluffs Public Schools
- City of Fremont
- David City
- David City Public Schools
- Educational Service Unit #2
- Mead Public Schools
- Village of Mead
- Village of Prague

Tornadoes and High Winds

High winds typically accompany severe thunderstorms, severe winter storms, tornadoes, and other large low-pressure systems, which can cause significant crop damage, downed power lines, loss of electricity, traffic flow obstructions, and significant property damage including trees and center-pivot irrigation systems.

The National Weather Service (NWS) defines high winds as sustained wind speeds of 40 mph or greater lasting for one hour or longer, or winds of 58 mph or greater for any duration.[153] The figure on the next page shows the wind zones in the United States. The wind zones are based on the maximum wind speeds that can occur from a tornado or hurricane event. The planning area is in Zone III which has maximum winds of 200 mph equivalent to an EF4/5 tornado.

A tornado is typically associated with a supercell thunderstorm. For a rotation to be classified as a tornado, three characteristics must be met.

- There must be a microscale rotating area of wind, ranging in size from a few feet to a few miles wide.
- The rotating wind, or vortex, must be attached to a convective cloud base and must be in contact with the ground.
- The spinning vortex of air must have caused enough damage to be classified by the Fujita Scale as a tornado.

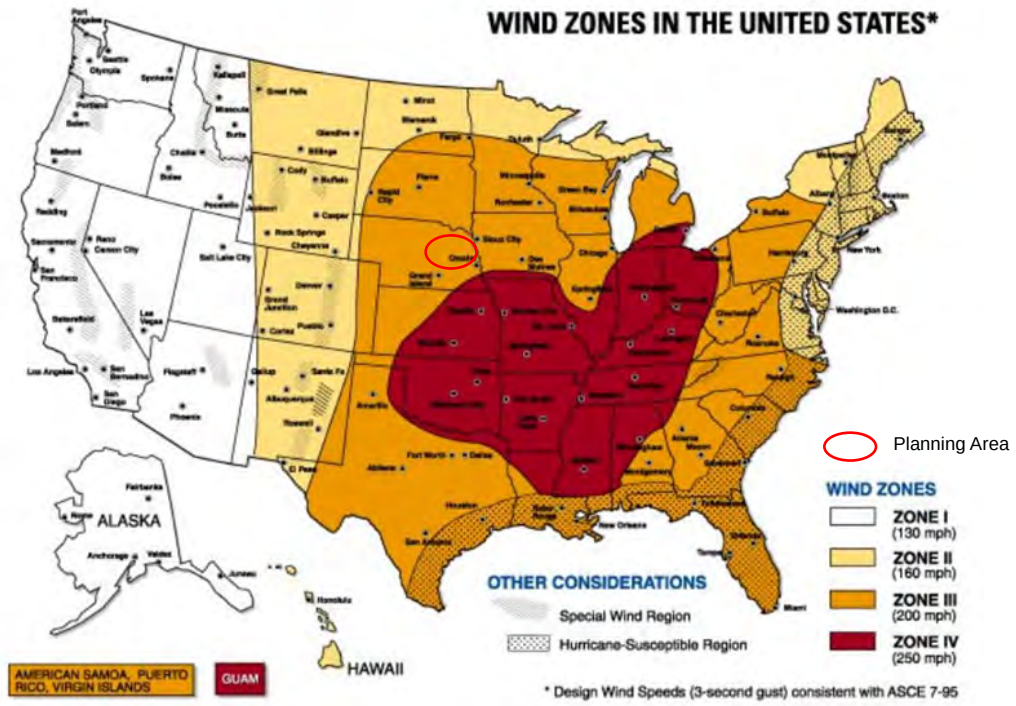
Once tornadoes are formed, they can be extremely violent and destructive. They have been recorded all over the world but are most prevalent in the American Midwest and South, in an area known as “Tornado Alley.” Tornadoes can travel distances of over 100 miles and reach over 11 miles above ground. Tornadoes usually stay on the ground for no more than ten minutes. In the northern Plains (which includes Nebraska), tornado season is typically in June or July. On average, 80 percent of tornadoes occur between noon and midnight.

Location

High winds and tornadoes can occur throughout the planning area. The impacts would be greater in more densely populated areas, such as David City, Fremont, Schuyler and Wahoo. The Tornado Tracks figure below shows the historical track locations across the planning area according to the Midwestern Regional Climate Center.

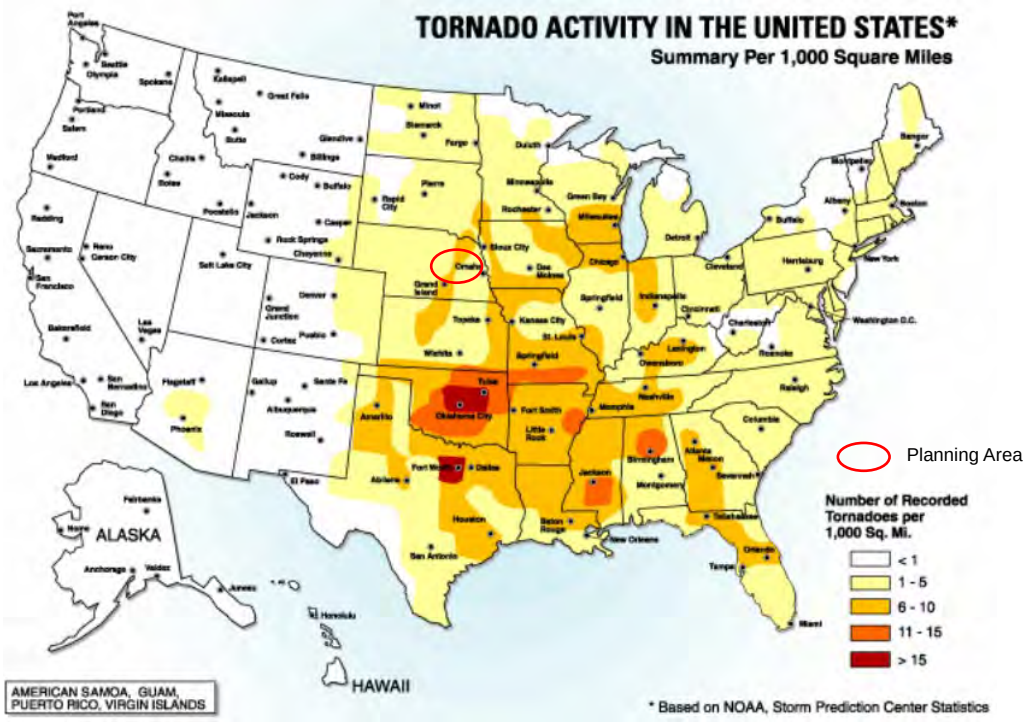
153 National Weather Service. 2025. “Glossary”. https://forecast.weather.gov/glossary.php.

Wind Zones in the U.S.



Source: FEMA[154]

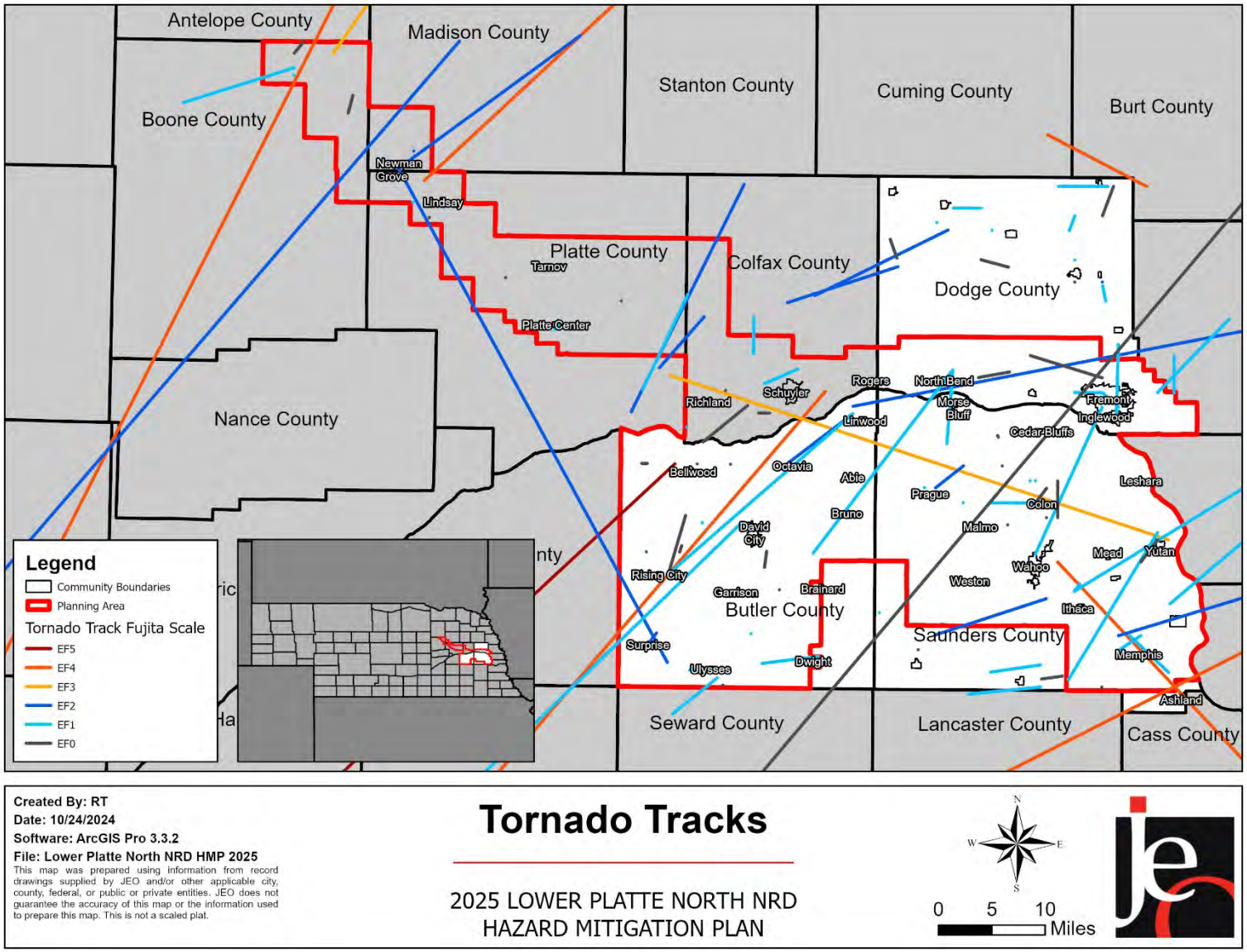
Figure 1: Tornado Activity in the United States



Source: FEMA

154 FEMA. "Section 1: Understanding Hazards". Accessed December 2022. https://www.fema.gov/pdf/library/ism2_s1.pdf.

Tornado Tracks (1950-2022)



Extent

The Beaufort Wind Scale can be used to classify wind strength while the magnitude of tornadoes is measured by the Enhanced Fujita Scale. The following table outlines the Beaufort scale including wind speed ranking, range of wind speeds per ranking, and a brief description of conditions for each.

Beaufort Wind Ranking

Beaufort Wind Force Ranking	Range of Wind	Conditions
0	<1 mph	Smoke rises vertically
1	1-3 mph	Smoke drift indicates wind direction; still wind vanes
2	4-7 mph	Wind felt on face; leaves rustle; wind vanes begin to move
3	8-12 mph	Leaves and small twigs constantly moving; light flags extended
4	13-18 mph	Dust, leaves, and loose paper lifted; small tree branches move
5	19-24 mph	Small trees in leaf begin to sway
6	25-31 mph	Large branches moving; whistling in wires
7	32-38 mph	Whole trees moving; resistance felt walking against wind
8	39-46 mph	Twigs breaking off trees; generally impedes progress
9	47-54 mph	Slight structural damage; slate blows off roofs
10	55-63 mph	Trees broken or uprooted; considerable structural damage
11	64-72 mph	Widespread damages; very rarely experienced
12	72+ mph	Hurricane; devastation

Source: Storm Prediction Center[155]

After a tornado passes through an area, an official rating category is determined, which provides a common benchmark that allows comparisons to be made between different tornadoes. The Enhanced Fujita Scale replaced the Fujita Scale in 2007. The Enhanced Fujita Scale does not measure tornadoes by their size or width, but rather the amount of damage caused to human-built structures and trees after the event. The official rating category provides a common benchmark that allows comparisons to be made between different tornadoes. The enhanced scale classifies EF0-EF5 damage as determined by engineers and meteorologists across 28 different types of damage indicators, including different types of building and tree damage. To establish a rating, engineers and meteorologists examine the damage, analyze the ground-swirl patterns, review damage imagery, collect media reports, and sometimes utilize photogrammetry and videogrammetry. Based on the most severe damage to any well-built frame house, or any comparable damage as determined by an engineer, an EF-Scale number is assigned to the tornado.

155 Storm Prediction Center: National Oceanic and Atmospheric Administration. 1805. “Beaufort Wind Scale”. http://www.spc.noaa.gov/faq/tornado/beaufort.html.

The following tables summarize the Enhanced Fujita Scale and damage indicators. According to the National Institute of Science and Technology on the Joplin Tornado, tornadoes rated EF3 or lower account for around 96 percent of all tornado damages.[156]

Enhanced Fujita Scale

Storm Category	3 Second Gust (mph)	Damage Level	Damage Description
EF0	65-85 mph	Gale	Chimneys are damaged, tree branches are broken, shallow-rooted trees are toppled.
EF1	86-110 mph	Weak	Roof surfaces are peeled off, windows are broken, some tree trunks are snapped, unanchored mobile homes are overturned, attached garages may be destroyed.
EF2	111-135 mph	Strong	Roof structures are damaged, mobile homes are destroyed, debris becomes airborne (missiles are generated), large trees are snapped or uprooted.
EF3	136-165 mph	Severe	Roofs and some walls are torn from structures, some small buildings are destroyed, non-reinforced masonry buildings are destroyed, most trees in forest are uprooted.
EF4	166-200 mph	Devastating	Well-constructed houses are destroyed, some structures are lifted from foundations and blown some distance, cars are blown some distance, large debris becomes airborne.
EF5	200+ mph	Incredible	Strong frame houses are lifted from foundations, reinforced concrete structures are damaged, automobile-sized missiles become airborne, trees are completely debarked.

Source: NOAA[157]; FEMA[158]

Enhanced Fujita Scale Damage Indicator

Number	Damage Indicator	Number	Damage Indicator
1	Small barns, farm outbuildings	**15**	School – 1 story elementary (interior or exterior halls)
2	One- or two-family residences	**16**	School – Junior or Senior high school
3	Single-wide mobile homes (MHSW)	**17**	Low-rise (1-4 story) buildings
4	Double-wide mobile homes (MHDW)	**18**	Mid-rise (5-20 story) buildings
5	Apartment, condo, townhouse (3 stories or less)	**19**	High-rise (over 20 stories)
6	Motel	**20**	Institutional buildings (hospital, government, or university)
7	Masonry apartment or motel	**21**	Metal building systems
8	Small retail buildings (fast food)	**22**	Service station canopy

156 Kuligowski, E.D., Lombardo, F.T., Phan, L.T., Levitan, M.L., & Jorgensen, D.P. March 2014. "Final Report National Institute of Standards and Technology (NIST) Technical Investigation of the May 22, 2011, Tornado in Joplin, Missouri".
157 NOAA. 2006. "Enhanced F Scale for Tornado Damage". https://www.spc.noaa.gov/efscale/ef-scale.html.
158 FEMA. "Section 1: Understanding Hazards". Accessed July 2024. https://www.fema.gov/pdf/library/ism2_s1.pdf.

Number	Damage Indicator	Number	Damage Indicator
9	Small professional (doctor office, branch bank)	**23**	Warehouse (tilt-up walls or heavy timber)
10	Strip mall	**24**	Transmission line tower
11	Large shopping mall	**25**	Free-standing tower
12	Large, isolated ("big box") retail building	**26**	Free standing pole (light, flag, luminary)
13	Automobile showroom	**27**	Tree- hardwood
14	Automotive service building	**28**	Tree -softwood

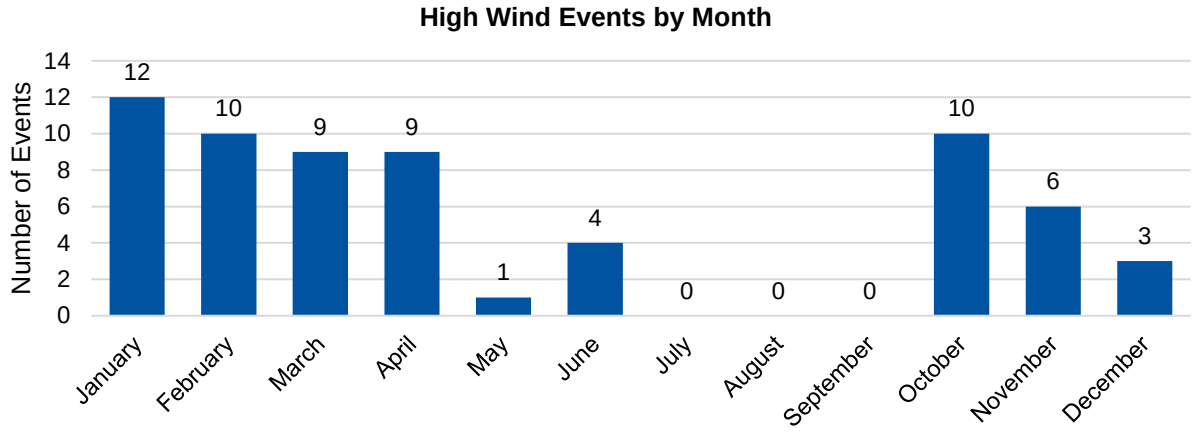
Source: NOAA

Using the NCEI reported events since 1996, the average high wind event in the planning area is a level nine on the Beaufort Wind Ranking scale. The reported high wind events ranged from 35 mph to 58 mph, with an average speed of 49 mph. Based on the historical record, it is most likely that tornadoes that occur within the planning area will be of EF0 strength. Of the 44 reported tornado events, 21 were EF/F0, 19 were EF/F1, three were EF/F2, and one was EFU.[159]

The extent of damage felt by high wind or tornado events will vary depending on the severity of the event and amount of infrastructure and development within a community or area. Due to the nature of how tornadic events are categorized, significant tornado events will occur in areas with more infrastructure.

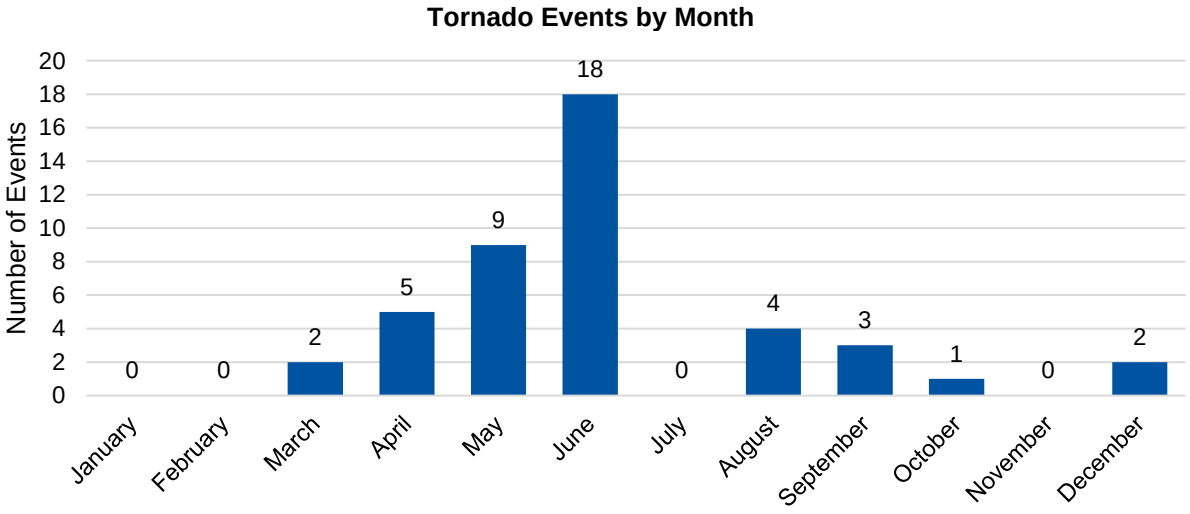
Historical Occurrences

Due to the regional scale of high winds, the NCEI reports events as they occur in each county. While a single event can affect two or more counties at a time, the NCEI reports them as separate events. There were 64 high wind events and 44 tornadic events that occurred between 1996 and December 2023 ranging from a magnitude of EFU to EF2. These events were responsible for $2,098,000 in property damage and $6,843,864 in crop damage. No injuries or deaths were reported from these events. As seen in the following figures, most high wind events occur in the spring and winter months, while most tornado events occur in May and June.



Source: NCEI, 1996-December 2023

159 NOAA National Centers for Environmental Information. December 2023. "Storm Events Database". https://www.ncdc.noaa.gov/stormevents/.



Source: NCEI, 1996-December 2023

Event descriptions from NCEI for the events that caused the most injuries, and the most damaging events are provided below.

- **June 23, 1998, Tornado** – $500,000 in property damage in Dodge County. An F1 tornado went through Dodge County where several outbuildings and grains were destroyed. A house, machine she, and hog barn were also destroyed, and a chimney was blown of the back porch of a house.[160]

- **August 28, 2007, Tornado** – $300,000 in property damage was reported in Dodge County from an EF1 tornado. A tornado occurred from about four miles west of Uehling to just east of Highway 77 in Uehling. The maximum path width was around 1500 feet. The tornado was rated an EF-1 on the Enhanced Fujita Scale with maximum winds around 90 mph. According to Emergency Management Officials, 10 homes sustained minor damage due to falling tree limbs. Homes and buildings lost a considerable number of shingles. Immediately west of Uehling, there was damage to bleachers and fencing at a ballpark, numerous large tree limbs were blown down, and a few trees were uprooted or snapped at the base of the tree trunk. There were numerous patches of flattened corn west of the park area.[161]

- **December 15, 2021, Tornado** – A tornado developed just north of the Jack Sinn Memorial Wildlife Management area, producing damage to farm buildings and then moving off toward the northeast into Saunders County, and eventually the north northeast as observed by a storm chaser. The tornado caused damage to several barns and outbuildings along the track, including complete destruction of barns near Road 11 and Road F. The tornado also overturned several pivot irrigation systems and snapped wooden power poles at multiple locations, including numerous poles along Highway 92 which

160 NOAA National Centers for Environmental Information. December 2023. "Storm Events Database". https://www.ncdc.noaa.gov/stormevents/.
161 NOAA National Centers for Environmental Information. December 2023. "Storm Events Database". https://www.ncdc.noaa.gov/stormevents/.

prompted a multi-day closure of the highway. The tornado also impacted the University of Nebraska Farm where a video was taken of the small fast-moving tornado and several buildings sustained damage. The tornado ended one mile northwest of Yutan where a farm outbuilding was blown for a significant distance and trees were damage. Significant downburst winds on the east flank of the tornado circulation were evident on radar and damage to pivot irrigation systems and other structures throughout the duration of the tornado.

- **May 12, 2023, Tornado** – The tornado touched down just south of Highway 275, damaging a home, power poles and numerous trees as it entered the Elkhorn River valley. It caused EF-2 damage to a home just south of the Elkhorn River where a porch was ripped off and large trees damaged. The tornado crossed the Elkhorn River where significant tree damage was noted and several center pivots were flipped over. The tornado became wider and impacted additional farmsteads with EF-2 damage, especially as it approached County Road F up to the Dodge and Burt county line. At these farmsteads, several hog barns, machine sheds, and well-built outbuildings were destroyed. Farm equipment was significantly damaged. Windows were broken out of homes, roofs damaged, porches ripped off, and garage doors sucked out. Several people noted that their ears still hurt a day later due to the pressure drop during the tornado. Numerous livestock were injured or killed. The maximum width of this tornado approached one mile as it moved between County Road F and County Road B. A large cattle feedlot was impacted in northeast Dodge County where very large grain bins and well-built barns were destroyed. This tornado exhibited multiple vortex damage patterns at times. The tornado dissipated just north of County Road F in Burt County before developing a new tornado to the north. Additionally, a satellite tornado was reported near the end of this tornado's life cycle.[162]

Average Annual Damages

The average damage per event estimate was determined based upon NCEI Storm Events Database since 1996. This does not include losses from displacement, functional downtime, economic loss, injury or loss of life. It is estimated that high wind events can cause an average of $179 per year in property damage and $284,386 and per year in crop damage. Tornadoes have caused an average of over $74,750 per year in property damage and $776 per year in crop damage; however, damages from tornadoes vary greatly depending on the severity or magnitude of each event.

High Winds and Tornado Losses

Hazard Type	# of Events[1]	Average # events per year	Total Property Loss[1]	Average Annual Property Loss	Total Crop Loss[2]	Average Annual Crop Loss
High Winds	64	2.3	$5,000	$179	$6,825,252	$284,386
Tornadoes	44	1.6	$2,093,000	$74,750	$18,612	$776
Total	**108**	**3.9**	**$2,098,000**	**$74,929**	**$6,843,864**	**$285,161**

Source: 1 NCEI (1996-Nov 2023), 2 USDA RMA (2000-2023)

162 NOAA National Centers for Environmental Information. December 2023. "Storm Events Database". https://www.ncdc.noaa.gov/stormevents/.

Historical Probability & Future Likelihood

Given the historic record of occurrence for high wind events (14 out of 28 years with reported events), the annual historical probability of a high wind event is 50 percent. However, high wind events may be more common than presented here but have simply not been reported in past years. Given the historic record of occurrence for tornado events (20 out of 28 years with reported events), for the purposes of this plan, the annual historical probability of a tornado occurrence is 71 percent. Even with the uncertainty of how extreme weather changes along with future development will impact severe events like tornadoes and high winds, the future likelihood of a high wind and a tornado event is very likely.

Historical Probability & Future Likelihood – Tornadoes and High Winds

Hazard	Historical Probability	Extreme Weather Changes Impact	Future Development Impact	Future Likelihood
High Winds	50%	Uncertain	Neither Increase nor Decrease in Frequency. Increase in Exposure	**Very Likely**
Tornadoes	71%	Uncertain	Neither Increase nor Decrease in Frequency. Increase in Exposure	**Very Likely**

Changing Extreme Weather

For extreme events like tornadoes and high winds there is "considerable uncertainty about how projected changes in the climate will affect these events". However, "tornadoes and severe storms will continue to be a normal feature for Nebraska."[163]

Future Development

Any future development and population growth elevates exposure of property and people to the impacts of tornadoes and high winds. Future development should take steps to reduce potential damage from these events. Building codes for new structures can be strengthened, requiring increased rebar in foundations, enhanced nailing patterns for wall sheathing, the use of Simpson Strong Ties and Straps, and require the use of anchors and tie-downs of mobile homes. Additionally, individuals can choose to build to an option Code Plus Standard, such as Fortified for Safer Living or construct a tornado shelter on their property. The installation of public shelters to protect residents caught outside or in vulnerable areas, such as mobile home parks, can increase safety of residents in those areas. Development regulations that require safe rooms, basements, warning sirens, or other structures that reduce risk to people would also help decrease vulnerability.

Regional Vulnerabilities

The following table provides information related to regional vulnerabilities; for jurisdictional specific vulnerabilities, refer to *Section Eight*.

163 University of Nebraska-Lincoln. 2014. "Understanding and Assessing Climate Change: Implications for Nebraska". http://snr.unl.edu/download/research/projects/climateimpacts/2014ClimateChange.pdf.

Regional Tornado and High Wind Vulnerabilities

Sector	Vulnerability
People	-Vulnerable populations include those living in mobile homes (especially if improperly anchored), nursing homes, schools, or in substandard housing -People outside during events -Citizens without access to shelter below ground or in reinforced rooms -Elderly with decreased mobility or poor hearing may be at higher risk -Lack of multiple ways to receive weather warnings, especially at night
Economic	-Agricultural losses to both crops and livestock -Damages to businesses and prolonged power outages can cause significant impacts to the local economy, especially with EF3 tornadoes or greater
Built Environment	-All building stock is at risk of significant damages
Community Lifelines	-Downed power lines and power outages -All above ground infrastructure at risk to damages -Impassable roads due to debris blocking roadways - All community lifelines are at risk to damages

Jurisdictions Ranking Tornadoes and High Winds as a Prioritized Hazard of Concern

The following lists jurisdictions and stakeholders which identified tornadoes and high winds as a prioritized hazard of concern.

- Butler County
- Cedar Bluff Public Schools
- City of Fremont
- City of North Bend
- City of Wahoo
- City of Yutan
- Colon Volunteer Fire District
- David City
- Dodge County
- Lake Venture SID #3
- Mead Public Schools
- North Bend Central Public Schools
- North Bend Volunteer Fire Department
- Pohocco Township
- Rising City Rural Fire Department
- Schuyler Volunteer Fire Department
- Three Rivers Public Health Department
- Village of Abie
- Village of Bruno
- Village of Cedar Bluffs
- Village of Colon
- Village of Dwight
- Village of Inglewood
- Village of Leshara
- Village of Lindsay
- Village of Linwood
- Village of Malmo
- Village of Mead
- Village of Octavia
- Village of Platte Center
- Village of Prague
- Village of Richland
- Village of Rising City
- Village of Rogers
- Village of Surprise
- Village of Ulysses
- Weston Volunteer Fire and Rescue
- Woodcliff Lakes SID #

Appendix B: Planning Process Documentation

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Introduction

The following appendix provides documentation for the planning process that was discussed in *Section 4: Planning Process Summary*. This appendix provides information on public involvement and outreach, notified stakeholders, notified neighboring jurisdictions, meeting invitation letters, meeting sign-in sheets, meeting worksheets, public review comments, and adoption resolutions that have been gathered.

Public Involvement and Outreach

Notified Stakeholder Groups

Organizations	Type
Valmont Industries	Major Employers
Wholestone Farms	Major Employers
Lincoln Premium Poultry	Major Employers
Omaha Steel	Major Employers
City of Hooper – Hooper Dam	High Hazard Dams
Village of Dodge – Dodge Dam	High Hazard Dams
Cottonwood Creek 7-A	High Hazard Dams
Cottonwood Creek 21-A	High Hazard Dams
Lake Wanahoo Dam	High Hazard Dams
Four Corners Public Health Department	Health Department
Methodist Health System	Health Department
Methodist Fremont Health	Health Department
Southeast Nebraska Healthcare Coalition	Health Department
Omaha Metropolitan Healthcare Coalition	Health Department
Red Cross Southeast Nebraska	Red Cross
Red Cross Omaha-Council Bluffs & SW Iowa Chapter	Red Cross
The Salvation Army Western Division	Salvation Army
David Place	Nursing Home
St. Joseph's Villa, Inc	Nursing Home
Parkview Home, Inc	Nursing Home
Dunklau Gardens	Nursing Home
Nye Legacy Health & Rehabilitation Center	Nursing Home
Saunders Medical Center	Nursing Home
South Haven Living Center	Nursing Home
David City Municipal Airport	Airport
Wahoo Municipal Airport	Airport
Butler County Chamber of Commerce	Chamber of Commerce
Fremont Area Chamber of Commerce	Chamber of Commerce
North Bend Area Chamber of Commerce	Chamber of Commerce
Wahoo Chamber of Commerce	Chamber of Commerce
Schuyler Area Chamber of Commerce	Chamber of Commerce

Organizations	Type
Butler Public Power District	Public Power District
Polk County Rural Public Power District	Public Power District
Nebraska Public Power District	Public Power District
Midland University	Private Universities/Schools
Aquinas Catholic Schools	Private Universities/Schools
Trinity Lutheran Elem Schools	Private Universities/Schools
Archbishop Bergan School	Private Universities/Schools
St Wenceslaus Elementary School	Private Universities/Schools
Bishop Neumann High School	Private Universities/Schools
Lutheran Family Services	Faith Based Organizations
Catholic Charities	Faith Based Organizations
Rapid Response	Faith Based Organizations
NE Extension Engagement Coordinator	Nebraska Extension Offices
John Shephard	Private Resident
NEMA	State Agency
NeDNR	State Agency
FEMA	Federal Agency

Notified Neighboring Jurisdictions

Notified Neighboring Jurisdictions		
Lower Platte South NRD	Upper Big Blue NRD	Central Platte NRD
Upper Elkhorn NRD	Lower Elkhorn NRD	Papio-Missouri River NRD
Boone County	Colfax County	Madison County
Platte County	City of Ashland	Village of Brainard
Village of Ceresco	Village of Valparaiso	Village of Dodge
City of Hooper	Village of Nickerson	City of Scribner
Village of Snyder	Village of Uehling	Village of Winslow

Website

The project website was used to communicate with the public, participating jurisdictions, and stakeholders about the plan update, meeting information, and other critical information. A link to the website can be found here: https://jeo.com/lower-platte-north-nrd-hazard-mitigation-plan-update/.

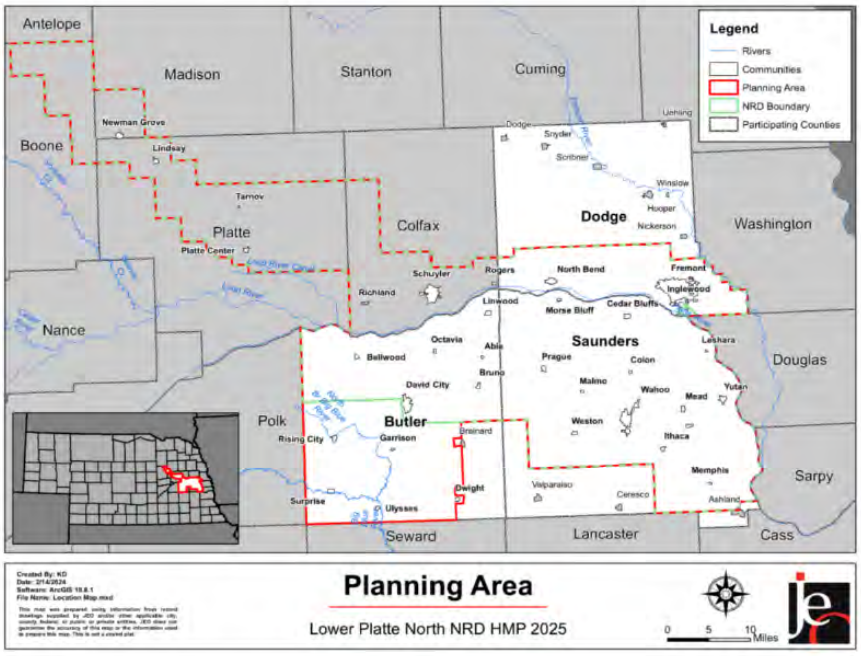
Project Website

JEO CONSULTING GROUP

The Lower Platte North Natural Resources District (LPNNRD) is updating their Hazard Mitigation Plan (HMP) with the assistance of JEO Consulting Group. An HMP is a *community-guided* document that determines vulnerabilities to natural and man-made hazards, then identifies mitigation projects to reduce or eliminate those vulnerabilities. An approved HMP is a requirement of the Federal Emergency Management Agency (FEMA) for jurisdictions to become eligible for Hazard Mitigation Assistance grants. An HMP will enable your community to be stronger and more resilient by:

1. Reducing your community's risk and impacts from disasters;
2. Gaining eligibility for pre- and post-disaster mitigation grants; and
3. Building partnerships with stakeholders within your community and region.

HMPs must be updated and approved every five years. The LPNNRD last updated their HMP in 2020. Throughout the planning process, members of the community, (including school districts, fire departments, drainage districts, local health departments, and others,) are invited to participate by attending public meetings and providing information for the plan.



PROJECT MEETINGS

The planning process includes public meetings to provide an opportunity for participants and interested stakeholders to learn about the plan and provide input. The first round of meetings took place in late June. For those not able to attend, a meeting recording is available here: https://vimeo.com/970852167/f7c55bccee

Meeting worksheets can be downloaded by visiting this Google Drive link: https://bit.ly/LowerPlatteNorth-GoogleDrive.

Project Announcement

A project announcement and a notification of the first round of meetings were made in the NRD newsletter, on social media, and the NRD website to help spread the word about the hazard mitigation plan and public survey. All potential participants were also mailed a letter regarding the project and their eligibility to participate. Below are copies of the letter and the announcements that were made by the Regional Planning Team.

Project Announcement Post



Project Flyer (English)



Project Flyer (Spanish)



Project Announcement in the Lower Platte North NRD Newsletter

First Phase of Hazard Mitigation Plan Update



A trickle of water during 2023 drought conditions.

The first phase of the Lower Platte North Natural Resources District's (LPNNRD) update of the Hazard Mitigation Plan (HMP) is progressing with the assistance of JEO Consulting Group. The HMP is a community-guided document that identifies threats and potential vulnerabilities from both natural and man-made disasters. The goal of the plan is to reduce risk and vulnerability to lessen impacts to life, the economy, and infrastructure by identifying mitigation actions and strategies.

This plan examines regional and local vulnerabilities including but not limited to flooding, severe winter storms severe thunderstorms, hazardous materials release, and drought. HMPs must be updated and approved every five years. The LPNNRD last updated their HMP in 2020.

Throughout the planning process, local jurisdictions such as communities, counties, fire districts, drainage districts, and others are invited to participate by attending public meetings and providing information for the plan.

Meeting information, the 2020 HMP plan and other useful resources can be found at jeo.com/lpnnrd-hmp

Local jurisdictions are required to attend a meeting in order to participate in the plan. Once a community, county, or district (School District, Fire District, Drainage District, etc.) is part of an approved plan, they become eligible for up to 75% cost-share from the Federal Emergency Management Agency for a variety of mitigation projects listed in the plan.

Virtual Round 1 Meeting Announcement on the Lower Platte North NRD Website

SPECIAL MEETINGS & HEARINGS

Hazard Mitigation Plan Virtual Public Meeting

Wednesday, June 26 at 10:00 a.m. via Zoom

Details at https://www.jeo.com/lpnnrd-hmp

Public Survey

A public survey was used to gather information from the general public. The survey was available online (https://forms.office.com/r/PKxUDR7vMF) as well as by hard copy. A hard copy version of the survey can be found below.

Public Survey (English) Page 1 of 5

LOWER PLATTE NORTH Natural Resources District

Lower Platte North NRD Hazard Mitigation Plan 2025 Update

Public Survey

As part of the Lower Platte North NRD Hazard Mitigation Plan, the planning team is seeking your input on hazards that impact the NRD, counties, and communities in the district. Please take a few moments to answer the following questions and be part of the planning process.

1. What affiliation within the planning area do you have? (Check all that apply)

☐	**Resident**
☐	**Business Owner**
☐	**Employed within the Lower Platte North NRD Boundary, Butler County, Saunders County, or Dodge County**

2. Please select which jurisdiction you live in.

☐	**Abie**	☐	**Newman Grove**
☐	**Bellwood**	☐	**North Bend**
☐	**Bruno**	☐	**Octavia**
☐	**Cedar Bluffs**	☐	**Platte Center**
☐	**Colon**	☐	**Prague**
☐	**David City**	☐	**Richland**
☐	**Dwight**	☐	**Rising City**
☐	**Fremont**	☐	**Rogers**
☐	**Garrison**	☐	**Schuyler**
☐	**Inglewood**	☐	**Surprise**
☐	**Ithaca**	☐	**Tarnov**
☐	**Leshara**	☐	**Ulysses**
☐	**Lindsay**	☐	**Wahoo**
☐	**Linwood**	☐	**Weston**
☐	**Malmo**	☐	**Woodcliff Lakes SID #8**
☐	**Mead**	☐	**Yutan**
☐	**Memphis**	☐	**Unincorporated Areas of the NRD**
☐	**Morse Bluff**	☐	**Other: _____**

3. What types of hazards have you experienced in your community/work? (Check all that apply)

☐	**Animal and Plant Disease**	☐	**Hazardous Materials Release**
☐	**Dam Failure**	☐	**Levee Failure**
☐	**Drought**	☐	**Severe Thunderstorms**
☐	**Extreme Temperatures**	☐	**Severe Winter Storms**
☐	**Flooding**	☐	**Terrorism and Cyber Attack**
☐	**Grass/Wildfire**	☐	**Tornadoes and High Winds**

Public Survey (English) Page 2 of 5

4. Please rank your level of concern regarding these hazard events occurring in your jurisdiction or impacting your residence or workplace. Please rate each hazard as follows:

1 = No Concern, 2 = Some Concern, 3 = High Concern, 4 = Extreme Concern.

Animal & Plant Disease		**Flooding**		**Severe Thunderstorms**	
Dam Failure		**Grass/Wildfire**		**Severe Winter Storms**	
Drought		**Hazardous Materials Release**		**Terrorism & Cyber Attack**	
Extreme Temperatures		**Levee Failure**		**Tornadoes & High Winds**	

5. Preparing for a disaster can take many forms. Of the following items, please circle your level of importance to you.

Protecting People	Not Important	Neutral	Somewhat Important	Very Important
Protecting Private Property	Not Important	Neutral	Somewhat Important	Very Important
Protecting Community Assets (Parks, Community Buildings)	Not Important	Neutral	Somewhat Important	Very Important
Protecting Critical Infrastructure (Hospitals, Fire/Police Stations, Utilities)	Not Important	Neutral	Somewhat Important	Very Important
Preventing Development in Hazardous Areas (ex. Flood Prone Areas)	Not Important	Neutral	Somewhat Important	Very Important
Protecting Natural Environment	Not Important	Neutral	Somewhat Important	Very Important
Protecting Historical/Cultural Landmarks	Not Important	Neutral	Somewhat Important	Very Important
Protecting Economic Drivers and Tourist Locations	Not Important	Neutral	Somewhat Important	Very Important
Improving Emergency Response Capabilities (fire/police/emergency management equipment and training)	Not Important	Neutral	Somewhat Important	Very Important

Public Survey (English) Page 3 of 5

LOWER PLATTE NORTH Natural Resources District

6. Of the following projects, select up to 3 that would be most important to your community to reduce risk and be more resilient?

- ☐ Alert/Warning Sirens
- ☐ Backup Generators
- ☐ Creating Drought Response Protocol
- ☐ Cyber Security Improvements
- ☐ Drainage Study
- ☐ Hazardous Tree Removal
- ☐ Levee Construction or Improvements
- ☐ Public Education on Hazards
- ☐ Safe Rooms and Storm Shelters
- ☐ Stormwater System Improvements (Bank Stabilization, Drainage Improvements, Culvert Upsizing, etc.)
- ☐ Updated Planning Mechanisms (Comprehensive Plan, Building Codes, Zoning Regulations, etc.)
- ☐ Utility Protective Measures (Electric, Gas, etc.)
- ☐ Water & Sanitary Sewer System Protective Measures
- ☐ Wildfire Fuels Reduction / Fuel Break Creation
- ☐ Other: _____

7. How has drought impacted you in the past? (Check all that apply)

- ☐ Voluntary Water Restrictions
- ☐ Mandatory Water Restrictions
- ☐ Crop Loss
- ☐ Planted Different Crops
- ☐ Increased Grass/Wildfires
- ☐ Private Well Levels Dropped
- ☐ Private Well Ran Out of Water
- ☐ Reduced Your Water Use
- ☐ Water Quality Issues
- ☐ Worsened Mental Health
- ☐ Other: _____

Public Survey (English) Page 4 of 5

LOWER PLATTE NORTH Natural Resources District

8. Please rank your level of support for the following drought management actions if they were to be taken by the **NRD** during a prolonged drought event.

1 = Very Unsupportive, 2 = Somewhat Unsupportive, 3 = Neutral, 4 = Somewhat Supportive, 5 = Very Supportive

Public Education and Outreach		**Prohibit New Irrigated Agriculture Acres Development**	
Drought Newsletter		**Prohibit Transfer or Irrigated Acres**	
Require Flow Meters on Irrigation Equipment		**Prohibit Supplemental Wells**	
Require Transducers on Wells		**Water-Use Restrictions for Upcoming Year**	
Increased Irrigation Monitoring		**Reduction in Irrigated Acres Allowed**	
Encourage Preventative or Alternative Planting		**Allocation of Water Use on Irrigated Acres**	
Encourage Communities to Implement Water Restrictions		**Reduction in Industrial Well Use**	

9. Please rank your level of support for the following drought management actions if they were to be taken by your **community** during a prolonged drought event.

1 = Very Unsupportive, 2 = Somewhat Unsupportive, 3 = Neutral, 4 = Somewhat Supportive, 5 = Very Supportive

Public Education and Outreach		**Implementing Voluntary Water Restrictions**	
Increased Monitoring of Well Levels and Water Quality		**Implementing Every Other Day Watering Restrictions**	
Encourage Planting of Drought Tolerant Landscapes		**Implementing No Watering of Lawns or Car Washing**	
Reducing or Eliminating Irrigation of Public Parks and Other Public Spaces		**Reducing the Amount of Water Local Businesses Can Use**	

10. What is one thing you'd like your community to do to help reduce risk to natural disasters or severe weather events in the future?

Public Survey (English) Page 5 of 5

Thank you for your time! Completed surveys may be dropped off, mailed, or emailed to:

Lower Platte North NRD
Attn: Ryan Chapman
511 Commercial Park Road
Wahoo, NE 68066
rchapman@lpnnrd.org

Or to: JEO Consulting Group
Attn: Karl Dietrich
2000 Q Street, Ste 500
Lincoln, NE 68503
kdietrich@jeo.com

For more information on the plan, please visit https://www.jeo.com/lpnnrd-hmp.

Public Survey (Spanish) Page 1 of 5

LOWER PLATTE NORTH Natural Resources District

Actualización del Plan de Mitigación de Peligro de Lower Platte North NRD 2025

Encuesta Pública

Como parte del Plan de Mitigación de Peligro de Lower Platte North NRD, el equipo de planificación está buscando su opinión sobre los peligros que afectan al NRD, los condados y las comunidades del distrito. Tómese unos momentos para responder las siguientes preguntas y ser parte del proceso de planificación.

1. ¿Qué afiliación dentro del área de planificación tiene? (Marque todo lo que corresponda)

☐	**Residente**
☐	**Dueño de Negocio**
☐	**Empleado dentro del Lower Platte North NRD limites, condado de Butler, condado de Saunders o el condado de Dodge**

2. Por favor seleccione en que jurisdicción vive.

☐	**Abie**	☐	**Newman Grove**
☐	**Bellwood**	☐	**North Bend**
☐	**Bruno**	☐	**Octavia**
☐	**Cedar Bluffs**	☐	**Platte Center**
☐	**Colon**	☐	**Prague**
☐	**David City**	☐	**Richland**
☐	**Dwight**	☐	**Rising City**
☐	**Fremont**	☐	**Rogers**
☐	**Garrison**	☐	**Schuyler**
☐	**Inglewood**	☐	**Surprise**
☐	**Ithaca**	☐	**Tarnov**
☐	**Leshara**	☐	**Ulysses**
☐	**Lindsay**	☐	**Wahoo**
☐	**Linwood**	☐	**Weston**
☐	**Malmo**	☐	**Woodcliff Lakes SID #8**
☐	**Mead**	☐	**Yutan**
☐	**Memphis**	☐	**Áreas no incorporadas del NRD**
☐	**Morse Bluff**	☐	**Otro: _____**

3. ¿Qué tipos de peligros ha experimentado en su comunidad/trabajo? (Marque todo lo que corresponda)

☐	**Enfermedades animales y vegetales**	☐	**Materiales de Peligrosos Liberadas**
☐	**Falla de la presa**	☐	**Falla del dique**
☐	**Sequía**	☐	**Tormentas eléctricas severas**
☐	**Temperaturas extremas**	☐	**Tormentas invernales severas**
☐	**Inundación**	☐	**Terrorismo y ataques cibernéticos**
☐	**Pasto/Incendio forestal**	☐	**Tornados y Alto Vientos**

Public Survey (Spanish) Page 2 of 5

4. Por favor, clasifique su nivel de preocupación con respecto a estos eventos de peligro que ocurren en su jurisdicción o que impacte su residencia o lugar de trabajo. Por favor califique cada peligro de la siguiente manera:

1 = Sin preocupación, 2 = Alguna preocupación, 3 = Preocupación alta, 4 = Preocupación extrema.

