



KIMBALL PUBLIC SCHOOLS
Administration Offices
901 South Nadine Street
Kimball, NE 69145

AGENDA

The following is the agenda for the meeting of the Board of Education to be held on Monday, August 8, 2022, at 6:30 PM in the Kimball County Transit Service Meeting Room, 233 South Chestnut Street, Kimball, Nebraska 69145

1. Pledge of Allegiance
2. Call meeting to order (Open Meeting Law announcement)
3. "The Mission of Kimball Public Schools is to educate every student for a lifetime of success."
4. Roll Call
5. Excuse the Absence of Board Member
6. Approval of Agenda
7. Read and Approval of Minutes: Regular Board Meeting July 11, 2022
8. Reading and Approval of Board Bills
9. Treasurer's Report
10. Administrator's Reports
11. Superintendent's Report
12. Presentation: Jacob Hurla - Community Building Solutions
13. Recognition of Visitors - Public Comment (Policy 202.05)
14. Action Items:
 - 14.A. Discuss, consider, and take all necessary action in regard to appoint Jennifer Griebel to the Kimball Public School Board to fill the board vacancy
 - 14.B. Board of Education Reorganization: Election of Vice-President
 - 14.C. Discuss, consider and take all necessary action with regard to approval of resolution for adoption of the South Platte NRD Multi-Jurisdictional Hazard Mitigation Plan Update
 - 14.D. Discuss, consider and take all necessary action with regard to approval of amended VALTS agreement
 - 14.E. Discuss, consider, and take all necessary action in regard to approval of updated 2022-2023 fees.
 - 14.F. Discuss, consider and take all necessary action with regard to review of board policies: 505.07
15. Discussion Items:
 - 15.A. Discussion Item #1: NASB Area Membership Conference - August 29 in Gering
 - 15.B. Discussion Item #2: Kimball Public Schools Bank Accounts
16. Next Meeting(s)/Opportunities:
 - 16.A. Board Budget Work Session: Wednesday, August 31, 2022 at 6:30 p.m. in the Meeting Room at the Kimball County Transit Service, 233 South Chestnut Street, Kimball, Nebraska
 - 16.B. Tax Request Hearing : Monday, September 12, 2022 immediately following the Budget Hearing starting at 6:00 PM in the Meeting Room at the Kimball County Transit Service, 233 South Chestnut Street, Kimball, Nebraska

- 16.C. Regular Board Meeting: Monday, September 12, 2022 immediately following the Tax Request and Budget Hearing starting at 6:00 PM in the Meeting Room at the Kimball County Transit Service, 233 South Chestnut Street, Kimball, Nebraska
- 16.D. Budget Hearing: Monday, September 12, 2022 at 6:00 p.m. in the Meeting Room at the Kimball County Transit Service, 233 South Chestnut Street, Kimball, Nebraska
17. Motion to Adjourn

NOTICES:

COPY OF OPEN MEETINGS ACT: The Board of Education makes available at least one current copy of the Open Meetings Act posted in the meeting room at a location accessible to members of the public. The Act is posted on the south wall of the meeting room.

KIMBALL PUBLIC SCHOOLS MISSION STATEMENT: “The Mission of Kimball Public Schools is to educate every student for a lifetime of success.”

NOTICE OF MEETING: Notice of the meeting was published according to Board Policy.

INSTRUCTIONS FOR THOSE WHO WISH TO SPEAK DURING PUBLIC FORUM:

Getting Started: When it is your turn to speak during the public forum portion of the agenda, please come forward to the podium situated next to the Board, sign your name and information on the sign-in sheet. Any member of the public desiring to address the board shall be required to identify himself or herself, including address and the name of any organization represented by such person unless the address requirement is waived to protect the security of the individual

Time Limit: You may speak only one time and must limit comments to 5 minutes or less. Public Forum will not exceed 30 minutes.

Personnel or Student Topic: If you are planning to speak about a personnel or student matter involving an individual, please understand that our policies require such concerns initially be directed to the administration for consideration. Board members will generally not respond to any questions you ask or comments you may make about individual staff members or students. You are cautioned that slanderous comments are not protected just because they are made at a Board meeting.

General Rules: Please remember this is a public meeting for the conduct of the business of the Board of Education. Offensive language, personal attacks and hostile conduct will not be tolerated.

CLOSED SESSIONS: Kimball Public Schools Board of Education reserves the right to go into closed session in accordance with Nebraska Statute 84-1410.

BY: KIMBALL PUBLIC SCHOOLS

A meeting of the Board of Education of Kimball Public Schools was convened in open and public session on Monday, July 11, 2022 at 6:30 PM in the Kimball County Transit Service Meeting Room, 233 South Chestnut Street, Kimball, Nebraska 69145.

A notice of the meeting was given in advance by publication and/or posting in accordance with the Board approved method for giving notice of meetings. Notice of this meeting was given in advance to all members of the Board of Education. The secretary for the Board maintains a list of the news media, of the time and place of the meeting and the subject to be discussed at the meeting. Availability of the agenda was communicated in the publicized notice. All proceedings of the Board of Education except as may be hereinafter noted were taken while the convened meeting was open to the attendance of the public.

The Pledge of Allegiance was stated by all present.

Present: Travis Cook, Albert Hargreaves, Lanny Little, Matthew Shoup, **Absent:** Tom O'Brien, Chauncey Pedersen.

The meeting was called to order by President Travis Cook at 6:30 p.m. At the beginning of this meeting the President announced and informed the public that a current copy of the Open Meetings Act is posted on the wall of the meeting room and directed the public to its location. Board Member Little read the mission statement of Kimball Public Schools.

The roll was called and the following Board members were present or absent. Motion was made by Albert Hargreaves, seconded by Lanny Little to excuse the absence of O'Brien and Pedersen. After discussion and upon roll call vote, the Board voted as follows:

Tom O'Brien:	Absent
Chauncey Pedersen:	Absent
Travis Cook:	Aye
Albert Hargreaves:	Aye
Lanny Little:	Aye
Matthew Shoup:	Aye

Motion was made by Matthew Shoup, seconded by Lanny Little to approve the agenda. After discussion and upon roll call vote, the Board voted as follows:

Tom O'Brien:	Absent
Chauncey Pedersen:	Absent
Travis Cook:	Aye
Albert Hargreaves:	Aye
Lanny Little:	Aye
Matthew Shoup:	Aye

Motion was made by Matthew Shoup, seconded by Albert Hargreaves to approve the minutes from June 13, 2022. After discussion and upon roll call vote, the Board voted as follows:

Tom O'Brien:	Absent
Chauncey Pedersen:	Absent
Travis Cook:	Aye
Albert Hargreaves:	Aye
Lanny Little:	Aye

Matthew Shoup: Aye

Motion was made by Lanny Little, seconded by Albert Hargreaves to approve the current bill.

After discussion and upon roll call vote, the Board voted as follows:

Tom O'Brien: Absent

Chauncey Pedersen: Absent

Travis Cook: Aye

Albert Hargreaves: Aye

Lanny Little: Aye

Matthew Shoup: Aye

Kimball Public Schools
BOARD REPORT OF EXPENDITURES
7/11/2022

60700	CARD SERVICES	\$	17,374.18
	PREPAID		\$ 17,374.18

REGULAR MONTHLY EXPENSES

60718	BERGANKDV, LTD	225.00
60719	BLACK HILLS ENERGY	512.68
60720	CAPITAL BUSINESS SYSTEMS, INC.	1,445.47
60721	CENGAGE LEARNING	1,168.65
60722	CENTURY LINK BUSINESS SERVICES	276.44
60723	CITY OF KIMBALL	10,991.53
60725	CULLIGAN	69.95
60726	DAS STATE ACCOUNTING - CENTRAL	259.49
60727	E3 DIAGNOSTICS	210.00
60728	ECOLAB PEST ELIMINATION DIVISION	119.92
60729	EDUCATION SERVICE UNIT #2 (ESU2)	660.00
60731	ESU COORDINATING COUNCIL	372.00
60732	FRENCHMAN VALLEY COOP	0.00
60733	GIBBS SMITH, PUBLISHER	178.04
60734	GOVCONNECTION, INC.	4,646.28

60735	GRANITE TELECOMMUNICATIONS	839.93
60736	HOMETOWN HARDWARE	96.43
60737	IDEAL/BLUFFS FACILITY SOLUTIONS	212.34
60738	INNOVATIVE OFFICE SOLUTIONS LLC	593.06
60739	KIDWELL	400.00
60740	KIMBALL ACE HARDWARE	366.08
60741	KIMBALL PUBLIC SCHOOLS	1,688.56
60742	LAQUINTA INN & SUITES KEARNEY	278.00
60743	MENARDS - SCOTTSBLUFF	189.95
60744	MONUMENT CLEANING COMPANY	3,332.50
60745	NE COLORADO CELLULAR, INC	142.41
60746	NEBRASKA ASSOCIATION OF SCHOOL	170.00
60747	NMC-CAT RENTAL SERVICES	2,940.13
60748	NORBERG AUTOMOTIVE AND DIESEL, INC	2,910.90
60749	ONE SOURCE	220.00
60750	PANHANDLE AUTOMOTIVE GROUP, LLC	708.76
60751	PANHANDLE COOP ASSOCIATION	142.65
60752	PERRY, GUTHERY, HAASE & GESSFO	525.00
60753	REALLY GOOD STUFF, LLC	67.95
60754	S & S WORLDWIDE	148.25
60755	SCHOOL DATEBOOKS	378.05
60756	SCHOOL SPECIALTY INC.	106.32
60757	STP AUTO SERVICE	16.00
60758	VERIZON WIRELESS	105.74
60759	VOYAGER FLEET SYSTEMS, INC.	292.87
60760	WESTERN NEBRASKA OBSERVER	224.97
General Fund		
	\$	38,232.30
60724	COMMUNITY BUILDING SOLUTIONS	178,537.00
60730	ESU #13	30,268.56

GENERAL FUND TOTAL		\$264,412.04
6028	CASHWADIST	2,966.39
6029	HILANDDAIR	733.45
6030	USFOODSGRA	834.74
NUTRITION FUND TOTAL		\$4,534.58
1509	COMMUNITY BUILDING SOLUTIONS	552,278.00
1510	KIMBALL RANCH AND CONSTRUCTION	16,180.00
Building Fund Total		\$ 568,458.00
TOTAL MONTHLY BILLS		\$ 837,404.62

Motion was made by Matthew Shoup, seconded by Albert Hargreaves to approve the Treasurer's Report. After discussion and upon roll call vote, the Board voted as follows:

Tom O'Brien: Absent
 Chauncey Pedersen: Absent
 Travis Cook: Aye
 Albert Hargreaves: Aye
 Lanny Little: Aye
 Matthew Shoup: Aye

July 11, 2022

Treasurer's report is as follows:	Jul-22	Jul-21
Amount received from County Treasurer	489,294.39	348,931.19

Bank Balance	June 30, 2022	144,725.65	147,641.06
Savings Account General Funds	June 30, 2022	2,874,385.46	2,581,805.58
Depreciation Fund	June 30, 2022	162,463.41	261,442.03
Building Fund	June 30, 2022	2,629,610.90	644,270.55
Nutrition Fund	June 30, 2022	121,367.61	88,237.84
Activity Fund	June 30, 2022	111,048.90	50,452.38
Total Available Funds		6,043,601.93	3,773,849.44
Payroll Gross		293,910.59	274,304.63
Amount of Bills		837,404.62	188,975.48
Blue Cross Blue Shield/HSA Pmt/UNUM Life		70,670.53	67,630.61
Nebraska School Retirement		28,270.91	25,007.20
FirsTier Bank (FICA)		21,732.74	20,373.37
Total Amount of Expenses		1,251,989.39	576,291.29
Balance Remaining after Expenses		4,791,612.54	3,197,558.15

The Board reviewed the written report of Mr. Trevor Anderson, superintendent.