Enfermedades de animales y plantas		**Inundación**		**Tormentas eléctricas severas**	
Falla de la presa		**Pasto/Incendio forestal**		**Tormentas invernales severas**	
Sequía		**Materiales Peligrosos Liberadas**		**Terrorismo y ataques cibernéticos**	
Temperaturas extremas		**Falla del dique**		**Tornados y Alto Vientos**	

5. Prepararse para un desastre puede tomar muchas formas. De los siguientes elementos, por favor marque con un círculo tu nivel de importancia para usted.

Protegiendo a las personas	No es importante	Neutral	Algo importante	Muy importante
Protegiendo de la propiedad privada	No es importante	Neutral	Algo importante	Muy importante
Protegiendo de los bienes de la comunidad (parques, edificios comunitarios)	No es importante	Neutral	Algo importante	Muy importante
Protegiendo de infraestructuras críticas (hospitales, estaciones de bomberos/policía, servicios públicos)	No es importante	Neutral	Algo importante	Muy importante
Prevención del desarrollo en áreas peligrosas (por ejemplo, áreas propensas a inundaciones)	No es importante	Neutral	Algo importante	Muy importante
Protegiendo del medio ambiente natural	No es importante	Neutral	Algo importante	Muy importante
Protegiendo de puntos de referencia históricos/culturales	No es importante	Neutral	Algo importante	Muy importante
Protegiendo a los impulsores económicos y a los turistas ubicaciones	No es importante	Neutral	Algo importante	Muy importante
Mejorando las capacidades de respuesta a emergencias (bomberos/policía/emergencia de gestión y formación)	No es importante	Neutral	Algo importante	Muy importante

Public Survey (Spanish) Page 3 of 5

6. De los siguientes proyectos, seleccione hasta 3 que serían más importantes a su comunidad reducir riesgo y ser más resiliente.

- ☐ Sirenas de alerta/advertencia
- ☐ Generadores de respaldo
- ☐ Creando protocolo de respuesta a la sequía
- ☐ Mejoras de seguridad cibernética
- ☐ Estudio de drenaje
- ☐ Eliminación de árboles peligrosos
- ☐ Construcción o mejoras de diques
- ☐ Educación Pública sobre Peligros
- ☐ Habitaciones seguras y refugios para tormentas
- ☐ Mejoras en el sistema de aguas pluviales (estabilización de bancos, mejoras de drenaje, aumento del tamaño de las alcantarillas, etc.)
- ☐ Mecanismos de Planificación Actualizados (Plan Integral, Códigos de Construcción, Reglamentos de Zonificación, etc.)
- ☐ Medidas de protección de servicios públicos (electricidad, gas, etc.)
- ☐ Medidas de protección del sistema de agua y alcantarillado sanitario
- ☐ Reducción de Combustibles para Incendios Forestales / Creación de Pausas de Combustible
- ☐ Otro: _____

7. ¿Cómo te ha afectado la sequía en el pasado? (Marque todo lo que corresponda)

- ☐ Restricciones voluntarias de agua
- ☐ Restricciones obligatorias de agua
- ☐ Pérdida de cosechas
- ☐ Plantó diferentes cultivos
- ☐ Aumento de los incendios forestales y de pastizales
- ☐ Bajaron los niveles de pozos privados
- ☐ Pozo privado se quedó sin agua
- ☐ Reducción del consumo de agua
- ☐ Problemas de calidad del agua
- ☐ Empeoramiento de la salud mental
- ☐ Otro: _____

Public Survey (Spanish) Page 4 of 5

8. Por favor, clasifique su nivel de apoyo a las siguientes acciones de gestión de la sequía si fueran tomadas por el **NRD** durante un evento de sequía prolongada.

1 = Muy En Contra, 2 = Contra, 3 = Neutral, 4 = A Favor, 5 = Muy A Favor

Educación Pública y Divulgación		**Prohibir el desarrollo de nuevas hectáreas agrícolas de regadío**	
Boletín de Sequía		**Prohibir la transferencia o los acres irrigados**	
Requerir medidores de flujo en equipos de riego		**Prohibir los pozos suplementarios**	
Requerir transductores en los pozos		**Restricciones en el uso del agua para el próximo año**	
Mayor monitoreo del riego		**Se permite la reducción de acres de regadío**	
Fomentar la siembra preventiva o alternativa		**Asignación del uso del agua en acres irrigados**	
Alentar a las comunidades a implementar restricciones de agua		**Reducción en el uso de pozos industriales**	

9. Por favor, clasifique su nivel de apoyo a las siguientes acciones de gestión de la sequía si fueran tomadas por su **comunidad** durante un evento de sequía prolongada.

1 = Muy En Contra, 2 = Contra, 3 = Neutral, 4 = A Favor, 5 = Muy A Favor

Educación Pública y Divulgación		**Implementación de restricciones voluntarias de agua**	
Mayor monitoreo de los niveles de los pozos y la calidad del agua		**Implementación de restricciones de regar cada dos días**	
Fomentar la plantación de paisajes tolerantes a la sequía		**Implementación de no regar del césped o el lavado de autos**	
Reducir o eliminar el riego de parques públicos y otros espacios públicos		**Reducir la cantidad de agua que pueden usar las empresas locales**	

10. ¿Qué le gustaría que hiciera su comunidad para ayudar a reducir el riesgo de desastres naturales o eventos climáticos severos en el futuro?

Public Survey (Spanish) Page 5 of 5

¡Gracias por su tiempo! Las encuestas completadas pueden entregarse, enviarse por correo postal o por correo electrónico a:

Lower Platte North NRD
Attn: Ryan Chapman
511 Commercial Park Road
Wahoo, NE 68066
rchapman@lpnnrd.org

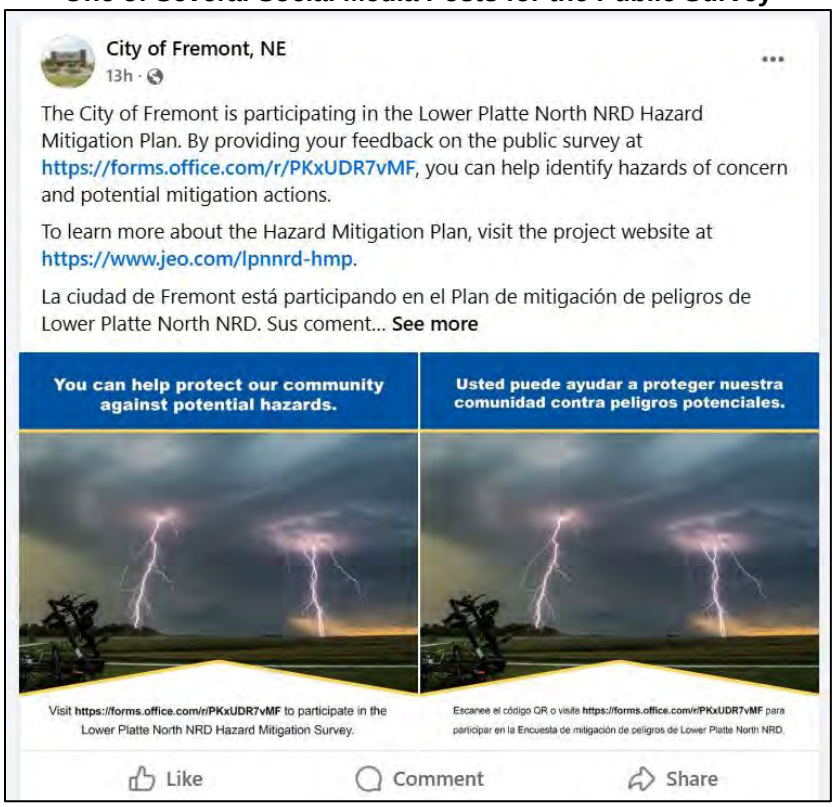
O para: JEO Consulting Group
Attn: Karl Dietrich
2000 Q Street, Ste 500
Lincoln, NE 68503
kdietrich@jeo.com

Para obtener más información sobre el plan, por favor visite https://www.jeo.com/lpnnrd-hmp.

Public Survey Postings

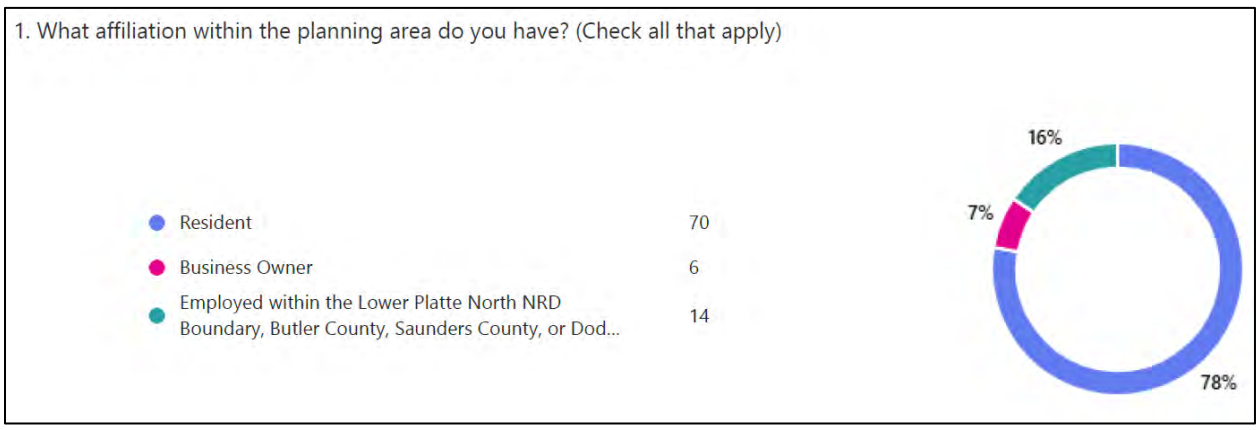
All participants were asked to post the survey on their website and on social media. Below is an example of a social media post about the survey. The survey was also posted on the NRD website and social media, county websites and social media, economic development websites, and was sent to vulnerable populations identified during the kickoff meeting.

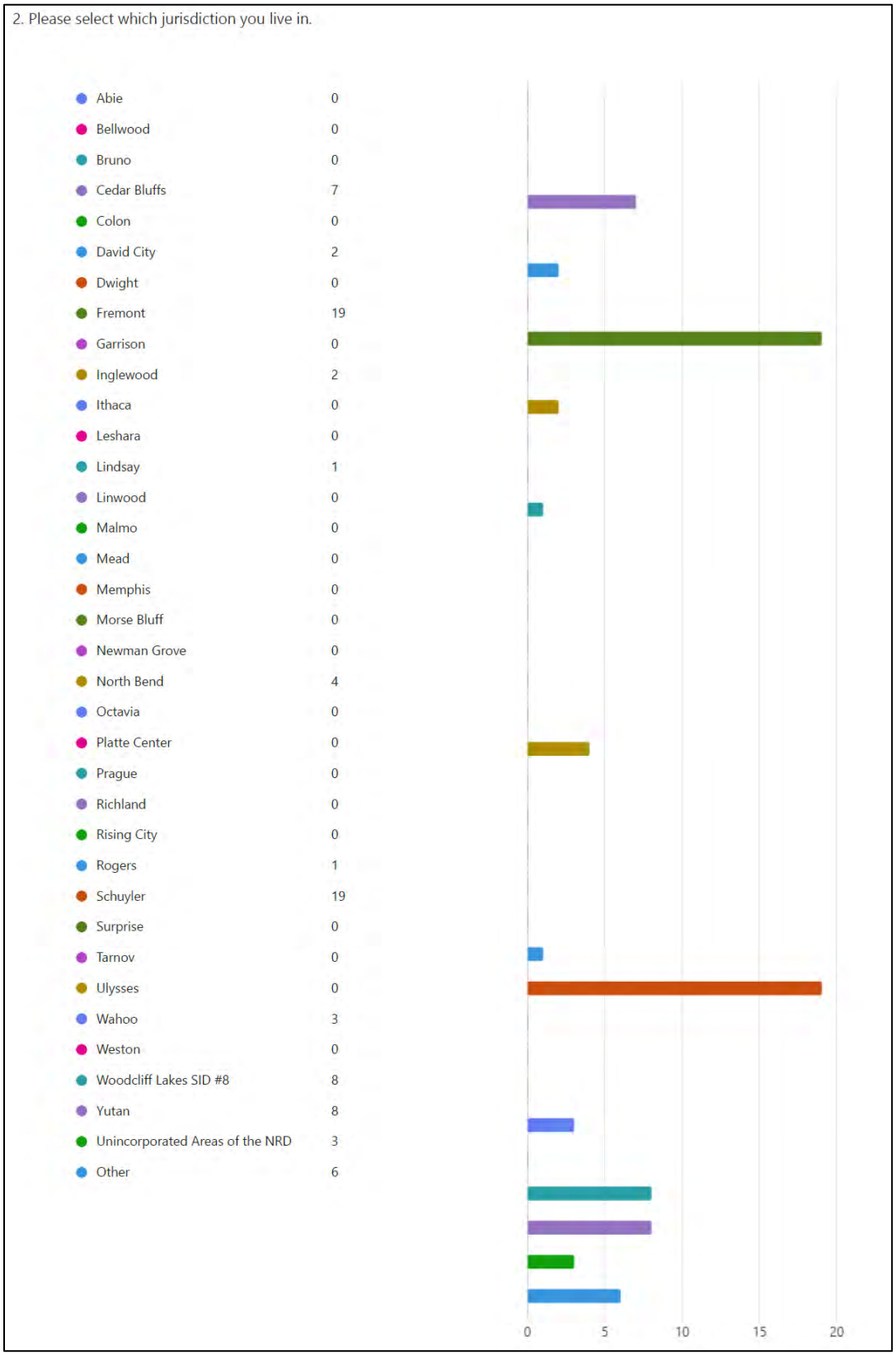
One of Several Social Media Posts for the Public Survey



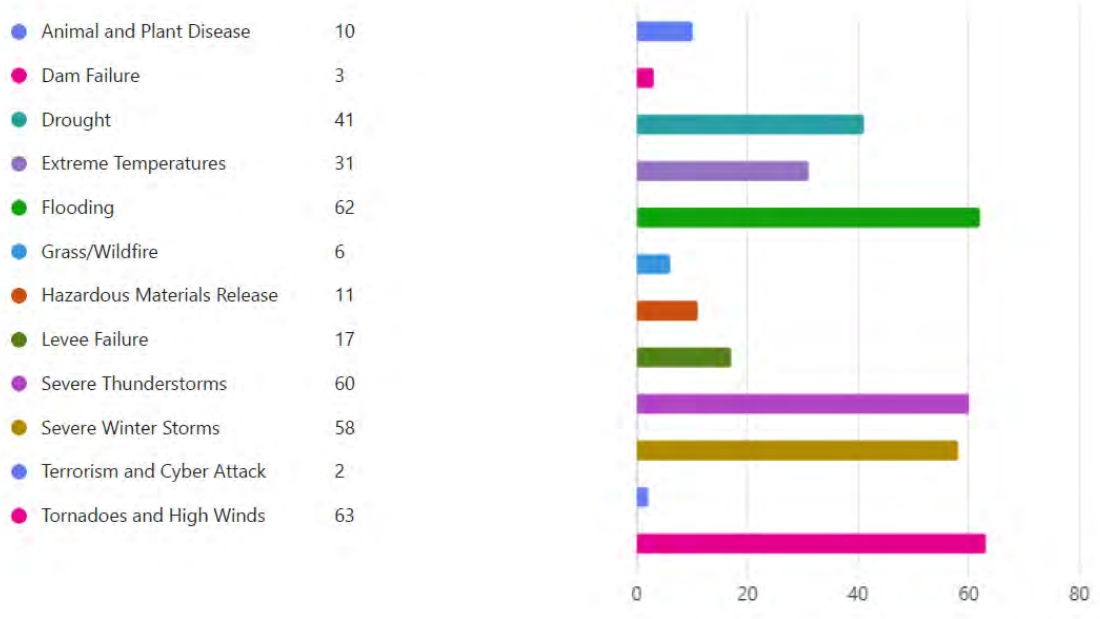
Public Survey Summarized Responses

Results of the public survey can be found below. In total there were 80 responses from members of the public. Results of the public survey were shared with participating jurisdictions during the Round 2 meeting. Due to the low number of responses, the results could only be used by a few communities to help influence hazard prioritization and mitigation actions selected by local planning teams.

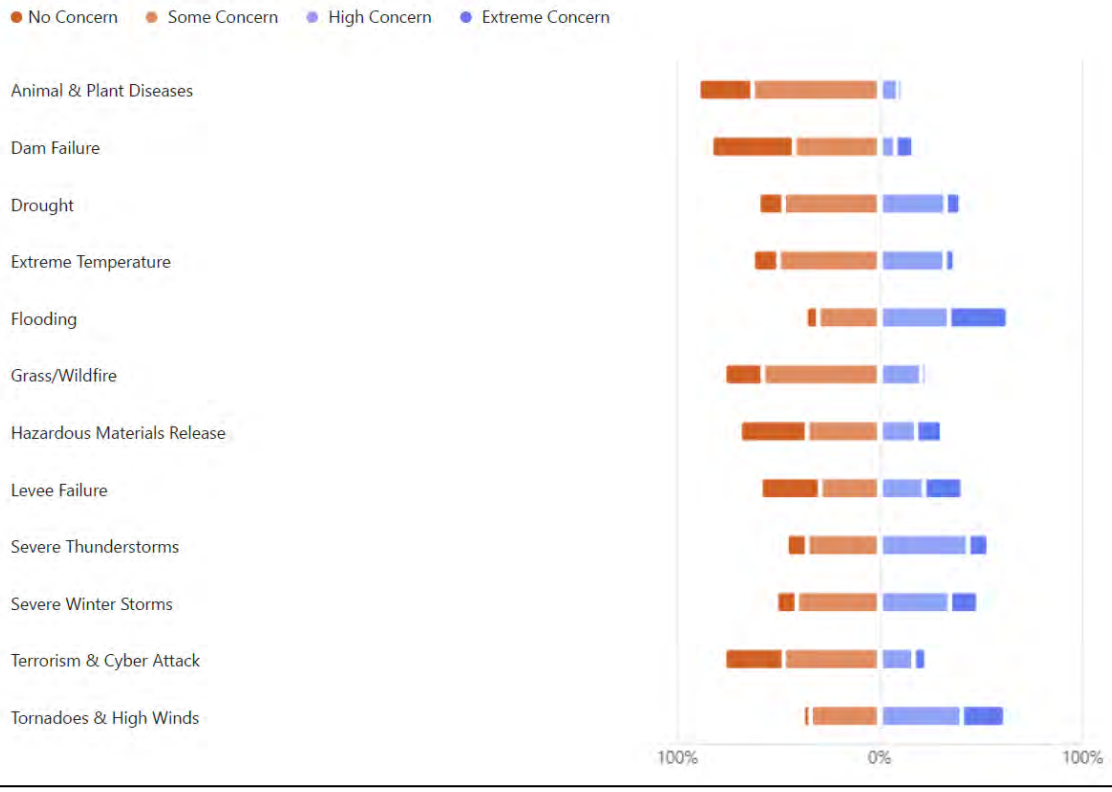



2. Please select which jurisdiction you live in.
Abie 0
Bellwood 0
Bruno 0
Cedar Bluffs 7
Colon 0
David City 2
Dwight 0
Fremont 19
Garrison 0
Inglewood 2
Ithaca 0
Leshara 0
Lindsay 1
Linwood 0
Malmo 0
Mead 0
Memphis 0
Morse Bluff 0
Newman Grove 0
North Bend 4
Octavia 0
Platte Center 0
Prague 0
Richland 0
Rising City 0
Rogers 1
Schuyler 19
Surprise 0
Tarnov 0
Ulysses 0
Wahoo 3
Weston 0
Woodcliff Lakes SID #8 8
Yutan 8
Unincorporated Areas of the NRD 3
Other 6
0
5
10
15
20

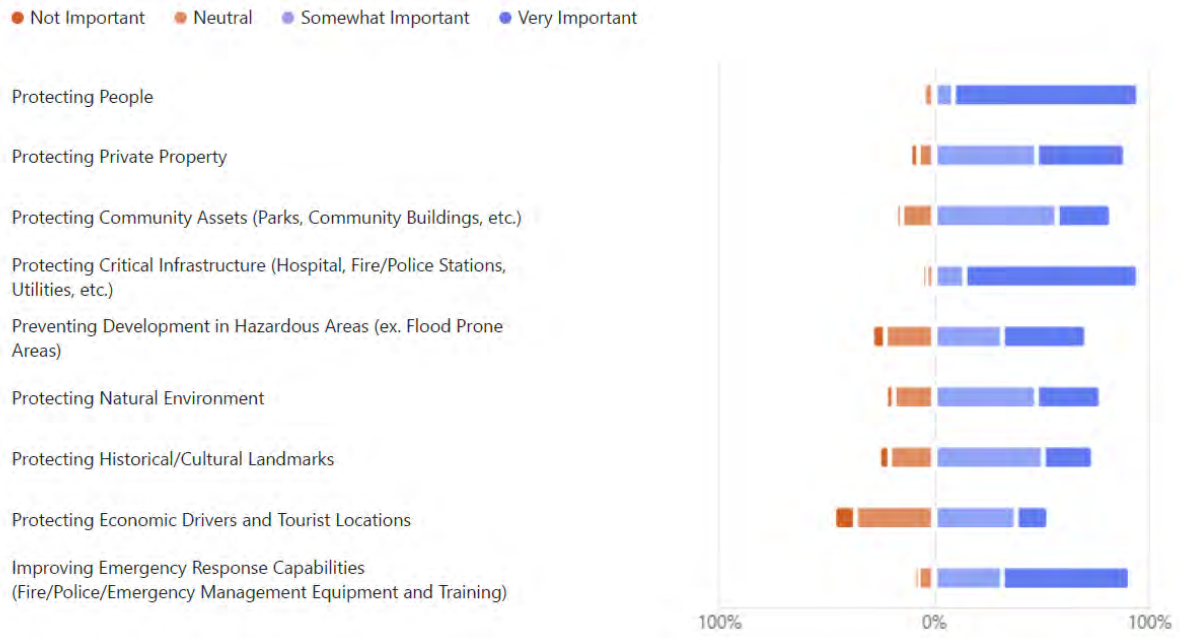
3. What types of hazards have you experienced in your community/work? (Check all that apply)



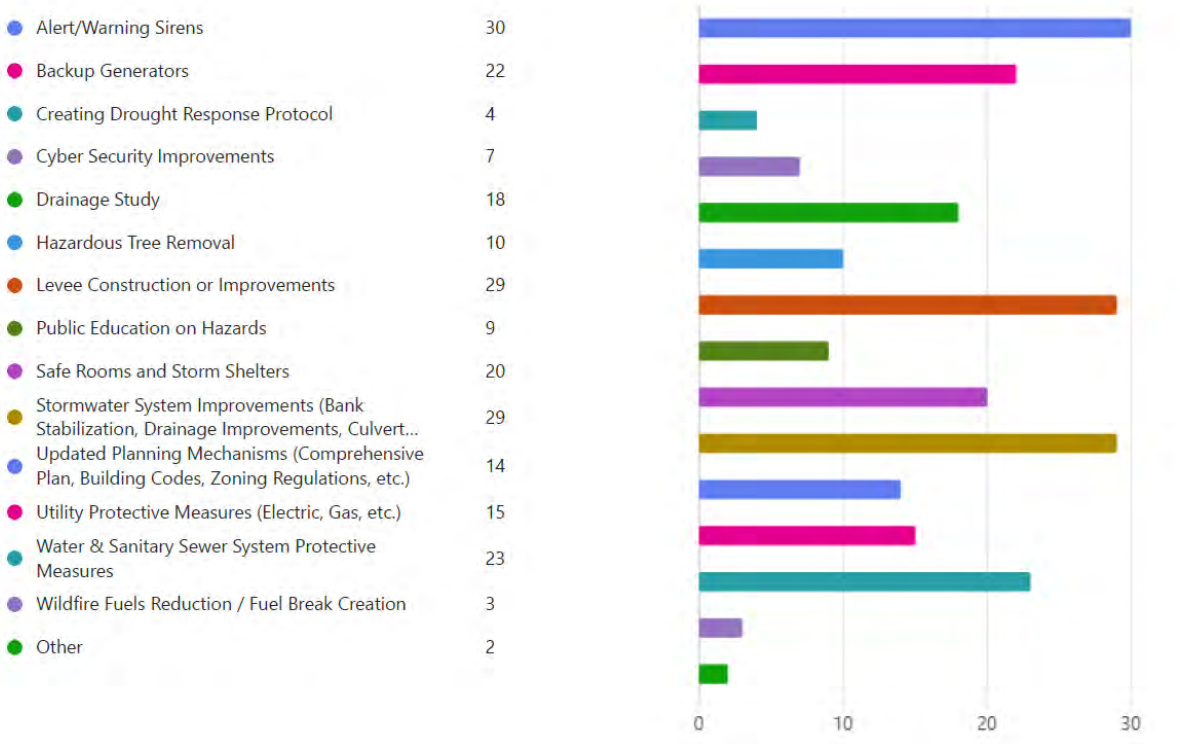
4. Please rank your level of concern regarding these hazard events occurring in your jurisdiction or impacting your residence or workplace.



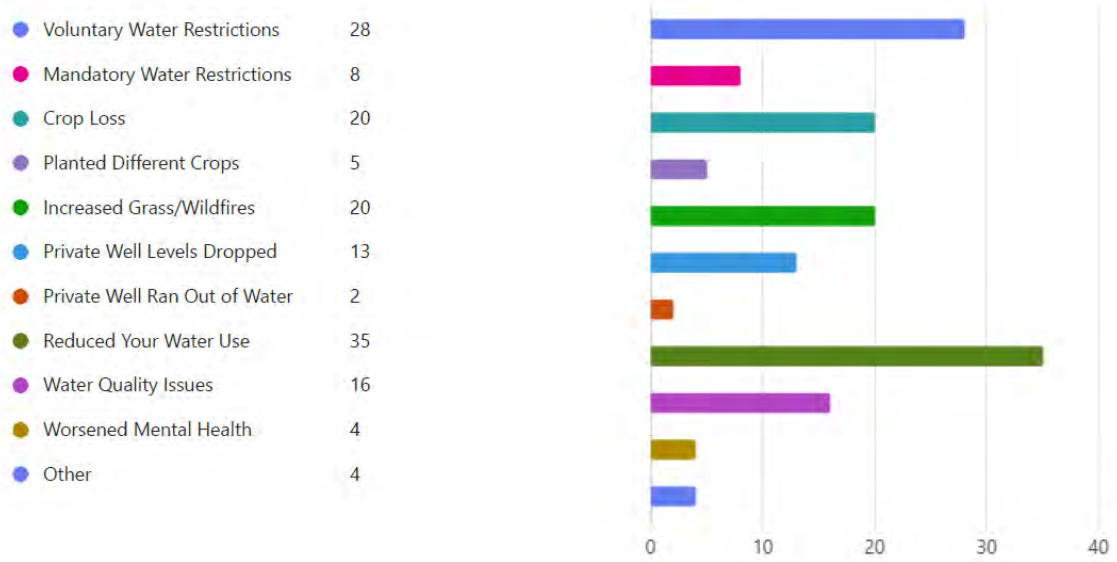
5. Preparing for a disaster can take many forms. Of the following items, please circle your level of importance to you.



6. Of the following projects, select up to **3** that would be most important to your community to reduce risk and be more resilient?



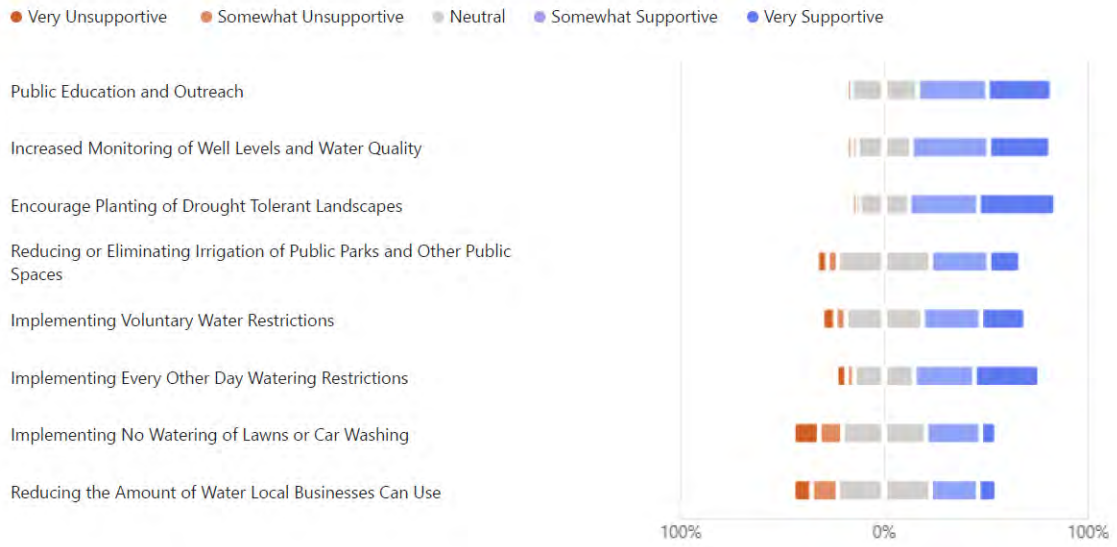
7. How has drought impacted you in the past? (Check all that apply)



8. Please rank your level of support for the following drought management actions if they were to be taken by the **NRD** during a prolonged drought event.



9. Please rank your level of support for the following drought management actions if they were to be taken by your **community** during a prolonged drought event.



10. What is one thing you'd like your community to do to help reduce risk to natural disasters or severe weather events in the future?

40
Responses

Latest Responses
"Better control of sirens. Have been 30 minutes early, no notification until afterwar..."
...

7 respondents (18%) answered water for this question.



Round 1 Meeting Invitations

Participating Jurisdictions Round 1 Meeting Invitation

May 17, 2024

RE: Lower Platte North NRD Hazard Mitigation Plan Round One Public Meeting

Dear Hazard Mitigation Planning Participant,

The Lower Platte North NRD is beginning the first phase of its Hazard Mitigation Plan update. A hazard mitigation plan examines regional and local vulnerabilities to a range of hazards (e.g., flooding, severe winter storms, drought, etc.) and identifies strategies and projects to reduce their impact. Your jurisdiction is required to attend a meeting in order to participate in the plan. Once a community, county, or district (School District, Fire District, Drainage District, etc.) is part of an approved plan, they become eligible for up to a 75% cost share from the Federal Emergency Management Agency (FEMA) for a variety of projects listed in the plan.

FEMA requires at least one representative from your jurisdiction to attend planning meetings. Each meeting will last approximately 1 to 1.5 hours. The first two meeting options **can be attended in**-person or virtually. The third meeting option is virtual only. Please **attend one** of the three options.

The first round of planning meetings will be held in:

- Wahoo: Monday, **June 17, 2:00 pm** at the Clint Johannes (Lake Wanahoo) Education Building, 1655 County Road 16, Wahoo, NE 68066
  - Or Join Online at https://us02web.zoom.us/j/83988928199
- David City: Thursday, **June 20, 6:30 pm** at the Hruska Memorial Library, 399 N 5th St, David City, NE 68632
  - Or Join Online at https://us02web.zoom.us/j/82665220770
- Virtual Option: Wednesday, **June 26, 10:00 am**
  - Join Online at https://us02web.zoom.us/j/89276107971

If you are joining online, you can access and download your jurisdiction's meeting worksheets starting June 14th by visiting this Google Drive link: https://bit.ly/LowerPlatteNorth-GoogleDrive.

Lower Platte North NRD is working with JEO Consulting Group to help update the plan. **Please RSVP** to one of the meetings by contacting Anthony Kohel, JEO Planner, at (402) 474-8753 or akohel@jeo.com. For more information, you can visit the project website at https://www.jeo.com/lpnnrd-hmp. If you have any questions, please contact the Lower Platte North NRD, JEO, or your county emergency manager. We are looking forward to seeing you at the first round of meetings!

Sincerely,

Anthony Kohel, Planner
JEO Consulting Group
On behalf of Lower Platte North NRD

cc. Ryan Chapman, Lower Platte North NRD
Mark Doehling, Butler County EM; Tom Smith, Dodge County EM; Terry Miller, Saunders County EM; Tim Hofbauer, Platte County EM; Mark Arps, Colfax County EM

JEO CONSULTING GROUP, INC.
JEO ARCHITECTURE, INC.
p: 402.435.3080
f: 402.435.4110
2000 Q Street, Suite 500
Lincoln, Nebraska 68503
jeo.com

Stakeholders Round 1 Meeting Invitation

June 5, 2024

RE: Lower Platte North NRD Hazard Mitigation Plan Round One Public Meeting

Dear Hazard Mitigation Planning Stakeholder,

The Lower Platte North NRD is beginning the first phase of its Hazard Mitigation Plan update. You are receiving this letter because you are a potential stakeholder for this planning effort. The hazard mitigation plan examines regional and local vulnerabilities to a range of hazards (i.e. flooding, severe winter storms, drought, chemical spills, etc.) and identifies strategies and projects to reduce their impact.

As a stakeholder, you are encouraged to provide input to the planning process to ensure identified mitigation efforts are appropriate and consistent with the special needs of the organization you represent. Your input will be integrated into the larger community profile prepared by your community's local representatives. The first two meeting options can be attended in-person or virtually. The third meeting option is virtual only. Please **attend one** of the three options.

The first round of planning meetings will be held in:

- Wahoo: Monday, **June 17, 2:00 pm** at the Clint Johannes (Lake Wanahoo) Education Building, 1655 County Road 16, Wahoo, NE 68066
  - Or Join Online at https://us02web.zoom.us/j/83988928199
- David City: Thursday, **June 20, 6:30 pm** at the Hruska Memorial Library, 399 N 5th St, David City, NE 68632
  - Or Join Online at https://us02web.zoom.us/j/82665220770
- Virtual Option: Wednesday, **June 26, 10:00 am**
  - Join Online at https://us02web.zoom.us/j/89276107971

Lower Platte North NRD is working with JEO Consulting Group to help update the plan. **Please RSVP** to one of the meetings by contacting Anthony Kohel, JEO Planner, at (402) 474-8753 or akohel@jeo.com.

A Public Survey was also created to better understand the impacts and concerns of stakeholders in the planning area. The survey can be found here: https://forms.office.com/r/PKxUDR7vMF

For more information, you can visit the project website at https://www.jeo.com/lpnnrd-hmp. If you have any questions, please contact the Lower Platte North NRD, JEO, or your county emergency manager. We are looking forward to seeing you at the first round of meetings!

Sincerely,

Anthony Kohel, Planner
JEO Consulting Group
On behalf of Lower Platte North NRD

cc. Ryan Chapman, Lower Platte North NRD
Mark Doehling, Butler County EM; Tom Smith, Dodge County EM; Terry Miller, Saunders County EM; Tim Hofbauer, Platte County EM; Mark Arps, Colfax County EM

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p: 402.435.3080
f: 402.435.4110
2000 Q Street, Suite 500
Lincoln, Nebraska 68503
jeo.com

Neighboring Jurisdictions Round 1 Meeting Invitation

May 17, 2024

RE: Lower Platte North NRD Hazard Mitigation Plan Round One Public Meeting

To Whom it May Concern:

This letter is being sent to inform your jurisdiction of a planning effort underway by the Lower Platte North NRD to update its Hazard Mitigation Plan (HMP), with assistance from JEO Consulting Group. FEMA requires that neighboring communities be notified of this planning effort and are encouraged to attend the public informational meetings.

An HMP is a community-guided document that identifies both vulnerability to natural hazards and mitigation measures to reduce or eliminate this vulnerability. Neighboring jurisdictions are encouraged to provide input to the planning process or attend meetings to ensure identified mitigation efforts are regionally appropriate and consistent with those identified within other communities in the region. The first two meeting options can be attended in-person or virtually. The third meeting option is virtual only.

The first round of planning meetings will be held in:

- Wahoo: Monday, **June 17, 2:00 pm** at the Clint Johannes (Lake Wanahoo) Education Building, 1655 County Road 16, Wahoo, NE 68066
  - Or Join Online at https://us02web.zoom.us/j/83988928199
- David City: Thursday, **June 20, 6:30 pm** at the Hruska Memorial Library, 399 N 5th St, David City, NE 68632
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- Virtual Option: Wednesday, **June 26, 10:00 am**
  - Join Online at https://us02web.zoom.us/j/89276107971

Please RSVP to one of the meetings by contacting Anthony Kohel, JEO Planner, at (402) 474-8753 or akohel@jeo.com.

For more information, you can visit the project website at https://www.jeo.com/lpnnrd-hmp. We are looking forward to seeing you at the first round of meetings!

Sincerely,

Anthony Kohel, Planner
JEO Consulting Group
On behalf of Lower Platte North NRD

cc: Ryan Chapman, Lower Platte North NRD
Mark Dowling, Butler County EM; Tom Smith, Dodge County EM; Terry Miller, Saunders County EM; Tim Hillegass, Colfax County EM;
Mark Kopa, Colfax County EM

Round 1 Sign-In Sheets

In Person Sign-In Sheets

Wahoo Round 1 Meeting Sign-In Sheet Page 1 of 3

Lower Platte North NRD Hazard Mitigation Plan Update
Round 1 Meeting
Wahoo, NE – June 17th, 2024 – 2:00 PM

NAME	TITLE	DISTRICT/JURISDICTION Represented	ADDRESS Street #, Street Name, City, Zip	PHONE	EMAIL	SIGNATURE
Becky Appleford	Project Manager	JEO Consulting	11213 Davenport St, Ste 200 Omaha, NE 68154	402-392-9915	rappleford@jeo.com	
Mary Baker	Resiliency Strategist	JEO Consulting	2000 Q St, Ste 500 Lincoln, NE 68503	402-474-8748	mbaker@jeo.com	
Ruva Tsoka	Community Planner	JEO Consulting	11213 Davenport St, Ste 200 Omaha, NE 68154	402-934-3680	rtsoka@jeo.com	
Tom Smith	Emergency Manager	Dodge County	435 N Park Fremont, NE 68025	402-727-2785	emergencymanagement@dodgecountyne.gov	
Mark L. Arps	Emergency Manager	Colfax County	411 E 11th St Schuyler, NE 68661	402-352-7958	marps@colfaxne.com	
David Polacek	Clerk	Village of Abie	207 Ash St, Abie, NE 68001	402-367-2948	davep335@gmail.com	
Theresa Busse	Clerk/Floodplain Administrator	City of North Bend	PO Box 401 607 Main Street, North Bend, NE 68649	402-652-3584	cinoben@gpcom.net	
Kimberly Shanahan	Board Chairperson/Floodplain Administrator	Village of Cedar Bluffs	PO Box 249 Cedar Bluffs, NE 68015	402-628-3115	Kimberly.d.shanahan@gmail.com	
Cynthia Ourada	Clerk	Village of Colon	PO BOX 10 Colon, NE 68010-0010	402-443-6251	villageofcolon@yahoo.com	
June Moline	Clerk/Floodplain Administrator	Village of Mead	PO Box 46 Mead, NE 68041	402-624-2495	meadclerk1@hotmail.com	
Jeremy Stanislav	Board Member	Village of Prague	PO BOX 207 Prague, NE 68050-0207			
Debi Wade	Board Member	Village of Prague	PO BOX 207 Prague, NE 68050-0207			
Robert Costa	Floodplain Administrator	City of Yutan	PO Box 215 Yutan, NE 68073	402-625-2112	rcosta@cityofyutan.com	
Jason Cline	Superintendent	Lakeview Community Schools	3744 83rd St. Columbus, NE 68601	402-564-8518	jcline@lakeview.esu7.org	
Michael Eason	Chairman	Cotterell Diking and Drainage District				
Dan Ellsworth	Network Operations Director	Educational Service Unit #7	2657 44th Ave. Columbus, NE 68601	402-564-5753 Ext.1037	ellsworth@esu7.org	
Jerry Abrahamson	VICE CHAIRMAN	Village of Inglewood	140 Boulevard Street Inglewood, NE 68025	402-720-4565	JERRY ABRAHAMSON @YAHOO.COM	
Gary Swartz	Clerk/Floodplain Admin	Village of Malmo	PO Box 24 Malmo, NE 68040	(402) 642-5247	gswartz@cornerstoneconnect.com	
Melissa Harrell	City Administrator	City of Wahoo	605 North Broadway Wahoo, NE 68066	(402) 443-3222	harrell@wahoo-ne.us	

Please Sign In!

Wahoo Round 1 Meeting Sign-In Sheet Page 2 of 3

Lower Platte North NRD Hazard Mitigation Plan Update
Round 1 Meeting
Wahoo, NE – June 17th, 2024 – 2:00 PM

NAME	TITLE	DISTRICT/JURISDICTION Represented	ADDRESS Street #, Street Name, City, Zip	PHONE	EMAIL	SIGNATURE
Fred Hoefer	Board Chairperson	Village of Lindsay	PO Box 66 Lindsay, NE 68644	402 936 5610	hoefer@gmail.com	
Shari Auge	Clerk	City of Newman Grove	PO Box 446 Newman Grove, NE 68758	(402) 447-6444	SAUGE@CITYOFNEWMANGROVE.COM	
Jim Ondracek	Fire Chief	Colon Vol Fire Dept/ Pohocco Township	PO BOX 66 Colon, NE 68018	402-721-4953	jimondracek@hotmail.com	
Brian Juranek	Clerk	Bone Creek Township	4431 O Rd. Bellwood, NE 68624	402-954-0121		
Tyler Williams	Materials Manager	Omaha Steel	921 East 12th Street Wahoo, NE 68066	402-650-0909	twilliams@omahasteel.com	
Erin Wendt	Outreach & NFIP Specialist	NeDNR	245 Fallbrook Blvd Lincoln, NE 68521		Erin.Wendt@nebraska.gov	
Platt Valley	Dike					
Ron Drews	Chairman		8863 CoRS Yutan	4025175151	None	
Kim Novak	CED	FSA - Dodge Sarpy Douglas		402-276-6477	Kim.novak@usda.gov	
Grant Hanger	President	Ames Ditch Dist	1387 old Lincoln Hwy Ames NE	402-995-4162		
Bubba Babec	President	Wahoo township	1110 CRd K Mead Ne. 68041	402) 480-2596	Bubbababec@gmail.com	
Sean Elliott	Projects/Rural Water	LPNNRD	po Box 126	402-443-4675	SELLIOTT@LPNNRD.ORG	
Lacey Sabatka	Information Coordinator	LPNNRD	"	"	lsabatka@lpnnrd.org	
Ryan Chapman	NRD Assistant Manager	LPNNRD	"	"	rchapman@lpnnrd.org	
Tom Soft	Dodge County Em	Dodge County	—	—	—	

Please Sign In!

Wahoo Round 1 Meeting Sign-In Sheet Page 3 of 3

Lower Platte North NRD Hazard Mitigation Plan Update
Round 1 Meeting
Wahoo, NE – June 17th, 2024 – 2:00 PM

NAME	TITLE	DISTRICT/JURISDICTION Represented	ADDRESS Street #, Street Name, City, Zip	PHONE	EMAIL	SIGNATURE
Dennis Polacek	Chairman				dennis.polacek@NMS.navy.mil	
Jim Ondracek	Fire Chief Township treasurer	Colon Fire Dept/Dist Pohlaco Township	2350 CR 12 Fremont NE 68025	402-720-1816	jimondracek@hotmail.com	
TERRY MILLER	Director	SAUNDERS CO EMA	387 N chestnut	4024435645	tmiller@saundersCounty.ne.gov	

Please Sign In!

David City Round 1 Meeting Sign-In Sheet Page 1 of 2

Lower Platte North NRD Hazard Mitigation Plan Update
Round 1 Meeting
David City, NE – June 20, 2024 – 6:30 PM

NAME	TITLE	DISTRICT/JURISDICTION Represented	ADDRESS Street #, Street Name, City, Zip	PHONE	EMAIL	SIGNATURE
Karl Dietrich	Hazard Mitigation Planner	JEO Consulting Group	2000 Q St. Ste 500 Lincoln, NE 68503	402-742-7213	kdietrich@jeo.com	
Anthony Kohel	Hazard Mitigation Planner	JEO Consulting Group	2000 Q St. Ste 500 Lincoln, NE 68503	402-474-8753	akohel@jeo.com	
Ryan Chapman	Assistant Manager	Lower Platte North NRD	PO Box 126 Wahoo, NE 68066	402-443-4675	rchapman@lpnrd.org	
Tami L. Comte	Clerk/City Administrator (Interim)	David City	PO Box 191 David City, NE 68632	402-367-3135	tcomte@davidcityne.com	
Jean Andrews	Floodplain Administrator	Dodge County	435 North Park Avenue Room 204 Fremont, NE 68025	(402) 727-2724	zoning@dodgecountyne.gov	
John R. Wood	Treasurer	Savannah Township	1141 43 ½ Rd Bellwood, NE 68624	402-367-2039		
Kathy Eaton	Clerk/ Secretary	Village of Linwood/ Platte Township	PO BOX 104 Linwood, NE 68036		villageoflinwood@hotmail.com	
Eileen Kopecky	Clerk	Village of Octavia	545 Dix St Octavia, NE 68632	(402) 539-2315		
Rolland Kavan	Treasurer	Bohemia Township	2849 County Road 27 Morse Bluff, NE 68648	402-666-5356		
Keith Strizek		Newman Township	2945 County Road H Valparaiso, NE 68065	402-642-5616		
Jeremy Cihal	Chairperson	Plum Creek Township	1470 26 Rd. Dwight, NE 68635	402-525-8295		
Ted Glock	Treasurer	Reading Township	2911 F Rd. Rising City, NE 68658	402-367-7551	tedglock@outlook.com	
Larry Polivka	Floodplain Administrator	Village of Bruno	PO Box 152 Bruno, NE 68014	(402) 954-0674		
Matthew Sobota	Utilities Superintendent	City of Schuyler	1103 B Street Schuyler, NE 68661	(402) 352-5444	msobota@schuylerdou.org	
Frank Fichtl	Treasurer	Summit Township	3461 G Rd. David City, NE 68632	402-367-2352	FrankFichtl@hotmail.com	
Dan Coufal	President	Richardson	P.O. Box 7 Dwight	402-367-3115		
MARK DOSTLING	EMERGENCY MANG.	BUTLER CO.		402-643-5539	MDOSTLING@BUTLERCOUNTYNE.GOV	
George Vrana	Chairman	Savannah Bohemia	3021 Linwood Rd Linwood NE			
Karl Graiser	Chairman	Village of Surprise	480 Main St Surprise	402 954 8356	kcgraiser@protonmail.com	

Please Sign In!

David City Round 1 Meeting Sign-In Sheet Page 2 of 2

Lower Platte North NRD Hazard Mitigation Plan Update
Round 1 Meeting
David City, NE – June 20, 2024 – 6:30 PM

NAME	TITLE	DISTRICT/JURISDICTION Represented	ADDRESS Street #, Street Name, City, Zip	PHONE	EMAIL	SIGNATURE
DON CARLEY	CHAIRMAN	Summit Township	240 ROAD 35	5124231322	dbucarley@Aol.Com	Don Carley
Roger Sieglock	Clerk	Franklin	1740 34RD	402-367-4646		Roger Sieglock
Barbara Rezac	Clerk	Newman Saunders County	1040 CRd 28 Weston	642-5525		Barbara Rezac
Jeannie Zeyen	treasurer	Village of Octavia	333 Fremont	402-917-3519	—	Jeannie Zeyen
Roger Tispil	Chairman	Rising City Rural Fire Dist	3241 C ROAD	402-942-5012	topowtrpz@hotmail.com	
Britt Beringer	Board member	Octavia Village	437 DIX ST	402 539 2593		Britt Beringer
BRIAN Juranek	Clerk	Bone Creek Township	4431 ORD Loy 22	402-954-0121	juranekfarms@yhoo.com	
Jim Rerucha	SECRETARY operator	Skull Creek Township	2161 35Rd, Bruno NE.	402-641-3801	jimandbrun@gmail.com -	Jim Rerucha
Marianne Zierhen	Secretary	UNION Township	105 Holmes ST	402 367-4612	DNA	Marianne Zierhen

Please Sign In!