Motion was made by Matthew Shoup, seconded by Travis Cook to approve the district handbooks as presented for the 2022-23 school year. After discussion and upon roll call vote, the Board voted as follows:

Tom O'Brien: Absent
 Chauncey Pedersen: Absent
 Travis Cook: Aye
 Albert Hargreaves: Aye
 Lanny Little: Aye
 Matthew Shoup: Aye

Motion was made by Lanny Little, seconded by Albert Hargreaves to approve the Beyond Textbooks quote for the 2022-23 school year. After discussion and upon roll call vote, the Board voted as follows:

Tom O'Brien: Absent
 Chauncey Pedersen: Absent
 Travis Cook: Aye
 Albert Hargreaves: Aye
 Lanny Little: Aye

Matthew Shoup: Aye

Motion was made by Lanny Little, seconded by Travis Cook to approve the engagement letter from Rauner & Associates for the 2021-2022 audit. After discussion and upon roll call vote, the Board voted as follows:

Tom O'Brien: Absent

Chauncey Pedersen: Absent

Travis Cook: Aye

Albert Hargreaves: Aye

Lanny Little: Aye

Matthew Shoup: Aye

Motion was made by Albert Hargreaves, seconded by Lanny Little to approve copier and print services lease agreement with Capital Business Systems, Inc. not to exceed \$88,293.34 for the 48-month term. After discussion and upon roll call vote, the Board voted as follows:

Tom O'Brien: Absent

Chauncey Pedersen: Absent

Travis Cook: Aye

Albert Hargreaves: Aye

Lanny Little: Aye

Matthew Shoup: Aye

Motion was made by Albert Hargreaves, seconded by Matthew Shoup to approve the quote from Thomas Built Buses. After discussion and upon roll call vote, the Board voted as follows:

Tom O'Brien: Absent

Chauncey Pedersen: Absent

Travis Cook: Aye

Albert Hargreaves: Aye

Lanny Little: Aye

Matthew Shoup: Aye

Motion was made by Matthew Shoup, seconded by Albert Hargreaves to approve the surplus property as presented. After discussion and upon roll call vote, the Board voted as follows:

Tom O'Brien: Absent

Chauncey Pedersen: Absent

Travis Cook: Aye

Albert Hargreaves: Aye

Lanny Little: Aye

Matthew Shoup: Aye

Motion was made by Albert Hargreaves, seconded by Matthew Shoup to approve board policies: 504.07, 504.09, 504.10, 504.11, and 504.12 as reviewed. After discussion and upon roll call vote, the Board voted as follows:

Tom O'Brien: Absent

Chauncey Pedersen: Absent

Travis Cook: Aye

Albert Hargreaves: Aye

Lanny Little: Aye

Matthew Shoup: Aye

The Board discussed and did not receive any public comment on the KPS Return to Learn Plan for the 2022-23 school year.

Motion was made by Albert Hargreaves, seconded by Lanny Little to adjourn the meeting at 724. After discussion and upon roll call vote, the Board voted as follows:

Tom O'Brien: Absent

Chauncey Pedersen: Absent

Travis Cook: Aye

Albert Hargreaves: Aye

Lanny Little: Aye

Matthew Shoup: Aye

ATTEST:

TRAVIS COOK
KIMBALL PUBLIC SCHOOLS
BOARD OF EDUCATION

THOMAS O'BRIEN
KIMBALL PUBLIC SCHOOLS
BOARD OF EDUCATION

Kimball Public Schools
BOARD REPORT OF EXPENDITURES
08/08/2022

60628 CARD SERVICES

1138.72

PREPAID

\$1,138.72

REGULAR MONTHLY EXPENSES

60776	APPTEGY, INC	6,100.00
60777	BERGANKDV,LTD	185.00
60778	BLACK HILLS ENERGY	639.48
60779	BLICK ART MATERIALS	80.48
60780	CAPITAL BUSINESS SYSTEMS, INC.	1,081.71
60781	CENTURY LINK BUSINESS SERVICES	291.04
60782	CITY OF KIMBALL	11,990.44
60783	CULLIGAN	69.95
60784	DAS STATE ACCOUNTING - CENTRAL	259.49
60785	HOMETOWN HARDWARE	99.97
60786	IDEAL/BLUFFS FACILITY SOLUTIONS	1,705.97
60787	INNOVATIVE OFFICE SOLUTIONS LLC	81.98
60788	INTRALINKS, INC	6,156.12
60789	KIMBALL ACE HARDWARE	221.83
60790	KIMBALL AUTO PARTS CO	562.18
60791	KIMBALL HEALTH SERVICES	128.00
60792	BRIAN WILLIAMS	9,999.99
60793	KIMBALL PUBLIC SCHOOLS	3,111.44
60794	KIMBALL SERVICE CENTER	2,730.00
60795	MELHART	682.00
60796	MONUMENT CLEANING COMPANY	2,469.65
60797	NE COUNCIL OF SCHOOL ADMINISTRATORS	308.00
60798	NEBRASKA SAFETY AND FIRE EQUIPMENT,	2,280.00
60799	ONE SOURCE	75.00
60800	SCHOOL SPECIALTY INC.	3.35
60801	SOFTWARE UNLIMITED, INC.	7,350.00
60802	STAR-HERALD	233.79
60803	VOYAGER FLEET SYSTEMS, INC.	524.87
60804	WESTERN NEBRASKA OBSERVER	127.62
60805	ESU #13	5,378.77
60806	NE COUNCIL OF SCHOOL ADMINISTRATORS	276.00
60808	PYRAMID SCHOOL PRODUCTS	950.33

\$66,154.45

GENERAL FUND TOTAL

\$67,293.17

6039	HEARTLAND SCHOOLS SOLUTIONS	393.75
6040	HILAND DAIRY FOODS COMPANY, LLC	439.76
6041	US FOODS - GRAND ISLAND	24.43
		<hr/>
		\$857.94

NUTRITION FUND TOTAL

1513	BOKF, NA	10,861.35
1514	COMMUNITY BUILDING SOLUTIONS	634,740.00
1515	VALLEY STEEL AND WIRE CO	445.42

BUILDING FUND TOTAL

\$646,046.77

TOTAL MONTHLY BILLS

\$714,197.88

Detail Check Register

Checking Account: 01

GENERAL FUND 01-101

Invoice Number	Invoice Date	PO Number	Detail Description	Chart of Account Number	Detail Amount
112-34050699801004	06/20/2022	10864	Papermate Pencil Cap Erasers	01 1100 610 003 013	47.70
2022-INVOICE	06/28/2022	10964	Wonder Books	01 1100 640 001 000	101.25
2022-INVOICE	06/28/2022	10964	Tax	01 1100 640 001 000	7.09
9349823025-	06/27/2022	10720	Line Item 0010. WOVEN-IN CUSTOM WOVEN-IN	01 2230 890 000 000	231.00
9349823025-	06/27/2022	10720	Estimated Freight/Handling. Per Quote#:	01 2230 890 000 000	2.50
BOARD MEAL 06/22	06/13/2022		SCHOOL BOARD MEAL	01 2310 890 000 000	33.16
CPI TRAINING 2022	06/06/2022	11037	Meals	01 1200 580 001 902	66.68
CPI TRAINING 2022	06/06/2022	11037	Hotel	01 1200 580 001 902	192.00
LAW CONF 2022	06/23/2022		LEADERS AND LAW CONF 2022	01 2320 580 000 000	285.93
LAW CONF 2022	07/07/2022		ANOTHER ROUND OF SPORTS NORTH PLATTE	01 2320 580 000 000	11.72
MEALS 2022	06/09/2022	10994	Meals at NSTA Conference	01 2710 580 000 000	46.46
MEALS STAFF TRAIN 22	06/06/2022		CHILIS SCOTTSSLUFF	01 1100 580 001 000	52.34
MEALS STAFF TRAIN 22	06/06/2022		WONDERFUL HOUSE SCOTTSSLUFF	01 1100 580 001 000	50.20
RAISING CANES-6/24	06/24/2022		RAISING CANES MEAL	01 2320 580 000 000	10.69

*Denotes Expensed Invoice Item

Checking Account ID: 01

Total without Voids: 1,138.72

Detail Check Register

Checking Account: 01PWCB	PWCB GENERAL FUND 01-106						
Check Number: 1139	Check Type: Check	Check Date: 07/12/2022	Vendor: KIMBALLPUB	KIMBALL PUBLIC SCHOOLS	Check Total:	440,000.00	
<u>Invoice Number</u>	<u>Invoice Date</u>	<u>PO Number</u>	<u>Detail Description</u>	<u>Chart of Account Number</u>	<u>Detail Amount</u>		
2022-07 GF TRANSFER	07/12/2022		2022-07 GF TRANSFER	01 106	440,000.00		
*Denotes Expensed Invoice Item				Checking Account ID: 01PWCB	Total without Voids:	<u>440,000.00</u>	

Detail Check Register

Checking Account: 01		GENERAL FUND 01-101					
<u>Invoice Number</u>	<u>Invoice Date</u>	<u>PO Number</u>	<u>Detail Description</u>	<u>Chart of Account Number</u>	<u>Detail Amount</u>		
Check Number: 60776 Check Type: Check Check Date: 08/08/2022 Vendor: APPTGYINC APPTGY, INC Check Total: 6,100.00							
9212	09/01/2022	11085	Thrillshare	01 1100 650 000 000	6,100.00		
Check Number: 60777 Check Type: Check Check Date: 08/08/2022 Vendor: BERGANKDVL BERGANKDV,LTD Check Total: 185.00							
07/30/22 P-0001	08/01/2022		KRONOS TIME AND LABOR	01 2510 610 000 000	185.00		
Check Number: 60778 Check Type: Check Check Date: 08/08/2022 Vendor: BLACKHILLS BLACK HILLS ENERGY Check Total: 639.48							
JULY STATE-0001	08/04/2022		BUS BARN	01 2610 621 001 000	512.14		
JULY STATE-0001	08/04/2022		SUPERINTENDENTS OFFICE	01 2610 621 001 000	127.34		
Check Number: 60779 Check Type: Check Check Date: 08/08/2022 Vendor: BLICKARTMA BLICK ART MATERIALS Check Total: 80.48							
600317	07/15/2022		posterboard	01 1100 610 001 028	21.32		
8397039	07/15/2022	10758	School Glue Sticks	01 1100 610 001 042	34.16		
8397039	07/15/2022	10758	Desk Pad	01 1100 610 001 042	5.94		
8397039	07/15/2022	10758	Sharpie Cosmic Color	01 1100 610 001 042	6.00		
8397039	07/15/2022	10758	Dynasty Paint Brushes	01 1100 733 001 042	13.06		
Check Number: 60780 Check Type: Check Check Date: 08/08/2022 Vendor: CAPITALBUS CAPITAL BUSINESS SYSTEMS, INC. Check Total: 1,081.71							
32121233-0001	07/27/2022		COPIER LEASE	01 1100 610 000 000	1,081.71		
Check Number: 60781 Check Type: Check Check Date: 08/08/2022 Vendor: CENTURYLI2 CENTURY LINK BUSINESS SERVICES Check Total: 291.04							
301057330-0001	07/20/2022		OUTBOUND VOIP SERVICE	01 2510 530 000 000	291.04		
Check Number: 60782 Check Type: Check Check Date: 08/08/2022 Vendor: CITYOFKIMB CITY OF KIMBALL Check Total: 11,990.44							
03/07-04/1-0004	08/25/2022		STADIUM WATER	01 2610 410 001 000	1,286.38		
03/07-04/1-0004	08/25/2022		STADIUM SEWER	01 2610 410 001 000	22.00		
03/07-04/1-0004	08/25/2022		AG SHOP SEWER	01 2610 410 001 000	22.00		
03/07-04/1-0004	08/25/2022		AG SCHOP LANDFILL/COLLECTION	01 2610 410 001 000	51.25		
03/07-04/1-0004	08/25/2022		MECHANIC SHOP SEWER	01 2610 410 001 000	113.74		
03/07-04/1-0004	08/25/2022		MAIN BLD WATER	01 2610 410 001 000	469.41		
03/07-04/1-0004	08/25/2022		MAIN BLD SEWER	01 2610 410 001 000	99.91		
03/07-04/1-0004	08/25/2022		MAIN BLD COLLECTION/LANDFILL	01 2610 410 001 000	461.25		
03/07-04/1-0004	08/25/2022		MECHANIC SHOP WATER	01 2610 410 001 000	1,001.54		
03/07-04/1-0004	08/25/2022		#3 EAST WATER	01 2610 410 003 000	77.56		
03/07-04/1-0004	08/25/2022		#3 EAST SEWER	01 2610 410 003 000	45.11		
03/07-04/1-0004	08/25/2022		ML E WARD E-W WATER	01 2610 410 003 000	188.20		
03/07-04/1-0004	08/25/2022		ML E WARD E-W COLLECTION AND LANDFILL	01 2610 410 003 000	307.50		

Detail Check Register

Checking Account: 01		GENERAL FUND 01-101				
03/07-04/1-0004	08/25/2022		ML E WARD E-W SEWER	01 2610 410 003 000	55.73	
03/07-04/1-0004	08/25/2022		ML MODULAR SEWER	01 2610 410 003 000	30.12	
03/07-04/1-0004	08/25/2022		ML MODULAR WATER	01 2610 410 003 000	35.94	
03/07-04/1-0004	08/25/2022		SOUTH GYM ELECTRIC	01 2610 621 001 000	1,116.32	
03/07-04/1-0004	08/25/2022		MAIN BLD ELECTRIC	01 2610 621 001 000	4,617.44	
03/07-04/1-0004	08/25/2022		AG SHOP ELECTRIC	01 2610 621 001 000	492.82	
03/07-04/1-0004	08/25/2022		STADIUM ELECTRIC	01 2610 621 001 000	562.10	
03/07-04/1-0004	08/25/2022		ML MODULAR ELECTRIC	01 2610 621 003 000	110.07	
03/07-04/1-0004	08/25/2022		#3 EAST ELECTRIC	01 2610 621 003 000	150.04	
03/07-04/1-0004	08/25/2022		ML E WARD 3-W ELECTRIC	01 2610 621 003 000	674.01	
Check Number: 60783	Check Type: Check	Check Date: 08/08/2022	Vendor: CULLIGAN	CULLIGAN	Check Total:	69.95
<u>Invoice Number</u>	<u>Invoice Date</u>	<u>PO Number</u>	<u>Detail Description</u>	<u>Chart of Account Number</u>	<u>Detail Amount</u>	
JULY 2022-0001	08/01/2022		SOFTNER RENTAL	01 2610 610 001 000	69.95	
Check Number: 60784	Check Type: Check	Check Date: 08/08/2022	Vendor: DASSTATEAC	DAS STATE ACCOUNTING - CENTRAL FINANCE	Check Total:	259.49
<u>Invoice Number</u>	<u>Invoice Date</u>	<u>PO Number</u>	<u>Detail Description</u>	<u>Chart of Account Number</u>	<u>Detail Amount</u>	
JUNE STMT -0002	08/01/2022		ACCOUNT 0189 OCT	01 2510 382 000 000	259.49	
Check Number: 60785	Check Type: Check	Check Date: 08/08/2022	Vendor: HOMETOWNH	HOMETOWN HARDWARE	Check Total:	99.97
<u>Invoice Number</u>	<u>Invoice Date</u>	<u>PO Number</u>	<u>Detail Description</u>	<u>Chart of Account Number</u>	<u>Detail Amount</u>	
11036	07/07/2022	11036	Rod brackets	01 2610 610 003 000	5.16	
11036	07/07/2022	11036	Canned air	01 2610 610 003 000	17.97	
11075	07/25/2022	11075	Spray paint	01 2710 610 000 000	19.98	
11075	07/25/2022	11075	Window cleaner	01 2710 610 000 000	41.88	
11080	07/29/2022	11080	1 1/4" elbow	01 2610 610 001 000	8.99	
11080	07/29/2022	11080	1 1/4" bushing	01 2610 610 001 000	5.99	
Check Number: 60786	Check Type: Check	Check Date: 08/08/2022	Vendor: BLUFFSFACI	IDEAL/BLUFFS FACILITY SOLUTIONS	Check Total:	1,705.97
<u>Invoice Number</u>	<u>Invoice Date</u>	<u>PO Number</u>	<u>Detail Description</u>	<u>Chart of Account Number</u>	<u>Detail Amount</u>	
451125-1	07/08/2022	10986	Liners, 24X32, white, .45 mil. 500ct	01 2610 610 003 000	44.13	
451682	07/08/2022	11007	Air in a can	01 2610 610 003 000	70.38	
451682	07/08/2022	11007	Shipping	01 2610 610 003 000	3.00	
452448	07/08/2022	11027	Glass cleaner, 20oz cans, 12/cs	01 2610 610 003 000	67.32	
452448	07/08/2022	11027	Shipping	01 2610 610 003 000	3.00	
453110	07/22/2022	11055	T.T. 865 sheets, 36/cs	01 2610 610 003 000	355.92	
453110	07/22/2022	11055	Paper towels, 800' roll, 12/cs	01 2610 610 003 000	738.00	
453110	07/22/2022	11055	Tissue, 10/300/cs	01 2610 610 003 000	106.62	
453110	07/22/2022	11055	Kutol hand soap, 6/cs	01 2610 610 003 000	314.60	
453110	07/22/2022	11055	Shipping	01 2610 610 003 000	3.00	
Check Number: 60787	Check Type: Check	Check Date: 08/08/2022	Vendor: INNOVATIVO	INNOVATIVE OFFICE SOLUTIONS LLC	Check Total:	81.98
<u>Invoice Number</u>	<u>Invoice Date</u>	<u>PO Number</u>	<u>Detail Description</u>	<u>Chart of Account Number</u>	<u>Detail Amount</u>	

Detail Check Register

Checking Account: 01		GENERAL FUND 01-101				
<u>Invoice Number</u>	<u>Invoice Date</u>	<u>PO Number</u>	<u>Detail Description</u>	<u>Chart of Account Number</u>	<u>Detail Amount</u>	
SO-3722415-----	07/29/2022	10679	Cartridge for 3M LS950	01 2410 610 001 000	81.98	
Check Number: 60788	Check Type: Check	Check Date: 08/08/2022	Vendor: INTRALINKS	INTRALINKS, INC	Check Total:	6,156.12
5637	07/31/2022	11029	Dell Latitude 3520 -3000124542454 Per Qu	01 6992 733 000 000	6,156.12	
Check Number: 60789	Check Type: Check	Check Date: 08/08/2022	Vendor: ACEHARDWAR	KIMBALL ACE HARDWARE	Check Total:	221.83
528	07/11/2022	11040	Cam lock for file cabinet	01 2610 610 003 000	4.99	
531	07/12/2022	11041	Slip nut for pea trap	01 2610 610 001 000	4.59	
537	07/13/2022	11044	Flex Tape, 4"X5'	01 2610 610 000 000	15.99	
547	07/14/2022	11045	High heat epoxy	01 2620 610 000 000	7.99	
547	07/14/2022	11045	Spray paint, black	01 2710 610 000 000	6.99	
562	07/18/2022	11058	Self tapping screws, 3"	01 2610 610 001 000	14.25	
575	07/20/2022	11071	U-post, 6'	01 2610 610 001 000	11.99	
575	07/20/2022	11071	Sprinkler heads	01 2610 610 001 000	43.98	
576	07/20/2022	11067	Couplings, 3/4"	01 2610 610 001 000	9.95	
579	07/21/2022	11068	Reflective tape, buses	01 2710 610 000 000	19.98	
580	07/21/2022	11070	BOX SWTCH/EARS 2"D	01 2230 890 000 000	6.59	
581	07/21/2022	11069	MISC. FASTENERS	01 2230 890 000 000	0.72	
581	07/21/2022	11069	MISC. FASTENERS	01 2230 890 000 000	0.72	
592	07/25/2022	11077	Terro ant dust	01 2610 610 000 000	9.99	
594	07/26/2022	11078	Utility knife	01 2610 610 000 000	19.99	
594	07/26/2022	11078	Caulk, 10.1 oz. tubes	01 2610 610 003 000	23.94	
601	07/27/2022	11079	Screws, 1 lb. box	01 2610 610 000 000	9.59	
601	07/27/2022	11079	Plastic weld	01 2610 610 003 000	9.59	
Check Number: 60790	Check Type: Check	Check Date: 08/08/2022	Vendor: KIMBALLAUT	KIMBALL AUTO PARTS CO	Check Total:	562.18
234825	07/13/2022	11043	Grease, 3 pk.	01 2710 610 000 000	8.59	
234825	07/13/2022	11043	Spray paint, black	01 2710 610 000 000	14.79	
235029	07/18/2022	11057	Rocker switches, B04	01 2710 610 000 000	28.96	
235261	07/22/2022	11072	Oil filters, suburbans	01 2710 610 000 000	40.20	
235270	07/22/2022	11073	DEF 55 gal. drum	01 2710 610 000 000	372.00	
235272	07/22/2022	11074	Pump for DEF drum	01 2710 610 000 000	97.64	
Check Number: 60791	Check Type: Check	Check Date: 08/08/2022	Vendor: KIMBALLHEA	KIMBALL HEALTH SERVICES	Check Total:	128.00
DOT PHYS 2022-23	07/01/2022	11064	DOT physical, Karen Hottell	01 2710 890 000 000	128.00	
Check Number: 60792	Check Type: Check	Check Date: 08/08/2022	Vendor: KIMBALLPLU	BRIAN WILLIAMS	Check Total:	9,999.99
5923	08/01/2022	11084	Replace sewer line and shut off valve fo	01 2620 720 003 000	9,999.99	