Round 1 Meeting Virtual Attendees

Wahoo (Hybrid) – June 17	David City (Hybrid) June 20	Virtual Attendees – June 26
Theresa Busse – City of North Bend	Rex Pfeil – David City Public Schools	Darlene Divis – Village of Rogers
Harlan Ptomey – Cedar Bluffs Public School	Kathy Eaton	Tami Comte – City of David City
Jason Cline – Lakeview Community Schools		Lora Johnson – City of Schuyler
PJ Quinn – Mead Public Schools		Raiko Martinez – City of David City
Justin Krafka – Alexis Township		Ryan Chapman – Lower Platte North NRD
Tonja Frank – Morse Bluff Township		Lonnie Marht – Woodcliff Lakes SID #8
Jeff Hines – Morse Bluff Township		Bruce Arp – Weston Fire & Rescue
Erin Wendt – NeDNR		Terrence St.Hilaire – Village of Dwight
Jacob Dunn – Three Rivers Public Health Department		Kathy Eaton – Village of Linwood/Platte Township (Butler County)
Shari Auge' – City of Newman Grove		Mel Ruhe-Langfeldt – Village of Leshara
James Wilcynski – Lake Ventura SID		Grant Fitzgerald – North Cedar Township
Rob Custer – Lake Ventura SID		Daryl Andersen – Lower Platte North NRD
Nicholas Walsh – Methodist Health System		
Jake Herre – Methodist Health System		
Mitch Hoffer – Educational Service Unit #2		
Lalit Jha – JEO Consulting Group		
Marisa Alveres – NEMA		
Angelina Allen – NEMA		

Round 1 Example Participant Profile with Questions

Community Profile

Village of Abie

Lower Platte North NRD
Hazard Mitigation Plan 2025

Name(s): _____

Date: _____

Worksheets Due By: _____

Please answer the questions in red italics. Your responses are critical for completing this Community Profile.

Completed Community Profiles and other worksheets can be returned to JEO Consulting Group, Attn: Karl Dietrich, 2000 Q Street Ste 500, Lincoln, NE 68503 or kdietrich@jeo.com. If you have any questions, please call 402-742-7213.

Community Fact Sheet

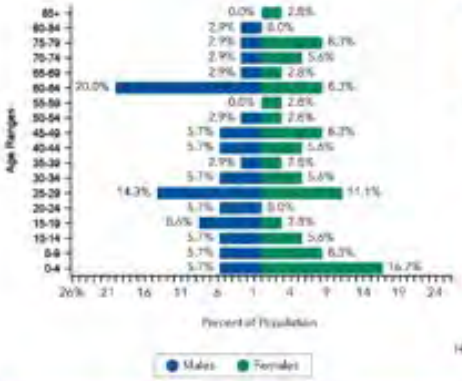
Community Summary Fact Sheet

Abie, NE

Lower Platte North NRD Hazard Mitigation Plan 2025

Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income
71	34.4	28	2.54	$139,286	$60,354

AGE PYRAMID

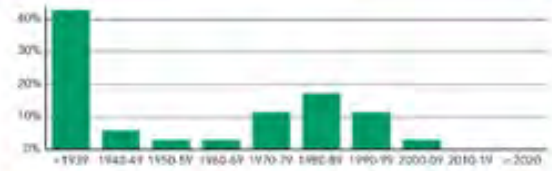


TOTAL POPULATION	
2023 Total Population (Estimate)	71
2020 Total Population (U.S. Census)	65
2010 Total Population (U.S. Census)	69
2000 Total Population (U.S. Census)	77

AT RISK POPULATIONS

Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level
10	11	0	10%

HOUSING: YEAR BUILT



EMPLOYMENT

Total Businesses	Unemployment Rate
2	0.0%

POPULATION BY RACE



- Black Population
- Asian Population
- American Indian Population
- Population of 2+ Races
- Other Race Population
- White Population

6% of the Total Population is Hispanic

HOUSING

Vacant Housing Units	Mobile Homes
6	14%

esri | Source: [illegible]

Local Planning Team

Abie Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting

Plan Maintenance

Information will be added for the Round 2 meeting.

Capability Assessment

The planning team assessed the Village of Abie's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Please check the right column in the following table for your community. The table includes responses from the 2020 HMP. If there have been changes or updates, please cross out the answer and provide the updated answer. Fill in any missing information highlighted in red.

Abie Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	No
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operations Plan	County
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	No
	Subdivision Regulation/Ordinance	No
	Floodplain Ordinance	No
	Building Codes	No
	Water System Emergency Response Plan	
	Wellhead Protection Plan	
	National Flood Insurance Program	No
	Community Rating System	No
	Community Wildfire Protection Plan	Yes (Regional)
	Other (if any)	
Administrative & Technical Capability	Planning Commission	No
	Floodplain Administrator	No
	GIS Capabilities	No
	Chief Building Official	No

Capability/Planning Mechanism		Yes/No
	Civil Engineering	Yes
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	
Fiscal Capability	1- & 6-Year Plan	
	Applied for Grants in the Past	Yes
	Awarded a Grant in the Past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	No
	Gas/Electric/Water/Sewer Service Fees	No
	Storm Water Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	No
	Other (if any)	
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	No
	Ongoing Public Education or Information Program (e.g., Responsible Water Use, Fire Safety, Household Preparedness, Environmental Education)	No
	Natural Disaster or Safety Related School Programs	No
	StormReady Certification	No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	

Please rate your jurisdiction's overall capability in the following ways (Limited, Moderate, or High)

Abie Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	
Staff/Expertise to Implement Projects	
Public Support to Implement Projects	
Time to Devote to Hazard Mitigation	
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	

National Flood Insurance Program (NFIP)

Abie NFIP Information

NFIP Overview	
Date of NFIP Participation:	N/A
Floodplain Administrator:	N/A
Is Floodplain Administrator a Certified Floodplain Manager?	N/A
Is Floodplain Management an Auxiliary Function?	N/A
Number of NFIP Policies In-Force:	N/A
Total NFIP Premium ($):	N/A
Total NFIP Coverage ($):	N/A
Number of Claims Paid Out:	N/A
Total Amount of Claims Paid Out ($:)	N/A
Number of Repetitive Loss Structures:	N/A
Number of Severe Repetitive Loss Structures:	N/A
Is the Community Currently Suspended from the NFIP?	N/A
Any Outstanding Compliance Issues?	N/A
FIRMs Digital or Paper?	Digital
Located in a RISK Map Area?	No

Parcel Improvements and Valuation

The planning team acquired GIS parcel data from the County Assessor to analyze the location, number, and value of property improvements (e.g. buildings, garages, sheds etc.) located in the 100-year and 500-year floodplains at the parcel level. The data did not contain the number of structures on each parcel. A summary of the results of this analysis is provided in the following tables.

Data to be included at Round 2 Meeting.

Abie Parcel Improvements and Value in the 100-Year Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain

Source: County Assessor, 2024

Abie Parcel Improvements and Value in the 500-Year Floodplain

Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain

Source: County Assessor, 2024

Plans and Studies

Please fill out the plan integration worksheet to add this information.

Future Development Trends

What has changed over the past five years? (For example: new housing or businesses? Demolished buildings? New roads or areas of improvement?) Where did these changes take place?

Were any new structures developed in the floodplain or other hazardous areas? (For example, near chemical sites, the Wildland-Urban Interface, dam or levee inundation areas?) If so, what types of structures and where were they developed?

Are any new housing developments or new businesses/industry planned in the near future? Where? Are they going to be located in the floodplain or other hazardous areas?

Does your community have a future land use map? If yes, please provide a copy.

Community Lifelines

As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Please review the table of community lifelines identified in the past plan and provide any changes as needed. Remove any lifelines by crossing them out.

Abie Community Lifelines

CL Number	Name	Generator (Y/N)
1	Fire Hall	Yes
2	Water Tower	No
3	Well	Yes
4	Well	Yes

Please provide a list of additional community lifelines (not identified above) for your community in the table below. Include the address and if they have a backup generator.

Name	Address or Intersection	Generator (Y/N)

Abie Community Lifelines Map
Map will be added before the Round 2 Meetings

Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Abie which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Village of Abie. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of low concern. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Please review the following section and answer the provided questions. Note that reported data in the following paragraphs is from the 2020 plan and does not reflect new data available through 2024.

Hazardous Materials Release

Anhydrous ammonia is the most likely chemical to spill at a fixed chemical storage site in Abie. While no spills have happened in the community to date, a future spill could have acute effects on the community because some residential homes are located within two blocks of the local co-op. These residents have been educated about the threat and appropriate response to a spill. The local volunteer fire department and their mutual aid has the appropriate gear and training to respond to a spill.

Anhydrous ammonia is frequently transported to and from the local co-op. Highway Spur 12B is the transportation route of most concern because it is the one most heavily traveled with vehicles transporting chemicals. This route is especially busy during the spring and fall when agricultural chemicals from the co-op are being applied in the area. Residential homes are located along this route.

Is this hazard still of concern for your community? (circle one) Yes No
If no, please skip the following questions.

Have there been any changes since the last plan? Does this accurately describe your community's risk or concern related to this hazard? Please describe any recent events and their impacts on the community.

What has the community done to mitigate risk to this hazard?

What needs to be done to reduce the risk to this hazard?

Severe Thunderstorms

Room damage is the most pressing concern regarding hailstorms. Critical facilities are not fitted with hail resistant building materials but are insured against hail damage. The village does not have a tree board to protect trees from damage and they do not educate residents on building with hail resistant building materials.

Is this hazard still of concern for your community? (circle one) Yes No
If no, please skip the following questions.
Have there been any changes since the last plan? Does this accurately describe your community's risk or concern related to this hazard? Please describe any recent events and their impacts on the community.

What has the community done to mitigate risk to this hazard?

What needs to be done to reduce the risk to this hazard?

Severe Winter Storms

The water tower, wells, and fire hall are all vulnerable to damage during severe winter storms. Only approximately 20% of the power lines in the village are buried, making them vulnerable to heavy snow and ice storms. Snow removal is done by a private contractor using their motor-grader, and usually takes about two hours depending on the amount of snow.

Is this hazard still of concern for your community? (circle one) Yes No
If no, please skip the following questions.

Have there been any changes since the last plan? Does this accurately describe your community's risk or concern related to this hazard? Please describe any recent events and their impacts on the community.

What has the community done to mitigate risk to this hazard?

What needs to be done to reduce the risk to this hazard?

Tornadoes and High Winds

Abie has not experienced a tornado in the past, but a future event could be catastrophic. Municipal records are not protected from a disaster with a backup system. The village's siren reaches all areas of the town however, there are no FEMA certified safe rooms so residents must seek shelter in their own homes. County Emergency Management offers text alerts to the fire department. The local fire department offers a yearly course on tornado safety. In case of a disaster Mutual Aid Agreements are in place with all communities in the county.

Is this hazard still of concern for your community? (circle one) Yes No
If no, please skip the following questions.

Have there been any changes since the last plan? Does this accurately describe your community's risk or concern related to this hazard? Please describe any recent events and their impacts on the community.

What has the community done to mitigate risk to this hazard?

What needs to be done to reduce the risk to this hazard?

The following hazards are evaluated in the Hazard Mitigation Plan. From this list, please circle any other hazards which your community is concerned about and/or pursuing mitigation efforts for.

If top concerns are already identified for your community, please skip this section.

Animal & Plant Disease
Dam Failure
Drought
Extreme Temperatures
Flooding
Grass/Wildfires
Hazardous Materials Release
Levee Failure
Severe Thunderstorms
Severe Winter Storms
Terrorism and Cyber Attack
Tornadoes and High Winds

As part of hazard prioritization, please provide some detail for each of the hazards you identified as to why they are of top concern, including past event descriptions, impacts to vulnerable populations, injuries, fatalities, property/crop damages, and current or future mitigation efforts.

Hazard #1: _____

Describe past events which have impacted your community. Please include the date of event, any property damages, or repairs that were required.

Why was this hazard selected as a top concern for the community? What specific vulnerabilities does the community have to this hazard?

Have you completed any projects to reduce your risk to this hazard?

What projects are needed in the future to reduce risk to your community?

Hazard #2: _____

Describe past events which have impacted your community. Please include the date of event, any property damages, or repairs that were required.

Why was this hazard selected as a top concern for the community? What specific vulnerabilities does the community have to this hazard?

Have you completed any projects to reduce your risk to this hazard?

What projects are needed in the future to reduce risk to your community?

DRAFT

Round 1 Plan Integration Worksheet



Lower Platte North NRD

HAZARD MITIGATION PLAN

PLAN INTEGRATION WORKSHEET

JEO CONSULTING GROUP
JUNE 2024

Name(s): _____

Jurisdiction: _____

1

INTRODUCTION

Thank you for participating in the Lower Platte North NRD Hazard Mitigation Plan.

The Hazard Mitigation Plan determines vulnerabilities to natural and human-caused hazards in your jurisdiction, then identifies mitigation projects to reduce or eliminate those vulnerabilities. An approved HMP is a requirement of the Federal Emergency Management Agency (FEMA) for jurisdictions to become eligible for Hazard Mitigation Assistance grants.

FEMA encourages jurisdictions to integrate their hazard mitigation plan with other planning mechanisms, such as their building codes, comprehensive plans, zoning ordinances, etc. to ensure that plans across a jurisdiction are consistent and reflect overall goals.

This worksheet will identify the ways that other plans in your jurisdiction are, or could be, aligned with hazard mitigation principles. The information you provide will be used to develop the plan integration section of your jurisdictional profile.

Please complete these worksheets and return them to JEO Consulting Group by Friday July 26, 2024.

Email: kdietrich@jeo.com

Phone: 402-742-7213

Mail: JEO Consulting Group
Attn: Karl Dietrich
2000 Q Street Suite 500
Lincoln, NE 68503

2

STEP 1

Please complete the following table.

Which of these plans/ordinances does your jurisdiction have?

Plan/Ordinance	Yes/No	Year of most recent update
Comprehensive Plan		
Zoning Ordinance		
Subdivision Regulations		
Floodplain Regulations/Ordinance		
Building Code		
Capital Improvements Plan		
Wellhead Protection Plan		
Water System Emergency Response Plan		
Community Wildfire Protection Plan		
Drought Ordinance / Drought Management Plan		
Other:		
Other:		

For any additional plans your community has, e.g. Evacuation Plan, Stormwater Management Plan, etc., please send JEO a copy.

STEP 2

For the plans/ordinances which your community has, please complete the relevant pages in this worksheet. **You do not have to complete the sections for plans/ordinances which your community does not have.**

3

COMPREHENSIVE PLAN

Does the comprehensive plan discuss natural hazards? ☐ Yes ☐ No

If yes, which hazards are discussed?

Does your comprehensive plan:

Contain goals/objectives aimed at Safe Growth: ☐ Yes ☐ No ☐ In future update

Direct development away from the floodplain: ☐ Yes ☐ No ☐ In future update

Direct housing away from chemical storage facilities: ☐ Yes ☐ No ☐ In future update

Direct housing and vulnerable populations away from major transportation routes: ☐ Yes ☐ No ☐ In future update

Encourage infill development: ☐ Yes ☐ No ☐ In future update

Encourage elevation of structures located in the floodplain: ☐ Yes ☐ No ☐ In future update

Identify areas that need emergency shelters: ☐ Yes ☐ No ☐ In future update

Has the hazard mitigation plan been integrated with the comprehensive plan? If yes, how?

Is there a plan or timeline to update your comprehensive plan? ☐ Yes ☐ No

If yes, explain the plan or timeline.

BUILDING CODE

If the building codes are based on the International Building Codes, what year/version is in effect? Have any amendments to the Code been made? If yes, please describe.

How is enforcement of the building code done?

Has the hazard mitigation plan been integrated with the building code? If yes, how?

4

ZONING ORDINANCE / FLOODPLAIN ORDINANCE / SUBDIVISION REGULATIONS

Is there a plan or timeline to update your Zoning Ordinance / Floodplain Ordinance / Subdivision Regulations?

☐ Yes ☐ No

If yes, explain the plan or timeline.

Do the Zoning Ordinance / Floodplain Regulations / Subdivision Regulations:

Restrict Development in hazard prone areas?	☐ Yes ☐ No ☐ In future update
Prohibit development within the floodplain?	☐ Yes ☐ No ☐ In future update
Discourage development in the floodplain?	☐ Yes ☐ No ☐ In future update
Limit population density in the floodplain?	☐ Yes ☐ No ☐ In future update
Require more than one foot of elevation above Base Flood Elevation in the floodplain?	☐ Yes ☐ No ☐ In future update
Discourage housing and vulnerable populations near chemical storage sites?	☐ Yes ☐ No ☐ In future update
Consider wildfire and the wildland urban interface?	☐ Yes ☐ No ☐ In future update
Do the subdivision regulations restrict subdivision of land within or adjacent to the floodplain?	☐ Yes ☐ No ☐ In future update
Include well setback requirements?	☐ Yes ☐ No ☐ In future update
Include the ability to implement water restrictions?	☐ Yes ☐ No ☐ In future update

Has the hazard mitigation plan been integrated into these planning documents? If yes, how?

DROUGHT ORDINANCE / DROUGHT MANAGEMENT PLAN / WELLHEAD PROTECTION PLAN / WATER SYSTEM EMERGENCY RESPONSE PLAN

Please provide an electronic copy or a link of the plan(s) to JEO.

5

CAPITAL IMPROVEMENT PLAN

Is there a plan or timeline to update your Capital Improvement Plan? ☐ Yes ☐ No

If yes, explain the plan or timeline.

Does the Capital Improvement Plan include:

Stormwater projects?	☐ Yes ☐ No ☐ In future update
Upsizing of culverts and drainage structures?	☐ Yes ☐ No ☐ In future update
Upgrading storm sewer systems?	☐ Yes ☐ No ☐ In future update
Improving transportation routes for drainage?	☐ Yes ☐ No ☐ In future update
Widening roadways that would improve evacuations?	☐ Yes ☐ No ☐ In future update
Bridge improvements?	☐ Yes ☐ No ☐ In future update
Installing new municipal wells?	☐ Yes ☐ No ☐ In future update
Upsizing water distribution pipes?	☐ Yes ☐ No ☐ In future update
Installing water meters for residential structures?	☐ Yes ☐ No ☐ In future update
Updating electrical distribution system?	☐ Yes ☐ No ☐ In future update
Burying powerlines?	☐ Yes ☐ No ☐ In future update
Installing emergency generators in critical facilities?	☐ Yes ☐ No ☐ In future update
Constructing a new fire hall?	☐ Yes ☐ No ☐ In future update
Constructing a new police headquarters?	☐ Yes ☐ No ☐ In future update
Constructing a new public works facility?	☐ Yes ☐ No ☐ In future update
Constructing a new community center?	☐ Yes ☐ No ☐ In future update
Constructing a community storm shelter?	☐ Yes ☐ No ☐ In future update
Constructing a new water treatment facility?	☐ Yes ☐ No ☐ In future update

Has the hazard mitigation plan been integrated with the capital improvement plan? If yes, how?

6

Round 1 Stakeholder Worksheet

Lower Platte North NRD
2025 Hazard Mitigation Plan
Hazard Prioritization

Organization_____ **Name(s)** _____

As part of the Lower Platte North NRD Hazard Mitigation Plan, the following hazards are evaluated at the regional level. Stakeholders are encouraged to participate in this planning process by identifying top hazards of concern which may impact their organization or community they are a part of. Furthermore, your input to the planning process ensures identified mitigation efforts are appropriate and consistent with the communities you work with or the populations you serve and represent. Top hazards of concern may include those which have produced significant damage to facilities, power outages, injuries or fatalities, or a lack of adequate resources, etc.

From the list below, please identify your top hazards of concern (3 to 5 hazards).

- Animal & Plant Disease
- Dam Failure
- Drought
- Extreme Temperatures
- Flooding
- Grass/Wildfire
- Hazardous Materials Release
- Levee Failure
- Severe Thunderstorms
- Severe Winter Storms
- Terrorism and Cyber Attack
- Tornadoes and High Winds

Which of the above hazards are of top concern?

1. _____
2. _____
3. _____
4. _____
5. _____

Lower Platte North NRD Hazard Mitigation Plan | 2025 1

As part of the hazard prioritization, please provide some detail for each of the hazards you identified as to why they are of top concern, including past event descriptions, impacts to vulnerable populations, injuries, fatalities, property/crop damages, and current or future mitigation efforts.

Hazard #1: _____

- Describe past events which have impacted your agency or organization. Please include the date of event, any property damages, or repairs that were required.

- What are your top concerns for this hazard? (e.g., injuries or fatalities, blocked transportation routes, crop damages, impacts on vulnerable populations, disruption of services, etc.)

- Have you completed any projects to reduce your risk to this hazard?

- What projects are <u>needed in the future</u> to reduce risk to the community or your organization?

Hazard #2: _____

- Describe past events which have impacted your agency or organization. Please include the date of event, any property damages, or repairs that were required.

- What are your top concerns for this hazard? (e.g., injuries or fatalities, blocked transportation routes, crop damages, impacts on vulnerable populations, disruption of services, etc.)

- Have you completed any projects to reduce your risk to this hazard?

- What projects are <u>needed in the future</u> to reduce risk to the community or your organization?

Hazard #3: _____

- Describe past events which have impacted your agency or organization. Please include the date of event, any property damages, or repairs that were required.

- What are your top concerns for this hazard? (e.g., injuries or fatalities, blocked transportation routes, crop damages, impacts on vulnerable populations, disruption of services, etc.)

- Have you completed any projects to reduce your risk to this hazard?

- What projects are <u>needed in the future</u> to reduce risk to the community or your organization?

Hazard #4: _____

- Describe past events which have impacted your agency or organization. Please include the date of event, any property damages, or repairs that were required.

- What are your top concerns for this hazard? (e.g., injuries or fatalities, blocked transportation routes, crop damages, impacts on vulnerable populations, disruption of services, etc.)

- Have you completed any projects to reduce your risk to this hazard?

- What projects are <u>needed in the future</u> to reduce risk to the community or your organization?

Hazard #5: _____

- Describe past events which have impacted your agency or organization. Please include the date of event, any property damages, or repairs that were required.

- What are your top concerns for this hazard? (e.g., injuries or fatalities, blocked transportation routes, crop damages, impacts on vulnerable populations, disruption of services, etc.)

- Have you completed any projects to reduce your risk to this hazard?

- What projects are <u>needed in the future</u> to reduce risk to the community or your organization?

Round 2 Meeting Invitation

Participating Jurisdictions Round 2 Meeting Invitation

December 10, 2024

RE: Lower Platte North NRD Hazard Mitigation Plan Round Two Public Meeting

Dear Hazard Mitigation Planning Participant,

The Lower Platte North NRD is moving forward with the second phase and meetings of its Hazard Mitigation Plan update. **You are receiving this letter because your jurisdiction's attendance is required in order to continue participation in this planning effort.** The intent of these meetings is to gather and review vital information including updating previous mitigation alternatives, providing NFIP information, identifying new mitigation alternatives, and reviewing previously collected data.

FEMA requires at least one representative from your jurisdiction to attend planning meetings. This is the second and last meeting required in this planning process. Please **attend one** of the upcoming meetings shown below. Each meeting will last approximately 1 to 1.5 hours. The first two meeting options can be attended in-person or virtually. The third meeting option is virtual only.

The second round of planning meetings will be held in:

- Wahoo: Tuesday, **January 7, 2:00 pm** at the Clint Johannes (Lake Wanahoo) Education Building, 1655 County Road 16, Wahoo, NE 68066
  - Or Join Online at https://us02web.zoom.us/j/84700377899
- David City: Thursday, **January 16, 6:30 pm** at the Hruska Memorial Library, 399 N 5th St, David City, NE 68632
  - Or Join Online at https://us02web.zoom.us/j/88520740586
- Virtual Option: Tuesday, **January 21, 10:00 am**
  - Join Online at https://us02web.zoom.us/j/85636236937

If you are joining online, you can access and download your jurisdiction's meeting worksheets starting January 6th by visiting this Google Drive link: https://bit.ly/LowerPlatteNorth-GoogleDrive.

Please RSVP to one of the meetings by contacting Anthony Kohel, JEO Planner, at (402) 474-8753 or akohel@jeo.com. For more information, you can visit the project website at https://www.jeo.com/lpnnrd-hmp. If you have any questions, please contact the Lower Platte North NRD, JEO, or your county emergency manager. We are looking forward to seeing you at the second round of meetings!

Sincerely,

Anthony Kohel, Planner
JEO Consulting Group
On behalf of Lower Platte North NRD

cc: Ryan Chapman, Lower Platte North NRD
Mark Doehling, Butler County EM; Tom Smith, Dodge County EM; Terry Miller, Saunders County EM; Tim Hofbauer, Platte County EM; Mark Arps, Colfax County EM

JEO CONSULTING GROUP, INC.
JEO ARCHITECTURE, PC
p: 402.435.3080
f: 402.435.4110
2000 O Street, Suite 500
Lincoln, Nebraska 68503
jeo.com

Stakeholder Round 2 Meeting Invitation

December 11, 2024

RE: Lower Platte North NRD Hazard Mitigation Plan Round Two Public Meeting

Dear Hazard Mitigation Planning Stakeholder,

The Lower Platte North NRD is moving forward with the second phase and meetings of its Hazard Mitigation Plan update. **You are receiving this letter because you are a stakeholder in this planning effort.** The intent of these meetings is to gather and review vital information including updating previous mitigation alternatives, identifying new mitigation alternatives, and reviewing previously collected data.

As a stakeholder, you are encouraged to provide input to the planning process to ensure identified mitigation efforts are appropriate and consistent with the special needs of the organization you represent. Your input will be integrated into the larger community profile prepared by your community's local representatives. Please **attend one** of the upcoming meetings shown below. Each meeting will last approximately 1 to 1.5 hours. The first two meeting options can be attended in-person or virtually. The third meeting option is virtual only.

The second round of planning meetings will be held in:

- Wahoo: Tuesday, **January 7, 2:00 pm** at the Clint Johannes (Lake Wanahoo) Education Building, 1655 County Road 16, Wahoo, NE 68066
  - Or Join Online at https://us02web.zoom.us/j/84700377899
- David City: Thursday, **January 16, 6:30 pm** at the Hruska Memorial Library, 399 N 5th St, David City, NE 68632
  - Or Join Online at https://us02web.zoom.us/j/88520740586
- Virtual Option: Tuesday, **January 21, 10:00 am**
  - Join Online at https://us02web.zoom.us/j/85636236937

If you are joining online, you can download your community's meeting worksheets starting January 6th by visiting this Google Drive link: https://bit.ly/LowerPlatteNorth-GoogleDrive.

Please RSVP to one of the meetings by contacting Anthony Kohel, JEO Planner, at (402) 474-8753 or akohel@jeo.com. For more information, you can visit the project website at https://www.jeo.com/lpnnrd-hmp. If you have any questions, please contact the NRD, JEO, or your county emergency manager. We are looking forward to seeing you at the second round of meetings!

Sincerely,

Anthony Kohel, Planner
JEO Consulting Group
On behalf of Lower Platte North NRD

cc: Ryan Chapman, Lower Platte North NRD
Mark Doehling, Butler County EM; Tom Smith, Dodge County EM; Terry Miller, Saunders County EM; Tim Hofbauer, Platte County EM; Mark Arps, Colfax County EM

JEO CONSULTING GROUP, INC
JEO ARCHITECTURE, INC
p: 402.435.3080
f: 402.435.4110
2000 O Street, Suite 500
Lincoln, Nebraska 68503
jeo.com

Round 2 Sign-In Sheets

In-Person Sign-in Sheets

Wahoo Round 2 Meeting Sign-In Sheet Page 1 of 2

Lower Platte North NRD Hazard Mitigation Plan Update
Round 2 Meeting
Wahoo, NE – January 7th, 2024 – 2:00 PM

NAME	TITLE	DISTRICT/JURISDICTION Represented	ADDRESS Street #, Street Name, City, Zip	PHONE	EMAIL	SIGNATURE
Barbara Shelton	Clerk	Village of Inglewood	140 Boulevard Street Inglewood, NE 68025		info@villageofinglewood.net	
Brandon Lavaley	Superintendent	Wahoo Public Schools	2201 N. Locust Street Wahoo, NE 68066	402-443-3051	blavaley@wahoowarriors.org	(Virtual)
Bruce Arp	Fire Chief	Weston Volunteer Fire & Rescue	PO BOX 72 Weston, NE 68070	402-642-5359	BARP@WESTONFIRE.COM	
Chris Gustafson	Fire Chief	Malmo Volunteer Fire Department	PO BOX 68 Malmo, NE 68040-0068	402-642-5658	mvfd@nntc.net	
Debi Wade	Board Member	Village of Prague	PO BOX 207 Prague, NE 68050-0207		villageofprague@nntc.net	
Grant Hansen	President	Ames Diking and Drainage District	1387 Old Lincoln Hwy Ames, NE 68621	402-995-1152	gchansen85@gmail.com	
June Moline	Clerk/Floodplain Administrator	Village of Mead	PO Box 46 Mead, NE 68041	402-624-2495	meadclerk1@hotmail.com	
Karl Dietrich	Planner	JEO Consulting	2000 Q St STE 500 Lincoln, NE 86503	402-742-7213	kdietrich@jeo.com	
Lonnie Mart	Chairperson	Woodcliff Lakes SID #8	980 County Road W Fremont, Nebraska 68025	402-680-4953	lonniemahrt@jjmsearch.com	(Virtual)
Lora Johnson	Clerk	City of Schuyler	1103 B Street Schuyler, NE 68661	402-352-5444	ljohnson@schuylerne.gov	(Virtual)
Marlene Wade	Board Member	Village of Prague	PO BOX 207 Prague, NE 68050-0207		villageofprague@nntc.net	
Robert Ball	Emergency Response Coordinator	Three Rivers Public Health	2400 North Lincoln Ave. Fremont, NE 68025	402-727-5396 ext. 127	robert@3rphd.ne.gov	
Ron Drews	Chairperson	Platte Valley Drainage District	1863 County Road 5 Yutan, NE 68073	402-517-5151		
Ruva Tsoka	Associate Planner	JEO Consulting	11213 Davenport St STE 200 Omaha, NE 68154	402-392-9901	rtsoka@jeo.com	
Ryan Chapman	Assistant Manager	Lower Platte North NRD	PO Box 125 Wahoo, NE 68066	402-443-4675	rchapman@lpnnrd.org	
Ryan Pokorny	Fire Chief	Weston Volunteer Fire & Rescue	PO BOX 72 Weston, NE 68070	402-277-0200	ryanpokorny77@gmail.com	
Ted Deturk	Executive Director	Educational Service Unit #2	PO Box 649 Fremont, NE 68026	402-721-7710	tdeturk@esu2.org	
Terry Miller	Emergency Manager	Saunders County	387 N. Chestnut Wahoo, NE 68066	402-443-5645	tmiller@co.saunders.ne.us	

Please Sign In!

Wahoo Round 2 Meeting Sign-In Sheet Page 2 of 2

Lower Platte North NRD Hazard Mitigation Plan Update
Round 2 Meeting
Wahoo, NE – January 7th, 2024 – 2:00 PM

NAME	TITLE	DISTRICT/JURISDICTION Represented	ADDRESS Street #, Street Name, City, Zip	PHONE	EMAIL	SIGNATURE
Theresa Busse	Clerk/Floodplain Administrator	City of North Bend	PO Box 401 607 Main Street, North Bend, NE 68649	402-652-3584	cinoben@gpcom.net	Theresa Busse
Tom Smith	Emergency Manager	Dodge County	435 N. Park Ave. Ste. 101B Fremont, NE 68025	402-727-2785	emergencymanagement@dodgecountyne.gov	
Brandon Beedle	GIS/Grants Coordinator	LPNNRD			bbeedle@lpnnrd.org	
Jacob Maslonka	Water Quality Program Coordinator	LPNNRD			jmaslonka@lpnnrd.org	
SEAN ELLIOTT	RURAL WATER MGR	LPNNRD	PO BOX 126, WAHO		SELLIOTT@LPNNRD.ORG	
Dan Arnaldy	trea Chester	Chester Township	2351 County Rd 28	402-443-2287		
Glenn Christal	Clerk Chester Town	"	2613 Co Rd V	402-663-4386		
Mike Rerucha	Treasurer	Skull Creek Township	2310 37 Rd Bruno, NE 68014	402-430-3967	mrfarms99@windstream.net	
Jim Christal	PRES	Center Twp	1705 CR 16 Wahoo Ne 68066	443-6474		
Ron Papa	Treasurer	Bone Creek Township	4150 P Rd David City Ne	649-2905	ronpapafarms@hotmail.com	
BOB MISSEL	CHAIRMAN	DODGE COUNTY	DODGE COUNTY COURTHOUSE	402 317 7832	BMISSEL@DODGECOUNTYNE.GOV	
dean Cendrecs	Zoning Admin Dodge Co.	" "	1455 N Park Rm 204 Fremont	402-727-2724	zoningdodgecountyne.gov	

Please Sign In!

David City Round 2 Meeting Sign-In Sheet

Lower Platte North NRD Hazard Mitigation Plan Update
Round 2 Meeting
David City, NE – January 16th, 2024 – 6:30 PM

NAME	TITLE	DISTRICT/JURISDICTION Represented	ADDRESS Street #, Street Name, City, Zip	PHONE	EMAIL	SIGNATURE
Anthony Kohel	Planner	JEO Consulting	2000 Q Street Ste 500 Lincoln, NE 68503	402-474-8753	akohel@jeo.com	
Becky Appleford	Project Manager	JEO Consulting	11213 Davenport Street Ste 200 Omaha, NE 68154	402-392-9915	rappleford@jeo.com	
~~Brad Sock~~ Andrew Sedlacek	Fire Chief	Schuyler Volunteer Fire Department	302 E 16TH ST Schuyler, NE 68661	402-352-5407	SCHUYLERFIREDEPT@YAHOO.COM	√ (Virtual)
Cynthia Ourada	Clerk	Village of Colon	PO BOX 10 Colon, NE 68010-0010	402-443-6251	villageofcolon@yahoo.com	
Darlene Divis	Clerk/Floodplain Administrator	Village of Rogers	160 Center Street Rogers, NE 68659-2809	402-606-9282	darlenedivis@gmail.com	√ (Virtual)
David Polacek	Clerk	Village of Abie	207 Ash St, Abie, NE 68001	402-367-2948	davep335@gmail.com	
Dennis Polacek	Chairman	Village of Abie	PO Box 334 Abie, NE 68001		dennispolacek@msn.com	
Eileen Kopecky	Clerk	Village of Octavia	545 Dix St Octavia, NE 68632	402-539-2315 (home)	eekopecky@hotmail.com	
Matthew Sobota	Utilities Superintendent (Interim)	City of Schuyler	1103 B Street Schuyler, NE 68661	402-352-5444	msobota@schuylerdou.org	
Raiko Martinez	City Administrator Intern	David City	PO Box 191 David City, NE 68632	402-367-3135	cityadministrator@davidcityne.gov	
Roger Svoboda	Clerk	Franklin Township	1740 34 Rd. David City, NE 68632	402-367-4646		
~~Samuel J. Stara~~ Samual J. Strata	Chairperson	Ulysses Township	2550 J Rd. Ulysses, NE 68669	402-641-5853	[illegible]sam@staramachine.com	
Ted Glock	Treasurer	Reading Township	2911 F Rd. Rising City, NE 68658	402-367-7551	tedglock@outlook.com	
Marianne Liethen	Clerk	Linwood Township	105 Holmes St Garrison NE 68831	402-367-4612		
BRIAN JURANEK	CLERK	Bone Creek township		402-954-0121		
Mark Shonka	Treasurer	Road Township	341 24½ Rd SURPRISE	402 366-0845		
Mark Doehling	Em	Butler Co				Virtual

Please Sign In!

Virtual Sign-In Sheets

Round 2 Meeting Virtual Attendees

Wahoo (Hybrid) – January 7	David City (Hybrid) January 16	Virtual Attendees – January 27
Alyssa Grosse – NEMA	Andrew Jedlicka – Schuyler Volunteer Fire Department	Andrew Nelson – Village of Cedar Bluffs
Angeline Allen – NEMA	Darlene Divis – Village of Rogers	Angi Heller – UNL Extension
Ben Hansen – Cedar Bluffs Public School	Mark Doehling – Butler County Emergency Management	Anthony Kohel – JEO Consulting Group
Brandon Lavaley – Wahoo Public Schools		Cynthia Ourada – Village of Colon
Cody Osten – Lakeveiw Community Schools		Drew Walker – Morse Bluff Township
Erin Wendt – NeDNR		Fred Hoefer – Village of Lindsay
Harlan Ptomey – Cedar Bluffs Public School		Gary Swartz – Village of Malmo
Jan Mejstrik – City of Schuyler		John Haynes – Village of Lindsay
Jim Ondracek – Colon Volunteer Fire Department, Colon Rural Fire Protection District #9, Pohocco Township		Justin Watson – Omaha Metropolitan Healthcare Coalition (OMHCC)
Kathy Eaton – Village of Linwood, Platte Township		Karl Dietrich – JEO Consulting Group
Lonnie Marht – Woodcliff Lakes SID #8		Kevin Vyhlidal – Village of Morse Bluff
Lora Johnson – City of Schuyler		Molly Pofahl – East Central District Health Department
PJ Quinn – Mead Public Schools		Patrick Ningen – North Bend Central Public Schools
Terrence St. Hilaire – Village of Dwight		Raiko Martinez – City of David City
		Robert Costa – City of Yutan
		Tami Comte – City of David City
		Terra Uhing – Three Rivers Public Health Department
		Tonja Frank – Morse Bluff Township
		Anonymous/Unknown

Round 2 Example Participant Profile with Questions

Community Profile

Village of Abie

Lower Platte North NRD
Hazard Mitigation Plan 2025

Name(s): _____

Date: _____

Worksheets Due By: _____

Please answer the questions in red italics. Your responses are critical for completing this Community Profile.

Completed Community Profiles and other worksheets can be returned to JEO Consulting Group, Attn: Karl Dietrich, 2000 Q Street Ste 500, Lincoln, NE 68503 or kdietrich@jeo.com. If you have any questions, please call 402-742-7213.

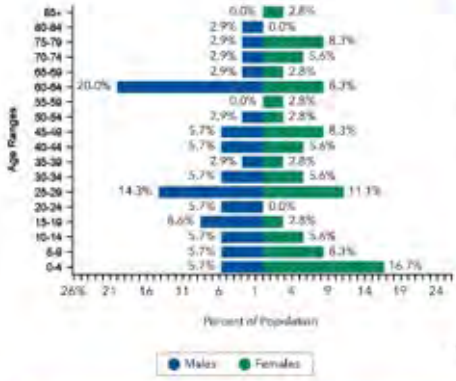
Community Fact Sheet

Community Summary Fact Sheet

Abie, NE
Lower Platte North NRD Hazard Mitigation Plan 2025

71	34.4	28	2.54	$139,286	$60,354
Total Population	Median Age	Total Households	Average Household Size	Median Home Value	Median Household Income

AGE PYRAMID

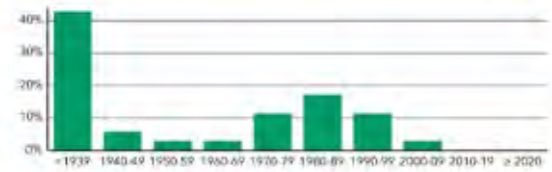


TOTAL POPULATION	
2023 Total Population (Estimate)	71
2020 Total Population (U.S. Census)	65
2010 Total Population (U.S. Census)	69
2000 Total Population (U.S. Census)	77

AT RISK POPULATIONS

10	11	0	10%
Households With Disability	Population 65+	Households Without Vehicle	Households Below the Poverty Level

HOUSING: YEAR BUILT



EMPLOYMENT

2	0.0%
Total Businesses	Unemployment Rate

POPULATION BY RACE



6% of the Total Population is Hispanic

HOUSING

6	14%
Vacant Housing Units	Mobile Homes

esri Source: [illegible]

Local Planning Team

Abie Local Planning Team

Name	Title	Jurisdiction	Round 1 Meeting	Round 2 Meeting
David Polacek	Clerk	Village of Abie	Attended, Materials Development	
Dennis Polacek	Chairman	Village of Abie	Attended, Materials Development	

Plan Maintenance

Hazard Mitigation Plans are living documents and should be updated regularly to ensure effectiveness and reflect changes in hazard events, priorities, and mitigation actions. These updates are encouraged to occur after every major disaster event, alongside planning document updates, before the Hazard Mitigation Assistance Grants cycle begins, and/or prior to other funding opportunity cycles beginning.

For your jurisdiction, what positions are responsible for reviewing and updating the profile outside of the five-year update?

Position: _____

Position: _____

Position: _____

Please indicate how frequently your jurisdiction intends to review/revise the profile. (circle one)

Every 6 months Annually Bi-annually

How will your jurisdiction notify and involve the public in the plan review and revision? (For example, social media, website updates, letters to all residents, board/council meetings, etc.)

Capability Assessment

The planning team assessed the Village of Abie's hazard mitigation capabilities by reviewing planning and regulatory capabilities, administrative and technical capabilities, fiscal capabilities, and education and outreach capabilities.

Abie Capability Assessment

Capability/Planning Mechanism		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	No
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operations Plan	Yes (County)

Capability/Planning Mechanism		Yes/No
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	No
	Subdivision Regulation/Ordinance	No
	Floodplain Ordinance	No
	Building Codes	No
	Water System Emergency Response Plan	Yes
	Wellhead Protection Plan	Yes
	National Flood Insurance Program	No
	Community Rating System	No
	Community Wildfire Protection Plan	Yes (Regional)
	Other (if any)	-
Administrative & Technical Capability	Planning Commission	No
	Floodplain Administrator	No
	GIS Capabilities	No
	Chief Building Official	No
	Civil Engineering	Yes
	Grant Manager	No
	Mutual Aid Agreement	Yes
	Other (if any)	-
Fiscal Capability	1- & 6-Year Plan	Yes
	Applied for Grants in the Past	Yes
	Awarded a Grant in the Past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	No
	Gas/Electric/Water/Sewer Service Fees	No
	Storm Water Service Fees	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds	No
	Other (if any)	-
Education & Outreach Capability	Local Citizen Groups or Non-Profit Organizations Focused on Environmental Protection, Emergency Preparedness, Access and Functional Needs Populations, etc.	No
	Ongoing Public Education or Information Program (e.g., Responsible Water Use, Fire Safety, Household Preparedness, Environmental Education)	No
	Natural Disaster or Safety Related School Programs	No
	StormReady Certification	No

Capability/Planning Mechanism		Yes/No
	Firewise Communities Certification	No
	Tree City USA	No
	Other (if any)	-

Abie Overall Capability

Capability	Limited/Moderate/High
Financial Resources to Implement Mitigation Projects	Moderate
Staff/Expertise to Implement Projects	Moderate
Public Support to Implement Projects	Moderate
Time to Devote to Hazard Mitigation	Moderate
Ability to Expand and Improve the Identified Capabilities to Achieve Mitigation	Moderate

National Flood Insurance Program (NFIP)

Why does the village not participate in the National Flood Insurance Program?

Are you interested in joining the National Flood Insurance Program?

Abie NFIP Information

NFIP Overview	
Date of NFIP Participation:	N/A
Floodplain Administrator:	N/A
Is Floodplain Administrator a Certified Floodplain Manager?	N/A
Is Floodplain Management an Auxiliary Function?	N/A
Number of NFIP Policies In-Force:	N/A
Total NFIP Premium ($):	N/A
Total NFIP Coverage ($):	N/A
Number of Claims Paid Out:	N/A
Total Amount of Claims Paid Out ($:)	N/A
Number of Repetitive Loss Structures:	N/A
Number of Severe Repetitive Loss Structures:	N/A
Is the Community Currently Suspended from the NFIP?	N/A
Any Outstanding Compliance Issues?	N/A
FIRMs Digital or Paper?	Digital
Located in a RISK Map Area?	No

Buildings and Valuation in the Floodplain

The planning team acquired GIS parcel data from the County Assessor and Microsoft building footprint data to analyze the location, number, and value of buildings located in the 100-year and 500-year floodplains. A summary of the results of this analysis is provided in the following tables.

Abie Buildings and Value in the 100-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
88	$6,842,280	1	$28,250	1.1%

Source: County Assessor, 2024; Microsoft, 2024

Abie Buildings and Value in the 500-Year Floodplain

Number of Buildings	Total Building Value	Number of Buildings in Floodplain	Value of Buildings in Floodplain	Percentage of Buildings in Floodplain
88	$6,842,280	0	$0	0%

Source: County Assessor, 2024; Microsoft, 2024

Plans and Studies

The Village of Abie has several planning documents that discuss or relate to hazard mitigation. Each plan is listed below along with a short description of how it is integrated with the hazard mitigation plan or how it contains hazard mitigation principles. When the village updates these planning mechanisms, the local planning team will review the hazard mitigation plan for opportunities to incorporate the goals and objectives, risk and vulnerability data, and mitigation actions into the update.

Butler County Local Emergency Operations Plan (2021)

The Butler County Local Emergency Operations Plan (LEOP) establishes standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. It contains information regarding direction and control, communications and warning, damage assessment, emergency public information, evacuation, fire services, health and human services, law enforcement, mass care, protective shelters, and resource management. This plan is updated every five years. The hazard mitigation plan has been integrated with this plan and includes the top hazards that would affect the county and its populations. Flooding, dam failure, and mass shelter information from the LEOP was used to inform hazard prioritization and community lifelines.

Southeast Nebraska Community Wildfire Protection Plan (2020)

The purpose of the Southeast Nebraska Community Wildfire Protection Plan (CWPP) is to help effectively manage wildfires and increase collaboration and communication among organizations who manage fire. The CWPP discusses county-specific historical wildfire occurrences and impacts, identifies areas most at risk from wildfires, discusses protection capabilities, and identifies wildfire mitigation strategies. Wildfire projects and concerns from the 2015 hazard mitigation plan were included in the CWPP and wildfire projects in the current hazard mitigation plan will be included during the next CWPP update. Projects identified in the CWPP were reviewed for inclusion in this community profile. This document is updated every five years.

Water System Emergency Response Plan

A water system emergency response plan serves as a guideline for water operators and village board to minimize the disruption of normal services to consumers and to provide public health protection during an emergency event. The document identifies several natural and human-caused events and discusses the water system's response during those events. The water system emergency response plan is reviewed and updated annually.

Has the hazard mitigation plan been integrated into the water system emergency response plan? If yes, how?

Wellhead Protection Plan

The purpose of wellhead protection plans is to protect the public drinking water supply wells from contamination. It includes identifying potential sources of groundwater contamination in the area and managing the potential contaminant sources.

Has the hazard mitigation plan been integrated into the wellhead protection plan? If yes, how?

Future Development Trends

Over the last five years, old buildings (bar, bank, and café) on Main Street were demolished due to being unsafe and were replaced with new buildings to be used by a local construction company. With the removal of old buildings, the community is likely less vulnerable to hazards like severe thunderstorms, severe winter storms, and tornadoes and high winds. In the next five years, there are currently no planned housing or commercial developments in the community.

For hazards like drought, extreme heat, severe thunderstorms, severe winter storms, and tornadoes and high winds, all new and future developments could be impacted regardless of where they are located. According to the local planning team no new developments occurred in any known hazard locations.

Community Lifelines

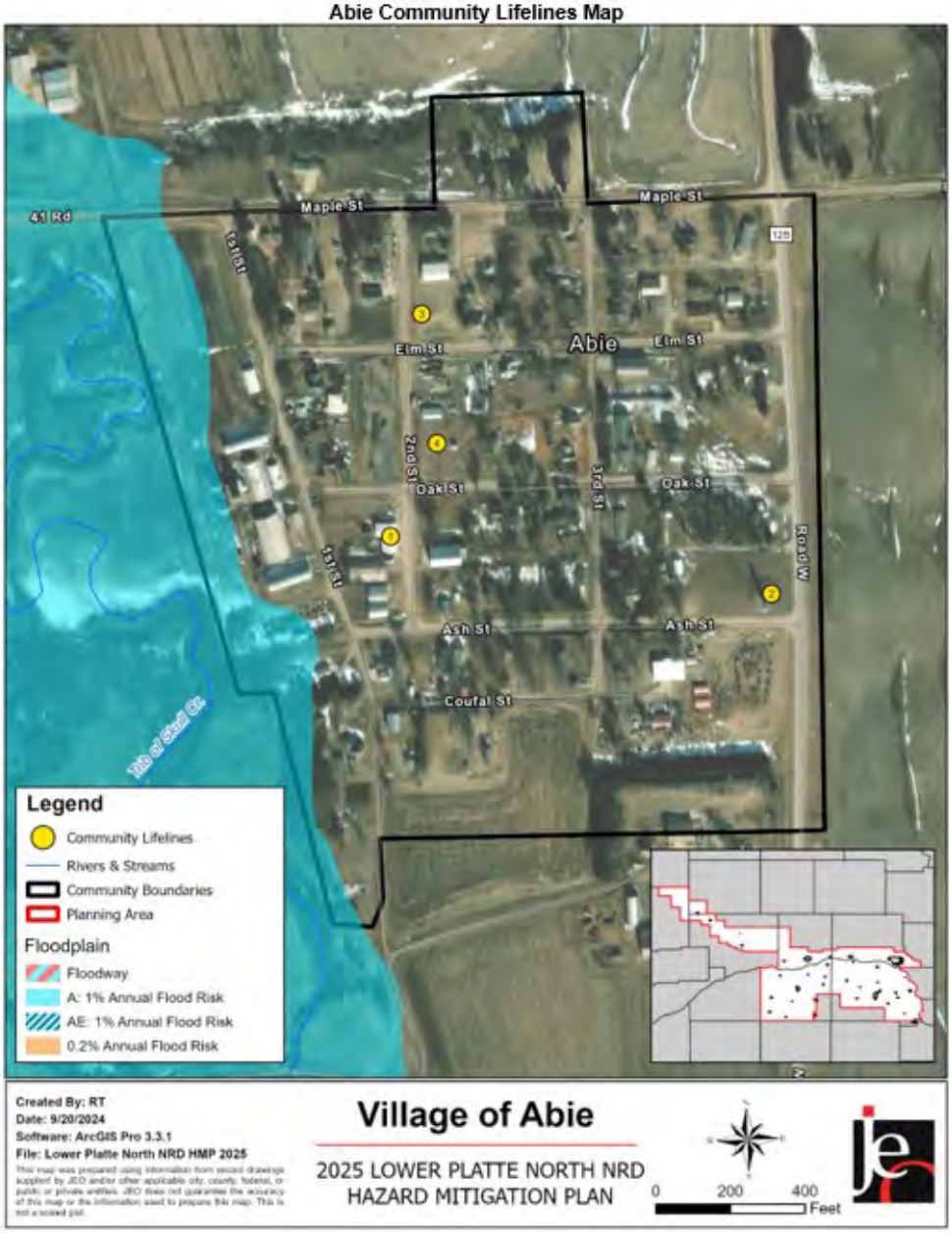
As listed in the following table, each participating jurisdiction identified community lifelines that are vital for disaster response and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. The FEMA lifeline categories include Safety and Security; Food, Water, and Shelter; Health and Medical; Energy; Communication; Transportation; and Hazardous Material Facilities.



Abie Community Lifelines

CL Number	Name	Community Lifeline Type	Generator (G) Shelter (S)	Floodplain (Y/N)
1	Fire Hall	Safety & Security	G	N
2	Water Tower	Food, Water, Shelter	-	N
3	Well	Food, Water, Shelter	G	N
4	Well	Food, Water, Shelter	G	N

Abie Community Lifelines Map



Hazard Prioritization and Mitigation Strategy

The Lower Platte North NRD Hazard Mitigation Plan evaluates a range of natural and human-caused hazards which pose a risk to the counties, communities, and other participants. During the planning process, the local planning team prioritized specific hazards of top concern for Abie which required a more nuanced and in-depth discussion of past local events, potential impacts, capabilities, and vulnerabilities. The following section expands on the prioritized hazards identified by the Village of Abie. Based on this analysis, the local planning team determined their vulnerability to all other hazards to be of low concern. For a review and analysis of other regional hazards, please see *Section Five* and *Appendix A*.

Hazardous Materials Release

Anhydrous ammonia is the most likely chemical to spill in Abie. There is a co-op facility in the area that transports anhydrous ammonia. Highway Spur 12B is the transportation route of most concern because it is the most heavily traveled with vehicles transporting chemicals. This route is especially busy during the spring and fall, when agricultural chemicals from the co-op are being applied in the area. While no spills have happened in the community to date, a future spill could have acute effects on the community because some residential homes are located within two blocks of the local co-op. These residents have been educated about the threat and appropriate response to a spill. The local volunteer fire department and their mutual aid has the appropriate gear and training to respond to a spill.

Severe Thunderstorms

In the spring and summer of 2024, the village experience several thunderstorms that caused damage to trees and buildings. Since those events damaged trees have been removed and property owners repaired building damage. Building damage is the most pressing concern regarding severe thunderstorms. Community lifelines are not fitted with hail resistant building materials but are insured against hail and wind damage. In the event of power loss, the village has a portable generator that can be hooked to either well for backup power.

Severe Winter Storms

In November of 2022, the Village of Abie had a severe ice storm, followed by snow which caused tree damage and power loss. The water tower, wells, and fire hall are all vulnerable to damage during severe winter storms. Only approximately 20% of the power lines in the village are buried, making them vulnerable to heavy snow and ice storms. Snow removal is done by a private contractor using their motor-grader, and usually takes about two hours depending on the amount of snow. The village will continue to work on trimming trees near power lines and buildings to mitigate risks during severe winter weather.

Tornadoes and High Winds

Abie experienced an F1 tornado on June 20, 1996, with an estimated $150,000 in property damage. Future tornado and high wind events could be catastrophic. Some municipal records are stored on a computer and protected from a disaster with a backup system. The village's siren reaches all areas of the town however, there are no FEMA certified safe rooms so residents must seek shelter in their own homes. County Emergency Management offers text alerts to the fire department. The village will continue to educate people on risks and what to do in the event of this hazard occurring. The local fire department offers a yearly course on tornado and high winds safety. In case of a disaster Mutual Aid Agreements are in place with all communities in the county.

Review Mitigation and Strategic Actions

Please review the following mitigation and strategic actions identified in the previous HMP, make any changes needed, and fill in missing information. Mark if each action has been completed, kept, or should be removed and describe the current status of the action.

Note: FEMA now requires that every hazard identified in the plan must have at least one mitigation action that addresses it.

Action	Backup and Emergency Generators		
Description & Location	Identify and evaluate current backup and emergency generators. Obtain additional generators based on identification and evaluation. Provide portable or stationary source of backup power to redundant power supplies, municipal wells, lift stations, and other critical facilities and shelters.		
Hazard(s) Addressed	Dam & Levee Failure, Extreme Heat, Flooding, Grass/Wildfires, Severe Thunderstorms, Severe Winter Storms, Terrorism & Cyber-Attack, Tornadoes and High Winds		
Estimated Cost	$30,000 - $50,000		
Local Funding			
Timeline	1 Year	2-5 Years	5+ Years
Priority	High	Medium	Low
Lead Agency	Village Board		
Update (circle one)	Completed	Keep	Remove
Status	What is the current status of this project?		

Action	Implement Drought Water Conservation Regulations		
Description & Location	Develop a plan and implement a program to conserve water use by the citizens during elongated periods of drought. Potential restrictions on water could include limitation on lawn watering, car washing, and other non-essential residential uses.		
Hazard(s) Addressed	Drought, Grass/Wildfire		
Estimated Cost	$0		
Local Funding			
Timeline	1 Year	2-5 Years	5+ Years
Priority	High	Medium	Low
Lead Agency	Village Board		
Update (circle one)	Completed	Keep	Remove
Status	What is the current status of this project?		

New Mitigation and Strategic Actions

Please Identify any new mitigation actions your jurisdiction is interested in pursuing or interested in applying for grant funding. Complete the table(s) below. Please fill out all rows. For examples of mitigation actions, review the provided FEMA Handbook (https://www.fema.gov/sites/default/files/2020-06/fema-mitigation-ideas_02-13-2013.pdf) or reach out to a JEO Project Contact.

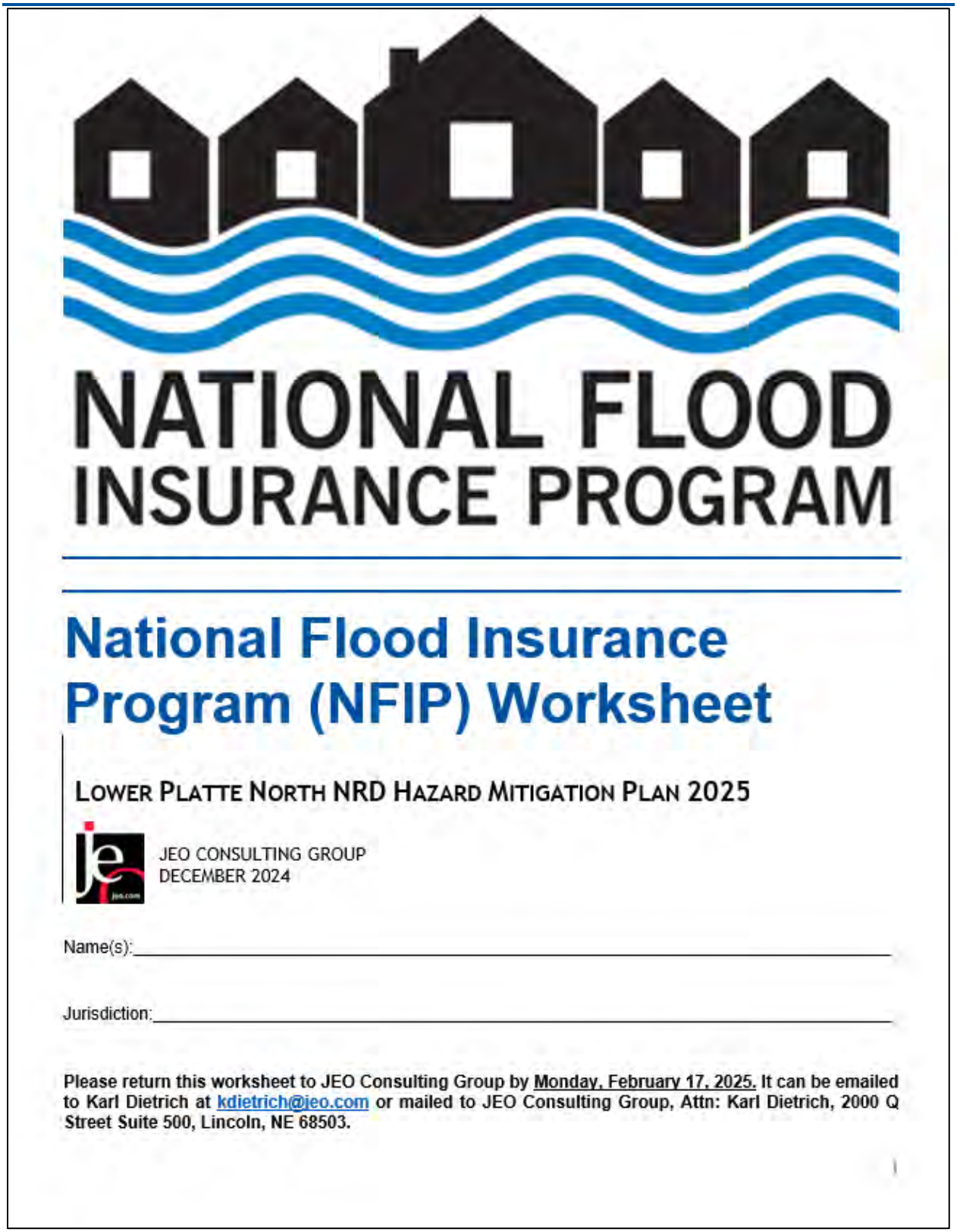
Action			
Description & Location			
Hazard(s) Addressed			
Estimated Cost			
Local Funding			
Timeline	1 Year	2-5 Years	5+ Years
Priority	High	Medium	Low
Lead Agency			
Status			

Action			
Description & Location			
Hazard(s) Addressed			
Estimated Cost			
Local Funding			
Timeline	1 Year	2-5 Years	5+ Years
Priority	High	Medium	Low
Lead Agency			
Status			

Action			
Description & Location			
Hazard(s) Addressed			
Estimated Cost			
Local Funding			
Timeline	1 Year	2-5 Years	5+ Years
Priority	High	Medium	Low
Lead Agency			
Status			

Action			
Description & Location			
Hazard(s) Addressed			
Estimated Cost			
Local Funding			
Timeline	1 Year	2-5 Years	5+ Years
Priority	High	Medium	Low
Lead Agency			
Status			

Round 2 NFIP Worksheet



NATIONAL FLOOD INSURANCE PROGRAM

National Flood Insurance Program (NFIP) Worksheet

LOWER PLATTE NORTH NRD HAZARD MITIGATION PLAN 2025

JEO CONSULTING GROUP
DECEMBER 2024

Name(s):_____

Jurisdiction:_____

Please return this worksheet to JEO Consulting Group by Monday, February 17, 2025. It can be emailed to Karl Dietrich at kdietrich@jeo.com or mailed to JEO Consulting Group, Attn: Karl Dietrich, 2000 Q Street Suite 500, Lincoln, NE 68503.

NFIP QUESTIONS

Is your Floodplain Administrator a Certified Floodplain Manager? ☐ Yes ☐ No

Does your Floodplain Administrator have duties other than floodplain management? ☐ Yes ☐ No

Does your community plan to continue involvement with the NFIP in the future?

Please explain your community's floodplain permitting process.

How does your community enforce local floodplain regulations and ensure compliance?

Do your floodplain regulations exceed FEMA or State of Nebraska Requirements? If yes, in what ways?

What digital tools (FEMA Map Service Center, National Flood Hazard Layer) or non-regulatory tools does your Floodplain Administrator use?

How does your community identify substantially damaged structures after a flood event?

How does your community identify substantially improved structures?

2

What are the barriers (if any) to running your NFIP program effectively?

Describe any areas of flood risk in your community that have limited NFIP Policy Coverage. Why do they have limited coverage?

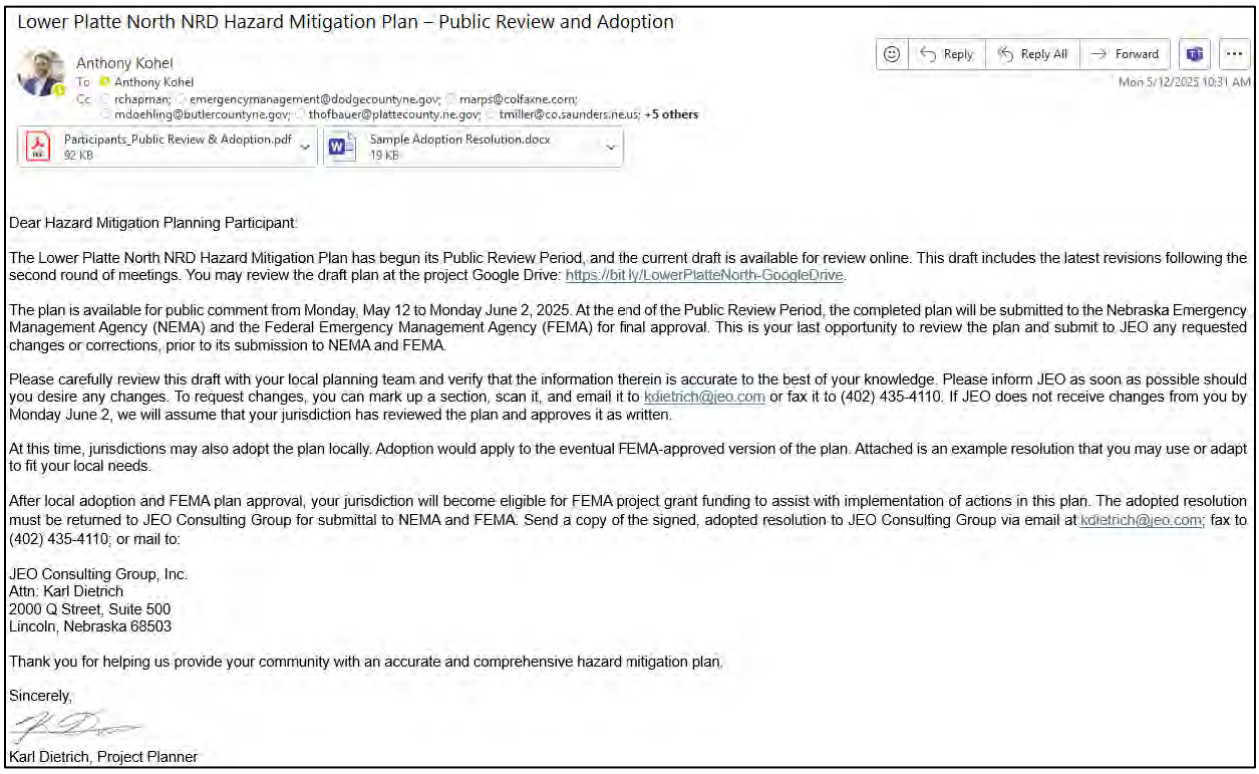
How does your community educate property owners or other stakeholders about the importance of flood insurance?

How are Letters of Map Change tracked and compiled?

3

Public Review Notification Email

Once the HMP draft was completed, a public review period was opened to allow participants and community members at large to review the plan, provide comments, and request changes. The public review period was open from May 12, 2025, through June 2, 2025. Participating jurisdictions were emailed or mailed a letter notifying them of this public review period. That email can be seen below.



Lower Platte North NRD Hazard Mitigation Plan – Public Review and Adoption

Anthony Kohel
To: Anthony Kohel
Cc: rchapman; emergencymanagement@dodgecountyne.gov; marps@colfaxne.com; mdaehling@butlercountyne.gov; thofbauer@plattecounty.ne.gov; tmiller@co.saunders.ne.us; +5 others

Reply | Reply All | Forward

Mon 5/12/2025 10:31 AM

Participants_Public Review & Adoption.pdf 92 KB

Sample Adoption Resolution.docx 19 KB

Dear Hazard Mitigation Planning Participant:

The Lower Platte North NRD Hazard Mitigation Plan has begun its Public Review Period, and the current draft is available for review online. This draft includes the latest revisions following the second round of meetings. You may review the draft plan at the project Google Drive: https://bit.ly/LowerPlatteNorth-GoogleDrive.

The plan is available for public comment from Monday, May 12 to Monday June 2, 2025. At the end of the Public Review Period, the completed plan will be submitted to the Nebraska Emergency Management Agency (NEMA) and the Federal Emergency Management Agency (FEMA) for final approval. This is your last opportunity to review the plan and submit to JEO any requested changes or corrections, prior to its submission to NEMA and FEMA.

Please carefully review this draft with your local planning team and verify that the information therein is accurate to the best of your knowledge. Please inform JEO as soon as possible should you desire any changes. To request changes, you can mark up a section, scan it, and email it to kdietrich@jeo.com or fax it to (402) 435-4110. If JEO does not receive changes from you by Monday June 2, we will assume that your jurisdiction has reviewed the plan and approves it as written.

At this time, jurisdictions may also adopt the plan locally. Adoption would apply to the eventual FEMA-approved version of the plan. Attached is an example resolution that you may use or adapt to fit your local needs.

After local adoption and FEMA plan approval, your jurisdiction will become eligible for FEMA project grant funding to assist with implementation of actions in this plan. The adopted resolution must be returned to JEO Consulting Group for submittal to NEMA and FEMA. Send a copy of the signed, adopted resolution to JEO Consulting Group via email at kdietrich@jeo.com; fax to (402) 435-4110; or mail to:

JEO Consulting Group, Inc.
Attn: Karl Dietrich
2000 Q Street, Suite 500
Lincoln, Nebraska 68503

Thank you for helping us provide your community with an accurate and comprehensive hazard mitigation plan.

Sincerely,

Karl Dietrich, Project Planner

Public Review Comments Received

During public review, jurisdictions and the public could provide comments via mail or email. A review of the comments and who they were from can be found below. Updates were made to the plan as applicable from these comments.

Weston Fire Department

- In the Hazard Prioritization and Mitigation Action and Strategy section, it was stated that the fire department had a portable generator. Edited to say that one of their projects is to purchase and install a backup generator.

Schuyler, City of

- Changed Lora Johnson's title from Clerk to City Administrator
- Changed 1- to 6-Year Plan to 'Yes'
- Added Water System Emergency Plan under Plans and Studies
- Changed Community Lifelines types

Colon, Village of

- Updated Capability Assessment table

- Updated information for Floodplain Regulations in Plans and Studies
- Updated Future Development to include future projects
- Added a new Community Lifeline
- Added additional information in the Hazard Prioritized and Mitigation Strategy section.

Malmo Volunteer Fire Department

- Added more information to the hazards and mitigation actions in the Hazards Prioritization and Mitigation Strategy section of the fire department profile.
- Amended Community Lifelines types.

Dodge County

- Edits to the Plan Maintenance section.
- Edits to the content and mitigation action tables in the Hazard Prioritization and Mitigation Strategy section.

Nebraska Department of Natural Resources

- Comment/suggestion regarding the upfront.
- Edits to the Flooding section in the Risk Assessment appendix.
- Various edits to the community profiles appendices.

Yutan, City of

- Edits to the Local Planning Team section.
- Grammatical/syntax edits throughout the community profile.
- Removal of a suggested Mitigation Action

Adoption Resolution Template

RESOLUTION NUMBER _____

WHEREAS, the Federal Disaster Mitigation Act of 2000 was signed in to law on October 30, 2000, placing new emphasis on state and local mitigation planning for natural hazards and requiring communities to adopt a hazard mitigation action plan to be eligible for pre-disaster and post-disaster federal funding for mitigation purposes; and

WHEREAS, a Multi-Jurisdictional Hazard Mitigation Plan was prepared by the Lower Platte North Natural Resources District, with assistance from JEO Consulting Group, Inc.

WHEREAS, the purpose of the mitigation plan was to lessen the effects of disasters by increasing the disaster resistance of the counties and participating jurisdictions located within the planning boundary by identifying the hazards that affect _____ and prioritize mitigation strategies to reduce potential loss of life and property damage from those hazards, and

WHEREAS, FEMA regulations require documentation that the plan has been formally adopted by the governing body of _____ in the form of a resolution and further requesting approval of the plan at the Federal Level; and

NOW, THEREFORE, the governing body of _____ does herewith adopt the most recent and FEMA approved version of the Lower Platte North NRD Hazard Mitigation Plan in its entirety; and

PASSED AND APPROVED this _____ day of _____, 2025.

_____
President of the Board

ATTEST:

_____
Clerk

Lower Platte North NRD Adoption Resolution

Lower Platte North Natural Resources District
Multi-Jurisdictional Hazard Mitigation Plan 2025
RESOLUTION

WHEREAS, the Federal Disaster Mitigation Act of 2000 was signed in to law on October 30, 2000, placing new emphasis on state and local mitigation planning for natural hazards and requiring communities to adopt a hazard mitigation action plan to be eligible for pre-disaster and post-disaster federal funding for mitigation purposes; and

WHEREAS, a Multi-Jurisdictional Hazard Mitigation Plan was prepared by the Lower Platte North Natural Resources District, with assistance from JEO Consulting Group, Inc.

WHEREAS, the purpose of the mitigation plan was to lessen the effects of disasters by increasing the disaster resistance of the counties and participating jurisdictions located within the planning boundary by identifying the hazards that affect the Lower Platte North Natural Resources District and prioritize mitigation strategies to reduce potential loss of life and property damage from those hazards, and

WHEREAS, FEMA regulations require documentation that the plan has been formally adopted by the governing body of the Lower Platte North Natural Resources District in the form of a resolution and further requesting approval of the plan at the Federal Level; and

NOW, THEREFORE, the governing body of the Lower Platte North Natural Resources District does herewith adopt the most recent and FEMA approved version of the Lower Platte North NRD Hazard Mitigation Plan in its entirety; and

PASSED AND APPROVED this 9th day of June, 2025.

Board Chairperson

ATTEST:

Village of Abie Adoption Resolution

RESOLUTION NUMBER 25-010

WHEREAS, the Federal Disaster Mitigation Act of 2000 was signed in to law on October 30, 2000, placing new emphasis on state and local mitigation planning for natural hazards and requiring communities to adopt a hazard mitigation action plan to be eligible for pre-disaster and post-disaster federal funding for mitigation purposes; and

WHEREAS, a Multi-Jurisdictional Hazard Mitigation Plan was prepared by the Lower Platte North NRD, with assistance from JEO Consulting Group, Inc.

WHEREAS, the purpose of the mitigation plan was to lessen the effects of disasters by increasing the disaster resistance of the counties and participating jurisdictions located within the planning boundary by identifying the hazards that affect Abie and prioritize mitigation strategies to reduce potential loss of life and property damage from those hazards, and

WHEREAS, FEMA regulations require documentation that the plan has been formally adopted by the governing body of Abie in the form of a resolution and further requesting approval of the plan at the Federal Level; and

NOW, THEREFORE, the governing body of Abie does herewith adopt the most recent and FEMA approved version of the Lower Platte North NRD Hazard Mitigation Plan in its entirety; and

PASSED AND APPROVED this 3rd day of June, 2025.

President of the Board

ATTEST:

Clerk

Village of Colon Adoption Resolution

VILLAGE OF COLON
RESOLUTION NO. 2025 – 3 R
Lower Platte North Natural Resources District
Multi-Jurisdictional Hazard Mitigation Plan Update

WHEREAS, the Federal Disaster Mitigation Act of 2000 was signed in to law on October 30, 2000, placing new emphasis on state and local mitigation planning for natural hazards and requiring communities to adopt a hazard mitigation action plan to be eligible for pre-disaster and post-disaster federal funding for mitigation purposes; and

WHEREAS, a Multi-Jurisdictional Hazard Mitigation Plan was prepared by the Lower Platte North Natural Resources District, with assistance from JEO Consulting Group, Inc. of Lincoln, Nebraska; and

WHEREAS, the purpose of the mitigation plan was to lessen the effects of disasters by increasing the disaster resistance of the counties and participating jurisdictions located within the planning boundary by identifying the hazards that affect the Village of Colon and prioritize mitigation strategies to reduce potential loss of life and property damage from those hazards, and

WHEREAS, FEMA regulations require documentation that the plan has been formally adopted by the governing body of the Village of Colon, Saunders County, Nebraska, in the form of a resolution and further requesting approval of the plan at the Federal Level; and

NOW, THEREFORE, the governing body of the Village of Colon, Saunders County, Nebraska, does herewith adopt the most recent and FEMA approved version of the Lower Platte North NRD Hazard Mitigation Plan Update in its entirety.

PASSED AND APPROVED this 14th day of May, 2025.

Douglas Novotny
Chair, Colon Board of Trustees

ATTEST:

Cynthia Ourada
Village Clerk/Treasurer

Colon Volunteer Fire Department

RESOLUTION NUMBER 2025-3

WHEREAS, the Federal Disaster Mitigation Act of 2000 was signed in to law on October 30, 2000, placing new emphasis on state and local mitigation planning for natural hazards and requiring communities to adopt a hazard mitigation action plan to be eligible for pre-disaster and post-disaster federal funding for mitigation purposes; and

WHEREAS, a Multi-Jurisdictional Hazard Mitigation Plan was prepared by the Lower Platte North NRD, with assistance from JEO Consulting Group, Inc.

WHEREAS, the purpose of the mitigation plan was to lessen the effects of disasters by increasing the disaster resistance of the counties and participating jurisdictions located within the planning boundary by identifying the hazards that affect Colon Rural Fire Protection District #9 and prioritize mitigation strategies to reduce potential loss of life and property damage from those hazards, and

WHEREAS, FEMA regulations require documentation that the plan has been formally adopted by the governing body of Colon Rural Fire Protection District #9 in the form of a resolution and further requesting approval of the plan at the Federal Level; and

NOW, THEREFORE, the governing body of Colon Rural Fire Protection District #9 does herewith adopt the most recent and FEMA approved version of the Lower Platte North NRD Hazard Mitigation Plan in its entirety; and

PASSED AND APPROVED this 2nd day of June, 2025.

Vice - President of the Board

ATTEST:

Clerk

Dodge County Adoption Resolution

RESOLUTION 6
OF
DODGE COUNTY BOARD OF SUPERVISORS

WHEREAS: the Federal Disaster Mitigation Act of 2000 was signed into law on October 30, 2000, placing new emphasis on state and local mitigation planning for natural hazards and requiring communities to adopt a hazard mitigation action plan to be eligible for pre-disaster and post-disaster federal funding for mitigation purposes; and

WHEREAS: a Multi-Jurisdictional Hazard Mitigation Plan was prepared by the Lower Platte North NRD, with assistance from JEO Consulting Group, Inc.

WHEREAS: the purpose of the mitigation plan was to lessen the effects of disasters by increasing the disaster resistance of the counties and participating jurisdictions located within the planning boundary by identifying the hazards that affect Dodge County and prioritize mitigation strategies to reduce potential loss of life and property damage from those hazards, and

WHEREAS: FEMA regulations require documentation that the plan has been formally adopted by the governing body of Dodge County in the form of a resolution and further requesting approval of the plan at the Federal Level, now therefore be it

RESOLVED: That the Dodge County Board of Supervisors approve the most recent and approved version of the Lower Platte North NRD Hazard Mitigation Plan in its entirety.

Supervisor Tawney moved adoption of said Resolution.

Roll call vote showed 7 yea 0 nay.

ATTEST:

DODGE COUNTY, NEBRASKA
COUNTY CLERK

Micki Gilfry
Dodge County Clerk

Bob Missel, Chairman
Dodge County Board of Supervisors

June 11, 2025
Dated

Dwight Volunteer Fire Department Adoption Resolution

RESOLUTION NUMBER 05-25

WHEREAS, the Federal Disaster Mitigation Act of 2000 was signed in to law on October 30, 2000, placing new emphasis on state and local mitigation planning for natural hazards and requiring communities to adopt a hazard mitigation action plan to be eligible for pre-disaster and post-disaster federal funding for mitigation purposes; and

WHEREAS, a Multi-Jurisdictional Hazard Mitigation Plan was prepared by the Lower Platte North NRD, with assistance from JEO Consulting Group, Inc.

WHEREAS, the purpose of the mitigation plan was to lessen the effects of disasters by increasing the disaster resistance of the counties and participating jurisdictions located within the planning boundary by identifying the hazards that affect DWIGHT RURAL FIRE and prioritize mitigation strategies to reduce potential loss of life and property damage from those hazards, and

WHEREAS, FEMA regulations require documentation that the plan has been formally adopted by the governing body of Dwight Rural Fire DIST. in the form of a resolution and further requesting approval of the plan at the Federal Level; and

NOW, THEREFORE, the governing body of DWIGHT RURAL FIRE DIST does herewith adopt the most recent and FEMA approved version of the Lower Platte North NRD Hazard Mitigation Plan in its entirety; and

PASSED AND APPROVED this 20th day of MAY, 2025.

Eric Morgan
President of the Board

ATTEST:
Duane Tejral
Clerk

Village of Mead Adoption Resolution

CERTIFICATE OF PASSAGE
OF RESOLUTION 25-10

I, June K. Moline, Clerk of the Village of Mead, Nebraska, hereby certify that the Village of Mead Board of Trustees adopted Resolution 25-10, Lower Platte North NRD Hazard Mitigation Plan. The resolution was adopted at the May 13, 2025 Regular Meeting of the Village of Mead Board of Trustees. Notice has been posted in three (3) public places as follows: U.S. Post Office, Bank of Mead, and Mead Village Office on May 14, 2025 at 10:00 a.m.

June Moline

June K. Moline, Clerk
Village of Mead

Resolution 25-10

RESOLUTION NO. 25-10

WHEREAS, the Federal Disaster Mitigation Act of 2000 was signed in to law on October 30, 2000, placing new emphasis on state and local mitigation planning for natural hazards and requiring communities to adopt a hazard mitigation action plan to be eligible for pre-disaster and post-disaster federal funding for mitigation purposes; and

WHEREAS, a Multi-Jurisdictional Hazard Mitigation Plan was prepared by the Lower Platte North NRD, with assistance from JEO Consulting Group, Inc.

WHEREAS, the purpose of the mitigation plan was to lessen the effects of disasters by increasing the disaster resistance of the counties and participating jurisdictions located within the planning boundary by identifying the hazards that affect the Village of Mead and prioritize mitigation strategies to reduce potential loss of life and property damage from those hazards, and

WHEREAS, FEMA regulations require documentation that the plan has been formally adopted by the governing body of the Village of Mead in the form of a resolution and further requesting approval of the plan at the Federal Level; and

NOW, THEREFORE, the governing body of the Village of Mead does herewith adopt the most recent and FEMA approved version of the Lower Platte North NRD Hazard Mitigation Plan in its entirety; and

PASSED AND APPROVED this 13th day of May, 2025.

William Thorson, Chariman of the Board

ATTEST:

June Moline, Clerk

(SEAL)

City of North Bend Adoption Resolution

City of North Bend
CINOBEN@GPCOM.NET
P.O. Box 401
607 Main Street
NORTH BEND, NE 68649-0401
402•652•3584 fax: 402•652•3591

RESOLUTION NUMBER **590**

WHEREAS, the Federal Disaster Mitigation Act of 2000 was signed in to law on October 30, 2000, placing new emphasis on state and local mitigation planning for natural hazards and requiring communities to adopt a hazard mitigation action plan to be eligible for pre-disaster and post-disaster federal funding for mitigation purposes; and

WHEREAS, a Multi-Jurisdictional Hazard Mitigation Plan was prepared by the Lower Platte North NRD, with assistance from JEO Consulting Group, Inc.

WHEREAS, the purpose of the mitigation plan was to lessen the effects of disasters by increasing the disaster resistance of the counties and participating jurisdictions located within the planning boundary by identifying the hazards that affect North Bend and prioritize mitigation strategies to reduce potential loss of life and property damage from those hazards, and

WHEREAS, FEMA regulations require documentation that the plan has been formally adopted by the governing body of North Bend in the form of a resolution and further requesting approval of the plan at the Federal Level; and

NOW, THEREFORE, the governing body of North Bend does herewith adopt the most recent and FEMA approved version of the Lower Platte North NRD Hazard Mitigation Plan in its entirety; and

PASSED AND APPROVED this 3rd day of June, 2025.

Mayor Rod Scott

CITY OF NORTH BEND CORPORATE SEAL DODGE COUNTY, NEBRASKA

ATTEST:

City Clerk Theresa Busse

Village of Prague Adoption Resolution

RESOLUTION NUMBER **2025-6-1**

WHEREAS, the Federal Disaster Mitigation Act of 2000 was signed in to law on October 30, 2000, placing new emphasis on state and local mitigation planning for natural hazards and requiring communities to adopt a hazard mitigation action plan to be eligible for pre-disaster and post-disaster federal funding for mitigation purposes; and

WHEREAS, a Multi-Jurisdictional Hazard Mitigation Plan was prepared by the Lower Platte North NRD, with assistance from JEO Consulting Group, Inc.

WHEREAS, the purpose of the mitigation plan was to lessen the effects of disasters by increasing the disaster resistance of the counties and participating jurisdictions located within the planning boundary by identifying the hazards that affect the Village of Prague and prioritize mitigation strategies to reduce potential loss of life and property damage from those hazards, and

WHEREAS, FEMA regulations require documentation that the plan has been formally adopted by the governing body of the Village of Prague in the form of a resolution and further requesting approval of the plan at the Federal Level; and

NOW, THEREFORE, the governing body of the Village of Prague does herewith adopt the most recent and FEMA approved version of the Lower Platte North NRD Hazard Mitigation Plan in its entirety; and

PASSED AND APPROVED this 11th day of June, 2025.

President of the Board

ATTEST:

Clerk

Village of Rogers Adoption Resolution

RESOLUTION NUMBER 2025

WHEREAS, the Federal Disaster Mitigation Act of 2000 was signed in to law on October 30, 2000, placing new emphasis on state and local mitigation planning for natural hazards and requiring communities to adopt a hazard mitigation action plan to be eligible for pre-disaster and post-disaster federal funding for mitigation purposes; and

WHEREAS, a Multi-Jurisdictional Hazard Mitigation Plan was prepared by the Lower Platte North NRD, with assistance from JEO Consulting Group, Inc.

WHEREAS, the purpose of the mitigation plan was to lessen the effects of disasters by increasing the disaster resistance of the counties and participating jurisdictions located within the planning boundary by identifying the hazards that affect Rogers, NE and prioritize mitigation strategies to reduce potential loss of life and property damage from those hazards, and

WHEREAS, FEMA regulations require documentation that the plan has been formally adopted by the governing body of Rogers, NE in the form of a resolution and further requesting approval of the plan at the Federal Level; and

NOW, THEREFORE, the governing body of Rogers NE does herewith adopt the most recent and FEMA approved version of the Lower Platte North NRD Hazard Mitigation Plan in its entirety; and

PASSED AND APPROVED this 14th day of May, 2025.

Kathy A. Cummings
President of the Board

ATTEST:
Darlene Davis
Clerk

City of Schuyler Adoption Resolution

RESOLUTION NUMBER 2025-0520

WHEREAS, the Federal Disaster Mitigation Act of 2000 was signed in to law on October 30, 2000, placing new emphasis on state and local mitigation planning for natural hazards and requiring communities to adopt a hazard mitigation action plan to be eligible for pre-disaster and post-disaster federal funding for mitigation purposes; and

WHEREAS, a Multi-Jurisdictional Hazard Mitigation Plan was prepared by the Lower Platte North NRD, with assistance from JEO Consulting Group, Inc.

WHEREAS, the purpose of the mitigation plan was to lessen the effects of disasters by increasing the disaster resistance of the counties and participating jurisdictions located within the planning boundary by identifying the hazards that affect the City of Schuyler, Nebraska and prioritize mitigation strategies to reduce potential loss of life and property damage from those hazards, and

WHEREAS, FEMA regulations require documentation that the plan has been formally adopted by the governing body of the City of Schuyler, Nebraska in the form of a resolution and further requesting approval of the plan at the Federal Level; and

NOW, THEREFORE, the governing body of the City of Schuyler, Nebraska does herewith adopt the most recent and FEMA approved version of the Lower Platte North NRD Hazard Mitigation Plan in its entirety; and

PASSED AND APPROVED this 20th day of May, 2025.

NEBRASKA CITY OF SCHUYLER COLFAX COUNTY

President of the Board

ATTEST:

Clerk

Educational Service Unit #2 Adoption Resolution

2320 N COLORADO AVENUE PHONE402.721.7710
PO BOX 649 www.esu2.org
FREMONT NE 68026-0649 FAX 402.721.7712
NEBRASKA EDUCATIONAL SERVICE UNIT 2

WHEREAS, the Federal Disaster Mitigation Act of 2000 was signed into law on October 30, 2000, placing new emphasis on state and local mitigation planning for natural hazards and requiring communities to adopt a hazard mitigation action plan to be eligible for pre-disaster and post-disaster federal funding for mitigation purposes; and

WHEREAS, a Multi-Jurisdictional Hazard Mitigation Plan was prepared by the Lower Platte North NRD, with assistance from JEO Consulting Group, Inc.

WHEREAS, the purpose of the mitigation plan was to lessen the effects of disasters by increasing the disaster resistance of the counties and participating jurisdictions located within the planning boundary by identifying the hazards that affect Educational Service Unit 2 and prioritize mitigation strategies to reduce potential loss of life and property damage from those hazards, and

WHEREAS, FEMA regulations require documentation that the plan has been formally adopted by the governing body of Educational Service Unit 2 in the form of a resolution and further requesting approval of the plan at the Federal Level; and

NOW, THEREFORE, the governing body of Educational Service Unit 2 does herewith adopt the most recent FEMA approved version of the Lower Platte North NRD Hazard Mitigation Plan in its entirety.

PASSED AND APPROVED on this 19th day of May 2025.

President of the Board

ATTEST:

Secretary of the Board

Appendix C: Planning Area Profile

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Rural Capacity Index 12
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Introduction

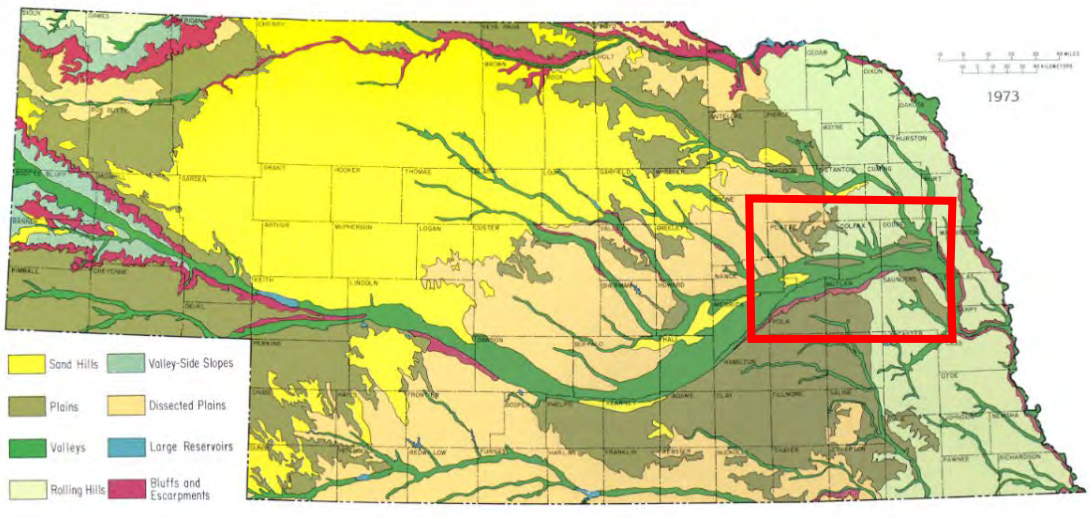
The following appendix provides a deeper look at the county and community characteristics that may not have been discussed fully in *Section 3: Planning Area Overview* or individual participant profiles. Some specific characteristics are covered in each jurisdiction's profile, redundant information will not be covered in this appendix. This appendix will highlight at-risk populations and characteristics of the built environment that add to regional and local vulnerabilities. Special jurisdictions such as fire districts and school districts may not be discussed in depth in this appendix as information is not always available for these entities.

Location and Geography

The Lower Platte North NRD hazard mitigation planning area is in eastern Nebraska. It includes portions of seven counties: Saunders, Butler, Dodge, Platte, Colfax, Madison, and Boone. Butler, Dodge, and Saunders participated in this plan update and make up the majority of the planning area, spanning approximately 1,894 square miles. There are 33 incorporated communities in the planning area. The figure on the next page shows the planning area, incorporated communities, major transportation routes, major waterways, and location within the state. The planning area has a diverse range of topographic regions including plains, valleys, bluffs and escarpments, sandhills, and rolling hills. Descriptions of these topographic regions are below.

- **Dissected Plains**: Hilly land with moderate to steep slopes and sharp ridge crests.
- **Bluffs and Escarpments:** Rugged land with very steep and irregular slopes.
- **Plains**: Flat-lying land that lies above the valley. The materials of the plains are sandstone or stream-deposited silt, clay, sand and gravel overlain by wind-deposited silt.
- **Rolling Hills**: Hilly land with moderate to steep slopes and rounded ridge crests.
- **Valley-Side Slopes**: Moderately sloping land between escarpments and major stream valleys in western Nebraska.
- **Sandhills**: Hilly land composed of low to high dunes of sand stabilized by grass cover.
- **Valleys**: Flat-lying land along the major streams.[1]

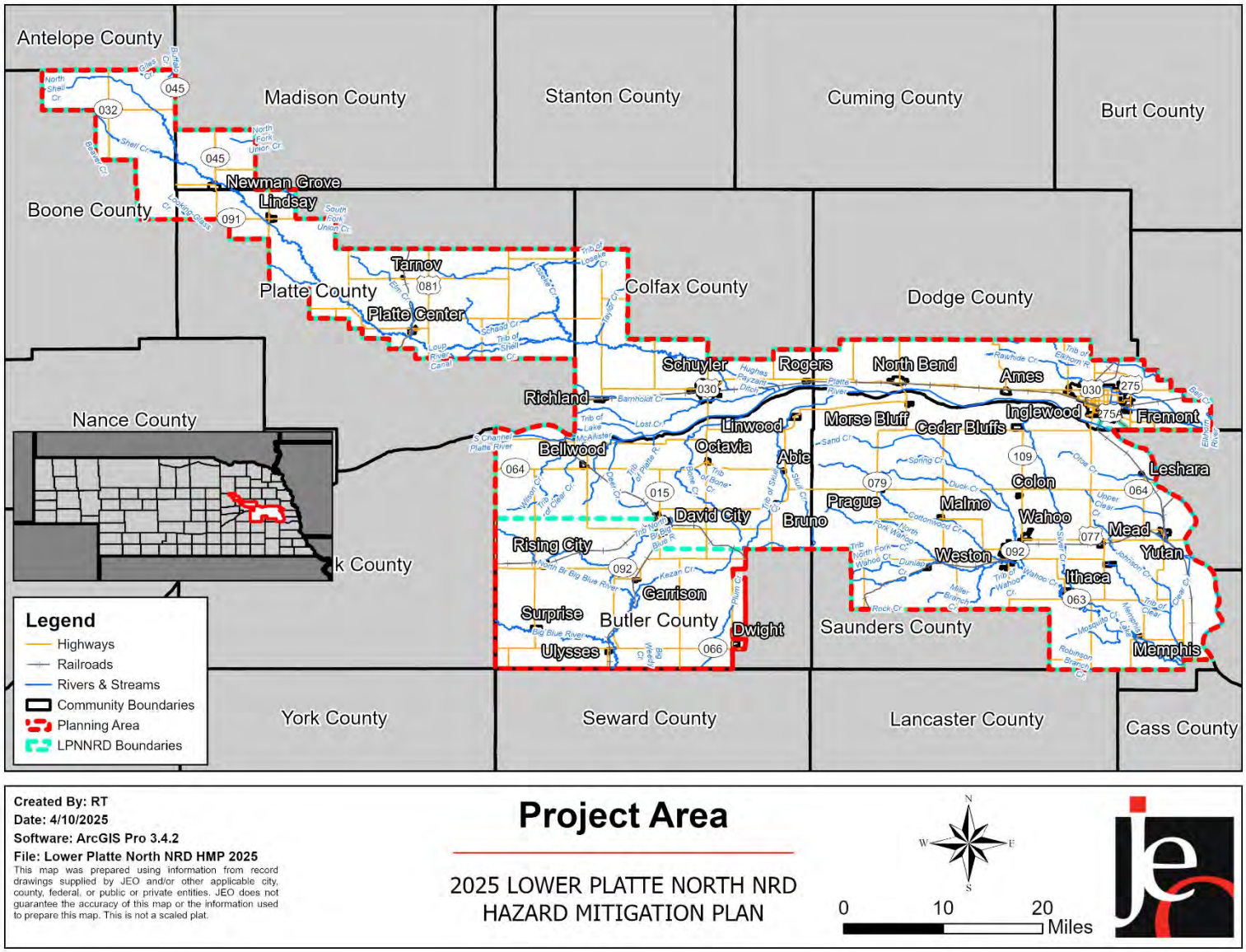
Topography of Nebraska



Source: University of Nebraska-Lincoln

1 University of Nebraska-Lincoln, 1973. "Topographic Regions Map". https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1461&context=conservationsurvey.