Detail Check Register

Checking Account: 01		GENERAL FUND 01-101				
<u>Invoice Number</u>	<u>Invoice Date</u>	<u>PO Number</u>	<u>Detail Description</u>	<u>Chart of Account Number</u>	<u>Detail Amount</u>	
Check Number: 60793	Check Type: Check	Check Date: 08/08/2022	Vendor: KIMBALLPUB	KIMBALL PUBLIC SCHOOLS	Check Total:	3,111.44
EDUCATION QUEST TRAN	08/02/2022		EDUCATION QUEST TRANSFER TO AF	01 101	3,111.44	
Check Number: 60794	Check Type: Check	Check Date: 08/08/2022	Vendor: KIMBALLSER	KIMBALL SERVICE CENTER	Check Total:	2,730.00
50544	07/12/2022	11016	6 tires, balancing bags, mounting, tire	01 2710 610 000 000	2,730.00	
Check Number: 60795	Check Type: Check	Check Date: 08/08/2022	Vendor: MELHART	MELHART	Check Total:	682.00
3448123	07/14/2022	10881	Melhart Modular System Conductor Stand	01 1100 733 001 032	552.00	
3448123	07/14/2022	10881	Allotted shipping and handling	01 1100 733 001 032	130.00	
Check Number: 60796	Check Type: Check	Check Date: 08/08/2022	Vendor: MONUMENTCL	MONUMENT CLEANING COMPANY	Check Total:	2,469.65
JULY CLEANING 2022	08/01/2022	11082	Cleaning, High School	01 2610 110 001 000	2,469.65	
Check Number: 60797	Check Type: Check	Check Date: 08/08/2022	Vendor: NCSA	NE COUNCIL OF SCHOOL ADMINISTRATORS	Check Total:	308.00
admin days 2022-DR	07/19/2022	11042	Registration for Administrator's Days	01 2410 810 001 000	308.00	
Check Number: 60798	Check Type: Check	Check Date: 08/08/2022	Vendor: NESAFETYAN	NEBRASKA SAFETY AND FIRE EQUIPMENT, INC	Check Total:	2,280.00
108441	07/12/2022	11066	Fusible link	01 2610 890 001 000	20.00	
108441	07/12/2022	11066	Test cartridge	01 2610 890 001 000	28.00	
108441	07/12/2022	11066	Annual fire sprinkler system inspection,	01 2610 890 001 000	215.00	
108441	07/12/2022	11066	Annual fire sprinkler system inspection,	01 2610 890 001 000	110.00	
108441	07/12/2022	11066	Annual backflow prevent inspection	01 2610 890 001 000	95.00	
108441	07/12/2022	11066	Annual fire extinguisher inspections	01 2610 890 001 000	427.00	
108441	07/12/2022	11066	Alarm system inspection	01 2610 890 001 000	450.00	
108441	07/12/2022	11066	Range hood inspection, kitchen	01 2610 890 001 000	135.00	
15698	08/02/2022	11089	Fire alarm monitoring, annual fee	01 2610 890 003 000	360.00	
36292	07/12/2022	11065	10 lb. abc 6 yr. recharge	01 2610 890 001 000	105.00	
36292	07/12/2022	11065	10 lb. abc hydro	01 2610 890 001 000	50.00	
36292	07/12/2022	11065	5 lb. abc 6 yr. recharge	01 2610 890 001 000	150.00	
36292	07/12/2022	11065	5 lb. abc hydro	01 2610 890 001 000	135.00	
Check Number: 60799	Check Type: Check	Check Date: 08/08/2022	Vendor: ONESOURCE	ONE SOURCE	Check Total:	75.00
TCAL3341-20220731	07/14/2022		PRE-EMPLOYMENT BACKGROUND CHECK	01 2320 890 000 000	75.00	
Check Number: 60800	Check Type: Check	Check Date: 08/08/2022	Vendor: SCHOOLSPEC	SCHOOL SPECIALTY INC.	Check Total:	3.35

Detail Check Register

Checking Account: 01

GENERAL FUND 01-101

<u>Invoice Number</u>	<u>Invoice Date</u>	<u>PO Number</u>	<u>Detail Description</u>	<u>Chart of Account Number</u>	<u>Detail Amount</u>	
308103995399----	07/09/2022	10683	Uni-ball Comfort Grip Stick Gel Pen, 0.	01 2410 610 001 000	3.35	
Check Number: 60801	Check Type: Check	Check Date: 08/08/2022	Vendor: SOFTWAREUN	SOFTWARE UNLIMITED, INC.	Check Total:	7,350.00
<u>Invoice Number</u>	<u>Invoice Date</u>	<u>PO Number</u>	<u>Detail Description</u>	<u>Chart of Account Number</u>	<u>Detail Amount</u>	
20212253	07/01/2022		SAS ANNUAL FEE	01 2510 315 000 000	4,100.00	
20212253	07/01/2022		SAS-ONLINE T-2	01 2510 315 000 000	2,050.00	
20212253	07/01/2022		WEBLINK ANNUAL FEE	01 2510 315 000 000	700.00	
20212253	07/01/2022		WEBLINK HOSTED ANNUAL FEE	01 2510 315 000 000	500.00	
Check Number: 60802	Check Type: Check	Check Date: 08/08/2022	Vendor: STARHERALD	STAR-HERALD	Check Total:	233.79
<u>Invoice Number</u>	<u>Invoice Date</u>	<u>PO Number</u>	<u>Detail Description</u>	<u>Chart of Account Number</u>	<u>Detail Amount</u>	
2022-23 RENEWAL	07/06/2022		DAILY NEWSPAPER	01 2310 540 000 000	233.79	
Check Number: 60803	Check Type: Check	Check Date: 08/08/2022	Vendor: VOYAGER	VOYAGER FLEET SYSTEMS, INC.	Check Total:	524.87
<u>Invoice Number</u>	<u>Invoice Date</u>	<u>PO Number</u>	<u>Detail Description</u>	<u>Chart of Account Number</u>	<u>Detail Amount</u>	
8691497732-0009	08/01/2022		TAX ADJUSTMENT	01 2710 626 000 000	(23.31)	
8691497732-0009	08/01/2022		FUEL PURCHASES	01 2710 626 000 000	548.18	
Check Number: 60804	Check Type: Check	Check Date: 08/08/2022	Vendor: WESTERNNEO	WESTERN NEBRASKA OBSERVER	Check Total:	127.62
<u>Invoice Number</u>	<u>Invoice Date</u>	<u>PO Number</u>	<u>Detail Description</u>	<u>Chart of Account Number</u>	<u>Detail Amount</u>	
60760	07/14/2022		MINUTES	01 2310 540 000 000	127.62	
Check Number: 60805	Check Type: Check	Check Date: 08/08/2022	Vendor: ESU13	ESU #13	Check Total:	5,378.77
<u>Invoice Number</u>	<u>Invoice Date</u>	<u>PO Number</u>	<u>Detail Description</u>	<u>Chart of Account Number</u>	<u>Detail Amount</u>	
JULY 2022 BILL	08/03/2022		SPED INSTRUCTION AGES 3-5	01 1291 591 003 000	253.23	
JULY 2022 BILL	08/03/2022		SPED SUPERVISION AGES 3-5	01 1291 591 003 005	20.26	
JULY 2022 BILL	08/03/2022		SPED INSTRUCTION AGES 0-2	01 1292 591 003 000	1,949.25	
JULY 2022 BILL	08/03/2022		SPED INSTRUCTION AGES 0-2	01 1292 591 003 000	155.94	
JULY 2022 BILL	08/03/2022		OT AGES 3-5	01 2162 591 003 000	659.70	
JULY 2022 BILL	08/03/2022		SUPERVISION - OT AGES 3-5	01 2162 591 003 005	52.78	
JULY 2022 BILL	08/03/2022		OT AGES 0-2	01 2163 591 003 000	344.70	
JULY 2022 BILL	08/03/2022		SUPERVISION - OT AGES 0-2	01 2163 591 003 005	27.58	
JULY 2022 BILL	08/03/2022		NEVA	01 2224 382 000 000	708.33	
JULY 2022 BILL	08/03/2022		DISTANCE LEARNING CONSORTIUM	01 2224 382 000 000	757.00	
JULY 2022 BILL	08/03/2022		INTERNET E-RATE CONSORTIUM	01 2224 382 000 000	450.00	
Check Number: 60806	Check Type: Check	Check Date: 08/08/2022	Vendor: PYRAMIDSCH	PYRAMID SCHOOL PRODUCTS	Check Total:	950.33
<u>Invoice Number</u>	<u>Invoice Date</u>	<u>PO Number</u>	<u>Detail Description</u>	<u>Chart of Account Number</u>	<u>Detail Amount</u>	
S1441968.001	07/22/2022	10686	Paper Clips No. 1 - 1 1/4 " Regular Styl	01 2410 610 003 000	14.40	
S1441968.001	07/22/2022	10686	Post-It Notes - 3x3 - Plain	01 2410 610 003 000	7.62	
S1441968.001	07/22/2022	10686	AAA Batteries	01 2410 610 003 000	7.20	
S1441968.001	07/22/2022	10686	AA Batteries	01 2410 610 003 000	14.40	
S1441968.001	07/22/2022	10686	3-Ring - 1" Binder - Red	01 2410 610 003 000	40.75	

Detail Check Register

Checking Account: 01		GENERAL FUND 01-101				
S1441968.001-	07/22/2022	10701	Post-It Notes	01 2211 610 000 000	1.43	
S1441968.001-	07/22/2022	10701	Student Scissors	01 2211 610 000 000	27.00	
S1441968.001-	07/22/2022	10701	Crayola Crayons	01 2211 610 000 000	9.36	
S1441968.001-	07/22/2022	10701	Whiteboard Erasers	01 6200 610 003 904	7.90	
S1441968.001--	07/22/2022	10727	Headphones	01 1100 610 003 016	86.70	
S1441968.001---	07/22/2022	10733	Crayola Crayons-Class Pack	01 1100 610 003 011	72.18	
S1441968.001---	07/22/2022	10733	Crayola Colored Pencils- Class Pack	01 1100 610 003 011	52.38	
S1441968.001----	07/22/2022	10735	902420 Crayola Markers - Washable - Clas	01 1100 610 003 009	48.59	
S1441968.001----	07/22/2022	10735	202060 Chalkboard Eraser - 5" X 2" X 1"	01 1100 610 003 009	1.20	
S1441968.001-----	07/22/2022	10740	Mavalus Tape - Large Roll	01 1100 610 003 014	39.90	
S1441968.001-----	07/22/2022	10740	All Purpose Pencils	01 1100 610 003 014	116.64	
S1441968.001-----	07/22/2022	10740	Post-It Notes Dispenser Refills lined	01 1100 610 003 014	13.50	
S1441968.001-----	07/22/2022	10740	Pencil Erasers	01 1100 610 003 014	2.19	
S1441968.001-----	07/22/2022	10740	Pencil Cap Erasers	01 1100 610 003 014	10.74	
S1441968.001-----	07/22/2022	10740	Paper Clips - Jumbo	01 1100 610 003 014	6.00	
S1441968.001-----	07/22/2022	10743	203006 Book Tape - 3.5 Mil - 2" X 15 Yd.	01 2120 610 003 000	41.31	
S1441968.001-----	07/22/2022	10657	Crayola Washable Tempera Black - 12 ct	01 1100 610 001 020	24.60	
S1441968.001-----	07/22/2022	10657	Crayola Washable Tempera Blue - 12 ct	01 1100 610 001 020	24.60	
S1441968.001-----	07/22/2022	10657	Crayola Washable Tempera green -12 ct.	01 1100 610 001 020	24.60	
S1441968.001-----	07/22/2022	10657	Elmer's Paste	01 1100 610 001 020	2.99	
S1441968.001-----	07/22/2022	10657	Printing Ink Red	01 1100 610 001 020	10.78	
S1441968.001-----	07/22/2022	10657	Printing Ink Blue	01 1100 610 001 020	10.78	
S1441968.001-----	07/22/2022	10657	Printing Ink Yellow	01 1100 610 001 020	5.39	
S1441968.001-----	07/22/2022	10657	Printing Ink Black	01 1100 610 001 020	10.78	
S1441968.001-----	07/22/2022	10657	Printing Ink White	01 1100 610 001 020	10.78	
S1441968.001-----	07/22/2022	10657	Crayola Washable Tempera orange - 12 ct	01 1100 610 001 020	24.60	
S1441968.001-----	07/22/2022	10657	Crayola Washable Tempera red- 12 ct	01 1100 610 001 020	24.60	
S1441968.001-----	07/22/2022	10657	Crayola Washable Tempera violet - 12 ct	01 1100 610 001 020	24.60	
S1441968.001-----	07/22/2022	10657	Crayola Washable Tempera white - 12 ct	01 1100 610 001 020	24.60	
S1441968.001-----	07/22/2022	10657	Drawing Pencils - Mary Lynch	01 1100 610 001 020	52.56	
S1441968.001-----	07/22/2022	10657	Chalk Pastel - 12 - 12 pks	01 1100 610 001 020	52.68	
Check Number: 60808	Check Type: Check	Check Date: 08/08/2022	Vendor: NCSA	NE COUNCIL OF SCHOOL ADMINISTRATORS	Check Total: 276.00	
<u>Invoice Number</u>	<u>Invoice Date</u>	<u>PO Number</u>	<u>Detail Description</u>	<u>Chart of Account Number</u>	<u>Detail Amount</u>	
72585	08/01/2022	11063	Admin Days	01 2410 810 003 000	276.00	
*Denotes Expensed Invoice Item				Checking Account ID: 01	Total without Voids: <u>66,154.45</u>	