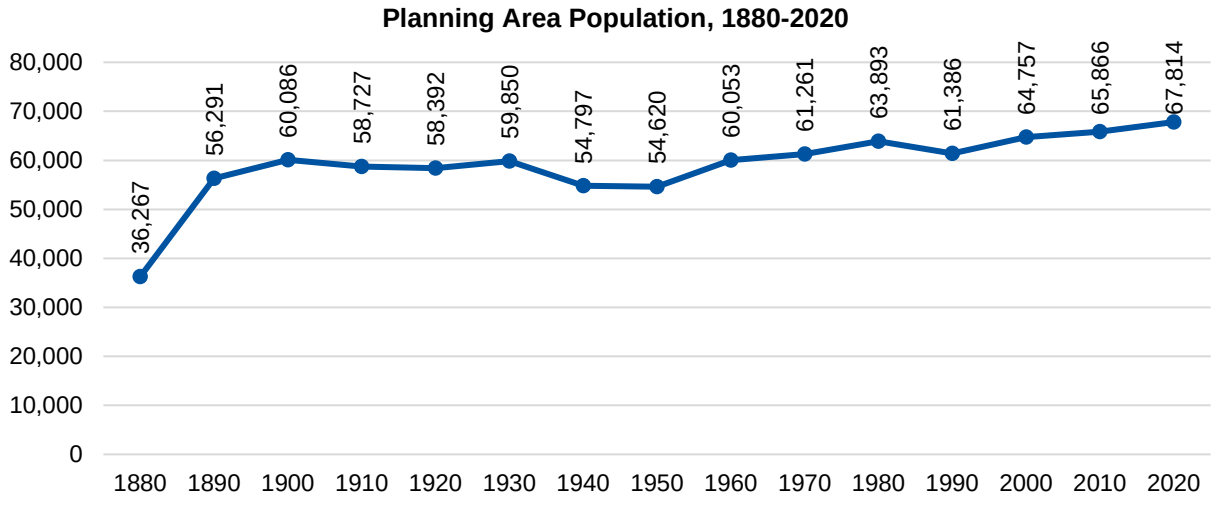
Lower Platte North NRD Planning Area



Major transportation routes include U.S. Highways 30, 77, 81, 275 and State Highways 15, 32,45, 63, 64, 66, 79, 91, 92, and 109. Major waterways in the district include the Big Blue River, North Branch Big Blue River, Elkhorn River, and the Platte River. There are 82 creeks and tributaries within the planning area, which include Pebble Creek, Shell Creek, and Wahoo Creek. Other bodies of water include Czechland Lake, Homestead Lake, and Lake Wanahoo.

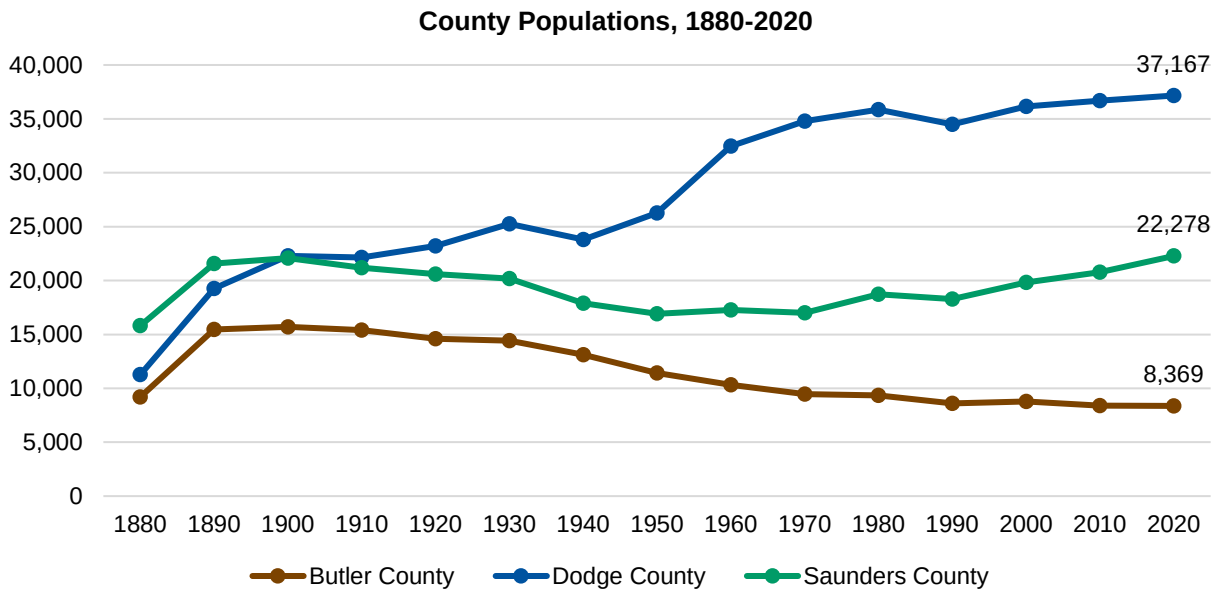
Demographics

As noted above, the majority of the planning area includes Butler, Dodge, and Saunders Counties. The U.S. Census Bureau collects specific demographic information for each county. The population of the three-county planning area is 67,814.[2] Community and regional vulnerability are impacted by growing or declining populations. Communities and regions growing quickly may lack resources to provide services for all members of the area in a reasonable timeframe including snow removal, emergency storm shelters, repairs to damaged infrastructure, or even tracking the location of vulnerable populations. Communities and regions experiencing population decline may be more vulnerable to hazards because of vacant and/or dilapidated structures, an inability to properly maintain critical infrastructure, and higher levels of unemployment. It is important for communities and regions to monitor their population changes and ensure that potential issues are incorporated into hazard mitigation plans, as well as other planning mechanisms. The planning area has displayed decades with a slightly declining population and decades with a slightly increasing population. Individual community population change over time can be found in the *Participant Profile Appendices*. The figures below show the population over time for the three-county planning area and broken down by county.



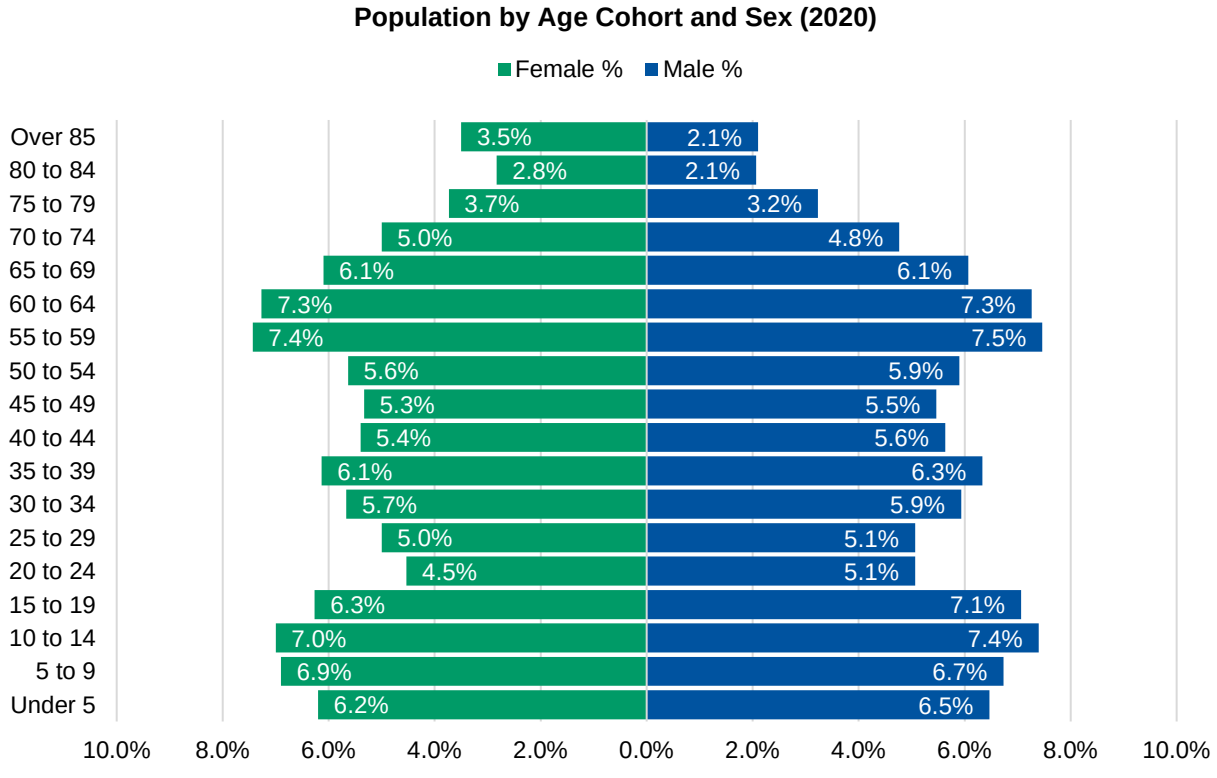
Source: U.S. Census Bureau[3]

2 United States Census Bureau. "2020 Census Bureau Decennial Census: P1: Race." https://data.census.gov/.
3 United States Census Bureau. "2020 Census Bureau Decennial Census: P1: Race." https://data.census.gov/.



Source: U.S. Census Bureau[4]

Looking at the age cohort breakdown of the planning area, there is a large majority of the population between the ages 0 to 19, 35 to 39, and 55 to 69. This suggests a steady population and a need for elderly care, childcare, and schools in the future.



Source: U.S. Census Bureau[5]

4 United States Census Bureau. "2020 Census Bureau Decennial Census: P1: Race." https://data.census.gov/.
5 United States Census Bureau. "2020 Census Bureau Decennial Census: P1: Race." https://data.census.gov/.

At-risk Populations

In general, certain populations may have increased vulnerability due to difficulty with medical issues, extremes in age, and communication issues due to language barriers. However, outliers may be considered when discussing potentially at-risk populations.

- Outward appearance does not necessarily mark a person as at-risk.
- A hazard event will, in many cases, impact at-risk populations in different ways.

The National Response Framework defines at-risk populations as "…populations whose members may have additional needs before, during, and after an incident in functional areas, including but not limited to maintaining independence, communication, transportation, supervision, and medical care."[6] The information below outlines at-risk population information for the planning area. Individual community at-risk population information can be found in the *Participant Profile Appendices*.

Dependent children under 20 years old are one of the most vulnerable populations to disasters.[7] The majority of people in this age group do not have access to independent financial resources and transportation. They lack the practical knowledge necessary to respond appropriately during a disaster. Despite this vulnerability, children are generally overlooked in disaster planning because the presence of a caretaker is assumed. With 27% of the planning area's population younger than 20, children are a key vulnerable group to address in the planning process.

Schools house a high number of children and adults during the daytime hours of weekdays, as well as during special events on evenings and weekends. The following table identifies the various school districts located within the planning area, and the map on the next page shows the school district boundaries. School districts that participated in this plan update include Cedar Bluffs Public Schools, Mead Public Schools, and North Bend Central Public Schools.

School Districts in the Planning Area

School District	Total Enrollment (2022-2023)
Ashland-Greenwood Public Schools	1,099
Cedar Bluffs Public School	469
David City Public Schools	676
East Butler Public Schools	297
Fremont Public Schools	5,217
Logan View Public Schools	590
Mead Public Schools	283
Newman Grove Public Schools	219
North Bend Central Public Schools	591
Scribner-Snyder Community Schools	171
Wahoo Public Schools	1,085
Yutan Public Schools	506
Total	**11,203**

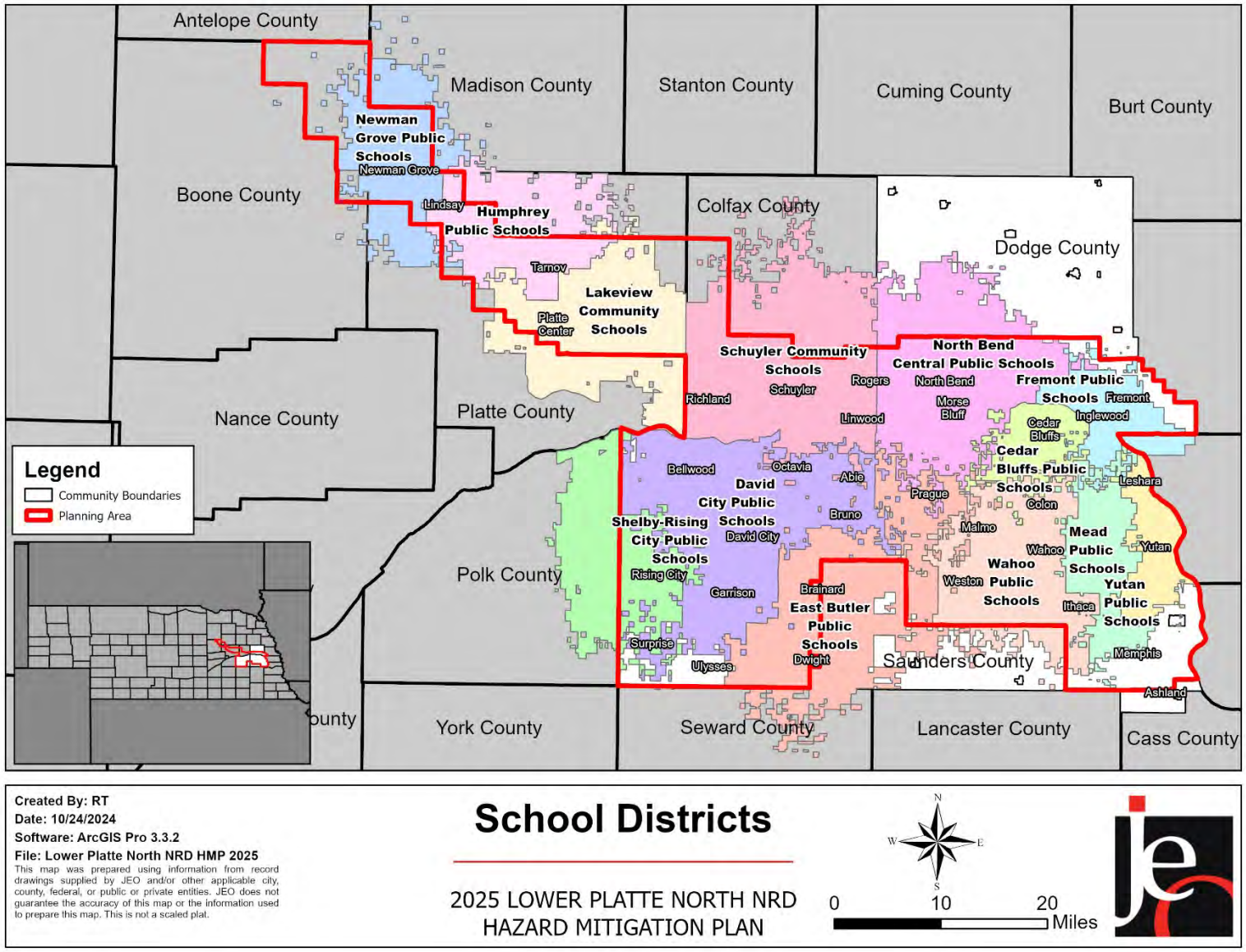
Source: Nebraska Department of Education[8]

6 United States Department of Homeland Security. October 2019. "National Response Framework Third Edition." https://www.fema.gov/media-library/assets/documents/117791.

7 Flanagan, Gregory, Hallisey, Heitgerd, & Lewis. 2011. "A Social Vulnerability Index for Disaster Management." Journal of Homeland Security and Emergency Management, 8(11): Article 3.

8 Nebraska Department of Education. October 2023. "Nebraska Education Profile". https://nep.education.ne.gov/.

Planning Area School Districts



Created By: RT
Date: 10/24/2024
Software: ArcGIS Pro 3.3.2
File: Lower Platte North NRD HMP 2025

This map was prepared using information from record drawings supplied by JEO and/or other applicable city, county, federal, or public or private entities. JEO does not guarantee the accuracy of this map or the information used to prepare this map. This is not a scaled plat.

School Districts

2025 LOWER PLATTE NORTH NRD HAZARD MITIGATION PLAN

N
W E
S

0 10 20 Miles

Like minors, seniors (age 65 and greater) are often more significantly impacted by hazards and temperature extremes. During prolonged heat waves or periods of extreme cold, seniors may lack resources to effectively address hazard conditions and as a result may incur injury or potentially death. Prolonged power outages (either standalone events or as the result of other contributing factors) can have significant impacts on any citizen relying on medical devices. One study conducted by the Center for Injury Research and Policy found that increases in vulnerability related to severe winter storms (with significant snow accumulations) begin at age 55.[9] The study found that on average there are 11,500 injuries and 100 deaths annually related to snow removal. Men over the age of 55 are 4.25 times more likely to experience cardiac events during snow removal.

While elderly populations live throughout the planning area, there is the potential that they will be in higher concentrations at care facilities. The table below identifies the number and location of care facilities throughout the planning area.

Inventory of Care Facilities

County	Hospitals	Hospital Beds	Rural Health Clinics	Long Term Care Facilities	Long Term Care Facilities Beds	Assisted Living Homes	Assisted Living Beds
Butler County	1	20	1	2	144	1	26
Dodge County	1	75	0	4	313	6	263
Saunders County	1	16	1	2	145	2	96
Total	**3**	**111**	**3**	**8**	**605**	**9**	**385**

Source: Nebraska Department of Health and Human Services[10]

Residents who speak English as a second language may struggle with a range of issues before, during, and after hazard events. General vulnerabilities revolve around what could be an inability to effectively communicate with others or an inability to comprehend materials aimed at notification and/or education of hazard events. When presented with a hazardous situation it is important that all community members be able to receive, decipher, and act on relevant information. An inability to understand warnings and notifications may prevent non-native English speakers from acting in a timely manner. Further, educational materials related to hazards are most often developed in the dominant language for the area, for the planning area that would be English. Residents who struggle with English in the written form may not have sufficient information related to local concerns to effectively mitigate potential impacts. The cities of Schuyler and Fremont have higher populations who speak English as a second language.

Racial minorities may also face increased vulnerability as they tend to have access to fewer financial and systemic resources that would enable them to implement hazard mitigation projects and to respond and recover from hazard events, including residence in standard housing and

9 Center for Injury Research and Policy. January 2011. “Snow Shoveling Safety.” http://www.nationwidechildrens.org/cirp-snow-shoveling.

10 Nebraska Department of Health and Human Services. December 2023. “Rosters of Facilities And Services”. https://dhhs.ne.gov/licensure/Pages/Rosters-of-Facilities-and-Services.aspx.

possession of financial stability. The table on the next page shows the racial composition of the planning area.

Racial Composition Trends

Race	2010		2020		% Change
	Number	% of Total	Number	% of Total	
White, Not Hispanic	61,730	93.7%	59,170	87.3%	-4.15%
Black	300	0.5%	355	0.5%	1.67%
American Indian and Alaskan Native	244	0.4%	457	0.7%	87.3%
Asian	301	0.5%	299	0.4%	-0.66%
Native Hawaiian and Other Pacific Islander	76	0.1%	26	0.0%	-65.79%
Other Races	2,417	3.7%	3,699	5.5%	53.04%
Two or More Races	798	1.2%	3,808	5.6%	377.19%
Total Population	**65,866**	**-**	**67,814**	**-**	**2.96%**

Source: U.S. Census Bureau[11,12]

Housing

The U.S. Census Bureau provides information related to housing units. Potential areas of vulnerability are described below for the planning area. Individual community housing information can be found in the *Participant Profile Appendices*.

Of the occupied housing units in the planning area, nearly 27.4 percent are renter occupied. Renter-occupied housing units often do not receive many of the updates and retrofits that are needed to make them resilient to disaster impacts. Communities may consider enacting landlord outreach programs aimed at educating property owners about the threats in their area and what they can do to help reduce the vulnerability of the tenants living in their housing units.

Unoccupied homes may not be maintained as well as occupied housing, thus adding to vulnerability. During disaster events like high winds, these structures may fail and result in debris which can impact other structures as well as people, resulting in injuries or fatalities, as well as higher damage totals.

11 United States Census Bureau. "2010 Census Redistricting Data (Public Law 94-171): P1: Race." https://data.census.gov.
12 United States Census Bureau. "2020 Census Bureau Decennial Census: P1: Race." https://data.census.gov/.

Occupied, Vacant, Owner, and Renter Housing

Jurisdiction	Total Housing Units					Occupied Housing Units		
	Occupied		Vacant			Owner		Renter	
	#	%	#	%		#	%	#	%
Butler County	3,508	87.0%	524	13.0%		2,843	81.0%	665	19.0%
Dodge County	14,624	89.5%	1,724	10.5%		9,613	65.7%	5,011	34.3%
Saunders County	8,789	87.6%	1,243	12.4%		7,082	80.6%	1,707	19.4%
Total	**26,921**	**88.5%**	**3,491**	**11.5%**		**19,538**	**72.6%**	**7,383**	**27.4%**

Source: U.S. Census Bureau[13]

The U.S. Census Bureau provides information related to housing units and potential areas of vulnerability. The selected characteristics examined in the table below include lacking complete plumbing facilities; lacking complete kitchen facilities; broadband internet subscription; housing units that are mobile homes; and housing units with no vehicles.

Selected Housing Vulnerabilities

Housing Characteristics	Butler County	Dodge County	Saunders County	Total
Occupied Housing Units	3,508 (87.0%)	14,624 (89.5%)	8,789 (87.6%)	**26,921**
Lacking Complete Plumbing Facilities	1.0%	0.2%	0%	**59 (0.2%)**
Lacking Complete Kitchen Facilities	2.4%	1.9%	0.1%	**363 (1.4%)**
Broadband Internet Subscription	85.0%	85.8%	89.5%	**23,394 (86.9%)**
No Vehicles Available	2.7%	4.8%	3.5%	**1,111 (4.1%)**
Mobile Homes	7.1%	4.8%	4.0%	**1,465 (4.8%)**

Source: U.S. Census Bureau[14]

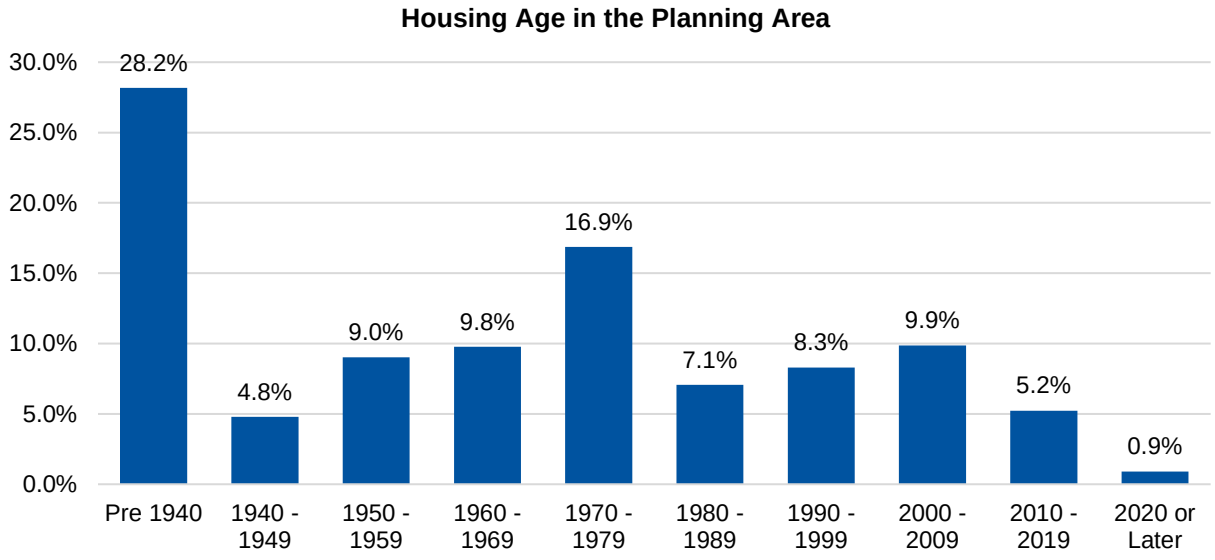
Mobile homes have a higher risk of sustaining damage during high wind events and severe winter weather. Mobile homes that are either not anchored or are anchored incorrectly can be overturned by 60 mph winds. Households without vehicles may have difficulty evacuating during a hazardous event and a reduced ability to access resources in times of need.

Most homes within the planning area were built before 1970, with 28% of homes built before 1940. Housing age can serve as an indicator of risk, as structures built prior to the development of state building codes and prior to the identification of flood prone areas in the 1970s and 1980s may be

13 United States Census Bureau. "2022 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." https://data.census.gov/.

14 United States Census Bureau. "2022 Census Bureau American Community Survey: DP04: Selected Housing Characteristics." https://data.census.gov/.

more vulnerable. Residents living in these homes may be at higher risk of the impacts from flooding, high winds, severe winter weather.



Source: U.S. Census Bureau[15]

Employment and Economics

The U.S. Census Bureau provides information related to employment and economic indicators. The information below outlines vulnerabilities related to employment and economics for the planning area. Individual community employment and economics information can be found in the *Participant Profile Appendices*.

Low-income populations and those that are unemployed may lack resources to prepare for, respond to, or recover from hazard events. Residents with limited economic resources might struggle to prioritize the implementation of mitigation measures over more immediate needs. Further, residents with limited economic resources are more likely to live in older, more vulnerable structures. Residents below the poverty line will be more vulnerable to all hazards within the planning area.

Vulnerable Employment and Economic Characteristics

Jurisdiction	Percent of People Living Below the Poverty Line	Median Household Income	Unemployment Rate
Butler County	7.9%	$75,690	0.7%
Dodge County	9.1%	$66,793	4.1%
Saunders County	6.7%	$84,474	2.4%
Average	**8.2%**	**$75,652**	**3.2%**

Source: U.S Census Bureau[16]

15 United States Census Bureau. "2022 Census Bureau American Community Survey: DP04: Selected Housing Characteristics". https://data.census.gov/.

16 United States Census Bureau. "2022 Census Bureau American Community Survey: DP03: Selected Economic Characteristics." https://data.census.gov/.

Social Vulnerability

FEMA's National Risk Index is a mapping tool that analyzes a community's risk to natural hazards on a scale of 0 (lowest possible value) to 100 (highest possible value). It is broken down into two values Social Vulnerability: susceptibility to adverse impacts of natural hazards when compared to the rest of the U.S. and Community Resilience: ability to prepare for anticipated natural hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions when compared to the rest of the U.S.

National Risk Index

Jurisdiction	Social Vulnerability	Community Resilience	Overall Risk
Butler County	Very Low (8.8)	Very High (80.8)	Very Low (38.56)
Dodge County	Relatively High (64.1)	Very High (84.3)	Relatively Low (79.48)
Saunders County	Very Low (1.3)	Very High (92.6)	Relatively Low (50.11)

FEMA[17]

Rural Capacity Index

The Rural Capacity Index developed by Headwaters Economics evaluates rural communities and counties across the planning for local capacity. Capacity includes the staffing, resources, and expertise to both apply for funding and fulfill reporting requirements, as well as design, build, and maintain infrastructure products over the long term. Counties lacking local capacity often have the greatest need for infrastructure investments—particularly rural counties. The Rural Capacity Index helps identify communities and counties with limited capacity on a scale of 0 (no capacity) to 100 (high capacity). This index is based on ten variables that can function as proxies for community capacity. The following table lists out the components and scores for each of the three counties in the planning area.

Rural Capacity Index

Components of Index	Butler County	Dodge County	Saunders County
County is Metropolitan?	No	Yes	Yes
Has a Head of Planning?	Yes	Yes	Yes
Has a College or University?	No	Yes	Yes
Adults with Higher Education	25%	22%	30%
Families Below Poverty Level	4%	7%	4%
Households with Broadband	86%	88%	91%
People without Health Insurance	6%	6%	4%
Voter Turnout	74%	65%	79%
Income Stability Score (0 to 100)	54	65	54
Population Change (2010 to 2022)	31	525	2,218
Overall Rural Capacity Index Score	**57**	**78**	**83**

Source: Headwaters Economics[18]

17 Federal Emergency Management Agency. January 2024. "National Risk Index". https://hazards.fema.gov/nri/map.
18 Headwaters Economics. January 2024. "Rural Capacity Map". https://headwaterseconomics.org/equity/rural-capacity-map/.

Historical Sites

According to the National Register of Historic Places for Nebraska by the National Park Service, there are 54 historic sites located in the planning area. Thirty-one of the sites are known to be in the 100-year floodplain.

Historical Sites

Site Name	Date Listed	Nearest Community, County	Floodplain (Y/N)
Linwood Site	3/16/1972	Linwood, Butler	Unknown
Leshara Site	3/16/1972	Leshara, Saunders	Unknown
McClean Site	3/16/1972	Inglewood, Saunders	Unknown
Barcal Site	3/24/1972	Abie, Butler	Unknown
Yutan Site	6/26/1972	Yutan, Saunders	Unknown
Woodcliff Burials	3/7/1973	Inglewood, Saunders	Unknown
Pahuk	8/14/1973	Cedar Bluffs, Saunders	Unknown
Schuyler Site	8/14/1973	Schuyler, Colfax	Unknown
Wolfe Archeological Site	7/30/1974	Schuyler, Colfax	Unknown
Bellwood Archeological Site	8/13/1974	Bellwood, Butler	Unknown
Love-Larson Opera House	9/10/1974	Fremont, Dodge	Y
Nye House	11/23/1977	Fremont, Dodge	Y
Osterman and Tremaine Building	5/23/1978	Fremont, Dodge	Y
Fremont, Elkhorn and Missouri Valley Railroad Depot	10/11/1979	Dwight, Butler	N
McDonald, J. D., House	12/10/1980	Fremont, Dodge	Y
Colfax County Courthouse	9/3/1981	Schuyler, Colfax	Y
Schuyler City Hall	9/3/1981	Schuyler, Colfax	Y
North Bend Carnegie Library	9/3/1981	North Bend, Dodge	Y
Taylor, Chauncey S., House	6/25/1982	David City, Butler	N
Schneider, R. B., House	7/15/1982	Fremont, Dodge	Y
Janecek, John, House	7/15/1982	Schuyler, Colfax	Y
Knoell, Christopher, Farmstead	1/13/1983	Fremont, Dodge	Y
Hanson, Howard, House	1/27/1983	Wahoo, Saunders	N
Oak Ballroom	2/1/1983	Schuyler, Colfax	Y
Wahoo Burlington Depot	5/9/1985	Wahoo, Saunders	Y

Site Name	Date Listed	Nearest Community, County	Floodplain (Y/N)
Bullock, Samuel, House	9/12/1985	Fremont, Dodge	Y
Rad Plzen cis. 9 Z.C.B.J. (SD10-6)	3/20/1986	Morse Bluff, Saunders	N
Surprise Opera House	7/6/1988	Surprise, Butler	Y
Thorpe's Opera House	9/28/1988	David City, Butler	N
Dodge County Courthouse	1/10/1990	Fremont, Dodge	Y
Saunders County Courthouse	1/10/1990	Wahoo, Saunders	N
Barnard Park Historic District	7/12/1990	Fremont, Dodge	Y
St. Michael's Catholic Church	11/28/1990	Tarnov, Platte	N
O. K. Market	7/3/1991	Wahoo, Saunders	N
US Post Office – Schuyler	5/11/1992	Schuyler, Colfax	Y
Big Blue River Bridge	6/29/1992	Surprise, Butler	Y
Clear Creek Bridge	6/29/1992	Bellwood, Butler	Y
Fremont Historic Commercial District	2/17/1995	Fremont, Dodge	Y
Turner, George and Nancy, House	1/11/1996	Fremont, Dodge	Y
Fremont Post Office, Old	2/29/1996	Fremont, Dodge	Y
First Welch Calvinistic Methodist Church and Cemetery	6/25/1999	Platte County	N
David City Park and Municipal Auditorium	11/15/2000	David City, Butler	Y
Ithaca Grain Elevator, Old	2/23/2001	Ithaca, Saunders	N
Schuyler Carnegie Library	11/29/2001	Schuyler, Colfax	Y
Fremont Municipal Auditorium	7/11/2002	Fremont, Dodge	Y
Fremont Municipal Power Plant and Pumping Station	7/11/2002	Fremont, Dodge	Y
Kirchman, F.J., House	8/21/2003	Wahoo, Saunders	N
St. Mary of the Assumption Catholic Church, School and Grottoes	12/4/2008	Dwight, Butler	N
Durkee, Charles T., House	8/10/2011	Fremont, Dodge	Y
Butler County District No. 10 School	12/7/2011	Linwood, Butler	N
Kacirek-Woita General Store	7/8/2014	Weston, Saunders	N

Site Name	Date Listed	Nearest Community, County	Floodplain (Y/N)
North Broad Street Residential Historic District	3/17/2015	Fremont, Dodge	Y
Schuyler Downtown Historic District	7/22/2016	Schuyler, Colfax	Y
Merchant Park	10/28/2022	Schuyler, Colfax	Y

Source: National Park Service[19]

19 National Park Service. July 2024. "National Register of Historic Places NPGallery Database". https://npgallery.nps.gov/NRHP.

Appendix D: Mitigation Strategy

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Introduction

The primary focus of the mitigation strategy is to identify action items to reduce the effects of hazards on existing infrastructure and property based on the established goals and objectives. These actions should consider the most cost effective and technically feasible options to address risk.

Requirement §201.6(c)(3)(i): [The hazard mitigation strategy shall include a] description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards.

Requirement §201.6(c)(3)(ii): [The mitigation strategy shall include a] section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with particular emphasis on new and existing buildings and infrastructure.

Requirement: §201.6(c)(3)(ii): [The mitigation strategy] must also address the jurisdiction's participation in the National Flood Insurance Program, and continued compliance with NFIP requirements, as appropriate.

Requirement: §201.6(c)(3)(iii): [The mitigation strategy section shall include] an action plan describing how the actions identified in section (c)(3)(ii) will be prioritized, implemented, and administered by the local jurisdiction. Prioritization shall include a special emphasis on the extent to which benefits are maximized according to a cost benefit review of the proposed projects and their associated costs.

Requirement §201.6(c)(3)(iv): For multi-jurisdictional plans, there must be identifiable action items specific to the jurisdiction requesting FEMA approval or credit of the plan.

Summary of Changes

The development of the mitigation strategy for this plan update includes the addition of new mitigation actions, updated status or removal of past mitigation actions, and revisions to the mitigation action selection process or descriptions of mitigation actions for consistency across the planning area.

Selected Mitigation Actions

After establishing the goals, the local planning teams evaluated mitigation and strategic actions. These actions included: the mitigation and strategic actions identified by each participating jurisdiction in the previous plan and additional actions discussed during the update planning process. The Regional Planning Team provided each participant a link to the FEMA Mitigation Ideas document to be used as a starting point to review a wide range of potential mitigation actions. Participants were also encouraged to think of actions that may need FEMA grant assistance and to review their hazard prioritization section for potential mitigation and strategic actions. Members of the Regional County Planning Team were also available to help local jurisdictions identify additional action alternatives. These suggestions helped participants determine which actions would best assist their respective jurisdiction in alleviating damage in the event of a disaster.

During the update of previous identified actions and the identification of new actions, local planning teams prioritized each identified mitigation and strategic action as high, medium, or low. The listed priority rating does not indicate which actions will be implemented first. Generally, high priority actions either address a major concern for the jurisdiction, have few to no challenges in implementation, and/or garner large support from the public and administration. Low priority actions either address a minor concern for the jurisdiction, have many challenges in implementation, and/or may not have support from the public or administration at this time.

Medium priority actions may only have one or two of the items listed above. A mitigation and strategic action's priority may change very quickly as circumstances change.

These mitigation and strategic actions are the core of a hazard mitigation plan. The local planning teams were instructed that each hazard listed in the plan must have an identified mitigation action. Actions must be specific activities that are concise and can be implemented individually. Mitigation actions were evaluated based on referencing the jurisdiction's risk assessment and capability assessment. Jurisdictions were encouraged to choose mitigation actions that were realistic and relevant to the prioritized hazards of concern.

It is important to note that not all the mitigation actions identified by a jurisdiction may ultimately be implemented due to limited capabilities, prohibitive costs, low benefit-cost ratio, or other concerns. These factors may not be identified during this planning process. Additionally, some jurisdictions may identify and pursue additional mitigation actions not identified in this HMP.

Participant Mitigation Actions

Mitigation actions identified by participants of the HMP are found in the Mitigation Actions Matrix below. Additional information about selected actions can be found in the participant profiles in *Section Seven.* Each action includes the following information in the respective participant profile.

- **Mitigation Action:** General title of the action item.
- **Description:** A summary of what the action item(s) will accomplish.
- **Hazard(s) Addressed:** Which hazard the mitigation action aims to address.
- **Estimated Cost:** General cost estimate for implementing the mitigation action for the appropriate jurisdiction.
- **Local Funding:** A list of any potential local funding mechanisms to fund the action.
- **Timeline:** General timeline as established by planning participants.
- **Priority:** General description of the importance and workability in which an action may be implemented (high/medium/low).
- **Lead agency:** Listing of agencies or departments which may lead or oversee the implementation of the action item.
- **Status:** A description of what has been done, if anything, to implement the action item.

Implementation of the actions will vary between individual plan participants based upon the availability of existing information; funding opportunities and limitations; and administrative capabilities of communities. Establishing a cost-benefit analysis is beyond the scope of this plan and could potentially be completed prior to submittal of a project grant application or as part of a five-year update. Completed, removed, kept, and new mitigation actions for each participating jurisdiction can be found in *Section Seven*.

Mitigation Actions Project Matrix

During public meetings, each participant was asked to review mitigation projects listed in the 2020 HMP and identify new potential mitigation actions, if needed, to reduce the effects of hazards. The information listed in the following tables is a compilation of new and ongoing mitigation actions identified by jurisdiction. Completed and removed mitigation actions can be found in respective jurisdictional profiles.

Mitigation Actions Matrix 1 of 3

Mitigation Actions	Lower Platte North NRD	Butler County	Village of Abie	Village of Bruno	David City	Village of Dwight	Village of Garrison	Village of Linwood	Village of Octavia	Village of Rising City	Village of Surprise	Village of Ulysses	Dodge County	City of Fremont	Village of Inglewood	City of North Bend
2nd Street Stormwater System Improvement						x										
Above Ground Stormwater System and Drainage Improvements					x						x					
Acquire High Risk Flooding Property													x			
Alert/Warning Sirens	x				x	x								x		
All Hazards Emergency Operations Plan													x			
Assess Vulnerability to Drought Risk						x										
Backup and Emergency Generators	x	x			x	x	x		x	x	x	x		x	x	x
Backup Records													x			
Bury Power and Service Lines												x				
Channel/Ditch Improvements								x						x		
Comprehensive Backflow Prevention for Homeowners														x		
Culvert Upsizing and Cleaning												x			x	x
Curb and Gutter												x				
Dam Inundation Area Regulations	x															
Dam Inundation Mapping	x															
Ditch 2A and Ditch 4 Improvements and Diversion													x			

Mitigation Actions	Lower Platte North NRD	Butler County	Village of Abie	Village of Bruno	David City	Village of Dwight	Village of Garrison	Village of Linwood	Village of Octavia	Village of Rising City	Village of Surprise	Village of Ulysses	Dodge County	City of Fremont	Village of Inglewood	City of North Bend
Ditch 4D and 4B Improvements and Diversion													x	x		
Dodge County Platte River Communities Flood Mitigation and Resiliency Plan															x	x
Drainage Improvements				x										x	x	
Drainage Study / Stormwater Master Plan						x										x
Drought Assessment Risk Model	x															
Drought Education									x							
Drought Management Plan						x										
Drought Monitoring			x		x									x		x
Drought Ordinance			x		x					x				x		x
Electrical Infrastructure Improvements														x		
Electrical System Looped Distribution/Redundancies					x											
Emergency Communications		x														
Emergency Exercise: Agricultural Disease Outbreak													x			
Emergency Exercise: Flooding													x			
Emergency Exercise: Hazardous Spill													x			
Emergency Radios															x	
Emergency Water Supplies	x															
Establish Local Drought Conditions				x												

Mitigation Actions	Lower Platte North NRD	Butler County	Village of Abie	Village of Bruno	David City	Village of Dwight	Village of Garrison	Village of Linwood	Village of Octavia	Village of Rising City	Village of Surprise	Village of Ulysses	Dodge County	City of Fremont	Village of Inglewood	City of North Bend
Expand Water Storage Capacity						x										
Facility Monitoring					x											
First Aid Training													x			
Flood Prone Property Mitigation													x			
Floodplain Management		x											x			
Floodplain Regulation Updates														x		
Gather Historical Water Levels and Trends	x															
Hazardous Fuels Reduction					x			x								
Hazardous Tree Removal			x		x	x		x		x		x				
HAZMAT Training														x		
Identify Heating/Cooling Centers			x													
Identify Potential New Water Source			x													
Implement Projects from Drought Plan	x													x		
Implement Projects Identified in the Headwaters Study														x		
Implement Projects Identified in the Rawhide Creek WFPO	x															
Improve Flood and Dam Warning System	x															
Improve Snow and Ice Removal Program								x			x					
Infrastructure Hardening			x	x	x				x							

Mitigation Actions	Lower Platte North NRD	Butler County	Village of Abie	Village of Bruno	David City	Village of Dwight	Village of Garrison	Village of Linwood	Village of Octavia	Village of Rising City	Village of Surprise	Village of Ulysses	Dodge County	City of Fremont	Village of Inglewood	City of North Bend
Installing New Siren Programming															x	
Install Water Meters		x														
Lake Wanahoo Repairs	x															
Levee Extension														x		
Levee Failure Evacuation Plan													x			
Levee/Floodwall Construction and/or Improvements	x												x			
Monitor Water Supply						x										
Monitoring Wells	x				x											x
Morningside Road Ditch Improvements and Detention													x	x		
Morse Bluff Levee Repairs	x															
MOU for Emergency Water Supplies	x															
Mutual Aid											x					
New Drinking Water Well														x		
New Municipal Well						x										x
New Well for AGP Plant					x											
New Water Main Expansion						x										
NIMS Training														x		
Numerical Groundwater Flow Model	x															
Power, Service, and Electrical Lines					x							x				
Public Education	x	x	x	x		x				x		x	x	x	x	x
Rawhide Creek Improvements													x	x		
Rawhide Creek Project	x															

Mitigation Actions	Lower Platte North NRD	Butler County	Village of Abie	Village of Bruno	David City	Village of Dwight	Village of Garrison	Village of Linwood	Village of Octavia	Village of Rising City	Village of Surprise	Village of Ulysses	Dodge County	City of Fremont	Village of Inglewood	City of North Bend
Repetitive Loss and Severe Repetitive Loss Structure Mitigation														x		
Replace Building Roofs														x		
Residential Flood Mitigation														x		
Safe Room / Storm Shelter	x	x			x						x		x	x		x
Shell Creek Flood Reduction	x															
Shelter in Place			x													
Skull and Bone Project	x															
Storm Sewer Cleaning														x		
Storm Sewer Master Plan Projects														x		
Stormwater Runoff BMP Project	x															
Stormwater System Improvements	x												x		x	x
Stream Bank Stabilization / Grade Control Structures / Channel Improvements											x		x			
Substantial Damage Management Plan														x		
Tornado Safety													x			
Tree Care Ordinance			x													
Tree City USA				x							x					
Tree Planting and Maintenance Plan																
Update Comprehensive Plan					x				x				x			x
Update Zoning Regulations													x			
USACE Flooding Study	x															

Mitigation Actions	Lower Platte North NRD	Butler County	Village of Abie	Village of Bruno	David City	Village of Dwight	Village of Garrison	Village of Linwood	Village of Octavia	Village of Rising City	Village of Surprise	Village of Ulysses	Dodge County	City of Fremont	Village of Inglewood	City of North Bend
Wahoo Creek Watershed Flood Reduction	x															
Water System Improvements	x															x
Weather Radios					x			x								
Well Interference Assessment	x															
Well Transducers	x		x											x		x
Windbreaks/Living Snow Fence	x															

Mitigation Actions Matrix 2 of 3

Mitigation Actions	Saunders County	Village of Cedar Bluffs	Village of Colon	Village of Leshara	Village of Malmo	Village of Mead	Village of Morse Bluff	Village of Prague	City of Wahoo	City of Yutan	Village of Lindsay	Village of Platte Center	Village of Richland	Village of Rogers	City of Schuyler
Acquire High Risk Flooding Property	x								x						x
Additional Personnel for Emergency Response									x						
Alert/Warning Sirens		x		x		x		x		x		x			
Backup and Emergency Generators		x	x	x	x	x	x		x	x	x				x
Backup Records						x	x								
Capacity Building	x							x	x						x
Capital Improvement Program									x						
Codify Code Book						x									
Community Rating System									x						
Comprehensive Disaster/Emergency Response Plan	x		x						x						
Construct a Water Treatment Plant								x							x
Continuity Planning	x									x					
Culvert Upsizing and Cleaning			x	x											
Dam Inundation Mapping					x										
Database of Vulnerable Populations	x														
Develop Weather Alert Protocol	x														
Drainage Study / Stormwater Master Plan	x				x										
Drought Conservation Program															x
Drought Monitoring		x			x	x	x	x		x		x		x	x

Mitigation Actions	Saunders County	Village of Cedar Bluffs	Village of Colon	Village of Leshara	Village of Malmo	Village of Mead	Village of Morse Bluff	Village of Prague	City of Wahoo	City of Yutan	Village of Lindsay	Village of Platte Center	Village of Richland	Village of Rogers	City of Schuyler
Drought Ordinance		x			x					x		x		x	
Emergency Exercise: Cyber Attack								x							
Emergency Exercise: Dam Failure								x							
Emergency Exercise: Hazardous Spill													x	x	
Emergency Exercise: Levee Failure															x
Evaluate Water Supply								x							
Facilities for Vulnerable Populations	x														
First Aid Training	x														
Flood Prone Property Mitigation	x									x					
Floodplain Regulations			x												
Gather Historical Water Levels and Trends								x						x	
Groundwater Monitoring Wells										x				x	
Hazardous Tree Removal					x								x	x	
Identify New Water Source					x									x	x
Implement Drought Water Conservation Regulations									x						
Improve Construction Standards and Building Survivability	x														
Improve Emergency Text Warning System				x					x						
Improve Snow and Ice Removal Program								x					x	x	x

Mitigation Actions	Saunders County	Village of Cedar Bluffs	Village of Colon	Village of Leshara	Village of Malmo	Village of Mead	Village of Morse Bluff	Village of Prague	City of Wahoo	City of Yutan	Village of Lindsay	Village of Platte Center	Village of Richland	Village of Rogers	City of Schuyler
Infrastructure Assessment Study	x														
Infrastructure Hardening	x									x			x	x	
Levee/Floodwall Construction and/or Improvements											x				
Look into Using Well 83-1 for Non-potable Uses											x				
Mutual Aid									x						
MOU for Emergency Water Supplies					x	x					x	x		x	
New Collection System							x								
New Municipal Well		x						x		x		x		x	
New Treatment Facility		x													
NIMS Training															x
Power, Service, and Electrical Lines				x					x						
Preliminary Engineering Report		x													
Public Education	x	x		x	x	x	x	x	x		x		x	x	x
Redundant Gas and Utility System									x						
Review and Update Security Procedure and Equipment									x						
Safe Room / Storm Shelter	x		x	x				x	x				x	x	
Sewer System Repairs												x			
Stormwater Drainage Study and Improvements									x						
Stormwater System Improvements	x							x			x				