Detail Check Register

Checking Account: 05

ACTIVITY FUND 05-101

Check Number: 18349	Check Type: Check	Check Date: 08/08/2022	Vendor: PANHANDLEC	PANHANDLE COOP ASSOCIATION	Check Total:	187.86
<u>Invoice Number</u>	<u>Invoice Date</u>	<u>PO Number</u>	<u>Detail Description</u>	<u>Chart of Account Number</u>	<u>Detail Amount</u>	
724749	06/09/2022		QTR AWARDS	05 2900 610 001 501	2.00	
724942	07/14/2022	11048	powerade for camp	05 2900 610 001 721	20.97	
724975	07/19/2022		FFA	05 2900 610 001 701	156.89	
725003	07/24/2022		WATER	05 2900 610 001 725	8.00	
Check Number: 18350	Check Type: Check	Check Date: 08/08/2022	Vendor: VALLEYSTEE	VALLEY STEEL AND WIRE CO	Check Total:	185.97
<u>Invoice Number</u>	<u>Invoice Date</u>	<u>PO Number</u>	<u>Detail Description</u>	<u>Chart of Account Number</u>	<u>Detail Amount</u>	
0000035883-001	07/26/2022	11060	Angle Iron for poultry cages	05 2900 610 001 701	185.97	
Check Number: 18351	Check Type: Check	Check Date: 08/08/2022	Vendor: VINCESCORN	VINCE'S CORNER	Check Total:	43.79
<u>Invoice Number</u>	<u>Invoice Date</u>	<u>PO Number</u>	<u>Detail Description</u>	<u>Chart of Account Number</u>	<u>Detail Amount</u>	
QTR AWARDS	07/01/2022		QTR AWARDS	05 2900 610 001 501	43.79	

*Denotes Expensed Invoice Item

Checking Account ID: 05 Total without Voids: 417.62

Detail Check Register

Checking Account: 06		SCHOOL NUTRITUION FUND 06-101					
Check Number: 6039	Check Type: Check	Check Date: 08/08/2022	Vendor: HEARTLAND	HEARTLAND SCHOOLS SOLUTIONS	Check Total:	393.75	
<u>Invoice Number</u>	<u>Invoice Date</u>	<u>PO Number</u>	<u>Detail Description</u>	<u>Chart of Account Number</u>	<u>Detail Amount</u>		
ANNUAL SUBSCRIPTION	07/20/2022		ANNUAL SUBSCRIPTION-MENU PLANNING SOFTWA	06 3100 890 000 000	393.75		
Check Number: 6040	Check Type: Check	Check Date: 08/08/2022	Vendor: HILANDDAIR	HILAND DAIRY FOODS COMPANY, LLC	Check Total:	439.76	
<u>Invoice Number</u>	<u>Invoice Date</u>	<u>PO Number</u>	<u>Detail Description</u>	<u>Chart of Account Number</u>	<u>Detail Amount</u>		
1710894	07/01/2022		MILK DELIVERY	06 3100 630 003 000	19.70		
1710961	07/05/2022		MILK DELIVERY	06 3100 630 003 000	117.93		
1711173	07/15/2022		MILK DELIVERY	06 3100 630 003 000	117.93		
1711237	07/19/2022		MILK DELIVERY	06 3100 630 003 000	19.43		
1711306	07/22/2022		MILK DELIVERY	06 3100 630 003 000	59.10		
1711307	07/22/2022		MILK DELIVERY	06 3100 630 003 000	27.14		
1711371	07/26/2022		MILK DELIVERY	06 3100 630 003 000	39.13		
1711443	07/29/2022		MILK DELIVERY	06 3100 630 003 000	39.40		
Check Number: 6041	Check Type: Check	Check Date: 08/08/2022	Vendor: USFOODSGRA	US FOODS - GRAND ISLAND	Check Total:	24.43	
<u>Invoice Number</u>	<u>Invoice Date</u>	<u>PO Number</u>	<u>Detail Description</u>	<u>Chart of Account Number</u>	<u>Detail Amount</u>		
4844376	06/13/2022		thermometer ml	06 3100 610 003 000	24.43		
Check Number: 6042	Check Type: Check	Check Date: 08/08/2022	Vendor: CASHWADIST	CASH-WA DISTRIBUTING	Check Total:	1,370.19	
<u>Invoice Number</u>	<u>Invoice Date</u>	<u>PO Number</u>	<u>Detail Description</u>	<u>Chart of Account Number</u>	<u>Detail Amount</u>		
13440778	07/11/2022		ML FOOD	06 3100 630 003 000	504.69		
13448451	07/18/2022		ML FOOD	06 3100 630 003 000	859.66		
13456267	07/25/2022		ML FOOD	06 3100 630 003 000	349.70		
CM2955001	01/27/2021		CREDIT INVOICE	06 3100 630 003 000	(26.50)		
CM3098503	09/08/2021		CREDIT INVOICE	06 3100 630 003 000	(10.75)		
CM3126201	09/21/2021		CREDIT INVOICE	06 3100 630 003 000	(28.75)		
CM3159659	12/08/2021		CREDIT INVOICE	06 3100 630 003 000	(96.20)		
CM3298270	07/20/2022		CREDIT INVOICES	06 3100 630 003 000	(48.90)		
CREDIT INVOICES-	08/01/2022		CREDIT INVOICES	06 3100 630 001 000	(132.76)		

*Denotes Expensed Invoice Item

Checking Account ID: 06

Total without Voids: 2,228.13

Detail Check Register

Checking Account: 08		BUILDING FUND 08-101					
Check Number: 1513	Check Type: Check	Check Date: 08/08/2022	Vendor: BOKFINANCI	BOKF, NA	Check Total:	10,861.35	
<u>Invoice Number</u>	<u>Invoice Date</u>	<u>PO Number</u>	<u>Detail Description</u>	<u>Chart of Account Number</u>	<u>Detail Amount</u>		
KIMBALLCOP22	09/15/2022		PAYMENT #1 HVAC PROJECT	08 4700 720 000 000	10,861.35		
Check Number: 1514	Check Type: Check	Check Date: 08/08/2022	Vendor: COMMUNITYB	COMMUNITY BUILDING SOLUTIONS	Check Total:	634,740.00	
<u>Invoice Number</u>	<u>Invoice Date</u>	<u>PO Number</u>	<u>Detail Description</u>	<u>Chart of Account Number</u>	<u>Detail Amount</u>		
JULY INV 2022	08/02/2022		HVAC PROJECT/LIGHTS/WINDOWS	08 4700 720 000 000	634,740.00		
Check Number: 1515	Check Type: Check	Check Date: 08/08/2022	Vendor: VALLEYSTEE	VALLEY STEEL AND WIRE CO	Check Total:	445.42	
<u>Invoice Number</u>	<u>Invoice Date</u>	<u>PO Number</u>	<u>Detail Description</u>	<u>Chart of Account Number</u>	<u>Detail Amount</u>		
0000035968-001	07/26/2022	11054	Metal for wethr room	08 4700 733 000 000	445.42		

*Denotes Expensed Invoice Item

Checking Account ID: 08

Total without Voids: 646,046.77



KIMBALL PUBLIC SCHOOLS

Administration Offices
901 South Nadine Street
Kimball, NE 69145

Mr. Trevor Anderson, Superintendent (308) 235-2188
Carmela Graves, Business Manager Fax (308) 235-3269

August 8, 2022

Treasurer's report is as follows:

		Aug-22	Aug-21
Amount received from County Treasurer		70,463.06	80,167.41
Bank Balance	JULY, 31 2022	77,711.88	181,570.74
Savings Account General Fun	JULY, 31 2022	2,505,060.84	2,162,168.55
Depreciation Fund	JULY, 31 2022	162,476.32	224,976.52
Building Fund	JULY, 31 2022	2,064,144.09	643,225.45
Nutrition Fund	JULY, 31 2022	110,473.38	82,645.47
Activity Fund	JULY, 31 2022	129,181.15	33,906.77
Total Available Funds		5,049,047.66	3,328,493.50
Payroll Gross		268,572.79	249,562.27
Amount of Bills		714,197.88	73,622.55
Blue Cross Blue Shield/HSA Pmt/UNUM Life		69,228.22	69,543.40
Nebraska School Retirement		25,975.05	24,507.54
FirsTier Bank (FICA)		19,846.87	18,495.89
Total Amount of Expenses		1,097,820.81	435,731.65
Balance Remaining after Expenses		3,951,226.85	2,892,761.85

Monthly Finance Report to the Board

Aug-22

**Reconciled Balances as of JULY 31, 2022		
(Balance on Books)		
	2020-2021	2021-2022
General - Checking	\$ 181,570.74	\$ 77,711.88
General - Savings	\$ 2,162,168.55	\$ 2,505,060.84
Depreciation	\$ 224,976.52	\$ 162,476.32
Activity	\$ 33,906.77	\$ 129,181.15
Nutrition	\$ 82,645.47	\$ 110,473.38
Spec Building	\$ 643,225.45	\$ 2,064,144.09
FUNDS TOTAL	\$ 3,328,493.50	\$ 5,049,047.66

AUGUST GF EXPENDITURES		
	2020-2021	2021-2022
GF Bills Payable	\$ 60,337.93	\$ 67,293.17
GF Payroll	\$ 375,326.82	\$ 376,267.05
(including Ins, RET & Tax)	\$ 435,664.75	\$ 443,560.22
JULY REVENUE		
Beginning Cash	\$ 147,641.06	\$ 144,725.65
GF Transfer	\$ 500,000.00	\$ 440,000.00
State Aid	\$ 39.65	\$ 150,976.62
Kimball County	\$ 80,167.41	\$ 70,463.06
Interest		
Total Month Available	\$ 727,848.12	\$ 806,165.33

Three Year Comparison			
GF Revenue			
	2019-2020	2020-2021	2021-2022
September	\$ 1,620,676.61	\$ 1,868,483.09	\$ 1,856,081.18
October	\$ 370,455.02	\$ 171,495.91	\$ 280,137.01
November	\$ 258,073.12	\$ 137,229.57	\$ 103,078.48
December	\$ 167,672.61	\$ 178,189.90	\$ 201,805.61
January	\$ 805,516.30	\$ 897,599.19	\$ 862,650.98
February	\$ 400,889.47	\$ 807,393.42	\$ 419,359.54
March	\$ 535,707.21	\$ 506,036.13	\$ 402,894.18
April	\$ 239,416.68	\$ 279,311.06	\$ 219,875.66
May	\$ 2,145,728.69	\$ 2,055,700.47	\$ 2,270,649.87
June	\$ 362,631.27	\$ 422,857.61	\$ 600,914.46
July	\$ 89,372.97	\$ 151,623.62	\$ 220,095.13
August	\$ 364,814.36	\$ 81,462.30	
Running Total (YTD)	\$ 6,996,139.95	\$ 7,475,919.97	\$ 7,437,542.10
Total Revenue	\$ 7,360,954.31	\$ 7,557,382.27	\$ 7,437,542.10
% OF BUD (YTD)	95.04%	98.92%	105.30%
Annual Budget	\$ 7,277,586.14	\$ 7,501,033.00	\$ 7,063,100.00
% of Bud Rec	101.15%	100.75%	

AUGUST NUTRITION FUND		
	2020-2021	2021-2022
NF Bills Payable	\$ 995.90	\$ 857.94
NF Payroll	\$ 6,209.78	\$ 7,356.28
	\$ 7,205.68	\$ 8,214.22
JULY REVENUE		
Beginning Cash	\$ 88,237.84	\$ 121,367.61
LUNCH INFINITE CAMPUS	\$ (7.35)	
SFSP Lunch Claim	\$ 8,962.67	\$ 7,178.24
Checks		
	\$ 97,193.16	\$ 128,545.85

Three Year Comparison			
GF Expenditures			
	2019-2020	2020-2021	2021-2022
September	\$ 541,823.80	\$ 487,856.67	\$ 619,836.07
October	\$ 548,075.31	\$ 641,984.80	\$ 523,352.74
November	\$ 519,493.45	\$ 481,522.15	\$ 554,319.21
December	\$ 540,714.86	\$ 519,205.37	\$ 566,973.73
January	\$ 676,424.14	\$ 582,972.59	\$ 501,526.94
February	\$ 511,251.42	\$ 519,241.72	\$ 548,304.59
March	\$ 526,225.98	\$ 514,916.61	\$ 531,266.35
April	\$ 576,718.62	\$ 506,026.92	\$ 968,021.51
May	\$ 514,281.03	\$ 574,550.04	\$ 716,429.52
June	\$ 504,472.75	\$ 511,002.51	\$ 565,530.15
July	\$ 460,962.76	\$ 515,436.00	\$ 643,475.88
August	\$ 471,351.21	\$ 541,057.17	
Running Total (YTD)	\$ 5,920,444.12	\$ 5,854,715.38	\$ 6,739,036.69
Total Expenditures	\$ 6,391,795.33	\$ 6,395,772.55	\$ 6,739,036.69
	19-20	20-21	21-22
% of Bud Spent (YTD)	65.93%	63.55%	72.07%
Annual Budget	\$ 8,980,315.56	\$ 9,212,197.00	\$ 9,350,752.00
% of Bud Spent	71.18%	69.43%	72.07%

BOARD BUDGET REPORT OF EXPENSES

Object #		Current Mo	YTD	Budget	% of Budget	Prev Yr Mo	Prev YTD	Prev Budget	Prev % of Budget
01	GENERAL FUND								
000	AMT ABSORB UNUSED BUDGET AUTH	0.00	0.00	2,035,752.00	0.00	0.00	0.00	1,368,197.00	0.00
105	EXECUTIVE ADMINISTRATION SALARIES	12,620.40	106,370.40	115,000.00	92.50	13,609.39	105,276.09	160,680.00	65.52
110	SALARIES NON-INSTRUCTIONAL	20,339.27	368,550.14	416,750.00	88.43	18,743.68	357,814.41	419,210.00	85.35
111	SALARIES TEACHERS/PROF STAFF	232,713.39	2,459,133.05	2,727,950.00	90.15	208,552.92	2,218,051.91	2,693,847.10	82.34
112	SALARIES PARAS	602.08	197,367.03	305,400.00	64.63	1,063.62	261,125.56	335,975.05	77.72
114	SALARIES DIRECTOR	4,531.16	36,143.61	23,900.00	151.23	3,819.25	23,670.29	18,797.50	125.92
116	SALARIES PROFESSIONAL NON-CERTIFIED	12,720.24	156,322.06	163,000.00	95.90	16,018.71	148,556.85	177,675.00	83.61
120	SUBSTITUTE NON-INSTRUCTIONAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
122	SUBSTITUTES PARAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
123	SUBSTITUTES SALARIES - TEACHERS	110.00	55,661.61	63,000.00	88.35	0.00	61,182.43	62,830.00	97.38
126	SUBSTITUTES SALARIES - PROFESSIONAL	0.00	0.00	0.00	0.00	0.00	0.00	1,545.00	0.00
130	OVERTIME NON-INSTRUCTIONAL	0.00	1,213.25	2,000.00	60.66	24.72	1,310.08	3,500.00	37.43
132	OVERTIME PARAS	0.00	256.50	0.00	0.00	0.00	0.22	1,500.00	0.01
150	ADDITIONAL COMP NON-INSTRUCTIONAL	370.00	14,245.85	30,000.00	47.49	0.00	15,006.00	15,450.00	97.13
151	ADDITIONAL COMP TEACHERS/PROF STAFF	6,124.11	145,354.99	150,000.00	96.90	4,823.24	135,579.59	159,650.00	84.92
152	ADDITIONAL COMP PARAS	0.00	5,321.97	5,000.00	106.44	0.00	2,323.75	5,150.00	45.12
210	GROUP INSURANCE NON-INSTRUCTIONAL	2,664.52	51,896.66	90,250.00	57.50	3,380.71	76,364.10	85,886.55	88.91
211	GROUP INSURANCE TEACHERS/PROF STAFF	56,851.65	632,245.64	729,210.00	86.70	52,941.14	594,524.13	822,164.00	72.31
212	GROUP INSURANCE PARAS	22.07	282.08	600.00	47.01	18.97	360.40	599.55	60.11
214	GROUP INSURANCE DIRECTOR	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00
215	GROUP INSURANCE SUPERINTENDENT	1,865.24	20,428.37	22,000.00	92.86	1,865.24	19,887.11	20,260.83	98.16
216	GROUP INSURANCE PROFESSIONAL NONCERTIFIE	5,649.47	64,006.31	71,500.00	89.52	5,649.47	62,759.95	53,663.00	116.95
220	SOCIAL SECURITY NON-INSTRUCTIONAL	1,288.14	25,468.62	30,150.00	84.47	1,415.99	26,211.46	35,744.16	73.33
221	SOCIAL SECURITY TEACHERS/PROF STAFF	17,625.29	191,646.85	205,550.00	93.24	15,765.02	174,390.45	206,141.82	84.60
222	SOCIAL SECURITY PARAS	39.92	14,928.45	26,100.00	57.20	81.36	19,284.87	25,319.61	76.17
223	SOCIAL SECURITY SUB TEACHERS	8.42	4,258.25	6,150.00	69.24	0.00	4,680.61	4,806.51	97.38
224	SOCIAL SECURITY DIRECTOR	346.63	2,764.94	2,000.00	138.25	292.17	1,807.37	1,438.01	125.69
225	SOCIAL SECURITY SUPERINTENDENT	961.35	8,092.26	9,000.00	89.91	1,037.01	8,008.41	12,292.02	65.15
226	SOCIAL SECURITY PROFESSIONAL/NONCERTIFIE	940.70	11,509.42	12,550.00	91.71	1,196.65	11,048.00	13,592.14	81.28
229	SOCIAL SECURITY EARLY RETIREMENT	0.00	0.00	0.00	0.00	0.00	4,590.00	0.00	0.00
230	RETIREMENT NON-INSTRUCTIONAL	1,221.11	32,676.34	40,850.00	79.99	1,625.18	34,534.02	44,612.70	77.41
231	RETIREMENT TEACHERS/PROF STAFF	22,333.54	250,628.03	267,940.00	93.54	20,316.63	230,307.63	265,008.36	86.91
232	RETIREMENT PARAS	59.47	19,464.87	30,050.00	64.77	105.06	24,555.42	31,980.86	76.78
233	tax expense	0.00	43.47	0.00	0.00	0.00	0.00	0.00	0.00
234	RETIREMENT DIRECTOR	142.50	873.00	1,000.00	87.30	173.45	727.26	1,856.78	39.17
235	RETIREMENT SUPERINTENDENT	926.04	10,186.44	11,500.00	88.58	905.46	9,960.16	15,871.65	62.75
236	RETIREMENT PROFESSIONAL NONCERTIFIED	1,091.10	15,275.80	15,700.00	97.30	1,311.17	14,233.06	17,550.39	81.10
237	INCREASED RETIREMENT CONTRIBUTIONS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
239	EARLY RETIREMENT	0.00	0.00	0.00	0.00	0.00	60,000.00	60,000.00	100.00
261	UNEMPLOYMENT TEACHER/PROF STAFF	0.00	8,103.65	0.00	0.00	0.00	0.00	0.00	0.00
270	WORKERS COMP NON-INSTRUCTIONAL	0.00	6,320.00	12,000.00	52.67	0.00	6,989.00	11,330.00	61.69
271	WORKMEN'S COMP TEACHERS/PROF STAFF	0.00	30,378.00	12,000.00	253.15	0.00	18,976.00	16,000.00	118.60
280	HEALTH BENEFIT PAID NON-INSTRUCTIONAL	220.38	2,861.01	3,900.00	73.36	213.84	3,421.44	2,454.00	139.42
281	HEALTH BENEFIT PAID TEACHERS/PROF STAFF	2,675.32	29,828.36	39,600.00	75.32	2,839.36	32,248.59	42,246.50	76.33
282	HEALTH BENEFIT PAID PARAS	0.00	3.93	0.00	0.00	0.00	0.00	0.00	0.00
286	HEALTH BENEFIT PAID PROF NON-CERTIFIED	0.00	0.00	0.00	0.00	0.00	0.00	1,236.00	0.00
291	OTHER BENEFITS TEACHERS/PROF STAFF	0.00	4,930.79	8,500.00	58.01	0.00	5,239.75	10,500.00	49.90
292	OTHER BENEFITS PARAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
293	OTHER BENEFITS SUBSTITUTES	0.00	1,102.60	1,000.00	110.26	0.00	815.60	1,000.00	81.56
296	OTHER BENEFITS PROFESSIONAL NON-CERTIFIE	0.00	0.00	0.00	0.00	639.66	639.66	0.00	0.00
315	AUDIT	0.00	17,948.32	26,500.00	67.73	7,195.00	22,712.00	27,000.00	84.12
317	LEGAL SERVICES	525.00	6,235.00	25,000.00	24.94	549.00	13,906.80	30,000.00	46.36
320	PROFESSIONAL SERVICES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
330	EMPLOYEE TRAINING/PROF DEVELOPMENT	564.00	14,843.34	17,800.00	86.35	94.50	29,243.00	11,824.00	247.32
332	MILEAGE TO PARENTS	0.00	1,431.08	2,000.00	71.55	0.00	1,430.00	11,000.00	13.00