Mitigation Actions	Saunders County	Village of Cedar Bluffs	Village of Colon	Village of Leshara	Village of Malmo	Village of Mead	Village of Morse Bluff	Village of Prague	City of Wahoo	City of Yutan	Village of Lindsay	Village of Platte Center	Village of Richland	Village of Rogers	City of Schuyler
Stream Bank Stabilization / Grade Control Structures / Channel Improvements	x										x	x			
Stream Gauges	x														
Structure Removal and Rehab		x													
Tabletop Exercise - Cyber-Attack						x									
Tree City USA										x	x				
Tree Planting and Maintenance Plan									x						
Update Comprehensive Plan			x	x						x					
Update Lagoon							x								x
Update Land Use Regulations												x			
Update Wellhead Protection Plan												x			
Weather Radios												x			
Well Transducers		x			x		x	x				x		x	

Mitigation Actions Matrix 3 of 3

Mitigation Actions	Cedar Bluffs Public School	David City Public Schools	ESU #2	Mead Public Schools	North Bend Central Schools	Ames Diking and Drainage District	Cotterell Diking and Drainage District	Platte Valley Drainage District	Platte Township	Pohocco Township	Reading Township	Skull Creek Township	Ulysses Township	Union Township	Colon Volunteer Fire District	Dwight Volunteer Fire Dept.	Malmo Volunteer Fire Dept.	North Bend Volunteer Fire Dept.	Rising City Rural Fire Protection District #3	Schuyler Volunteer Fire District	Weston Volunteer Fire and Rescue	Woodcliff Lakes SID #8	Three Rivers Health Department
Assess Vulnerability to Drought Risk																x							
Backup and Emergency Generators	x	x		x	x										x		x				x	x	x
Backup Records																				x			
Bank Improvements							x																
Bank Stabilization													x										
Build a New Fire Station																		x					
Build a New Training Facility																				x			
Capacity Building										x			x	x	x	x	x	x	x	x			x
Clearing Brush											x												
Control Air-In Filtration				x																			
Creation of Hazardous Event Procedures													x	x									
Culvert and Drainage Ditch Improvements												x											

Mitigation Actions	Cedar Bluffs Public School	David City Public Schools	ESU #2	Mead Public Schools	North Bend Central Schools	Ames Diking and Drainage District	Cotterell Diking and Drainage District	Platte Valley Drainage District	Platte Township	Pohocco Township	Reading Township	Skull Creek Township	Ulysses Township	Union Township	Colon Volunteer Fire District	Dwight Volunteer Fire Dept.	Malmo Volunteer Fire Dept.	North Bend Volunteer Fire Dept.	Rising City Rural Fire Protection District #3	Schuyler Volunteer Fire District	Weston Volunteer Fire and Rescue	Woodcliff Lakes SID #8	Three Rivers Health Department
Cyber Security Governance Program			x																				
Cyber Security Staff			x																				
Dark Web Monitoring Solution			x																				
Ditch Reconstruction										x	x												
Dodge County Platte River Communities Flood Mitigation and Resiliency Plan						x																	
Drainage Improvements														x									
Drainage Study / Stormwater Master Plan																						x	
Emergency Exercise: Terrorism				x																			

Mitigation Actions	Cedar Bluffs Public School	David City Public Schools	ESU #2	Mead Public Schools	North Bend Central Schools	Ames Diking and Drainage District	Cotterell Diking and Drainage District	Platte Valley Drainage District	Platte Township	Pohocco Township	Reading Township	Skull Creek Township	Ulysses Township	Union Township	Colon Volunteer Fire District	Dwight Volunteer Fire Dept.	Malmo Volunteer Fire Dept.	North Bend Volunteer Fire Dept.	Rising City Rural Fire Protection District #3	Schuyler Volunteer Fire District	Weston Volunteer Fire and Rescue	Woodcliff Lakes SID #8	Three Rivers Health Department
Emergency Response Plan						x																	
Ensure Adequate Water Supply		x																					
Establish a Reserve Fund		x																					
Evaluate Water Supply																x							
Expand Water Storage Capacity																x							
First Aid Training	x																						
Food and Clothing Bank Storage			x																				
Hazardous Fuels Reduction		x													x			x	x	x	x		
Hazardous Tree Removal	x							x	x	x													
HAZMAT Training																		x					
Identify Alternative Bus Routes					x																		
Identify Emergency Water Supply					x																		

Mitigation Actions	Cedar Bluffs Public School	David City Public Schools	ESU #2	Mead Public Schools	North Bend Central Schools	Ames Diking and Drainage District	Cotterell Diking and Drainage District	Platte Valley Drainage District	Platte Township	Pohocco Township	Reading Township	Skull Creek Township	Ulysses Township	Union Township	Colon Volunteer Fire District	Dwight Volunteer Fire Dept.	Malmo Volunteer Fire Dept.	North Bend Volunteer Fire Dept.	Rising City Rural Fire Protection District #3	Schuyler Volunteer Fire District	Weston Volunteer Fire and Rescue	Woodcliff Lakes SID #8	Three Rivers Health Department
Improve Flood and Dam Warning System						x																	
Improve Snow and Ice Removal Program										x													
Infrastructure Hardening				x	x											x					x		
Install Cyber Security Measures		x																					
Install Vehicular Barriers	x																						
Lagoon Improvements																						x	
Lake Drainage Device																						x	
Levee/Floodwall Construction and/or Improvements						x	x	x														x	
Lightning Protection			x																				
Monitor Water Supply																x							

Mitigation Actions	Cedar Bluffs Public School	David City Public Schools	ESU #2	Mead Public Schools	North Bend Central Schools	Ames Diking and Drainage District	Cotterell Diking and Drainage District	Platte Valley Drainage District	Platte Township	Pohocco Township	Reading Township	Skull Creek Township	Ulysses Township	Union Township	Colon Volunteer Fire District	Dwight Volunteer Fire Dept.	Malmo Volunteer Fire Dept.	North Bend Volunteer Fire Dept.	Rising City Rural Fire Protection District #3	Schuyler Volunteer Fire District	Weston Volunteer Fire and Rescue	Woodcliff Lakes SID #8	Three Rivers Health Department
Parcel Level Evaluation of Flood Prone Properties																						x	
Public Education			x		x										x	x	x	x	x	x	x	x	
Public Education / Notification														x									
Reshaping Road Surfaces						x					x												
Resident Notification															x				x		x		
Resiliency Plan																							x
Roadway Bank Improvements												x											
Safe Room / Storm Shelter	x			x							x												x
School Emergency Communications	x																						
Sewer System Repairs		x																					
Silt and Debris Removal														x									
Snow Removal Equipment												x											
Staff Training			x																				

Mitigation Actions	Cedar Bluffs Public School	David City Public Schools	ESU #2	Mead Public Schools	North Bend Central Schools	Ames Diking and Drainage District	Cotterell Diking and Drainage District	Platte Valley Drainage District	Platte Township	Pohocco Township	Reading Township	Skull Creek Township	Ulysses Township	Union Township	Colon Volunteer Fire District	Dwight Volunteer Fire Dept.	Malmo Volunteer Fire Dept.	North Bend Volunteer Fire Dept.	Rising City Rural Fire Protection District #3	Schuyler Volunteer Fire District	Weston Volunteer Fire and Rescue	Woodcliff Lakes SID #8	Three Rivers Health Department
Storm System Improvements									x														
Stream Bank Stabilization/ Grade Control Structures/ Channel Improvements																						x	
Transportation Drainage Improvements												x	x										
Update Emergency Operations Plan				x																			
Warning Systems	x																						
Water System Improvements																x				x			
Weather Radios		x																					
Weather Service Communication																			x	x	x		
Well Improvement																x							

Appendix E: Hazard Mitigation Project Funding Guidebook

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Introduction

This *Hazard Mitigation Project Funding Guidebook* is provided by JEO Consulting Group, Inc.

The intent of the guidebook is to provide initial guidance on hazard mitigation project funding opportunities and where to find more information on grants. The information included is consistent with established processes for hazard mitigation planning. However, it is important to note the following in terms of the context for this guidebook relative to the overall planning process.

Project identification includes identifying all possible options to address planning objectives; at this stage, all options are viable. At times, the best option may be to work with other stakeholders in the community to design solutions that are in line with community values while reducing risk (e.g., a bike path or ball field that can double as a retention area, or the preservation of an animal habitat that also serves as a natural buffer). These types of solutions can often be funded in very innovative ways, including solutions which increase local industry and revenue. For information on the broad range of mitigation project types and how projects have been implemented in communities across the country, please refer to FEMA's Mitigation Best Practices webpage at https://www.fema.gov/mitigation-best-practices-portfolio.

It should be noted that the grant programs listed in this guidebook are not the only ones that could support hazard mitigation project implementation. Additionally, many of these programs are dependent on yearly funding allocations, resulting in fluctuations in the amount available. However, at this point, it is more important to be aware of the potential for various avenues of support for a broad array of project types. As needs and potential hazard mitigation project options are identified, more information can begin to be gathered on the range of programs which might be utilized. It will be more efficient to start with project options and then follow up with the identification of potential matches, working with the full range of available programs and agencies as part of a comprehensive project evaluation process.

While participation in a hazard mitigation plan is required for a jurisdiction to be eligible for FEMA funds, it is not the only funding source available for mitigation actions. Depending on the type of mitigation project being pursued, FEMA funding is not always the best option, so it is increasingly important to look for other opportunities. Opportunities for funding and technical assistance exist in various federal, state, and local agencies. Non-governmental funding opportunities are available at the regional or local level with private sector businesses, private foundations, and other non-governmental organizations (NGOs). In order to fully map out the range of local and state options, it is necessary to undertake a detailed stakeholder analysis – something which has not been done at this time. The following contains an overview of key federal and state programs that may include opportunities for hazard mitigation project funding, as well as additional information on suggested alternative funding routes.

Federal Funding Resources

Information about federal hazard mitigation project funding opportunities is organized by agency. Under each agency heading, applicable grant programs are listed with a description of the grant and, when available, information on typical funds available, eligibility, examples of past projects funded, and any additional relevant information. Agencies covered in this guidebook include:

- Federal Emergency Management Agency
- National Fish and Wildlife Foundation
- U.S. Army Corps of Engineers
- U.S. Bureau of Reclamation – WaterSMART
- U.S. Department of Agriculture
- U.S. Department of Agriculture Rural Development Funding
- U.S. Department of Energy
- U.S. Department of Housing and Urban Development
- U.S. Economic Development Administration
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
- U.S. Forest Service

Note: This is not a complete list of all federal funding opportunities. These grant programs have been chosen for their applicability to popular mitigation actions. The websites and reference materials used to provide this information are as current as possible; however, it is important to note that funding programs are dynamic and subject to frequent changes. While it is helpful to be familiar with the current information, it is equally as important to engage candidate federal and state agencies in a dialog as soon as possible.

FEMA also has a Recovery and Resilience Resource Library to help navigate the numerous programs available in pre-disaster recovery planning or in the wake of a disaster. Resources can be searched by keyword or filtered by eligibility, topic, intended beneficiary, or resource type. The Recovery and Resilience Resource Library can be found here: https://www.fema.gov/emergency-managers/practitioners/recovery-resilience-resource-library.

Federal Emergency Management Agency (FEMA)

Fire Management Assistance Grant Program (FMAG)	
Description	FMAG is available to states, local and tribal governments, for the mitigation, management, and control of fires on publicly or privately-owned forests or grasslands, which threaten such destruction as would constitute a major disaster.
Funds Available	The individual fire cost threshold is based on total eligible costs for the declared fire. The individual fire cost threshold for a state is the greater of $100,000 or five percent times the statewide per capita indicator, multiplied by the state population (the statewide per capita indicator is adjusted annually for inflation [e.g., the FY21 indicator is $1.55]).
Eligibility	Eligible applicants are entities legally responsible for the firefighting activities that reimbursement is being requested for, this includes states, local governments, and tribal governments.
Examples	Eligible firefighting costs may include expenses for field camps, repair and replacement tools, mobilization and demobilization activities, equipment use, materials and supplies.
Additional Information	https://www.fema.gov/assistance/public/fire-management-assistance

Flood Mitigation Assistance Program (FMA)	
Description	FMA is a competitive program that provides funding for projects that reduce or eliminate the risk of repetitive flood damages to buildings insured by the National Flood Insurance Program. Projects must be cost effective, located in a participating NFIP community in good standing, align with the current hazard mitigation plan, and meet all environmental and historical preservation requirements.
Funds Available	Fiscal Year 2022 had $800 million available for distribution which was more than five times the amount available for Fiscal Year 2021.
Eligibility	States, territories, and federally recognized tribes are eligible. Local governments are considered sub-applicants and must apply to the State, territory, or tribe.
Examples	Projects include: project scoping, technical assistance, community flood mitigation projects, individual structure/property-level flood mitigation projects, and management costs.
Additional Information	Cost share is required for all subapplications funded by the Flood Mitigation Assistance program. Generally, the cost share for this program is 75% federal / 25% non-federal. Contributions of cash, third-party in-kind services, materials, or any combination thereof, may be accepted as part of the non-federal cost share. More information can be found at https://www.fema.gov/grants/mitigation/floods

Hazard Mitigation Grant Program (HMGP)	
Description	FEMA's Hazard Mitigation Grant Program provides funding to state, local, tribal and territorial governments so they can develop hazard mitigation plans and rebuild in a way that reduces, or mitigates, future disaster losses in their communities. Funding is available when authorized under a Presidential major disaster declaration and in areas of the state requested by the Governor. Federally recognized tribes may also submit a request for a Presidential major disaster declaration within their impacted areas. All state, local, tribal and territorial governments must develop and adopt hazard mitigation plans to receive funding for their hazard mitigation projects.
Funds Available	Amount of funding is based on the estimated total or aggregate cost of disaster assistance: Up to 15% of the first $2 billion; Up to 10% for amounts between $2 billion and $10 billion; Up to 7.5% for amounts between $10 billion and $35.333 billion; States with enhanced mitigation plans: Up to 20%, not to exceed $35.333 billion.
Eligibility	Project eligibility under HMGP can be limited by the State as part of the HMGP Administrative Plan developed post-disaster. For example, funding may only be made available for projects that are related to the type of disaster, i.e., HMGP related to a significant flood disaster declaration may only be designated for flood mitigation projects like acquisitions of repetitively flooded properties.
Examples	Retrofitting existing buildings to make them less susceptible to damage from a variety of natural hazards. Purchasing hazard prone property to remove people and structures from harm's way. Drainage improvement projects to reduce potential for flood damage. Eligible project types do not have to coincide with the type of disaster declaration, as the state decides funding prioritization accordingly.
Additional Information	In this program, private homeowners and businesses cannot apply for a grant. However, a local community or other public entity may apply for funding on their behalf. Generally, the cost share is 75% federal and 25% non-federal funding. The 25% can come from any non-federal source, such as the state or local government, an individual, private contributions, Increased Cost of Compliance (ICC) funds from a flood insurance policy, or Small Business Administration loans. Additional information can be found at: https://www.fema.gov/grants/mitigation/hazard-mitigation/before-you-apply.

HMGP-Post Fire	
Description	This program provides funding to help communities implement hazard mitigation measures focused on reducing the risk of harm from wildfire. It provides hazard mitigation grant funding to state, local, tribal, and territorial governments in areas receiving a Fire Management Assistance Grant (FMAG) declaration. The FMAG is the Disaster Declaration required and funding amounts are determined by FEMA based on an annual national aggregate calculation of the past 10 year's FMAG declarations.
Funds Available	Funds available each year are based on an average of historical Fire Management Assistance Grant declarations from the past 10 years. Total funding available for each FMAG declaration in Fiscal Year 2022 is $786,552 for applicants with a standard hazard mitigation plans and $1,048,736 for those with an enhanced hazard mitigation plan. Multiple event funding will be aggregated into one grant under the first declaration.
Eligibility	Eligible projects include defensible space initiatives, ignition-resistant construction, hazardous fuels reduction, erosion control measures, slope failure prevention measures and flash flooding prevention measures.
Examples	Defensible space, reducing hazardous fuels, removing standing burned trees, ignition-resistant construction, installing warning signs, strengthen or harden water systems that were burned and caused contamination, reseeding ground cover, planting grass to prevent noxious weeds, erosion barriers on slopes, modify/remove culverts, drainage dips and emergency spillways.
Additional Information	The application period opens with the state or territory's first FMAG declaration of the fiscal year and closes six months after the end of that fiscal year. Application extensions may be requested. https://www.fema.gov/grants/mitigation/post-fire.

Pre-Disaster Mitigation (PDM)	
Description	The Pre-Disaster Mitigation grant program makes federal funds available to state, local, tribal, and territorial governments to plan for and implement sustainable cost-effective measures. These mitigation efforts are designed to reduce the risk to individuals and property from future natural hazards, while also reducing reliance on federal funding from future disasters.
Funds Available	On May 22, 2024, FEMA published a Notice of Funding Opportunity (NOFO) for FY24 Pre-Disaster Mitigation grant program. The total amount of funds that are being made available to 110 congressionally directed projects will be $190,568,289. Applicants may request up to an additional 5% of project costs for management and administration of the program from a separate pool of funds.
Eligibility	Only states, territories, or federally recognized tribal governments identified by Congress in the Consolidated Appropriations Act and enumerated in the accompanying Joint Explanatory Statement for Division F are identified in this Notice of Funding Opportunity (NOFO) and are eligible to apply. All applicants and subapplicants must have a FEMA-approved Hazard Mitigation Plan by the application deadline
Examples	Storm Shelters, Wildfire Prevention Project, Bridge Rehabilitation, Drainage Improvements, Water Storage Tanks, Flood Mitigation Planning Projects, Evacuation Center, and more.
Additional Information	https://www.fema.gov/grants/mitigation/pre-disaster

Recovery and Resilience Resource Library	
Description	FEMA developed library to navigate the numerous programs available to the United States and its territories to help recover from a disaster. Tool helps users to find and research federal disaster recovery resources that would be beneficial to pre-disaster recovery planning or in the wake of a disaster.
Funds Available	Varies
Eligibility	Resources are intended for state, local, territorial, and tribal governments as well as non-profits, businesses, healthcare institutions, schools, individuals, and households.
Examples	Evidence-based or evidence-informed interventions to strengthen rural and urban communities.
Additional Information	https://www.fema.gov/emergency-managers/practitioners/recovery-resilience-resource-library

State and Local Cybersecurity Grant Program	
Description	Funding to help states, local governments, rural areas, and territories address cybersecurity risks and cybersecurity threats to information systems.
Funds Available	$279 million is available under the SLCGP, with varying funding amounts allocated over four years from the Infrastructure Investment and Jobs Act. The recipient contribution can be cash (hard match) or third-party in-kind (soft match).
Eligibility	All U.S. states and territories are eligible to apply. The designated State Administrative Agency (SAA) for each state and territory is the only entity eligible to apply for SLCGP funding.
Examples	Planning, equipment, exercises, management & administration, organization, and training.
Additional Information	This year, each state and territory will receive a funding allocation as determined by the statutory formula: • Allocations for states and territories include a base funding level as defined for each entity: 1% for each state, the District of Columbia, and Puerto Rico. • State allocations include additional funds based on a combination of state population and rural population totals. • 80% of total state allocations must support local entities, while 25% of the total state allocations must support rural entities; these amounts may overlap. • https://www.fema.gov/grants/preparedness/state-local-cybersecurity-grant-program.

Safeguarding Tomorrow through Ongoing Risk Mitigation Revolving Loan Fund (STORM-RLF)	
Description	FEMA is making $150 million available to fund capitalization grants that enable eligible entities to administer revolving loan funds and provide direct loans to local governments for projects and activities that mitigate the impacts of drought, intense heat, severe storms (including hurricanes, tornados, windstorms, cyclones, and severe winter storms), wildfires, floods, earthquakes, and other natural hazards. FEMA will work closely with participating entities and gather best practices on topics such as entity administrative burden and capacity, achieving resilience and equity goals, and common project and activity types for loans under this program. FEMA's goal is to increase entity participation with higher funding levels in future grant cycles.
Funds Available	FEMA intends to award $150 million of the funds available under the new program to address extreme weather changes and create a more equitable and resilient nation.
Eligibility	Eligible entities are States, Federally recognized tribes that received a major disaster declaration, Territories, and the District of Columbia. State entities must enroll in this program for it to be an option to local public entities.
Examples	This is an opportunity to prioritize low-impact development, wildland-urban interface management, conservation areas, reconnection of floodplain and open space projects. Funding can be utilized for building code adoption and enforcement. Allowable uses include: Mitigation Activities, Non-Federal Cost-Share, Local Government Technical Assistance, and Entity Administrative Costs.
Additional Information	https://www.fema.gov/grants/mitigation/storm-rlf

National Fish and Wildlife Foundation

America's Ecosystem Restoration Initiative	
Description	The America's Ecosystem Restoration Initiative seeks to advance conservation and restoration projects that focus on at least one of the following core areas of need: • Conserving and restoring rivers, coasts, wetlands, and watersheds • Conserving and restoring forests, grasslands, and other important ecosystems that serve as carbon sinks • Connecting and reconnecting wildlife corridors, large landscapes, watersheds, and seascapes • Improving ecosystem and community resilience to coastal flooding, drought, and other climate-related threats • Expanding access to the outdoors, particularly in underserved communities Applicants are encouraged to develop large landscape scale and/or cross jurisdictional projects that advance existing conservation plans or are informed by Indigenous Traditional Knowledge.
Funds Available	There were 77 grants totaling $170.8 million announced for FY24.
Eligibility	State government agencies, Indian Tribes, non-profit 501(c) organizations, local governments, municipal governments, and educational institutions.
Examples	Implementation grants, planning grants, sentinel landscape grants, national forest grants, and private forests, rangeland, and farmland grants.
Additional Information	https://www.nfwf.org/programs/americas-ecosystem-restoration-initiative?activeTab=tab-2

Five Star and Urban Water Restoration Grant Program	
Description	The Five Star and Urban Waters Restoration grant program seeks to develop community capacity to sustain local natural resources for future generations by providing modest financial assistance to diverse local partnerships focused on improving water quality, watersheds and the species and habitats they support.
Funds Available	Approximately $2.3 million was awarded in 2024 for nationwide for projects meeting program priorities. There is one round of full proposals annually for this program. Awards range from $20,000 to $70,000 and about 50 grants awarded per year.
Eligibility	Non-profit 501(c) organizations, state government agencies, local governments, municipal governments, Tribal Governments and Organizations, and educational institutions.
Examples	Projects include a variety of ecological improvements along with targeted community outreach, education and stewardship. Ecological improvements may include one or more of the following: wetland, riparian, forest and coastal habitat restoration; wildlife conservation, community tree canopy enhancement, water quality monitoring and green infrastructure best management practices for managing run-off.
Additional Information	https://www.nfwf.org/programs/five-star-and-urban-waters-restoration-grant-program?activeTab=tab-1

U.S. Army Corps of Engineers

Planning Assistance to States	
Description	Provides assistance in the preparation of comprehensive plans for the development, utilization, and conservation of water and related land resources. Typical studies are only planning level of detail, not design for project construction. Program can encompass many types of studies dealing with water resource issues. PAS program has two types of efforts-comprehensive plans and technical assistance: Comprehensive Plans and Technical Assistance. Comprehensive Plan Assistance includes planning for the development, utilization, and conservation of the water and related resources of drainage basins, watersheds, or ecosystems located within the boundaries of that State, including plans to comprehensively address water resources challenges such as the state water plan. Comprehensive plans can extend across state boundaries provided both States agree. Technical Assistance provided through the PAS program includes support of planning efforts related to the management of state water resources, including the provision and integration of hydrologic, economic, or environmental data and analysis in support of the State's water resources management and related land resources development plans identified in the state water plan or other water resources management related state planning documents, such as state hazard mitigation, preparedness, response, and recovery plans and plans associated with changing hydrologic conditions, long-term sustainability, and resilience.
Funds Available	Comprehensive planning activities through the PAS program are cost shared (50 per cent) with the study partner, and voluntarily contributed funds in excess of cost share may be provided by the non-Federal partner. The non-Federal cost share for preparation of a state comprehensive water resources plan may be provided by funds or through the provision of services, materials, supplies, or other in-kind services. Technical assistance activities through the PAS program are cost shared (50 per cent) with the study partner, and voluntarily contributed funds in excess of cost share may be provided by the non-Federal partner. The cost-share for technical assistance must be provided by funds (not in-kind).
Eligibility	States, local governments, other non-Federal entities, and eligible Native American Indian tribes.
Examples	Types of studies in recent years include water supply/demand, water conservation, water quality, environmental/conservation, wetlands evaluation/restoration, dam safety/failure, flood damage reduction, coastal zone protection, and harbor planning.
Additional Information	https://www.nae.usace.army.mil/missions/public-services/planning-assistance-to-states/

U.S. Bureau of Reclamation - WaterSMART

Small Scale Water Efficiency Projects	
Description	Funding for small-scale on-the-ground water management projects that conserve, better manage, or otherwise increase efficient use of water supplies. Projects supported by an existing water management and conservation plan, System Optimization Review, or other planning effort led by the applicant are prioritized.
Funds Available	Applicants may request up to $125,000 in federal funding for two-year projects, with a non-federal cost-share of 50% or more of total project costs for projects with total project costs no more than $250,000.
Eligibility	Eligible applicants for all WaterSMART Grants funding opportunities include states; tribes; irrigation districts; water districts; state, regional, or local authorities, whose members include one or more organization with water or power delivery authority; other organizations with water or power delivery authority; and nonprofit conservation organizations that are acting in partnership with and with the agreement of an entity previously described. To be eligible, applicants must be in the Western United States or U.S. Territories. Entities located in Alaska and Hawaii are also eligible to apply.
Examples	Example projects include Canal lining/piping, municipal metering, irrigation flow measurement, SCADA and automation, landscape irrigation measures, high-efficiency indoor appliances and fixtures, commercial cooling systems.
Additional Information	https://www.usbr.gov/watersmart/swep/index.html

Water Marketing Strategy Grants	
Description	Financial assistance for the development of water marketing strategies to facilitate water markets as a tool for helping willing buyers and sellers meet water demands efficiently in times of shortage and prevent water conflicts.
Funds Available	Program funding is allocated through a competitive process. Applicants may request federal funding up to $400,000 for projects to be completed within three years with a non-Federal cost share of 50% or more of the total project cost.
Eligibility	Eligible applicants for all WaterSMART Grants funding opportunities include states; tribes; irrigation districts; water districts; state, regional, or local authorities, whose members include one or more organization with water or power delivery authority; other organizations with water or power delivery authority; and nonprofit conservation organizations that are acting in partnership with and with the agreement of an entity previously described. To be eligible, applicants must be located in the Western United States or U.S. Territories. Entities located in Alaska and Hawaii are also eligible to apply.
Examples	Funding awarded under Water Marketing Strategy Grants can be used for outreach and partnership building, planning activities (e.g., hydrologic, economic, legal and other types of analysis), pilot activities, and the development of a “water marketing strategy” document.
Additional Information	https://www.usbr.gov/watersmart/watermarketing/index.html

Water and Energy Efficiency Grants	
Description	Focuses on projects that result in quantifiable and sustained water savings, including canal lining and piping projects, municipal metering projects, and Supervisory Control and Data Acquisition (SCADA) and automation projects.
Funds Available	Applicants may request federal funding: (I) up to $500,000 for projects to be completed within two years, (II) up to $2 million for projects to be completed within three years; and (III) up to $5 million for projects to be completed within three years, with a non-Federal cost share of 50% or more of the total project cost. No more than $5,000,000 in total WaterSMART Water and Energy Efficiency Grants funds will be awarded to any single applicant under this Funding Opportunity per fiscal year.
Eligibility	Eligible applicants for all WaterSMART Grants funding opportunities include states; tribes; irrigation districts; water districts; state, regional, or local authorities, whose members include one or more organization with water or power delivery authority; other organizations with water or power delivery authority; and nonprofit conservation organizations that are acting in partnership with and with the agreement of an entity previously described. To be eligible, applicants must be in the Western United States or U.S. Territories. Entities located in Alaska and Hawaii are also eligible to apply.
Examples	Projects conserve and use water more efficiently; increase the production of hydropower; mitigate conflict risk in areas at a high risk of future water conflict; and accomplish other benefits that contribute to water supply reliability in the western United States.
Additional Information	https://www.usbr.gov/watersmart/weeg/index.html

U.S. Department of Agriculture

Conservation Innovation Grants (CIG)	
Description	Competitive program that supports the development of new tools, approaches, practices, and technologies to further natural resource conservation on private lands. Through creative problem solving and innovation, CIG partners work to address our nation's water quality, air quality, soil health and wildlife habitat challenges, all while improving agricultural operations. Public and private grantees develop the tools, technologies, and strategies to support next-generation conservation efforts on working lands and develop market-based solutions to resource challenges.
Funds Available	Applications made a CIG funding notice is announced each year. Funds for single- or multi-year projects, not to exceed three years, are awarded through a nationwide competitive grants process. Grantees must match the CIG investment at least one to one.
Eligibility	The natural resource concerns eligible for funding through CIG are identified in the funding announcement and may change annually to focus on new and emerging, high-priority natural resource concerns. National and State CIG – all non-Federal entities and individuals are eligible to apply. All CIG projects must involve EQIP-eligible producers.
Examples	Projects may be watershed-based, regional, multi-state or nationwide in scope.
Additional Information	https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/cig/

Emergency Watershed Protection Program	
Description	The EWP Program offers technical and financial assistance to help local communities relieve imminent threats to life and property caused by floods, fires, windstorms, and other natural disasters that impair a watershed. EWP does not require a disaster declaration by federal or state government officials for program assistance to begin.
Funds Available	NRCS may provide technical assistance as services and/or funds to plan, design, and contract the emergency measures, subject to an agreement between NRCS and the Sponsor. Installation/Construction costs are not to exceed 75% or 90% for limited resource areas. Engineering/Technical Assistance is not to exceed 100%. No funds are available for real property rights.
Eligibility	Project criteria requires the project to provide protection from flooding or soil erosion; reduce threats to life and property; restore the hydraulic capacity to the natural environment; and economically and environmentally defensible. Eligible local sponsors for recovery projects include cities, counties, towns, conservation districts, or any federally-recognized Native American tribe or tribal organization.
Examples	Removal of debris from stream channels, road culverts, and bridges; reshaping and protection of eroded streambanks; correction of damaged or destroyed drainage facilities; establishing vegetative cover on critically eroding lands; repair of levees and structures; repair of certain conservation practices; and purchase of floodplain easements.
Additional Information	https://www.nrcs.usda.gov/programs-initiatives/ewp-emergency-watershed-protection

Small Business Innovation Research	
Description	The Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs at the U.S. Department of Agriculture (USDA) offer competitively awarded grants to qualified small businesses to support high quality research related to important scientific problems and opportunities in agriculture that could lead to significant public benefits. This program as two phases, Phase I is open to any small business concern that meets the SBIR/STTR eligibility requirements and Phase II is open only to previous Phase I awardees.
Funds Available	Funds are offered across 10 topic areas including: Forests and Related Resources, Plant Production and Protection-Biology, Animal Production and Protection, Conservation of Natural Resources, Food Science and Nutrition, Rural and Community Development, Aquaculture, Biofuels and Biobased Products, Small and Mid-size Farms, and Plant Production and Protection-Engineering
Eligibility	The SBIR/STTR programs do not make loans and do not award grants for the purpose of helping a business get established. The program seeks to stimulate technological innovation in the private sector, strengthen the role of small businesses in meeting federal research and development needs, increase private sector commercialization of innovations derived from USDA-supported research and development efforts, and foster and encourage participation by women-owned and socially and economically disadvantaged small business firms in technological innovations
Examples	Salary and wages for company employees, associated fringe benefits, materials and supplies, and a number of other direct costs needed to conduct the proposed R&D
Additional Information	https://www.nifa.usda.gov/grants/programs/small-business-innovation-research-technology-transfer-programs-sbirsttr

Watershed Rehabilitation Program	
Description	The Watershed Rehabilitation Program helps project sponsors rehabilitate aging dams that are reaching the end of their design life and/or no longer meet federal or state standards. NRCS provides technical and financial assistance to local project sponsors to rehabilitate aging dams that protect lives and property, and infrastructure.
Funds Available	Across the Nation, watershed REHAB projects provide over $2.2 billion in reduced flooding and erosion damage while improving wildlife habitat, recreation, water quality and supply for an estimated 47 million people. Costs associated with additional or new water supply storage purposes added to the rehabilitation project may be cost-shared with watershed rehabilitation funds. Eligible project costs are covered 65% Federal/35% Local of total eligible project cost, not to exceed 100% of actual construction cost. No more than 100% of the engineering/Technical Assistance will be covered.
Eligibility	Eligible projects are dams that were originally constructed through a NRCS Watershed Program, no longer meet current safety and performance standards, including dams past their evaluated life, and has current operation and maintenance.
Examples	Dam rehabilitation and construction, including but not limited to new rock filters and installing concrete cutoff walls.
Additional Information	https://www.nrcs.usda.gov/programs-initiatives/watershed-rehabilitation

U.S. Department of Agriculture Rural Development Funding

Community Facilities Loans and Grants	
Description	This program provides affordable funding to develop essential community facilities in rural areas, an essential community facility is defined as a facility that provides an essential service to the local community for the orderly development of the community in a primarily rural area, and does not include private, commercial, or business undertakings.
Funds Available	Open year round
Eligibility	Eligible for areas 20,000 or less in population. Applicants are municipalities, non-profits, special purpose districts, and federally recognized Indian tribes. Eligible borrowers include public bodies, community based non-profit corporations, and federally recognized tribes.
Examples	Funds can be used to purchase, construct, and/or improve essential community facilities, purchase equipment, and pay related project expenses
Additional Information	https://www.rd.usda.gov/programs-services/community-facilities/community-facilities-direct-loan-grant-program/ne

Community Facility Rural Community Development Initiative Grants	
Description	RCDI grants are awarded to help non-profit housing and community development organizations, low-income rural communities and federally recognized tribes support housing, community facilities, and community and economic development projects in rural areas. Funds may be used to improve housing, community facilities, and community and economic development projects in rural areas.
Funds Available	Grants are awarded with a minimum amount of $50,000 and maximum of $500,000. Funds are limited and are awarded through a competitive process. Matching fund requirement equal to amount of grant but in-kind contributions cannot be used as matching funds. Partnerships with other federal, state, local, private, and nonprofit entities are encouraged.
Eligibility	Open to public bodies, non-profit organizations, and qualified private organizations. Rural and rural areas other than a city or town with a population of greater than 50,000 people and the urbanized area contiguous and adjacent to such city or town.
Examples	RCDI grants may be used for but are not limited to training sub-grantees and providing technical assistance to sub-grantees on strategic plan developments, accessing alternative funding sources, board training, developing successful child care facilities, creating training tools, and effective fundraising techniques.
Additional Information	https://www.rd.usda.gov/programs-services/community-facilities/rural-community-development-initiative-grants#overview

Community Facility Technical Assistance and Training Grant	
Description	Provide associations Technical Assistance and/or training with respect to essential community facilities programs. The Technical Assistance and/or training will help identify and plan for community facility needs that exist in the area. Once those needs have been identified, the Grantee can assist in identifying public and private resources to finance those identified community facility needs.
Funds Available	Maximum grant award of $150,000. Grant funds are limited and are awarded through a competitive process. Matching funds are not required, in-kind contributions cannot be used as matching funds, partnerships with other entities are encouraged.
Eligibility	Open to public bodies, non-profit organizations, and federally recognized tribes. Rural areas including cities, villages, townships, towns, and Federally Recognized Tribal Lands outside the boundaries of a city of 20,000 or more.
Examples	Webster County purchased a new ambulance and equipment with Rural Development funds (and other sources) and South Sioux City was able to build a new fire station with funding from USDA Rural Development (and other sources).
Additional Information	https://www.rd.usda.gov/programs-services/community-facilities/community-facilities-technical-assistance-and-training-grant#overview

Emergency Community Water Assistance Grants (ECWAG)	
Description	This program helps eligible communities prepare for, or recover from, an emergency that threatens the availability of safe, reliable drinking water. A federal disaster declaration is not required, and this grant covers events such as drought or flood, earthquake, tornado or hurricane, disease outbreak, chemical spill, leak, or seepage, or other disasters.
Funds Available	Up to $150,000 for water transmission line projects. Water Source grants up to $1,000,000.
Eligibility	Primarily for residential purposes and are eligible for 10,000 or less population areas. Applicants are municipalities, special purpose districts (RWS), non-profits, and Recognized Indian Tribes. Applications are accepted year-round online through the RD Apply or through local RD office
Examples	Construction of waterline extensions, repair breaks or leaks in existing water distribution lines, and address related maintenance necessary to replenish the water supply. Water Source Grants are to construct a water source, intake, or treatment facility.
Additional Information	https://www.rd.usda.gov/programs-services/water-environmental-programs/emergency-community-water-assistance-grants/ne

U.S. Department of Energy

Grid Innovation Program	
Description	This program provides support for projects that use innovative approaches to transmission, storage, and distribution infrastructure to enhance grid resilience and reliability. Projects selected under this program will include interregional transmission projects, investments that accelerate interconnection of clean energy generation, and utilization of distribution grid assets to provide backup power and reduce transmission requirements. Innovative approaches can range from use of advanced technologies to innovative partnerships to the deployment of projects identified by innovative planning processes.
Funds Available	The Grid Innovation Program will invest up to $5 billion ($1 billion/year for Fiscal Years 2022-2026) in innovation and new approaches to transmission, distribution, storage, and regional resilience. The first funding cycle will include both FY22 and FY23, up to $2 billion. Projects are subject to a 50% cost share minimum.
Eligibility	Eligible entities include a state, a combination of 2 or more states, an Indian Tribe, a unit of local government, or a public utility commission.
Examples	Transmission, storage, and distribution infrastructure to enhance grid resilience and reliability.
Additional Information	https://www.energy.gov/gdo/grid-innovation-program

Grid Resilience Utility and Industry Grants	
Description	Grants provide funding to support activities that will modernize the electric grid to reduce impacts from extreme weather and natural disasters. This grant program will fund comprehensive transformational transmission and distribution technology solutions that will mitigate weather hazards across a region or within a community that can cause a disruption to the power system. Grants awarded under the program will fund transmission and distribution technology projects that seek to address hazards within a region or a community that can disrupt the power system, such as wildfires, floods or hurricanes.
Funds Available	Funding of $2.5 Billion over five years from FY 22-26 with $500 million available per year. Funding is capped at the amount the eligible entity has spent in the previous three years on hardening efforts. There is a 100% cost match for this program. The program includes a small utility set aside for those entities selling no more than 4 million MWh of electricity per year.
Eligibility	This funding opportunity is available to electric grid operators, electricity storage operators, electricity generators, transmission owners or operators, distribution providers, and fuel suppliers.
Examples	Infrastructure upgrades to strengthen and modernize the power grid against natural disasters that are exacerbated by the climate crisis.
Additional Information	https://www.energy.gov/gdo/grid-resilience-utility-and-industry-grants

Smart Grid Grants	
Description	Smart Grid Grants is designed to increase the flexibility, efficiency, and reliability of the electric power system, with particular focus on: increasing capacity of the transmission system, preventing faults that may lead to wildfires or other system disturbances, integrating renewable energy at the transmission and distribution levels, and facilitating the integration of increasing electrified vehicles, buildings, and other grid-edge devices. Smart grid technologies funded and deployed at scale through this program must demonstrate a pathway to wider market adoption.
Funds Available	The Smart Grid Grant program will invest up to $5 billion for Fiscal Years 2022-2026 in grid resilience technologies and solutions. The first funding cycle will include both FY22 and FY23, up to $1.2 billion. Recipients must provide a cost-share of at least 50% of the grant.
Eligibility	This program is open to domestic entities including institutions of higher education; for-profit entities; non-profit entities; and state and local governmental entities, and tribal nations.
Examples	Grid enhancing technologies such as dynamic line rating, flow control devices, advanced conductors, and network topology optimization, to improve system efficiency and reliability. Investments in optical ground wire, dark fiber, operational fiber, and wireless broadband communications networks.
Additional Information	https://www.energy.gov/gdo/grid-innovation-program

U.S. Department of Housing and Urban Development

Community Development Block Grants	
Description	Provides annual grants on a formula basis to states, cities, and counties to develop viable urban communities by providing decent housing and a suitable living environment, and by expanding economic opportunities, principally for low- and moderate-income persons.
Funds Available	HUD determines the amount of each entitlement grantee's annual funding allocation by a statutory dual formula which uses several objective measures of community needs, including the extent of poverty, population.
Eligibility	Eligible grantees include principal cities of Metropolitan Statistical Areas, Other metropolitan cities with populations of at least 50,000, qualified urban counties with populations of at least 200,000 (excluding the population of entitled cities), States and insular areas. Eligibility for participation as an entitlement community is based on population data provided by Census. Each activity must meet one of the following national objectives for the program: benefit low- and moderate-income persons, prevention or elimination of slums or blight, or address community development needs having a particular urgency because existing conditions pose a serious and immediate threat to the health or welfare of the community for which other funding is not available.
Examples	CDBG funds may be used for activities which include, but are not limited to: Acquisition of real property; Relocation and demolition; Rehabilitation of residential and non-residential structures; Construction of public facilities and improvements, such as water and sewer facilities, streets, neighborhood centers, and the conversion of school buildings for eligible purposes; Public services, within certain limits; Activities relating to energy conservation and renewable energy resources; Provision of assistance to profit-motivated businesses to carry out economic development and job creation/retention activities
Additional Information	HUD does not provide CDBG assistance directly to individuals, businesses, nonprofit or organizations or other non-governmental entities. https://www.hud.gov/hud-partners/community-cdbg

CDBG Disaster Recovery Assistance	
Description	The Community Development Block Grant (CDBG) Program has Disaster Recovery grants to rebuild the affected areas and provide crucial seed money to start the recovery process. These flexible grants help cities, counties, and States recover from Presidentially declared disasters, especially in low-income areas, subject to availability of supplemental appropriations. Since CDBG Disaster Recovery (CDBG-DR) assistance may fund a broad range of recovery activities, HUD can help communities and neighborhoods that otherwise might not recover due to limited resources.
Funds Available	Varies according to the state plan outlined by the state department of economic development.
Eligibility	CDBG-DR funds are provided to the most impacted and distressed areas for Disaster Relief, Long-Term Recovery, Restoration of Infrastructure, Housing, and Economic Revitalization. HUD will notify eligible States, cities and counties if they are eligible to receive CDBG-DR grants. Those who receive grant money include state agencies, non-profit organizations, economic development agencies, citizens and businesses
Examples	Funding can be provided to cover unmet needs such as local cost share funding from public assistance projects or hazard mitigation grant projects.
Additional Information	https://www.hud.gov/hud-partners/community-cdbg-dr

U.S. Economic Development Administration

Public Works and Economic Adjustment Assistance (EAA)	
Description	The EAA provides funding to help plan, build, innovate, and put people into quality jobs in hundreds of communities across the nation. The Economic Adjustment Assistance program is EDA's most flexible program, and grants made under this program will help hundreds of communities across the nation plan, build, innovate, and put people back to work through construction or non-construction projects designed to meet local needs.
Funds Available	Total Program Funding of $500 Million with an award ceiling of $30 Million and a floor of $100,000.
Eligibility	A wide range of technical, planning, workforce development, entrepreneurship, and public works and infrastructure projects are eligible for funding under this program. Eligible applicants for EDA's Economic Adjustment Assistance program include a(n): District Organization of an EDA-designated Economic Development District; Indian Tribe or a consortium of Indian Tribes; State, county, city, or other political subdivision of a State, including a special purpose unit of a State or local government engaged in economic or infrastructure development activities, or a consortium of political subdivisions; Institution of higher education or a consortium of institutions of higher education; Public or private non-profit organization or association acting in cooperation with officials of a political subdivision of a State. Individuals or for-profit entities are not eligible.
Examples	Public infrastructure related to economic development.
Additional Information	As part of the $300 million Coal Communities Commitment, EDA will allocate at least $200 million of the Economic Adjustment Assistance funding to support coal communities. https://www.eda.gov/funding/programs/economic-adjustment-assistance.