BOARD BUDGET REPORT OF EXPENSES

Object #		Current Mo	YTD	Budget	% of Budget	Prev Yr Mo	Prev YTD	Prev Budget	Prev % of Budget
340	OTHER PROFESSIONAL SERVICES	119.92	16,502.55	51,750.00	63.31	119.92	53,634.10	31,750.00	168.93
350	Technical services	0.00	0.00	0.00	0.00	0.00	11,901.40	0.00	0.00
382	REIMBURSIBLE DISTANCE LEARNING	2,174.82	24,172.51	8,000.00	302.16	2,137.82	12,200.05	8,000.00	152.50
410	WATER AND SEWER	3,486.44	31,713.07	35,000.00	90.61	2,481.71	24,599.87	30,000.00	82.00
420	CLEANING SERVICES	0.00	0.00	0.00	0.00	0.00	0.00	22,196.00	0.00
490	ASBESTOS ABATEMENT	0.00	0.00	1,000.00	0.00	0.00	0.00	1,000.00	0.00
520	INSURANCE OTHER THAN EMPLOYEE BENEFITS	0.00	72,473.00	40,000.00	181.18	0.00	38,757.82	65,000.00	59.63
521	FIDELITY BOND PREMIUMS	0.00	250.00	250.00	100.00	0.00	250.00	250.00	100.00
530	TELEPHONE	1,364.52	12,941.14	36,000.00	35.95	878.44	20,360.49	36,000.00	56.56
531	POSTAGE	0.00	2,205.41	5,000.00	44.38	0.00	193.55	5,000.00	3.87
540	ADVERTISING AND PRINTING	224.97	3,463.77	6,000.00	57.73	209.99	5,203.37	6,500.00	80.05
561	TUITION PAID TO OTHER DISTRICTS	8,941.41	58,897.54	66,000.00	89.24	7,964.16	47,593.58	47,600.00	99.99
569	TUITION OTHER (OUT OF STATE)	0.00	900.00	6,000.00	15.00	0.00	0.00	10,000.00	0.00
580	TRAVEL EXPENSE AND MILEAGE	994.02	11,459.45	48,650.00	24.37	555.60	2,778.47	53,650.00	5.18
591	ESU - MIPS CLERICAL	18,847.82	187,364.72	228,300.00	82.07	22,060.41	187,081.38	225,135.00	83.10
610	SUPPLIES	10,736.75	148,837.83	220,850.00	75.16	16,090.15	145,419.58	266,949.91	54.47
621	NATURAL GAS	8,017.77	130,805.40	180,000.00	72.67	8,107.19	146,597.54	207,000.00	70.82
626	GAS AND OIL	292.87	47,568.41	50,000.00	95.14	430.73	29,028.41	50,000.00	58.06
640	TEXTBOOKS	1,303.78	22,968.53	88,250.00	37.90	3,311.15	36,413.31	88,050.00	41.36
642	AUDIO-VISUAL MATERIALS	0.00	90.25	0.00	0.00	0.00	181.50	0.00	0.00
643	WEB/CLOUD BASED SOFTWARE	0.00	15,000.00	20,000.00	75.00	0.00	18,438.56	0.00	0.00
650	SUPPLIES-TECHNOLOGY RELATED	1,060.00	143,986.53	33,800.00	432.66	54,620.96	95,156.41	63,825.00	149.09
720	BUILDINGS AND IMPROVEMENTS	178,616.49	665,590.03	27,500.00	2,449.04	2,561.04	24,663.15	20,000.00	123.32
732	VEHICLE ACQUISITION	0.00	0.00	200,000.00	0.00	0.00	0.00	200,000.00	0.00
733	FURNITURE AND EQUIPMENT	(4,789.00)	44,270.51	58,300.00	126.35	2,400.45	30,075.94	98,300.00	30.60
734	COMPUTER EQUIPMENT (HARDWARE)	0.00	3,889.17	7,500.00	51.86	0.00	159.03	7,500.00	2.12
735	COMPUTER SOFTWARE	4,646.28	32,003.94	24,000.00	134.91	0.00	20,602.90	24,000.00	85.85
805	DEBT SERVICE (CLEAN HARBORS)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
807	REVALUATION OF TAXABLE PROPERTY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
810	DUES AND FEES	170.00	10,073.10	19,500.00	54.76	850.00	12,431.00	18,750.00	66.30
890	OTHER MISC OBJECTS	(885.49)	25,007.49	65,950.00	43.07	6,698.71	34,550.54	68,350.00	50.55
911	TRANSFER TO GF	0.00	0.00	0.00	0.00	1,000,000.00	2,000,000.00	0.00	0.00
912	TRANSFERS TO LUNCH FROM GEN FD	0.00	0.00	15,000.00	0.00	0.00	15,000.00	175,000.00	8.57
913	TRANSFERS TO ACTIVITY ACCOUNTS	0.00	0.00	50,000.00	0.00	0.00	0.00	75,000.00	0.00
01	GFNFRAI FUND	643,475.88	6,739,036.69	9,350,752.00	73.02	1,517,746.00	7,857,025.38	9,212,197.00	85.29
02	DEPRECIATION FUND								
430	REPAIRS & MAINTENANCE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
450	CONSTRUCTION SERVICES	0.00	49,902.00	250,000.00	19.96	0.00	0.00	400,000.00	0.00
610	SUPPLIES	0.00	98.86	0.00	0.00	0.00	7,668.00	0.00	0.00
733	FURNITURE AND EQUIPMENT	0.00	505.00	126,712.00	0.40	36,486.00	43,958.12	126,975.00	34.62
02	DEPRECIATION FUND	0.00	50,505.86	376,712.00	13.41	36,486.00	51,626.12	526,975.00	9.80
05	ACTIVITIES								
610	SUPPLIES	11,489.67	194,125.82	276,309.00	81.87	23,443.60	405,179.41	424,145.00	95.53
05	ACTIVITIES	11,489.67	194,125.82	276,309.00	81.87	23,443.60	405,179.41	424,145.00	95.53
06	SCHOOL NUTRITION								
110	SALARIES NON-INSTRUCTIONAL	7,112.44	83,100.26	105,000.00	79.14	7,649.10	97,491.67	124,630.00	78.22
120	SUBSTITUTE NON-INSTRUCTIONAL	0.00	0.00	1,500.00	0.00	0.00	0.00	1,500.00	0.00
130	OVERTIME NON-INSTRUCTIONAL	0.00	0.00	100.00	0.00	0.00	0.00	100.00	0.00
210	GROUP INSURANCE NON-INSTRUCTIONAL	721.88	7,968.68	8,900.00	89.54	721.88	7,817.71	8,471.75	92.28
211	GROUP INSURANCE TEACHERS/PROF STAFF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
220	SOCIAL SECURITY NON-INSTRUCTIONAL	544.11	6,329.81	9,000.00	70.33	585.17	7,318.51	9,534.21	76.76
221	SOCIAL SECURITY TEACHERS/PROF STAFF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
230	RETIREMENT NON-INSTRUCTIONAL	513.93	7,602.30	9,000.00	84.47	570.25	7,648.79	12,310.70	62.13
231	RETIREMENT TEACHERS/PROF STAFF	0.00	0.00	67,296.00	0.00	0.00	0.00	0.00	0.00
261	UNEMPLOYMENT TEACHER/PROF STAFF	0.00	0.00	30.00	0.00	0.00	0.00	3,000.00	0.00
270	WORKERS COMP NON-INSTRUCTIONAL	0.00	0.00	4,000.00	0.00	0.00	0.00	4,000.00	0.00
340	OTHER PROFESSIONAL SERVICES	0.00	0.00	50.00	0.00	0.00	248.27	5,000.00	4.97
610	SUPPLIES	893.40	11,344.94	11,000.00	103.14	582.37	11,085.71	11,000.00	100.78
630	FOOD	3,641.18	168,652.73	180,000.00	93.70	4,731.05	156,323.94	162,241.35	96.35
733	FURNITURE AND EQUIPMENT	0.00	1,582.53	3,000.00	52.75	0.00	0.00	3,000.00	0.00
890	OTHER MISC OBJECTS	0.00	1,043.50	1,000.00	104.35	0.00	719.52	1,000.00	71.95
06	SCHOOL NUTRITION	13,426.94	287,624.75	399,876.00	71.93	14,839.82	288,654.12	345,788.01	83.48

BOARD BUDGET REPORT OF EXPENSES

Object #	Current Mo	YTD	Budget	% of Budget	Prev Yr Mo	Prev YTD	Prev Budget	Prev % of Budget	
08	SPECIAL BUILDING FUND								
720	BUILDINGS AND IMPROVEMENTS	568,958.00	593,377.37	999,657.00	63.35	2,125.15	14,139.97	669,241.00	2.11
733	FURNITURE AND EQUIPMENT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08	SPECIAL BUILDING FUND	568,958.00	593,377.37	999,657.00	63.40	2,125.15	14,139.97	669,241.00	2.11
Grand Total:		1,237,350.49	7,864,670.49	11,403,306.00	70.38	1,594,640.57	8,616,625.00	11,178,346.01	77.08