U.S. Environmental Protection Agency

Clean Waters Act Section 319 Grants	
Description	Clean Water Act Section 319(h) funds are provided only to designated state and tribal agencies to implement their approved nonpoint source management programs. State and tribal nonpoint source programs include a variety of components, including technical assistance, financial assistance, education, training, technology transfer, demonstration projects, and regulatory programs.
Funds Available	Each year EPA awards Section 319(h) funds to states in accordance with a state-by-state allocation formula that EPA has developed in consultation with the states. Grant totals over the past 5 years have increased from $155.9 million in 2013 and $178 million in 2022.
Eligibility	States receive EPA funding for 319(h) grants to implement specific components and make funds available to both public and private entities, including local governments, tribal authorities, cities, counties, regional development centers, local school systems, colleges and universities, local nonprofit organizations, state agencies, federal agencies, watershed groups, for-profit groups, and individuals through subawards or contracts as appropriate.
Examples	Elm Creek watershed implemented BMPs to reduce in-stream sedimentation, reduce peak flows, and improve in-stream aquatic habitat.
Additional Information	https://www.epa.gov/sites/default/files/2015-09/documents/319-guidelines-fy14.pdf

Environmental Justice Collaborative Problem-Solving	
Description	This cooperative agreement program provides financial assistance to eligible organizations working on or planning to work on projects to address local environmental and/or public health issues in their communities. The program assists recipients in building collaborative partnerships with other stakeholders to develop solutions that will significantly address environmental and/or public health issue(s) at the local level. Selected applicants, or recipients, are required to use the EPA's Environmental Justice Collaborative Problem Solving Model as part of their projects.
Funds Available	The EJCPS Program anticipates awarding approximately $30,000,000 of Inflation Reduction Act funding through 83 cooperative agreements, organized in two tracks of funding. $25,000,000 for CBOs proposing projects for up to $500,000 each. Approximately 50 awards for up $500,000 each are anticipated under this track. $5,000,000 for qualifying small CBOs with 5 or fewer full-time employees proposing projects for up to $150,000 each. For more details about this opportunity, please review closely the "Small Community-based Nonprofit Set Aside". Approximately 33 awards for up to $150,000 each are anticipated under this track. Cooperative agreements will be funded for a three-year performance period.
Eligibility	Eligible entities include incorporated non-profit organizations, US Territories, Tribal government, either federally or state recognized, tribal organizations, and freely associated states.
Examples	In 2003 the Pacific Basin Development Council received this grant to build community resiliency.
Additional Information	https://www.epa.gov/environmentaljustice/environmental-justice-collaborative-problem-solving-cooperative-agreement-5

Urban Waters Small Grants	
Description	The mission of this program is to help local residents and their organizations, particularly those in underserved communities, restore their urban waters in ways that also benefit community and economic revitalization. The program recognizes that healthy and accessible urban waters can help grow local businesses and enhance educational, recreational, social, and employment opportunities in nearby communities. Projects should meet the following four objectives: address local water quality issues related to urban runoff pollution; provide additional community benefits; actively engage underserved communities; and foster partnership.
Funds Available	Urban Waters Small Grants are competed and awarded every two years with individual award amounts of up to $60,000.
Eligibility	Eligible applicants include States, local governments, Indian Tribes, public and private universities and colleges, public or private nonprofit institutions/organizations, intertribal consortia, and interstate agencies.
Examples	An example of a past grant awarded was the Urban Waters and South Platte Watershed from the Headwaters to the Denver Metropolitan Area.
Additional Information	https://www.epa.gov/urbanwaterspartners/urban-waters-small-grants

Water Infrastructure Finance and Innovation Act of 2014 (WIFIA)	
Description	The WIFIA program provides long-term, low-cost supplemental loans for regionally and nationally significant water and wastewater infrastructure projects. Borrowers benefit from a single fixed interest rate that is equal to the US Treasury rate of a similar maturity, an interest rate that is not impacted by the borrower's credit or loan structure, custom long-term repayment schedules with options to defer payment for up to 5 years.
Funds Available	$20 million minimum project size for large communities, $5 million minimum for small communities of 25,000 or less. WIFIA can fund a maximum of 49% of eligible project costs.
Eligibility	Eligible borrowers are 1) local, state, tribal, and federal government entities; 2) Partnerships and joint ventures; 3) Corporations and trusts; 4) Clean Water and Drinking Water State Revolving Fund (SRF) programs.
Examples	Wastewater conveyance and treatment projects. Drinking water treatment and distribution projects. Enhanced energy efficiency projects at drinking water and wastewater facilities.
Additional Information	Total federal assistance may not exceed 80% of a project's eligible costs. https://www.epa.gov/wifia/what-wifia

U.S. Fish and Wildlife Services

North American Wetlands Conservation Standard and Small Grant	
Description	A competitive matching grants program that supports public-private partnerships carrying out projects in the United Stated that further the goals of the North American Wetlands Conservation Act. These projects must involve long-term protection, restoration, and/or enhancement of wetlands and associated uplands habitat for the benefit of all wetlands-associated migratory birds.
Funds Available	US Small Grants may not exceed $250,000 and require a 1-to-1 ratio match for awarded grant amount. The US Standard Grant is for grants larger than $250,000 (between $1-3 million) and requires a 1-to-1 match ratio.
Eligibility	US Small Grants proposals are due in October or else will be considered an early submission for the next Fiscal Year. The US Standard Grant has a two deadline for proposals, one in February and one in July. Proposal submitted after July are considered ineligible unless clearly marked as an early submission for the next Fiscal Year.
Examples	Acquisition of land for the purposes of wetlands conservation, wetland restoration projects, wetland enhancement projects, wetland establishment, or other direct long-term wetland conservation work.
Additional Information	https://www.fws.gov/service/north-american-wetlands-conservation-act-nawca-us-standard-grants

U.S. Forest Service

Forestry Legacy Program	
Description	Focuses on private forest land that is faced by threats of conversion to non-forest land by urbanization, residential development. Providing economic incentives to landowners to keep forests as forest encourages sustainable forest management and supports strong markets for forest products. Landowners participate in the FLP by either selling property outright or by retaining ownership and selling only a portion of the property's development rights; both are held by state agencies or another unit of government. Use of a conservation easement allows land to remain in private ownership while ensuring that its environmental values are retained. Program funded by Land and Water Conservation Fund, which invests a small percentage of federal offshore drilling fees towards the conservation of important land, water, and recreation areas for all Americans.
Funds Available	Previous year funds for Fiscal Year 2023 totaled $188,000,000 across 34 projects.
Eligibility	Private Lands
Examples	Funded projects from 2023 include the Big Sioux River Forest, Pelican River Forest Project, Upper Thompson Connectivity Project, and others.
Additional Information	https://www.fs.usda.gov/managing-land/private-land/forest-legacy/program

State of Nebraska Funding Resources

In addition to federal grants, there are several state agencies and programs with potential applicability to supporting funding and implementation of mitigation projects. Many federal hazard mitigation grant programs are administered at the state level by Nebraska Emergency Management and Nebraska Department of Natural Resources, as noted above. These agencies will also likely be important in earlier stages of the hazard mitigation planning process by providing current hazard and risk assessment data.

While this section of the funding guidebook attempts to list as many funding options as possible, it is by no means a complete list of programs in Nebraska that could have the potential to support hazard mitigation project implementation. Like federal grant programs, many of these programs are dependent on yearly funding allocations, which results in fluctuations in their availability. The websites and reference materials used to provide this information are as current as possible; however, it is important to note that funding programs are dynamic and subject to frequent changes. While it is helpful to be familiar with the current information, it is equally as important to engage federal and state agencies in a dialog as soon as possible. State agencies covered in this guidebook include:

- Nebraska Department of Economic Development
- Nebraska Department of Environment and Energy
- Nebraska Department of Natural Resources
- Nebraska Environmental Trust
- Nebraska Forest Service
- Nebraska Silver Jackets

Nebraska Department of Economic Development

CDBG Program	
Description	The Community Development Block Grant (CDBG) Program, administered through the Nebraska Department of Economic Development, helps smaller local governments fund community projects that might not otherwise be financially feasible. Through funding from the United States Department of Housing and Urban Development, the program allows each community to determine which projects are most needed, with a focus on Housing, Neighborhood Revitalization, Commercial Revitalization and Economic Development
Funds Available	Annually, Nebraska receives $10.6± million for distribute to eligible applicants, plus prior year resources not obligated and program income. Congress may, at their discretion, appropriate supplemental CDBG funds in response to a natural disaster where a Presidential Declaration has been authorized.
Eligibility	Communities and counties whose residents are 51% or more low- to moderate-income, based on the American Community Survey Five-Year Estimate 2016-2020.
Examples	Flood control, drainage improvements, property buyout and relocation.
Additional Information	https://opportunity.nebraska.gov/programs/community/cdbg/

Nebraska Department of Environment and Energy

Clean Water State Revolving Fund Program	
Description	With the passage of the Amendments to the Clean Water Act (CWA) in 1987, Congress provided for the replacement of the federal Construction Grants program with the Clean Water State Revolving Fund (CWSRF) program and Drinking Water State Revolving Fund (DWSRF) Program. The program provides capitalization grants to state to be used as the basis (along with a required twenty percent state match), to create revolving loan funds which provide low-interest loans to publicly owned water and wastewater systems to finance water and wastewater infrastructure projects, and including, stormwater management.
Funds Available	$28.2± million for DWSRF Program, plus $28.65 million for Lead Service Line Replacement, and $28.371 million for Emerging Contaminants. $11.632± million for CWSRF Program.
Eligibility	Publicly owned water and wastewater systems
Examples	Municipal water and wastewater systems, and stormwater management.
Additional Information	https://dee.nebraska.gov/aid/water-loans-grants-rebates/clean-water-state-revolving-loan-fund-wastewater-treatment-facilities-and-sanitary-sewer-collection-systems

Nebraska Department of Natural Resources (NeDNR)

Flood Mitigation Assistance	
Description	The Flood Mitigation Assistance Grant Program (FMA) is administered by NeDNR and provides financial assistance for either planning or projects that assist in decreasing long-term risk of flood damage to structures insured under the National Flood Insurance Program. The FMA program has priorities to mitigate structures that have suffered repeated flood claims and those with severe repetitive loss.
Funds Available	Approximately $600 million nationwide in 2024. Nebraska did not receive any FMA in 2022.
Eligibility	Municipalities
Examples	Project (structural or non-structural) to reduce or eliminate repetitive flood damage. This includes: Capability and capacity building activities, localized flood risk reduction projects, and individual flood mitigation projects.
Additional Information	https://dnr.nebraska.gov/floodplain/flood-mitigation-assistance-grant-fy2024

Water Sustainability Fund	
Description	The Water Sustainability Fund (WSF) is a source of financial support to help local project sponsors achieve the goals set out in Neb. Rev. Stat. § 2-1506. The Nebraska Natural Resources Commission (NRC) oversees WSF operations including application review, scoring & ranking, and awarding funding to successful applicants.
Funds Available	Of the annual funding appropriated by the Nebraska Legislature, ten percent is designated by statute for projects separating storm and sewer water. The NRC also reserves ten percent for projects requesting $250,000 or less. A 40% local cost match is required of local project sponsors.
Eligibility	Political subdivisions
Examples	Projects that meet the goals and objectives of an approved integrated management plan or ground water management, projects that mitigate the threats to drinking water, improves water quality, contributes to water sustainability goals and water supply initiatives, reduces threats to property damage or critical infrastructure systems.
Additional Information	WSF applications are filed electronically between March 16th and 31st each year. The applications are typically reviewed during the second quarter with final determination made on each application during the third quarter. https://nrc.nebraska.gov/water-sustainability-fund-0

Nebraska Environmental Trust (NET)

NET Grants	
Description	The NET project will fund any project or portion of a project that achieves one or more of the trusts categories. These categories include habitat, surface and ground water, waste management, air quality, and soil management.
Funds Available	In 2024 the NET Board approved the NET Grants Committee's recommendation to fund 50 projects for a total of $20,452,886. Grants are funded through the proceeds of the Nebraska Lottery, which determines the amount available to applicants.
Eligibility	There are no restrictions on applicants or project sponsors as long as the project falls within the eligibility criteria. Individuals, private organizations, and public entities may apply. For-profit organizations must demonstrate that the project results in public benefit and does not pay for private benefits. See our eligibility criteria for more information.
Examples	Mobile Prescribed Burn Unit and Education Outreach, Increase Fire Capacity & Rangeland Impact - Sandhills, Early warning: Monitoring for agricultural pests and disease vectors in western Nebraska
Additional Information	The Nebraska Environmental Trust accepts grant applications annually. Applications open around July and are due on or before the first Tuesday after Labor Day in September. Applications need to be submitted through an online grant application portal located at the following address: https://environmentaltrustgrants.org/

Nebraska Forest Service

Fire Shop (FEPP Program)	
Description	Through a cooperative program with the U.S. Forest Service, the Nebraska Forest Service is able to acquire and recondition vehicles which have become excess to the needs of the federal government. These vehicles can be loaned to cooperating rural fire districts. When no longer needed, these vehicles must be returned to the Nebraska Forest Service.
Funds Available	Fire-Fighting Equipment. The Fire Shop can also provide fire districts resources for reducing vehicle maintenance costs and provide routine complimentary maintenance checks.
Eligibility	Cooperating Fire Districts
Examples	Pumpers, trucks, CUCVs, generators, floodlights.
Additional Information	https://nfs.unl.edu/fireshop

Forest Fuels Reduction	
Description	Thinning of dense forests and removal of ladder fuels (ground vegetation that allows a fire to spread into the tree canopy).
Funds Available	Nebraska Forest Service reimburses landowners up to 75% of the costs for tree removal, piling and pile burning (if necessary); remainder paid by landowner.
Eligibility	Eligible locations include Pine Ridge, Niobrara Valley, and Wildcat Hills. State and private forest landowners are eligible to apply.
Examples	Thinning of dense forests and removal of hazardous "ladder fuels" from beneath trees.
Additional Information	https://nfs.unl.edu/fuels-assistance

Hazardous Fuels Reduction	
Description	Thinning of dense forests and removal of ladder fuels (ground vegetation that allows a fire to spread into the tree canopy) from private or state land adjacent to United States Forest Service (USFS) property.
Funds Available	NFS reimburses the landowner up to 100 percent of the costs for tree removal, piling and burning (if necessary). No landowner cost on eligible properties.
Eligibility	Eligible Locations must be adjacent to USFS property in the Pine Ridge. Eligible Applicants are State and private forest landowners
Examples	Thinning of dense forests and removal of hazardous "ladder fuels" from beneath trees.
Additional Information	https://nfs.unl.edu/fuels-assistance

Nebraska Silver Jackets

Nebraska Silver Jackets	
Description	The Silver Jackets are collaborative state-led interagency teams, continuously working together to reduce flood risk at the state level. Through the Silver Jackets program, the U.S. Army Corps of Engineers, the Federal Emergency Management Agency, additional federal, state and sometimes local and Tribal agencies provide a unified approach to addressing a state's priorities. The Silver Jackets team is the forum where all relevant agencies come together with the state to collaboratively plan and implement that interagency solution. Through partnerships, Silver Jackets optimizes the multi-agency utilization of federal resources by leveraging state/ local/ Tribal resources, including data/information, talent and funding, and preventing duplication of effort.
Funds Available	Varies
Eligibility	Anyone impacted by flooding
Examples	Education and outreach, risk assessments, hydrologic studies
Additional Information	https://floods.nebraska.gov/

Alternative Funding Resources

In recent years, states and communities across the country have sought and developed innovative funding sources as alternatives to traditional government grant programs. These funding sources fall into three main categories: Local Funding Options, Public-Private Partnerships, and Private Foundations. These funding sources will be important for current and future hazard mitigation planning efforts for several reasons including:

- Difficulty receiving mitigation grant assistance programs at the federal and state level.

- Opportunities to fund projects that might not qualify or align with traditional grant and assistance programs. Funding programs seek solutions that reduce risk for a particular threshold (i.e., 1-percent flood) and meet absolute cost-benefit criteria that the agencies themselves must adhere to. Therefore, these programs are not able to support efforts that may help most of the time but don't meet these thresholds.

Local Funding Options

Local funding options are just what they sound like, using local funds for local mitigation projects. Local funds are also needed as the non-federal share or matching funds for federal grant programs but can also be used independently to fund a range of project types. Local funding options include the following:

Capital Improvement Programs

Ongoing civic improvements can include prioritized hazard mitigation projects or mitigation can be included as one aspect of a larger project. For example, improving the hydraulic capacity of a culvert or bridge to prevent upstream flooding while undertaking periodic replacements for end of service considerations is one example. Replacing windows in a school with shatter resistant glass as part of an overall renovation is another example. Capital improvement programs are generally funded with local tax revenues and municipal bonds.

Permits, Fees, and Developer Contributions

Communities can establish fees, earmark a portion of existing permit and fee structures, and/or establish requirements for developer contributions for new developments in hazard prone areas that can then be used to fund local mitigation projects. The proceeds can be accumulated in what is often referred to as a Mitigation Trust Fund and the uses are typically tied to specific project types or relationships with projects already identified in specific plans or documents such as a Hazard Mitigation Plan.

Force Account / In-Kind Services

Although there is a cost associated with activities of public employees, there are a wide range of activities that can be undertaken by local government staff and officials as well as interested parties on their behalf that would yield significant benefits. An example is public outreach and education for individual property owners, businesses, and institutions to reduce their risk through correspondingly inexpensive or essentially activities. This would include tapping into available educations resources, promoting individual action, etc.

Property Owners

For a project that directly benefits one or more specific properties, the property owner can be asked to contribute. Through the hazard identification and risk assessment process, property owners can become better aware of their risks and options. Owners that recognize they have a flooding problem may be willing to pay a portion of the cost. In recent years, property owners have voluntarily agreed to pay the non-federal share (up to 25 percent of the total project cost) for FEMA Hazard Mitigation Assistance grants in some states. In some cases, the owners have paid even higher percentages of the cost. In addition, after a flood, owners may have cash from insurance claims or disaster assistance that they will be using to repair their homes and properties. By including the right floodproofing and mitigation project components into the repairs, the resilience of the property to future flooding may be improved. Having property owners contribute to a project can help stretch available local funds and gives the property owner an enhanced stake in the outcome of the project and incentive to make sure the property is properly maintained.

Individual Participation

Although mitigation is ultimately intended to benefit individuals, hazard mitigation plans often neglect to integrate participation of potential beneficiaries into the process. The participation by individuals, including small business owners, is important for making sure the resulting hazard mitigation plan reflects community needs and priorities, but it also allows for the local or regional planning team to identify measures and options that individuals can take to reduce their own risk at a cost they can afford.

Public-Private Partnerships

Developing a public-private partnership is a phrase used frequently in a wide range of government programs, especially in the context of hazard mitigation. Participation of private sector organizations in solving their own hazard risk situations can be a low-cost and effective method. It also encompasses finding opportunities for public and private sector partners to share costs equitably for larger projects that require substantial funds to implement. Private sector businesses and organizations have their own cost-benefit calculations to perform but joint efforts may make the balance sheets work for both sides.

Private Foundations

Cultivating relationships with local, regional, or even national foundations with interests or missions consistent with hazard mitigation, community sustainability, extreme weather adaptation, and other related topics can yield successful results in terms of funding and other means of support.

There are many local foundations around the State of Nebraska, many of which fund programs that can be utilized for components of hazard mitigation projects. Many of these foundations only support non-profit organizations, so the applicability of these funds to projects depends upon the partners involved.

Appendix F: Guide to Review and Update the Hazard Mitigation Plan

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Introduction

Each participating jurisdiction in the hazard mitigation plan will be responsible for monitoring, evaluation, and updating the plan during its five-year lifespan. During the planning process, participants identified the position(s) that will be responsible for plan maintenance, the frequency of review, and how the public will be involved. This appendix will help guide the review and update process.

Profile Review Tracking

Date Reviewed	By Whom	Summary of Changes

Evaluate Your Local Planning Team

When reviewing the plan, the local planning team should reassess its composition and ask the following questions:

Have there been staffing changes that warrant inviting different members to the local planning team?

Yes☐ No☐

Comments/Proposed Action:

Are there organizations that have been invaluable to the planning process or to the project implementation that should be represented on the planning team?

Yes☐ No☐

Comments/Proposed Action:

Are there any representatives of essential departments/organizations who have not fully participated in the planning and implementation of actions? If so, can someone from that department/organization commit to the planning team?

Yes☐ No☐

Comments/Proposed Action:

Are there ways to better include the public? Yes☐ No☐

Comments/Proposed Action:

Revisit Hazard Prioritization

During the planning process, your jurisdiction was asked to prioritize hazards of top concern. When reviewing your profile, the local planning team should look at the hazards identified along with the associated write-up to ensure the information is still accurate. The table below will help track any changes to your hazard prioritization.

Steps	Questions	Yes	No	Comments
Prioritized Hazards	Have your prioritized hazards changed?			If yes, which hazards should be added/removed?
Hazard Write-Ups	Have any new events taken place?			
Hazard Write-Ups	Are there new high-risk populations, buildings, or infrastructure?			
Hazard Write-Ups	Do any of the write-ups need to be changed?			

Evaluating Mitigation and Strategic Actions

Updating and evaluating the mitigation and strategic actions identified in your profile is an important step in the review process. For each mitigation action identified, the lead agency identified on each action can provide an update by filling out the information listed below.

Project Name:

Does the project description need to be updated? Yes☐ No☐

Does the estimated cost need to be updated? Yes☐ No☐

Does the timeline need to be updated? Yes☐ No☐

Does the priority level need to be updated? Yes☐ No☐

Does the lead agency need to be changed? Yes☐ No☐

Was the project implemented?

If yes: What were the results?

If no:

- Why not?

- Was there political support for the actions/projects? Yes☐ No☐
- Were enough funds available? Yes☐ No☐
- Was new information discovered about the risks or community that made implementation difficult or no longer sensible? Yes☐ No☐
- Were sufficient resources (for example staff and technical assistance) available? Yes☐ No☐
- Is this project still needed? Yes☐ No☐

Identify New Mitigation and Strategic Actions

When reviewing your jurisdictional profile, you may determine that new mitigation actions are needed based on changes to hazard prioritization, local capabilities, or risk.

Are there new mitigation projects that need to be added to the plan? Yes☐ No☐

If yes, fill out a table for each new mitigation action.

Mitigation Action Name			
Description and Location			
Hazard(s) Addressed			
Estimated Cost			
Local Funding			
Timeline	1 Year	2-5 Years	5+ Years
Priority	High	Medium	Low
Lead Agency			
Status			

Mitigation Action Name			
Description and Location			
Hazard(s) Addressed			
Estimated Cost			
Local Funding			
Timeline	1 Year	2-5 Years	5+ Years
Priority	High	Medium	Low
Lead Agency			
Status			

Plan Updates

Most profile updates do not need to be sent to Nebraska Emergency Management Agency or FEMA. Changes to the local planning team, hazard prioritization, or updates to current mitigation actions can be tracked internally until the next full plan update.

However, if you are adding a new mitigation action, it will need to be sent to Nebraska Emergency Management Agency, so it can potentially be eligible for FEMA hazard mitigation grant funding. The template letter below can be used when notifying Nebraska Emergency Management Agency of an added mitigation action. Prior to sending the letter, notify the project sponsor so that the plan document can also be updated.

[Date]

Nebraska Emergency Management Agency
Hazard Mitigation Unit
2433 N.W. 24th Street
Lincoln, NE 68524

To Whom It May Concern:
The [your jurisdiction] requests the following mitigation action be added to the [hazard mitigation plan name]. This action will be added to *[location of your profile (section and profile title)]*, page [#] and is attached.

(Fill Out Table)

Mitigation Action Name	
Description	
Hazard(s) Addressed	
Estimated Cost	
Local Funding	
Timeline	
Priority	
Lead Agency	
Status	

For questions, I can be reached by email at [email address] or by phone at [phone number].

Sincerely,

[Name]
[Title]
[Jurisdiction]

Appendix G: Fremont Flood Risk Open House

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Flood Risk Open House 9
Outcome and Incorporation Into the Hazard Mitigation Plan 21

Introduction

This appendix provides an overview of the City of Fremont's Flood Risk Open House to receive additional CRS credit (Step 2 (b)) for the community. According to Step 2 (b) of the CRS Coordinator's Manual, 15 points can be gained "if one or more public information meetings is held in the affected areas(s) within the first two months of the planning process to obtain public input on the natural hazards, problems, and possible solution." This appendix provides information about the open house, and it meets the CRS requirements.

Flood Risk Open House Planning

As part of the ongoing Lower Platte North NRD Hazard Mitigation Plan that kicked off on March 26, 2024, the City of Fremont partnered with UNL's Community and Regional Planning program students and JEO Consulting Group Inc. to host a Flood Risk Open House. The purpose of the Flood Risk Open House was to educate residents on their flood risk and obtain input from the public on flood risks, problems, and possible solutions.

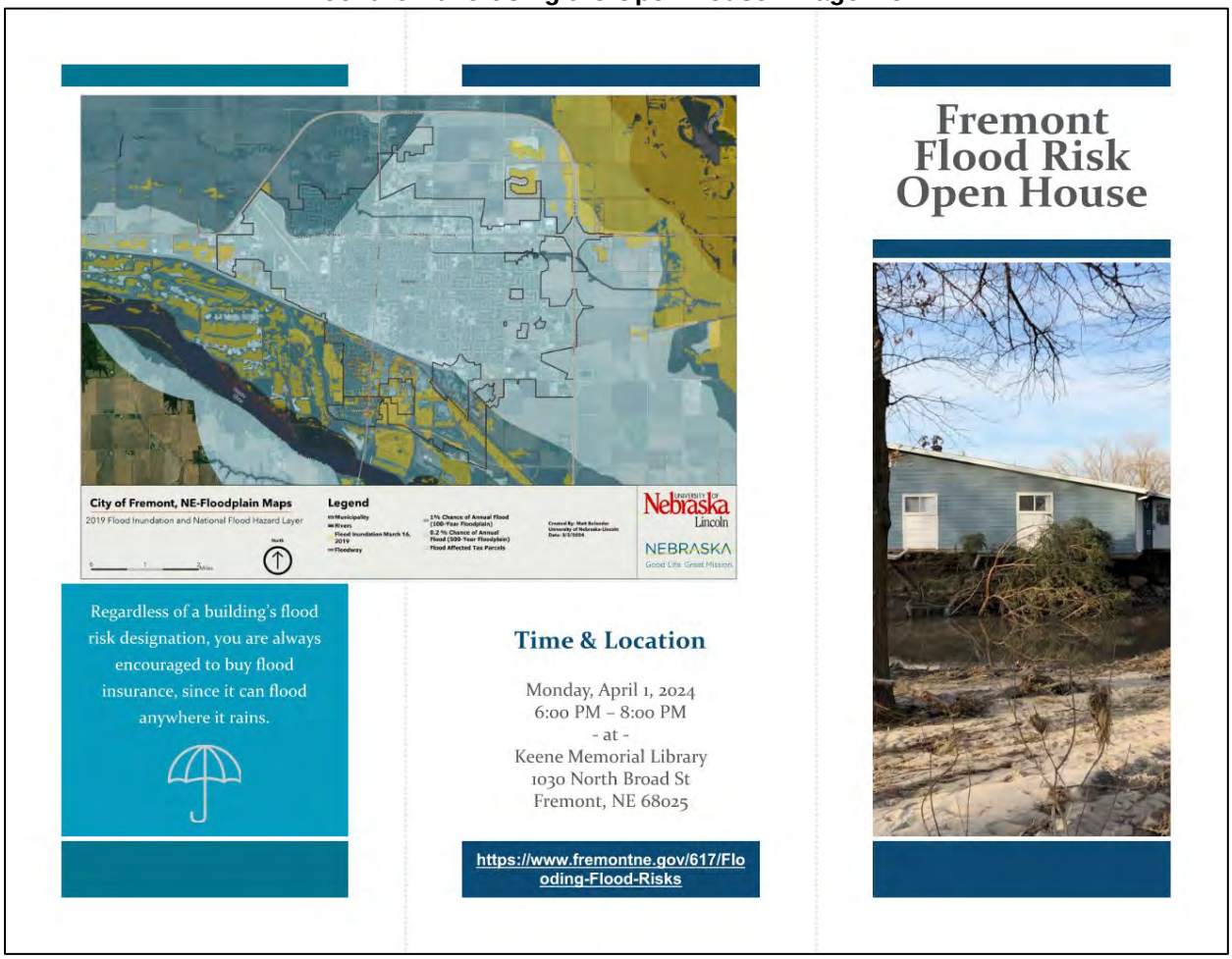
The City of Fremont met the UNL students and JEO Consulting Group Inc. several times during the open house planning process. During these meetings, it was decided that the open house would be held on April 1, 2024, from 6:00 pm to 8:00 pm at the Keene Memorial Library in Fremont. Initially, the open house was planned to be at a local school in a neighborhood located in the 100-year floodplain. However, due to ongoing construction at the school, the location was moved to the library. This open house was separate from regular meetings of the hazard mitigation plan and the city's governing body.

During the planning meetings, it was decided that the UNL students would create all the outreach and meeting materials and staff the open house. The City of Fremont and JEO Consulting Group Inc. would review materials and assist with community outreach. Fremont officials helping with the open house included the Floodplain Administrator, Planning Director, and City Engineer.

Community Outreach

Outreach about the Flood Risk Open House utilized several different channels. A brochure and flyer available in English and Spanish were posted at the Library. A newspaper article on the five-year anniversary of the 2019 floods included information about the open house. The City of Fremont and the Lower Platte North NRD made posts about the open house on their social media platforms. Finally, a few days before the event, the Fremont City Engineer went on the local radio to advertise the event. Provided below are examples of the various public outreach items listed above.

Brochure Advertising the Open House – Page 1 of 2



Brochure Advertising the Open House – Page 2 of 2



Why You Should Attend:

- Find your property on new flood maps and learn your flood risk.
- Get answers to your questions from UNL faculty and students along with other representatives.
- Learn about flood insurance from the experts.
- ***Light refreshments will be available!***

Flooding is the number one natural disaster in the United States; property owners need to understand their risk and take advantage of the tools and programs available to them, including flood insurance.

- A 100-year floodplain is an area of land that would be inundated during a 100-year flood event. A 100-year flood event is not a flood that occurs once every 100 years. Instead, it is a flood that has a 1% chance of occurring in any given year.
- Flood insurance and floodproofing your property are strongly recommended for anyone who lives or owns property in a floodplain.

Flood Insurance

- Flood insurance requirements for mortgages are based on the Flood Insurance Rate Maps (FIRM) that is in effect.
- Flood insurance is available through the National Flood Insurance Program (NFIP), a federally underwritten program. It can be bought through licensed insurance agents. For more information on flood insurance, visit the NFIP website, **www.FloodSmart.gov**.
- The NFIP provides flood insurance in more than 22,500 communities nationwide. Those communities have agreed to adopt and enforce sound floodplain management regulations.
- FEMA urges all residents and business owners to buy flood insurance to help protect their financial investments.
- Visit **https://www.fremontne.gov/617/Flooding-Flood-Risks** or **https://dnr.nebraska.gov/floodplain/interactive-maps** to learn more about floodplain zones.

Who Should Attend

- Residents within the floodplain
- Business owners within the floodplain

Spanish Flyer

¿Conoce su riesgo de inundación?

Obtenga más información en el foro público "Riesgo de inundación"

FREMONT, NEBRASKA, organizará una jornada publica para mostrar los nuevos mapas de inundaciones propuestos.

Si vive o hace negocios en FREMONT, su riesgo de inundación puede estar cambiando.

Conozca su riesgo de inundación y que significan los nuevos mapas de inundaciones para usted.

Riesgo de inundación Casa abierta:

LUNES 1 DE ABRIL de 6:00-800 P.M.
LA BIBLIOTECA KEENE MEMORIAL
1030 NORTH BROAD STREET
FREMONT, NE 68025

Los profesores y estudiantes de la UNL junto con representantes de Fremont estarán disponibles para responder a sus preguntas. No hay presentación formal, , puede llegar de acuerdo a su conveniencia.
¡Se proveerán refrigerios ligeros!

Para obtener más información sobre inundaciones y riesgo de inundaciones en Fremont, visité https://www.fremontne.gov/617/Flooding-Flood-Risks.

Fremont Newspaper Article Advertising the Open House – Page 1 of 3

https://fremonttribune.com/news/local/fremont-nebraska-flood-anniversary-events-preview/article_9bad8a5e-dfe9-11ee-b78c-c3313a97db66.html

ALERT FEATURED TOP STORY

Several Fremont area events recognize 5th anniversary of flood

Jeff Forward
Mar 12, 2024



Water covers a road near Valley, Nebraska, on Friday, March 15, 2019.
CHRIS MACHIAN, THE WORLD-HERALD

Jeff Forward



Fremont Newspaper Article Advertising the Open House – Page 2 of 3

As the fifth anniversary of the devastating spring floods of 2019 nears, several events are planned in Fremont to both remember the disaster and plan and prepare for future flooding events.

The 2019 floods were caused by a combination of factors that spring, including record amounts of snowfall in North Dakota and South Dakota, record low temperatures in the Upper Midwest that cause the ground to freeze followed by a quick warming-up to temperatures higher than 70 degrees Fahrenheit.

Then, heavy rains hit the region causing massive water runoff from quickly melting snow. Ice flows in local creeks and rivers cause blockages at many bridges and water — unable to be absorbed into the frozen soil, instead pooled. That natural phenomenon led to Fremont being encircled by water and essentially becoming an island for almost an entire week.

On Friday, March 15, a multi-faceted memorial event is being hosted by officials from the Fremont Area United Way and the Greater Dodge County Long Term Recovery Group. The event is scheduled to be hosted at Milady Coffeehouse to begin at 4 p.m., Friday, and continue into the evening.

People are also reading...

1 **Former Fremont Tiger Keegan Menning reflects on his Nebraska football career**

2 **Future of downtown Fremont Kavich Parking Garage uncertain**

3 **Dodge County Sheriff's Office announces results of special enforcement**

4 **Ahead of Memorial Stadium renovations, Nebraska AD Troy Dannen brings experience with facility improvements**

The memorial event will include food and beverages, as well as the playing of a remembrance video. According to a press release, there will be various speakers, including public officials and residents affected by the flooding. An unnamed

Fremont Newspaper Article Advertising the Open House – Page 3 of 3

musician will also do a memorial musical presentation.

In the press release, Christy Fiala, executive director of the FAUW, said that the celebration will be a "testament to the strength and resilience of our community to show how we come together and rebuild."

Another local event is scheduled for 6 to 8 p.m., Monday, April 1, at the Keene Memorial Library on North Broad Street. The event is a five-year anniversary flooding feedback and informational workshop with researchers from the University of Nebraska-Lincoln, as well as several state officials.

Dr. Zhengong Tang, from UNL, said he will be joined at the event by Jenny Mason from the Nebraska Department of Economic Development and Elijah Kaufman of the Nebraska Department of Natural Resources.

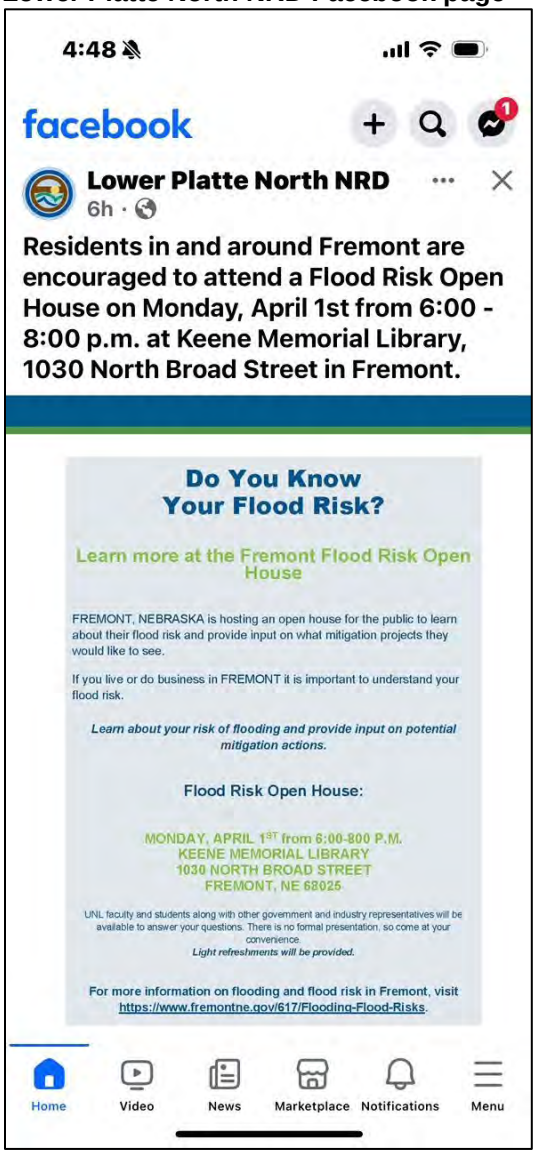
"The goal of the forum is to improve public awareness of the flood risk in that area and to seek good ideas in the area about flood mitigation," Tang said. "The flood did not just affect Fremont and Nebraska, it affected the whole nation with an impact on the supply chain. The whole (Fremont) community was isolated. The economy, the people's lives, everything was affected."

Taft said the flood was particularly hard on the Spanish-speaking residents of Fremont, as well as Guatemalan residents who speak the indigenous language of Ki-Che. Taft said those residents were unable to understand emergency messages and, because they make up a higher percentage of low-income families in the communities, had less ability to respond and escape the flood areas.

During the April 1 public open house, Taft said officials will discuss the flood from 2019, seek input and ideas from residents to improve flood mitigation efforts in Dodge County and also provide updates on other things related to the disaster, including efforts to rebuild infrastructure and help people financially recover.

The event is free, and open to the public.

Open Housing Advertisement on the Lower Platte North NRD Facebook page

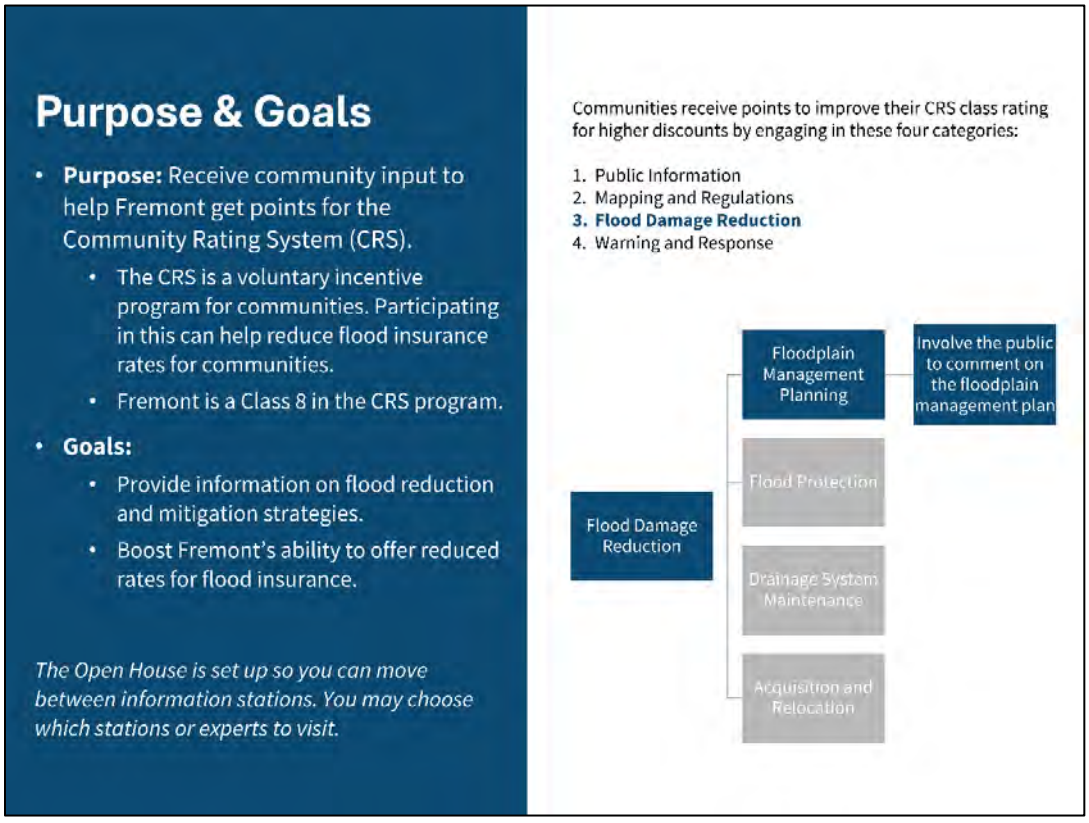


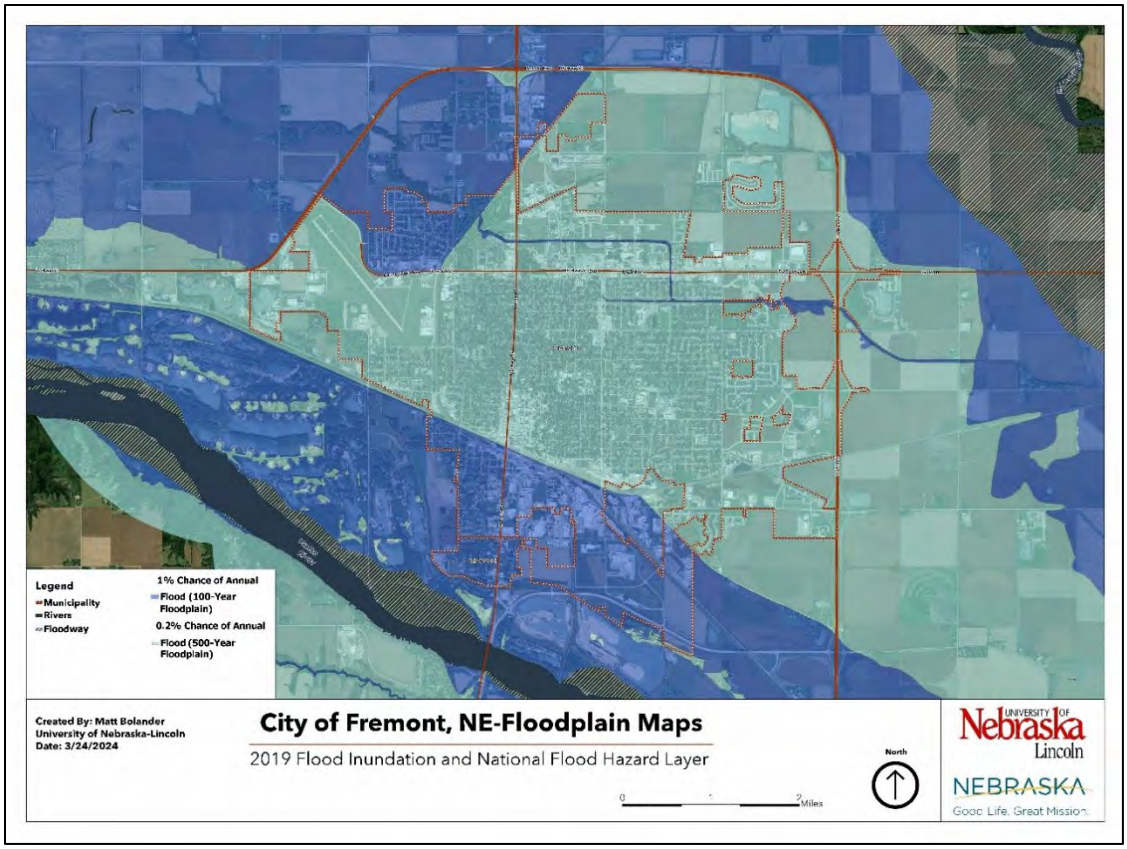
Flood Risk Open House

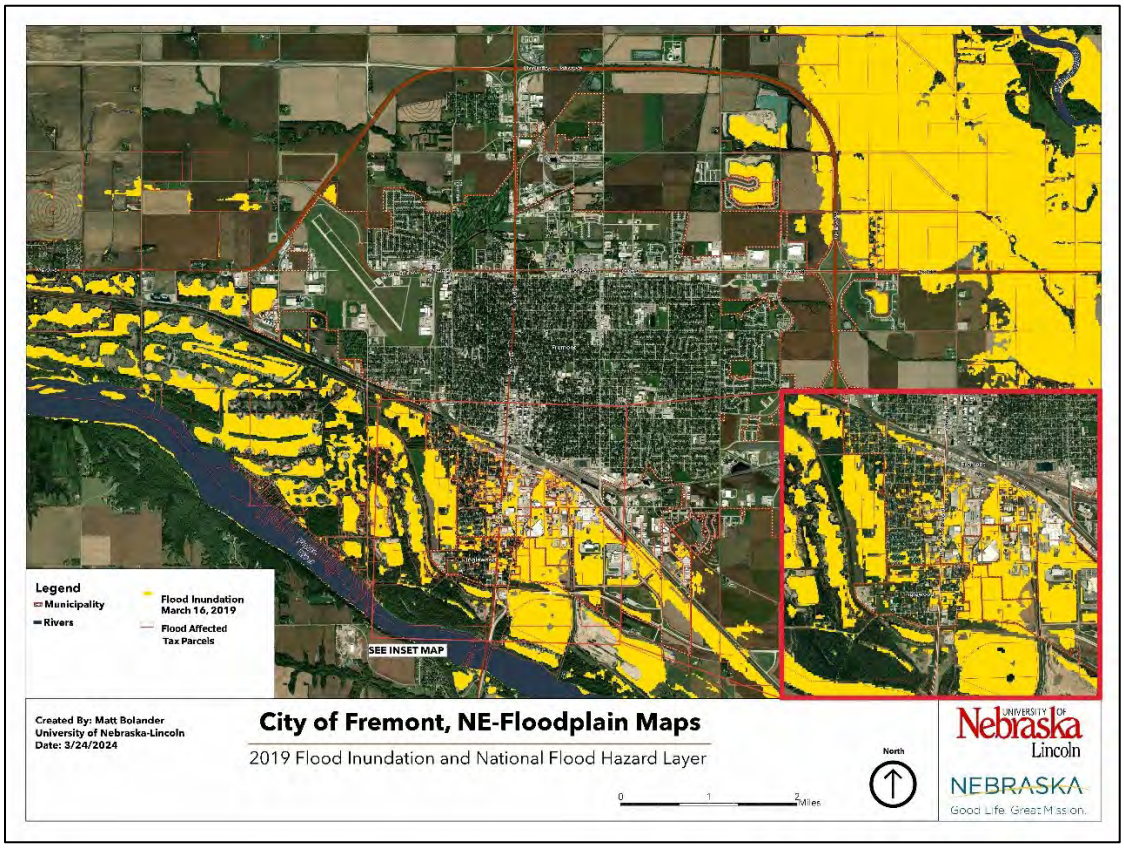
The Fremont Flood Risk Open House was held on April 1, 2024, from 6:00 pm to 8:00 pm at the Keene Memorial Library. Five stations with posters were set up in a half circle so that attendees could easily move from station to station. Each station included information ranging from educational floodplain maps, historical flood events, Fremont-specific housing and demographic information, and public input on possible mitigation actions. UNL students staffed stations and Fremont staff was available to answer questions. Also included at the open house were handouts, fact sheets, and a questionnaire to gather more input from the community. Copies of the station posters, handouts, fact sheets, and the questionnaire are included below.

Open House Station Posters



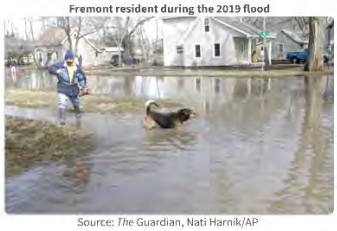



Legend
Municipality
Rivers
Floodway
1% Chance of Annual
Flood (100-Year Floodplain)
0.2% Chance of Annual
Flood (500-Year Floodplain)
Created By: Matt Bolander
University of Nebraska-Lincoln
Date: 3/24/2024
City of Fremont, NE-Floodplain Maps
2019 Flood Inundation and National Flood Hazard Layer
North
0
2
Miles
University of Nebraska Lincoln
NEBRASKA
Good Life. Great Mission.


Legend
Municipality
Rivers
Flood Inundation March 16, 2019
Flood Affected Tax Parcels
SEE INSET MAP
Created By: Matt Bolander
University of Nebraska-Lincoln
Date: 3/24/2024
City of Fremont, NE-Floodplain Maps
2019 Flood Inundation and National Flood Hazard Layer
North
0
1
3
Miles
University of Nebraska Lincoln
NEBRASKA
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Timeline of Major Flood Events in Fremont, NE

Fremont resident during the 2019 flood



Source: *The* Guardian, Nati Harnik/AP

Fremont road during the 2019 flood



Source: Dean Jacobs, *Fremont Tribune*

Fremont road during the 2019 flood



Source: Joel Reeves, *YouTube*

July 5, 2000

Heavy rainfall of 4-6 inches caused extensive flooding from North Bend to the Fremont area.

March 8-10, 2010

An ice jam around the North Bend area caused flooding of agricultural lowlands from North Bend to around Fremont. The ice jam broke loose on March 10th, which caused additional jamming and flooding around the Big Island area near Fremont. Six to ten people had to be evacuated by boat from the rising waters. Property damage was estimated at $75,000.

February 18, 2011

An ice jam near the Highway 77 bridge caused flooding that closed Ridge Road for a while, just southwest of Fremont. Damage was minimal.

Timeline of Major Flood Events in Fremont, NE

August 6, 2013

Rainfall from heavy thunderstorms created areas of street flooding across the city. Many intersections in town were underwater.

June 2016 flood in Fremont, NE



Courtesy: Crane Mullin/WOWT

March 2019

Water began overtopping the cutoff ditch near Highway 30, threatening northwest Fremont. Flood inundation model maps showed that this water had the potential to damage critical infrastructure, including the county's only hospital, the Fremont Airport, and 4 assisted living facilities. Fremont was most affected and saw widespread urban flooding, especially in the east. Nearly 1,000 Fremont homes flooded.

June 2016

A flash flood from heavy rains caused low land flooding. Around seven inches fell in the City of Fremont, threatening the county hospital, airport, and severe assisted living facilities.

March 2019 flood in Fremont, NE



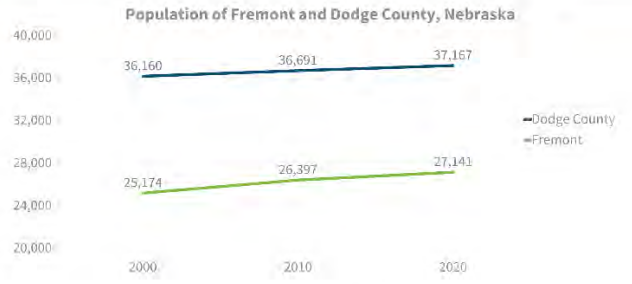
What flood mitigation strategies should be implemented in Fremont? Use green dots if you prefer and red dots if you do not prefer.

Fremont and Dodge County are already pursuing certain flood mitigation actions. For more information see the associated handouts.

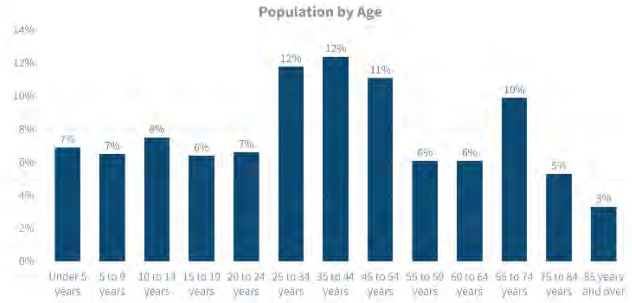
Improve physical infrastructure. E.g.: levees, dams.	Improve stormwater drainage in the city.	Promote nonstructural alternatives. E.g.: retrofitting, utility mitigation, land acquisition.	Update local planning & zoning design standards and building codes.
Encourage the purchasing of flood insurance.	Preserve the natural open space in the floodplain.	Improve emergency management capacity (e.g.: warning systems, notification, emergency exercises).	Increase education on flood risks, preparation, and mitigation strategies.

Fremont in a Snapshot: Population

- Between 2000 and 2020, Fremont has grown by 7.81%
- Fremont accounts for about 73% of Dodge County's population, making it the most populous municipality in the county.

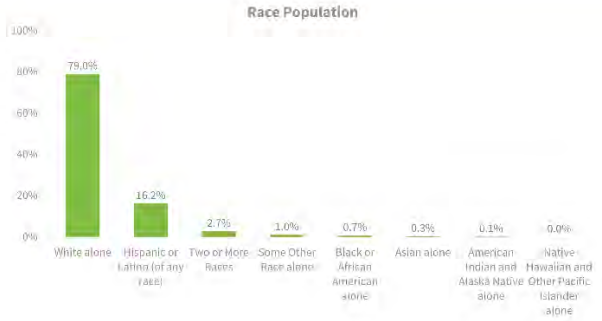


- The median age for residents is 37.9 years old.
- Almost a quarter of the population is under 18 years of age, and about 19% of the population is 65 and over.



Fremont in a Snapshot: Population and Income

Racial Population	
White	21,515
Hispanic or Latino (of any race)	4,422
Two or More Races	722
Some Other Race	272
Black or African American	187
Asian	93
American Indian and Alaska Native	19
Native Hawaiian and Other Pacific Islander	0

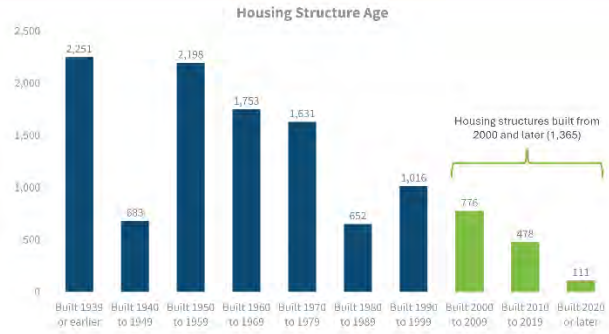


- The median household income is $62,226
- About 3,782 households included Social Security as a part of their income
- 1,116 households have included food stamps or SNAP benefits in their income



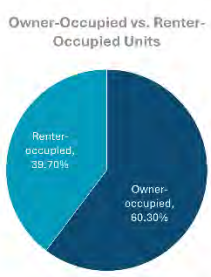
Fremont in a Snapshot: Housing

- There are a total of 11,549 housing structures; of those, 10,184 (88%) were built before the year 2000
- Median value for owner-occupied units is $174,000; $897 for renter-occupied units
- 640 households do not have an available vehicle

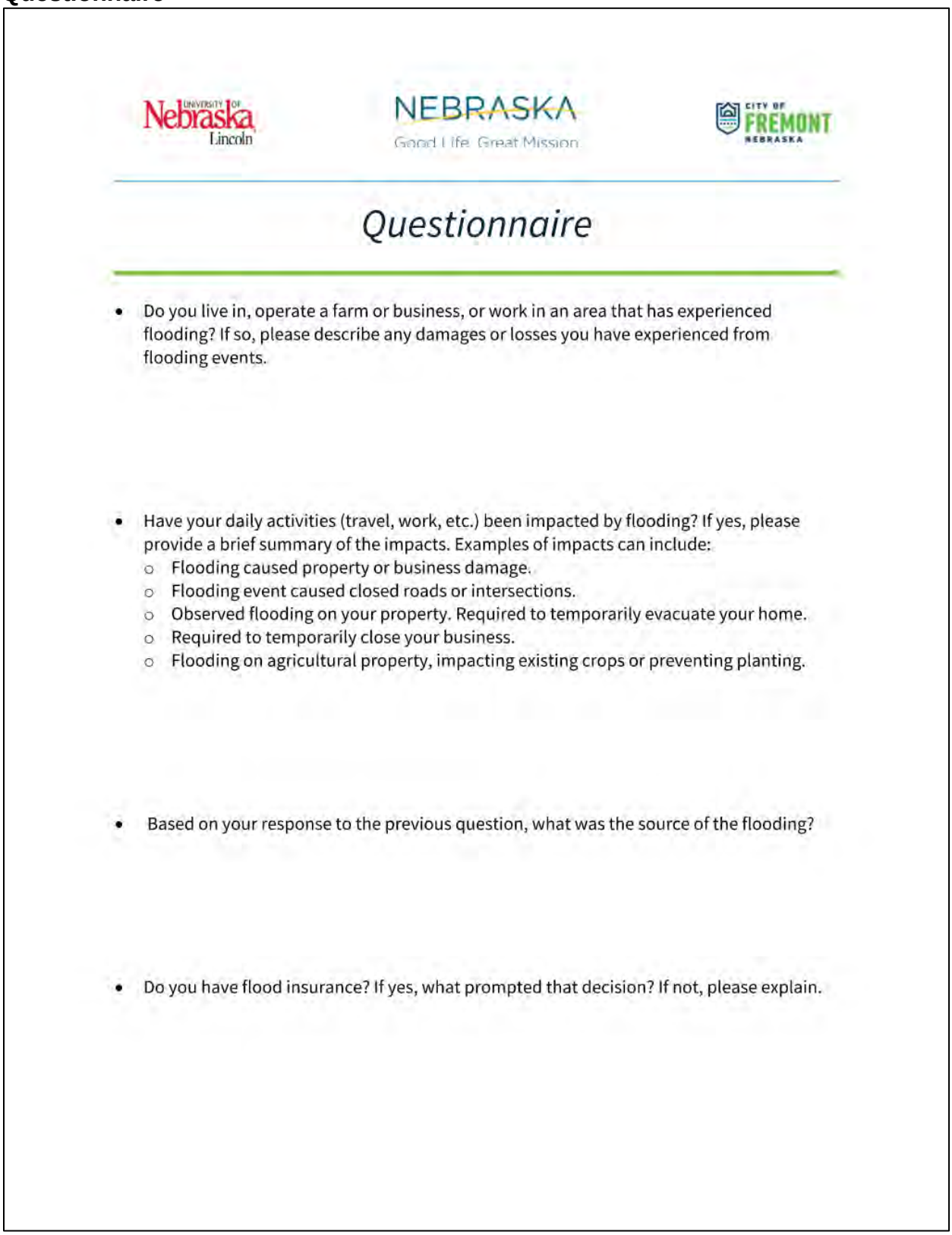








Questionnaire



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Questionnaire

- Do you live in, operate a farm or business, or work in an area that has experienced flooding? If so, please describe any damages or losses you have experienced from flooding events.

- Have your daily activities (travel, work, etc.) been impacted by flooding? If yes, please provide a brief summary of the impacts. Examples of impacts can include:
  - Flooding caused property or business damage.
  - Flooding event caused closed roads or intersections.
  - Observed flooding on your property. Required to temporarily evacuate your home.
  - Required to temporarily close your business.
  - Flooding on agricultural property, impacting existing crops or preventing planting.

- Based on your response to the previous question, what was the source of the flooding?

- Do you have flood insurance? If yes, what prompted that decision? If not, please explain.

- Please describe steps you have taken to reduce the impact of flooding on your property.

- Are there locations where you've seen flooding in the past? (road closures, parks, etc.)

- Please share any additional comments, experiences, or concerns below:

Fact Sheet

Fact Sheet

Words to Know

- Flood Watch: A message that flooding is possible and to listen to local radio or TV news and weather for more information. You may receive an alert on a cell phone.
- Flood Warning: A message that flooding will occur soon, if it hasn't already, and to move to higher ground or evacuate immediately.
- Flash Flood: A flood that can happen within minutes or hours of heavy rainfall, a dam or levee failure, or city drains overflowing.
- Levee/Dam: A manmade structure to contain or prevent water from moving past a certain point.

What is the flood insurance program?

- Flood insurance requirements for mortgages are based on the Flood Insurance Rate Maps (FIRM) that is in effect.
- Flood insurance is available through the National Flood Insurance Program (NFIP), a federally underwritten program. It can be bought through licensed insurance agents. For more information on flood insurance, visit the NFIP website, **www.FloodSmart.gov**.
- The NFIP provides flood insurance in more than 22,500 communities nationwide. Those communities have agreed to adopt and enforce sound floodplain management regulations.
- FEMA urges all residents and business owners to buy flood insurance to help protect their financial investments.
- Visit **https://www.fremontne.gov/617/Flooding-Flood-Risks** or **https://dnr.nebraska.gov/floodplain/interactive-maps** to learn more about floodplain zones.

What is a 100-year floodplain?

- A 100-year floodplain is an area of land that would be inundated during a 100-year flood event. A 100-year flood event is not a flood that occurs once every 100 years. Instead, it is a flood that has a 1% chance of occurring in any given year. Flood

insurance and floodproofing your property are strongly recommended for anyone who lives or owns property in a floodplain.

What is the Community Rating System?

- The Community Rating System (CRS) is a voluntary incentive program that recognizes and encourages community floodplain management practices that exceed the minimum requirements of the National Flood Insurance Program (NFIP).
- In CRS communities, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community's efforts that address the three goals of the program:
    - Reduce and avoid flood damage to insurable property.
    - Strengthen and support the insurance aspects of NFIP.
    - Foster comprehensive floodplain management.
- More information on CRS can be found at: https://www.fema.gov/floodplain-management/community-rating-system.

Quick Facts on Flood Events:

- Floods result from rain, snow, coastal storms, storm surges, and overflows of dams and other water systems.
- They develop slowly or quickly. Flash floods can come with no warning.
- Flooding can cause outages, disrupt transportation, damage buildings, and create landslides.

Flood Project Examples Handout

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Flood Mitigation Projects Across Nebraska

Grand Island, NE – The city of Grand Island and surrounding communities show the impact of community connections between local, county, and state agencies to take an all-hands approach to hazard mitigation efforts in this case flood resiliency. These efforts are taken on projects that span the region and are multilayered in their approach to flood risk management from dams and levees to city and county-led flood resilience programs such as flood water detention areas.

- Mitigation doesn't have to be a solo effort.
- Project sharing and mitigation efforts can be spread out through numerous state partners.
- Mitigation has the potential to reduce the need for flood insurance and save individuals money.



Flood waters diverted to parks rather than streets and properties.

Beatrice, NE – The City of Beatrice's approach to mitigation focuses on community-established prioritization that has saved the city millions of dollars in potential loss through their approach of redevelopment and resident-led investments. Taking on a now 40-plus-year community initiative to prioritize mitigation efforts through proactive response as opposed to reactive can show communities throughout the state the value of early investment from the everyday citizen level. Beatrice leads the state for mitigation prevention due to community buy-in.

- Mitigation effects everyone in the community.
- Prevention avoids costly repairs and damages personally and throughout the community.
- Citizen-led engagement can bring change to the community for the positive.

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CITY OF FREMONT NEBRASKA



Antelope Valley (Lincoln) – Within the heart of Lincoln, the Antelope Valley project provides the value of large-scale urban investment in flood mitigation efforts while adding and addressing the value of aesthetics, economic revitalization, housing expansion, transportation, and recreation opportunities. Flood mitigation efforts in the urban core which could have resulted in millions of dollars in lost damages, infrastructure loss, and immobility are all now reduced showing the impact of how when you invest in mitigation the results are often unseen due to effectiveness.

- For every $1 spent for mitigation, $6 in potential loss is saved according to FEMA.
- Mitigation can bring value through aesthetics, recreation opportunities, and urban revitalization.
- Successful mitigation efforts can be multifunctional.



Outcome and Incorporation Into the Hazard Mitigation Plan

There were 16 attendees at the open house. Most attendees were representatives from the City of Fremont, Lower Platte North NRD, or Dodge County. Three residents attended the meeting. The city hoped that additional residents would attend the open house; however, those who did attend actively participated by asking questions and providing feedback. Stormwater drainage was their primary concern, especially on roadways throughout the community. These concerns were passed along to the City of Fremont and helped to confirm issues the city was aware of and actively looking to improve. Within the City of Fremont's profile, they have identified several projects to improve stormwater drainage. These projects include the following.

- Ditch 4D and 4B Improvements and Diversion
- Drainage Improvements
- Channel/Ditch Improvements
- Morningside Road Ditch Improvements and Detention
- Rawhide Creek Improvements
- Storm Sewer Cleaning
- Storm Sewer Master Plan Projects

Below are meeting photos, the sign-in sheet, and a copy of a completed questionnaire.

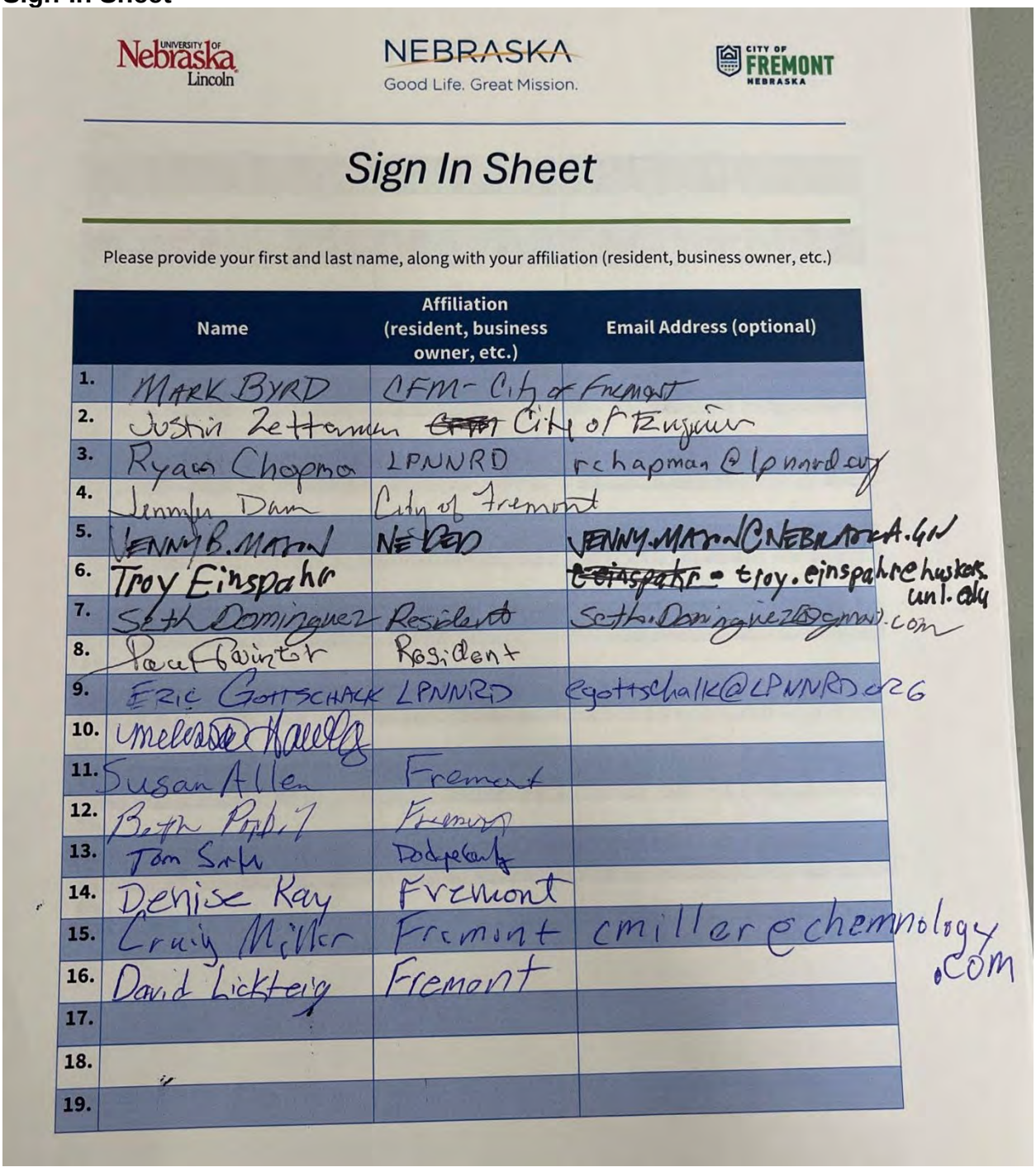
Meeting Photos







Sign-In Sheet



University of Nebraska Lincoln

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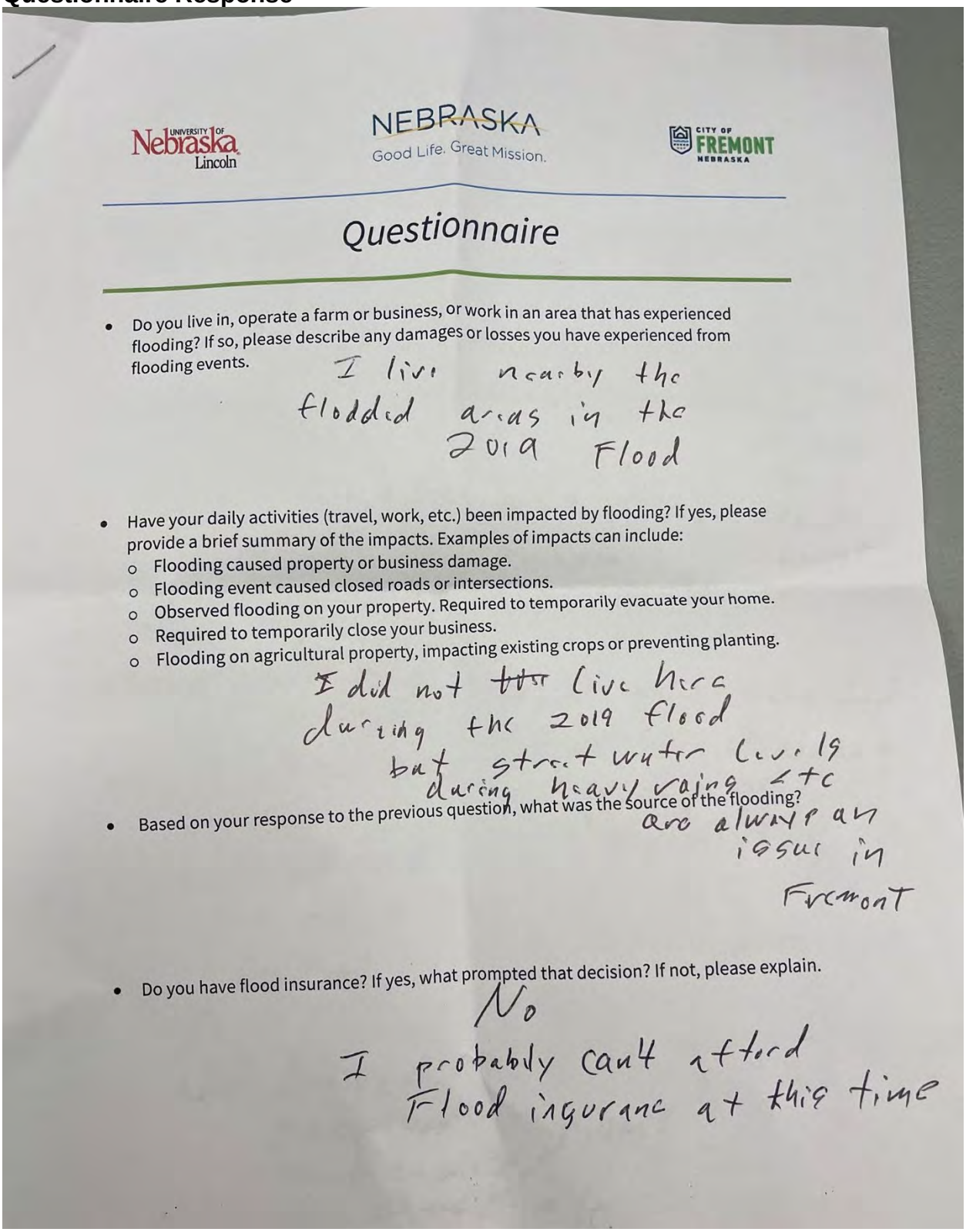
CITY OF FREMONT NEBRASKA

Sign In Sheet

Please provide your first and last name, along with your affiliation (resident, business owner, etc.)

	Name	Affiliation (resident, business owner, etc.)	Email Address (optional)
1.	MARK BYRD	CFM - City of Fremont	
2.	Justin Zettaman	City of Fremont	
3.	Ryan Chapman	LPNNRD	rchapman@lpnrd.org
4.	Jennifer Dam	City of Fremont	
5.	JENNY B. MASON	NEMA	JENNY.MASON@NEBRASKA.GOV
6.	Troy Einspahr		troy.einspahr@huskers.unl.edu
7.	Seth Dominguez	Resident	seth.dominguez@gmail.com
8.	Paul Painter	Resident	
9.	ERIC GOTTSCHALK	LPNNRD	egottschalk@LPNNRD.org
10.	Melissa Hall		
11.	Susan Allen	Fremont	
12.	Beth Pohl	Fremont	
13.	Tom Sahs	Dodge Co.	
14.	Denise Kay	Fremont	
15.	Craig Miller	Fremont	cmiller@chemnology.com
16.	David Lickteig	Fremont	
17.			
18.			
19.			

Questionnaire Response



University of Nebraska Lincoln

NEBRASKA
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City of Fremont Nebraska

Questionnaire

- Do you live in, operate a farm or business, or work in an area that has experienced flooding? If so, please describe any damages or losses you have experienced from flooding events.

  I live nearby the flodded areas in the 2019 Flood

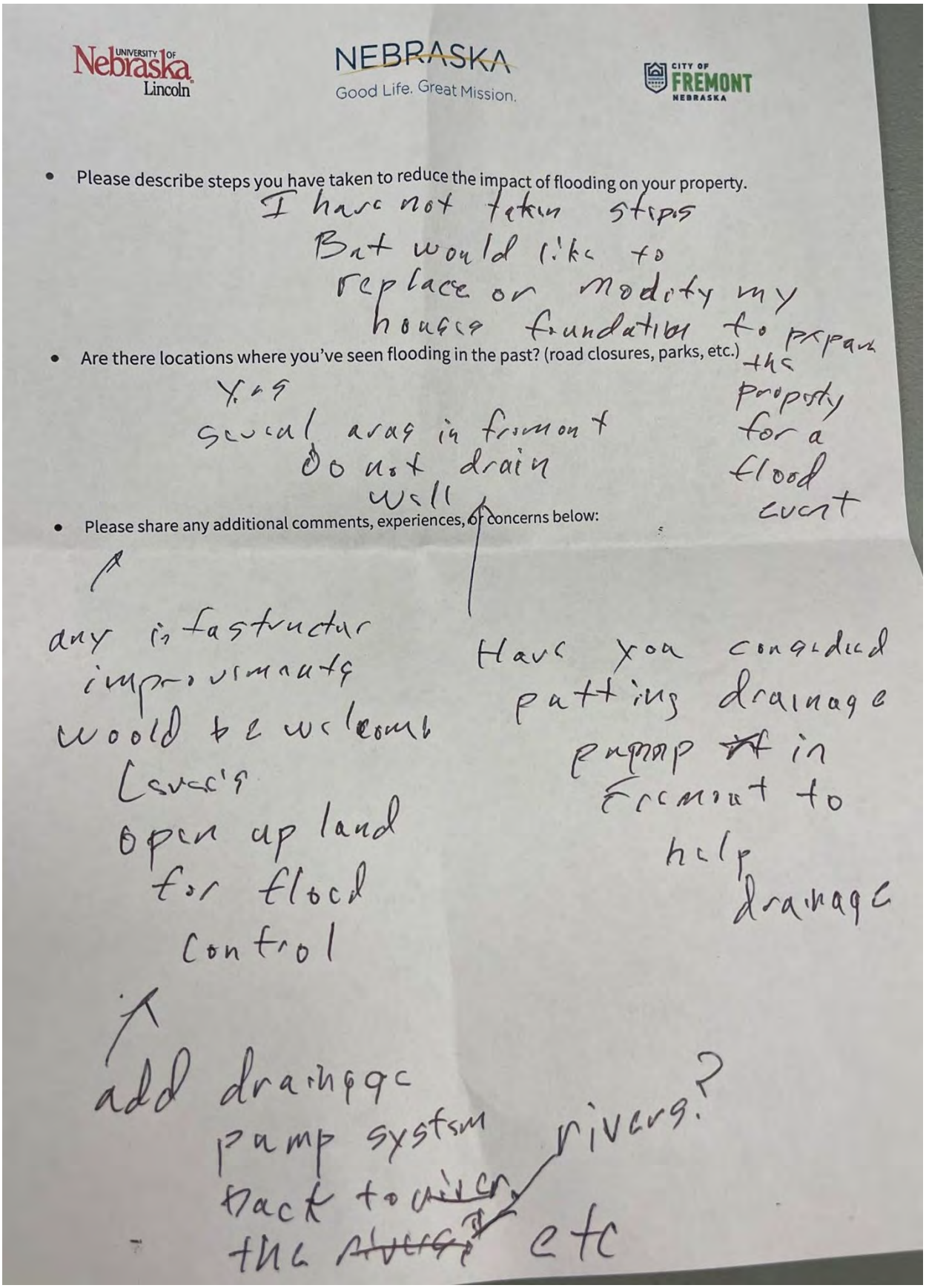
- Have your daily activities (travel, work, etc.) been impacted by flooding? If yes, please provide a brief summary of the impacts. Examples of impacts can include:
  - Flooding caused property or business damage.
  - Flooding event caused closed roads or intersections.
  - Observed flooding on your property. Required to temporarily evacuate your home.
  - Required to temporarily close your business.
  - Flooding on agricultural property, impacting existing crops or preventing planting.

  I did not ~~the~~ live here during the 2019 flood but street water levels during heavy rains etc are always an issue in Fremont

- Based on your response to the previous question, what was the source of the flooding?

- Do you have flood insurance? If yes, what prompted that decision? If not, please explain.

  No
  I probably can't afford Flood insurance at this time



University of Nebraska Lincoln

NEBRASKA
Good Life. Great Mission.

CITY OF FREMONT NEBRASKA

- Please describe steps you have taken to reduce the impact of flooding on your property.

I have not taken steps But would like to replace or modify my houses foundation to prepare the property for a flood event

- Are there locations where you've seen flooding in the past? (road closures, parks, etc.)

Yes several areas in fremont do not drain well

- Please share any additional comments, experiences, or concerns below:

any infastructur improvments would be welcomb Levee's open up land for flood control

Have you considered putting drainage pumps ~~at~~ in Fremont to help drainage

add drainage pump system back to ~~river~~ rivers? the ~~rivers~~? etc

RESOLUTION NUMBER 25-26

WHEREAS, the Federal Disaster Mitigation Act of 2000 was signed in to law on October 30, 2000, placing new emphasis on state and local mitigation planning for natural hazards and requiring communities to adopt a hazard mitigation action plan to be eligible for pre-disaster and post-disaster federal funding for mitigation purposes; and

WHEREAS, a Multi-Jurisdictional Hazard Mitigation Plan was prepared by the Lower Platte North Natural Resources District, with assistance from JEO Consulting Group, Inc.

WHEREAS, the purpose of the mitigation plan was to lessen the effects of disasters by increasing the disaster resistance of the counties and participating jurisdictions located within the planning boundary by identifying the hazards that affect David City Public Schools and prioritize mitigation strategies to reduce potential loss of life and property damage from those hazards, and

WHEREAS, FEMA regulations require documentation that the plan has been formally adopted by the governing body of David City Public Schools in the form of a resolution and further requesting approval of the plan at the Federal Level; and

NOW, THEREFORE, the governing body of David City Public Schools does herewith adopt the most recent and FEMA approved version of the Lower Platte North NRD Hazard Mitigation Plan in its entirety; and

PASSED AND APPROVED this 14th day of January, 2026.

_____

President of the Board

ATTEST:

_____

Secretary of the Board

TEACHER'S CONTRACT

THIS CONTRACT is made by and between the Board of Education of Butler County School District 0056, a/k/a David City Public Schools ("District") and **Emily Neujahr** ("Teacher") and supersedes any prior contract between the parties. The Board of Education agrees to employ the Teacher and the Teacher accepts such employment as follows:

School Year: School Year begins on or about **August 3, 2026**, and ends on or about **May 20, 2027**, subject to Board modification.

Days of Service: Teacher shall be employed for 186 days of service, subject to terms of the negotiated agreement unless otherwise agreed in writing by both parties.

Full Time Equivalency: Teacher shall be employed for a full-time equivalency (FTE) of **1.00.**

Salary Schedule Placement: Teacher's salary schedule placement is subject to final terms of the negotiated agreement for the applicable contract year between the Board and the bargaining unit representing the certificated employees of the District. The Teacher's salary schedule placement and other terms of employment for the **2026-2027** contract year may be set forth on an Annual Supplemental Renewal Form to be executed subsequent to this Teacher's Contract.

FIRST: Salary. The salary of the Teacher shall be payable in twelve (12) equal installments. The first installment shall be payable on the **20th day of September, 2026**, and the remaining installments shall be payable on same day of each month thereafter. Terms and conditions set forth in this agreement shall be subject to such wages and conditions of employment as may be mutually agreed upon by and between the Board and teachers or a duly recognized collective bargaining agent for said teachers, and said agreement, when reduced to writing, and executed by the parties, shall be deemed to be included herein by reference and shall become a part hereof. This contract shall conform to the regulations governing deductions with reference to Withholding Tax, Social Security and Teacher Retirement. Other deductions may be withheld as agreed to by the parties to this contract. Upon termination of this contract by the Board or the Teacher, the compensation shall be an amount which bears the same ratio to the yearly salary herein specified as the number of days of service to the date of such termination bears to the number of days of service in the applicable contract year. Any unearned fractional portion of an installment paid but not earned prior to termination of the contract shall be refunded by the Teacher.

SECOND: Duties. The Teacher hereby agrees to be governed by the policies of the Board of Education of the District. The duties to be performed by the Teacher shall be subject to assignment by the Superintendent or the Board. Days of service may be adjusted from year to year by the Board. The Teacher further agrees to devote full time during days of school to the Teacher's position and in all respects to diligently and faithfully perform the assigned duties to the best of the Teacher's professional ability. Regular dependable in-person attendance is an essential function of the Teacher's position.

THIRD: Extra Duty Assignments. In addition to the normal duties traditionally required of certificated employees, the Teacher may be assigned "extra duty" assignments by the District. Such assignments shall be upon such terms and conditions and at such additional rate of compensation as the Teacher and the District may agree upon; provided, that the Teacher shall not unreasonably refuse to accept such assignments. Duty assignments which do not require a teaching or administrative certificate are on an at-will basis, shall be subject to removal without cause and shall not be subject to continuation or renewal as part of this Teacher's Contract.

FOURTH: Contract Termination. To the extent this Contract is subject to the continuing contract statutes, this Contract may be amended, cancelled or terminated subject to required procedures in the event the Teacher violates any of the provisions of this Contract, or performs any act or does anything which is materially harmful to the employer, or which substantially inhibits the Teacher's ability to discharge the duties as set forth herein, including, but not limited to (1) failing to become qualified, or becoming legally disqualified, to teach in the State of Nebraska in Teacher's assigned area; (2) participation in any fraud; (3) causing any intentional damage to property; (4) engaging in any unlawful act as may be outlined in Board Policy and the Teacher Handbook; (5) just cause, including: (a) incompetency, which includes, but is not limited to, demonstrated deficiencies or shortcomings

in knowledge of subject matter or teaching or administrative skills; (b) neglect of duty; (c) unprofessional conduct; (d) insubordination; (e) immorality; (f) physical or mental incapacity; (g) failure to give evidence of professional growth as required by law; or (h) other conduct which interferes substantially with the continued performance of duties. Non-renewal, suspension or other disciplinary action may be enforced in accordance with applicable law. This Contract and assignments, to the extent they are not subject to the continuing contract statutes, are terminable at will without cause or hearing.

FIFTH: Legal Requirements. The Teacher affirms that: (1) Teacher holds or will hold a valid and appropriate certificate to act as a certificated employee in the State of Nebraska to perform the assigned duties throughout the term of this Contract and any extensions of this Contract; (2) the required certificate to perform the assigned duties shall be registered as required by law; it being understood and agreed that this contract is not valid until the required certificate is registered in accordance with law and that the Teacher shall not be compensated for services performed prior to the date of registration of this certificate; (3) Teacher is not under contract with another board of education within the State of Nebraska covering any part of or all of the same time of performance as provided for in this Contract and (4) there shall be no penalty for release or resignation by Teacher from this Contract; provided no resignation shall become effective until expiration of the remaining term of the Contract unless the Board fixes an earlier effective date. This Contract is subject to provisions of the School Teachers Retirement Act. The Teacher further warrants and represents as follows: (1) all information set forth in the Teacher's application for employment and other information provided by the Teacher in seeking employment are true and accurate, and if said information ceases to be true, Teacher will advise the Superintendent immediately; (2) Teacher has never been convicted or plead no contest or otherwise been adjudicated as having committed a felony, any other offense involving moral turpitude or any other offense involving abuse, neglect, or sexual misconduct as defined in Sections 003.12 through 003.14 of 92 NAC 21; and (3) Teacher has not suffered suspension or revocation of any educational professional license or certificate, nor voluntarily surrendered such a license or certificate where charges or potential charges were pending or imminent. If this is an initial contract with the District, it is conditional upon receipt of a satisfactory criminal background and child abuse registry check.

SIXTH: Renewal. Hereafter, this contract may be continued by a separate, annual written "Renewal Agreement" which shall incorporate all the provisions hereof by reference except as stated on such Renewal Agreement. Renewal Agreements must be executed by the Teacher and delivered to the Superintendent of Schools or the Secretary of the Board of Education of the District within fifteen calendar days of receipt thereof from the District. Said Renewal Agreement shall not be required to be signed by the Teacher prior to March 15. Failure to return the Renewal Agreement or an intent card by the required date shall constitute grounds for termination.

Executed this 19th day of December, 2025	Executed this 14th day of January, 2026
_____ Emily Neujahr	Board of Education of Butler County School District 0056, a/k/a David City Public Schools By:_____ Board President Attest: _____ Board Secretary

Please return by Mon Dec 22, 2025

MA+18 Step 3: $55,965; two years of previous experience
Asst HS Softball: 7.5%; $3228.75
Other extra duty assignments possible

emily.neujahr4@gmail.com
402-910-9014

TEACHER'S CONTRACT

THIS CONTRACT is made by and between the Board of Education of Butler County School District 0056, a/k/a David City Public Schools ("District") and **Jared Engel** ("Teacher") and supersedes any prior contract between the parties. The Board of Education agrees to employ the Teacher and the Teacher accepts such employment as follows:

School Year: School Year begins on or about **August 3, 2026**, and ends on or about **May 20, 2027**, subject to Board modification.

Days of Service: Teacher shall be employed for 186 days of service, subject to terms of the negotiated agreement unless otherwise agreed in writing by both parties.

Full Time Equivalency: Teacher shall be employed for a full-time equivalency (FTE) of **1.00.**

Salary Schedule Placement: Teacher's salary schedule placement is subject to final terms of the negotiated agreement for the applicable contract year between the Board and the bargaining unit representing the certificated employees of the District. The Teacher's salary schedule placement and other terms of employment for the **2026-2027** contract year may be set forth on an Annual Supplemental Renewal Form to be executed subsequent to this Teacher's Contract.

FIRST: Salary. The salary of the Teacher shall be payable in twelve (12) equal installments. The first installment shall be payable on the **20th day of September, 2026**, and the remaining installments shall be payable on same day of each month thereafter. Terms and conditions set forth in this agreement shall be subject to such wages and conditions of employment as may be mutually agreed upon by and between the Board and teachers or a duly recognized collective bargaining agent for said teachers, and said agreement, when reduced to writing, and executed by the parties, shall be deemed to be included herein by reference and shall become a part hereof. This contract shall conform to the regulations governing deductions with reference to Withholding Tax, Social Security and Teacher Retirement. Other deductions may be withheld as agreed to by the parties to this contract. Upon termination of this contract by the Board or the Teacher, the compensation shall be an amount which bears the same ratio to the yearly salary herein specified as the number of days of service to the date of such termination bears to the number of days of service in the applicable contract year. Any unearned fractional portion of an installment paid but not earned prior to termination of the contract shall be refunded by the Teacher.

SECOND: Duties. The Teacher hereby agrees to be governed by the policies of the Board of Education of the District. The duties to be performed by the Teacher shall be subject to assignment by the Superintendent or the Board. Days of service may be adjusted from year to year by the Board. The Teacher further agrees to devote full time during days of school to the Teacher's position and in all respects to diligently and faithfully perform the assigned duties to the best of the Teacher's professional ability. Regular dependable in-person attendance is an essential function of the Teacher's position.

THIRD: Extra Duty Assignments. In addition to the normal duties traditionally required of certificated employees, the Teacher may be assigned "extra duty" assignments by the District. Such assignments shall be upon such terms and conditions and at such additional rate of compensation as the Teacher and the District may agree upon; provided, that the Teacher shall not unreasonably refuse to accept such assignments. Duty assignments which do not require a teaching or administrative certificate are on an at-will basis, shall be subject to removal without cause and shall not be subject to continuation or renewal as part of this Teacher's Contract.

FOURTH: Contract Termination. To the extent this Contract is subject to the continuing contract statutes, this Contract may be amended, cancelled or terminated subject to required procedures in the event the Teacher violates any of the provisions of this Contract, or performs any act or does anything which is materially harmful to the employer, or which substantially inhibits the Teacher's ability to discharge the duties as set forth herein, including, but not limited to (1) failing to become qualified, or becoming legally disqualified, to teach in the State of Nebraska in Teacher's assigned area; (2) participation in any fraud; (3) causing any intentional damage to property; (4) engaging in any unlawful act as may be outlined in Board Policy and the Teacher Handbook; (5) just cause, including: (a) incompetency, which includes, but is not limited to, demonstrated deficiencies or shortcomings

in knowledge of subject matter or teaching or administrative skills; (b) neglect of duty; (c) unprofessional conduct; (d) insubordination; (e) immorality; (f) physical or mental incapacity; (g) failure to give evidence of professional growth as required by law; or (h) other conduct which interferes substantially with the continued performance of duties. Non-renewal, suspension or other disciplinary action may be enforced in accordance with applicable law. This Contract and assignments, to the extent they are not subject to the continuing contract statutes, are terminable at will without cause or hearing.

FIFTH: Legal Requirements. The Teacher affirms that: (1) Teacher holds or will hold a valid and appropriate certificate to act as a certificated employee in the State of Nebraska to perform the assigned duties throughout the term of this Contract and any extensions of this Contract; (2) the required certificate to perform the assigned duties shall be registered as required by law; it being understood and agreed that this contract is not valid until the required certificate is registered in accordance with law and that the Teacher shall not be compensated for services performed prior to the date of registration of this certificate; (3) Teacher is not under contract with another board of education within the State of Nebraska covering any part of or all of the same time of performance as provided for in this Contract and (4) there shall be no penalty for release or resignation by Teacher from this Contract; provided no resignation shall become effective until expiration of the remaining term of the Contract unless the Board fixes an earlier effective date. This Contract is subject to provisions of the School Teachers Retirement Act. The Teacher further warrants and represents as follows: (1) all information set forth in the Teacher's application for employment and other information provided by the Teacher in seeking employment are true and accurate, and if said information ceases to be true, Teacher will advise the Superintendent immediately; (2) Teacher has never been convicted or plead no contest or otherwise been adjudicated as having committed a felony, any other offense involving moral turpitude or any other offense involving abuse, neglect, or sexual misconduct as defined in Sections 003.12 through 003.14 of 92 NAC 21; and (3) Teacher has not suffered suspension or revocation of any educational professional license or certificate, nor voluntarily surrendered such a license or certificate where charges or potential charges were pending or imminent. If this is an initial contract with the District, it is conditional upon receipt of a satisfactory criminal background and child abuse registry check.

SIXTH: Renewal. Hereafter, this contract may be continued by a separate, annual written "Renewal Agreement" which shall incorporate all the provisions hereof by reference except as stated on such Renewal Agreement. Renewal Agreements must be executed by the Teacher and delivered to the Superintendent of Schools or the Secretary of the Board of Education of the District within fifteen calendar days of receipt thereof from the District. Said Renewal Agreement shall not be required to be signed by the Teacher prior to March 15. Failure to return the Renewal Agreement or an intent card by the required date shall constitute grounds for termination.

Executed this 16th day of December, 2025	Executed this 14th day of January, 2026
_____ Jared Engel	Board of Education of Butler County School District 0056, a/k/a David City Public Schools By:_____ Board President Attest: _____ Board Secretary

Please return by Wed Dec 16, 2025

BA+0 Step 1: $43,050; no previous experience
Asst HS Wrestling: 7.5%; $3228.75
Other extra duty assignments possible

jengel2018@yahoo.com
402-366-2120

TEACHER'S CONTRACT

THIS CONTRACT is made by and between the Board of Education of Butler County School District 0056, a/k/a David City Public Schools ("District") and **Andra Pracheil** ("Teacher") and supersedes any prior contract between the parties. The Board of Education agrees to employ the Teacher and the Teacher accepts such employment as follows:

School Year: School Year begins on or about **August 3, 2026**, and ends on or about **May 20, 2027**, subject to Board modification.

Days of Service: Teacher shall be employed for 186 days of service, subject to terms of the negotiated agreement unless otherwise agreed in writing by both parties.

Full Time Equivalency: Teacher shall be employed for a full-time equivalency (FTE) of **1.00.**

Salary Schedule Placement: Teacher's salary schedule placement is subject to final terms of the negotiated agreement for the applicable contract year between the Board and the bargaining unit representing the certificated employees of the District. The Teacher's salary schedule placement and other terms of employment for the **2026-2027** contract year may be set forth on an Annual Supplemental Renewal Form to be executed subsequent to this Teacher's Contract.

FIRST: Salary. The salary of the Teacher shall be payable in twelve (12) equal installments. The first installment shall be payable on the **20th day of September, 2026**, and the remaining installments shall be payable on same day of each month thereafter. Terms and conditions set forth in this agreement shall be subject to such wages and conditions of employment as may be mutually agreed upon by and between the Board and teachers or a duly recognized collective bargaining agent for said teachers, and said agreement, when reduced to writing, and executed by the parties, shall be deemed to be included herein by reference and shall become a part hereof. This contract shall conform to the regulations governing deductions with reference to Withholding Tax, Social Security and Teacher Retirement. Other deductions may be withheld as agreed to by the parties to this contract. Upon termination of this contract by the Board or the Teacher, the compensation shall be an amount which bears the same ratio to the yearly salary herein specified as the number of days of service to the date of such termination bears to the number of days of service in the applicable contract year. Any unearned fractional portion of an installment paid but not earned prior to termination of the contract shall be refunded by the Teacher.

SECOND: Duties. The Teacher hereby agrees to be governed by the policies of the Board of Education of the District. The duties to be performed by the Teacher shall be subject to assignment by the Superintendent or the Board. Days of service may be adjusted from year to year by the Board. The Teacher further agrees to devote full time during days of school to the Teacher's position and in all respects to diligently and faithfully perform the assigned duties to the best of the Teacher's professional ability. Regular dependable in-person attendance is an essential function of the Teacher's position.

THIRD: Extra Duty Assignments. In addition to the normal duties traditionally required of certificated employees, the Teacher may be assigned "extra duty" assignments by the District. Such assignments shall be upon such terms and conditions and at such additional rate of compensation as the Teacher and the District may agree upon; provided, that the Teacher shall not unreasonably refuse to accept such assignments. Duty assignments which do not require a teaching or administrative certificate are on an at-will basis, shall be subject to removal without cause and shall not be subject to continuation or renewal as part of this Teacher's Contract.

FOURTH: Contract Termination. To the extent this Contract is subject to the continuing contract statutes, this Contract may be amended, cancelled or terminated subject to required procedures in the event the Teacher violates any of the provisions of this Contract, or performs any act or does anything which is materially harmful to the employer, or which substantially inhibits the Teacher's ability to discharge the duties as set forth herein, including, but not limited to (1) failing to become qualified, or becoming legally disqualified, to teach in the State of Nebraska in Teacher's assigned area; (2) participation in any fraud; (3) causing any intentional damage to property; (4) engaging in any unlawful act as may be outlined in Board Policy and the Teacher Handbook; (5) just cause, including: (a) incompetency, which includes, but is not limited to, demonstrated deficiencies or shortcomings

in knowledge of subject matter or teaching or administrative skills; (b) neglect of duty; (c) unprofessional conduct; (d) insubordination; (e) immorality; (f) physical or mental incapacity; (g) failure to give evidence of professional growth as required by law; or (h) other conduct which interferes substantially with the continued performance of duties. Non-renewal, suspension or other disciplinary action may be enforced in accordance with applicable law. This Contract and assignments, to the extent they are not subject to the continuing contract statutes, are terminable at will without cause or hearing.

FIFTH: Legal Requirements. The Teacher affirms that: (1) Teacher holds or will hold a valid and appropriate certificate to act as a certificated employee in the State of Nebraska to perform the assigned duties throughout the term of this Contract and any extensions of this Contract; (2) the required certificate to perform the assigned duties shall be registered as required by law; it being understood and agreed that this contract is not valid until the required certificate is registered in accordance with law and that the Teacher shall not be compensated for services performed prior to the date of registration of this certificate; (3) Teacher is not under contract with another board of education within the State of Nebraska covering any part of or all of the same time of performance as provided for in this Contract and (4) there shall be no penalty for release or resignation by Teacher from this Contract; provided no resignation shall become effective until expiration of the remaining term of the Contract unless the Board fixes an earlier effective date. This Contract is subject to provisions of the School Teachers Retirement Act. The Teacher further warrants and represents as follows: (1) all information set forth in the Teacher's application for employment and other information provided by the Teacher in seeking employment are true and accurate, and if said information ceases to be true, Teacher will advise the Superintendent immediately; (2) Teacher has never been convicted or plead no contest or otherwise been adjudicated as having committed a felony, any other offense involving moral turpitude or any other offense involving abuse, neglect, or sexual misconduct as defined in Sections 003.12 through 003.14 of 92 NAC 21; and (3) Teacher has not suffered suspension or revocation of any educational professional license or certificate, nor voluntarily surrendered such a license or certificate where charges or potential charges were pending or imminent. If this is an initial contract with the District, it is conditional upon receipt of a satisfactory criminal background and child abuse registry check.

SIXTH: Renewal. Hereafter, this contract may be continued by a separate, annual written "Renewal Agreement" which shall incorporate all the provisions hereof by reference except as stated on such Renewal Agreement. Renewal Agreements must be executed by the Teacher and delivered to the Superintendent of Schools or the Secretary of the Board of Education of the District within fifteen calendar days of receipt thereof from the District. Said Renewal Agreement shall not be required to be signed by the Teacher prior to March 15. Failure to return the Renewal Agreement or an intent card by the required date shall constitute grounds for termination.

Executed this 16th day of December, 2025	Executed this 14th day of January, 2026
_____ Andra Pracheil	Board of Education of Butler County School District 0056, a/k/a David City Public Schools By:_____ Board President Attest: _____ Board Secretary

Please return by Wed Dec 16, 2025

BA+0 Step 9 (frozen): $53,382; fifteen years previous experience
No extra duty assignments at this time

andra.pracheil@schuylercommunityschools.org
402-270-5694