BOARD BUDGET REPORT OF REVENUES

Acct #	Acct Description	Current Mo	YTD	Budget	% of Budget	Prev Yr Mo	Prev YTD	Prev Budget	Prev % of Budget
01	GENERAL FUND								
01 1100	PROPERTY TAXES	29,439.76	5,234,000.36	5,450,000.00	96.04	39,231.15	5,444,432.73	5,780,000.00	94.19
01 1115	CARLINE TAXES	0.00	30,048.83	35,000.00	85.85	0.00	31,682.41	40,000.00	79.21
01 1125	MOTOR VEHICLE TAXES	23,530.85	214,895.83	260,000.00	82.65	22,077.91	240,928.17	27,000.00	892.33
01 1140	PROP TAX PENALTIES & INTEREST	291.83	17,621.26	20,000.00	88.11	932.71	27,047.19	20,000.00	135.24
01 1311	DRIVER EDUCATION FEES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
01 1510	INTEREST	212.32	2,210.11	10,000.00	22.10	195.56	6,840.06	10,000.00	68.40
01 1911	LOCAL LICENSE FEES AND COURT FINES	2,452.40	49,554.90	5,000.00	991.10	2,799.88	296,511.19	6,000.00	4,941.85
01 1921	POLICE COURT FINES	149.00	1,100.00	1,000.00	110.00	100.00	1,700.00	1,000.00	170.00
01 1951	MISC REVENUE OTHER SCHOOL DIST	0.00	3,925.00	10,000.00	39.25	0.00	1,802.63	20,000.00	9.01
01 1960	ABSORB UNUSED BUDGET AUTHORITY	0.00	0.00	325,000.00	0.00	0.00	0.00	267,594.00	0.00
01 1990	OTHER LOCAL REVENUE	131.69	10,584.49	1,000.00	1,058.45	0.00	5,447.74	500.00	1,089.55
01 2110	COUNTY FINES & LICENSE FEES	0.00	0.00	20,000.00	0.00	0.00	0.00	70,000.00	0.00
01 3110	STATE AID EDUCATION	30.72	49,940.38	50,000.00	99.88	39.65	53,435.42	51,439.00	103.88
01 3120	STATE AID - SPED	0.00	256,803.00	275,000.00	93.38	0.00	256,401.00	315,000.00	81.40
01 3125	SPED SCHOOL AGE TRANSPORTATION	0.00	0.00	5,000.00	0.00	0.00	26.22	0.00	0.00
01 3130	HOMESTEAD ALLOCATION	14,599.22	79,238.54	0.00	0.00	15,025.76	75,128.80	0.00	0.00
01 3131	PROPERTY TAX CREDIT	0.00	312,225.60	0.00	0.00	0.00	313,269.32	0.00	0.00
01 3132	PROP TAX CREDIT-RAILROADS/PUBLIC SERVICE	0.00	0.00	0.00	0.00	0.00	32,007.61	0.00	0.00
01 3133	NAMEPLATE CAPACITY TAX	0.00	59,784.46	70,000.00	85.41	0.00	64,414.96	65,000.00	99.10
01 3134	PERS PROP PUB SERV AND RR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
01 3180	PRO RATA MOTOR VEHICLE	0.00	9,731.62	15,000.00	64.88	0.00	9,449.21	8,000.00	118.12
01 3400	STATE APPORTIONMENT	0.00	42,873.60	50,000.00	85.75	0.00	40,791.26	65,000.00	62.76
01 3512	DISTRICT ED INCENTIVE	(1,688.56)	0.00	5,000.00	0.00	0.00	0.00	10,000.00	0.00
01 3535	HIGH ABILITY LEARNERS	0.00	4,877.00	5,000.00	97.54	0.00	3,275.00	10,000.00	32.75
01 3570	STATE GRANT: TEACHER EVALUATION 2017	0.00	0.00	0.00	0.00	0.00	0.00	10,000.00	0.00
01 3990	OTHER STATE RECEIPTS	0.00	0.00	100.00	0.00	0.00	47.18	1,500.00	3.15
01 4105	UNIVERSAL SERVICE FUND (E-RATE)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
01 4310	REAP - US DEPT OF ED	0.00	51,456.38	30,000.00	171.52	0.00	3,045.00	42,000.00	7.25
01 4505	TITLE I	0.00	85,592.00	90,000.00	95.10	0.00	88,882.00	90,000.00	98.76
01 4506	TITLE I ACCOUNTABILITY	0.00	0.00	0.00	0.00	0.00	0.00	5,000.00	0.00
01 4509	TITLE II, PART A	0.00	17,847.00	20,000.00	89.24	0.00	21,113.00	20,000.00	105.57
01 4512	IDEA PART B BASE ALLOCATION	0.00	0.00	55,000.00	0.00	0.00	0.00	55,000.00	0.00
01 4516	IDEA BASE 3-5	0.00	5,869.00	5,000.00	117.38	0.00	0.00	6,000.00	0.00
01 4518	IDEA PART B BASE & ENROLLMENT POVERTY	0.00	96,405.00	0.00	0.00	0.00	0.00	0.00	0.00
01 4519	IDEA PART B	0.00	0.00	65,000.00	0.00	0.00	113,375.00	64,000.00	177.15
01 4521	IDEA PART B PROPORTIONATE SHARE	0.00	0.00	5,000.00	0.00	0.00	0.00	5,000.00	0.00
01 4530	PBIS - OTHER FEDERAL REVENUES	0.00	0.00	1,000.00	0.00	0.00	18,250.00	1,000.00	1,825.00
01 4531	AFTERSCHOOL-TITLE IV, PART B	0.00	59,428.00	60,000.00	99.05	0.00	53,535.00	10,000.00	535.35
01 4708	MEDICAID RECEIPTS/M.I.P.S	2,187.90	5,515.21	0.00	0.00	0.00	0.00	0.00	0.00
01 4709	MECCA TECH MONIES	0.00	2,342.21	20,000.00	11.71	0.00	8,257.48	25,000.00	33.03
01 4900	OTHER FEDERAL SOURCE	0.00	0.00	100,000.00	0.00	0.00	0.00	0.00	0.00
01 4996	ESSER I	0.00	0.00	0.00	0.00	71,221.00	71,221.00	0.00	0.00
01 4997	ESSER II	0.00	271,376.00	0.00	0.00	0.00	0.00	0.00	0.00
01 4998	ESSER III	148,758.00	431,978.00	0.00	0.00	0.00	0.00	0.00	0.00
01 5200	TRANSFERS FROM OTHER FUNDS	0.00	0.00	0.00	0.00	0.00	0.00	400,000.00	0.00
01 6300	SPECIAL ITEMS SIGNIFICANT TRANSACTIONS	0.00	30,318.32	0.00	0.00	0.00	0.00	0.00	0.00
01 9000	Non Program Receipts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		220,095.13	7,437,542.10	7,063,100.00	105.30	151,623.62	7,282,316.58	7,501,033.00	97.08
01	GENERAL FUND	220,095.13	7,437,542.10	7,063,100.00	105.30	151,623.62	7,282,316.58	7,501,033.00	97.08
02	DEPRECIATION FUND								
02 1510	INTEREST ON LOCAL REV RECEIPTS	12.91	155.24	1,500.00	10.35	20.49	932.37	0.00	0.00
02 5200	TRANSFERS FROM OTHER FUNDS	0.00	0.00	200,000.00	0.00	0.00	0.00	200,000.00	0.00
02 5690	OTHER LOCAL REVENUE	0.00	0.00	0.00	0.00	0.00	458.07	0.00	0.00
		12.91	155.24	201,500.00	0.08	20.49	1,390.44	200,000.00	0.70
02	DEPRECIATION FUND	12.91	155.24	201,500.00	0.08	20.49	1,390.44	200,000.00	0.70

BOARD BUDGET REPORT OF REVENUES

Acct #	Acct Description	Current Mo	YTD	Budget	% of Budget	Prev Yr Mo	Prev YTD	Prev Budget	Prev % of Budget
05	ACTIVITIES								
05 1710 0100	ATHLETIC FUND	1,261.20	2,146.81	25,000.00	8.59	0.00	3,083.83	25,000.00	12.34
05 1710 0101	ACTIVITY TICKETS	0.00	2,449.00	3,000.00	81.63	0.00	1,818.40	4,000.00	45.46
05 1710 0109	UNIFORMS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0110	FB GATE RECEIPTS	0.00	0.00	0.00	0.00	0.00	2,944.00	4,000.00	73.60
05 1710 0111	FB OFFICIALS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0112	FB TRAVEL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0113	FB SUPPLIES/EQUIP/MISC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0120	VB GATE RECEIPTS	0.00	2,016.00	3,000.00	67.20	0.00	3,057.76	4,000.00	76.44
05 1710 0121	VB OFFICIALS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0122	VB TRAVEL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0123	VB SUPPLIES/EQUIP/MISC	0.00	(269.33)	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0130	XC ENTRY FEES	0.00	640.00	500.00	128.00	0.00	300.00	500.00	60.00
05 1710 0133	XC SUPPLIES/EQUIP/MISC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0137	CHEERLEADING TRAVEL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0138	CHEERLEADING SUPPLIES/EQUIP/MISC	0.00	0.00	0.00	0.00	0.00	199.00	0.00	0.00
05 1710 0140	BBB/GBB GATE RECEIPTS	0.00	5,056.90	6,000.00	84.28	0.00	3,065.87	8,000.00	38.32
05 1710 0141	BBB/GBB OFFICIALS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0142	BBB TRAVEL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0143	BBB SUPPLIES/EQUIP/MISC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0147	GBB TRAVEL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0148	GBB SUPPLIES/EQUIP/MISC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0150	WR GATE RECEIPTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0151	WR OFFICIALS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0152	WR TRAVEL	0.00	90.83	0.00	0.00	0.00	150.00	0.00	0.00
05 1710 0153	WR SUPPLIES/EQUIP/MISC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0160	TR GATE RECEIPTS	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0161	TR OFFICIALS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0162	TR TRAVEL	0.00	750.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0163	TR SUPPLIES/EQUIP/MISC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0170	BOYS GOLF ENTRY FEES	0.00	350.00	250.00	140.00	0.00	210.00	100.00	210.00
05 1710 0173	BOYS GOLF SUPPLIES/EQUIP/MISC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0176	GIRLS GOLF ENTRY FEES	0.00	350.00	250.00	140.00	0.00	175.00	150.00	116.67
05 1710 0177	GIRLS GOLF TRAVEL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0178	GIRLS GOLF SUPPLIES/EQUIP/MISC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0180	JH FOOTBALL	0.00	563.00	1,000.00	56.30	0.00	338.00	1,000.00	33.80
05 1710	JH VOLLEYBALL	0.00	1,059.00	1,000.00	105.90	0.00	0.00	1,000.00	0.00

BOARD BUDGET REPORT OF REVENUES

Acct #	Acct Description	Current Mo	YTD	Budget	% of Budget	Prev Yr Mo	Prev YTD	Prev Budget	Prev % of Budget
0181									
05 1710 0182	JH BASKETBALL	0.00	424.00	1,000.00	42.40	0.00	0.00	1,000.00	0.00
05 1710 0183	JH WRESTLING	0.00	964.00	1,000.00	96.40	0.00	507.00	1,000.00	50.70
05 1710 0184	JH TRACK	0.00	825.00	1,000.00	82.50	0.00	375.00	1,500.00	25.00
05 1710 0198	RANDOM DRUG TESTING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0199	STATE/NATIONAL EXPENSES	0.00	190.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0201	TRANSFER ACCOUNT	0.00	0.00	25,000.00	0.00	0.00	0.00	15,000.00	0.00
05 1710 0202	YEARBOOK	0.00	60.00	2,000.00	3.00	120.00	816.00	2,000.00	40.80
05 1710 0203	VO AG PROJECT MATERIALS	0.00	0.00	500.00	0.00	0.00	25.00	500.00	5.00
05 1710 0205	FFA PLASMAMACAM FUND	300.00	999.18	1,000.00	99.92	0.00	0.00	1,500.00	0.00
05 1710 0207	JR CLASS CONCESSION EQUIP FUND	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0208	FACILITY USE	0.00	210.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0209	POP FUND	0.00	0.00	100.00	0.00	0.00	0.00	500.00	0.00
05 1710 0210	PADLOCK DEPOSITS	0.00	28.00	250.00	11.20	0.00	245.00	250.00	98.00
05 1710 0211	BOOK FINES/FEES	0.00	0.00	500.00	0.00	0.00	0.00	500.00	0.00
05 1710 0215	SPEECH	0.00	0.00	1,000.00	0.00	0.00	0.00	1,000.00	0.00
05 1710 0216	WORLD STRIDES TRIP FUND	0.00	0.00	0.00	0.00	0.00	0.00	750.00	0.00
05 1710 0217	TEAMMATES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0218	HS STUDENT COUNCIL	0.00	396.00	0.00	0.00	0.00	186.00	0.00	0.00
05 1710 0219	NATIONAL HONOR SOCIETY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0220	WOODSHOP PROJECTS	0.00	784.58	10,000.00	7.85	0.00	4,113.08	0.00	0.00
05 1710 0222	BACKPACK FOOD PROGRAM	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0225	ONE ACTS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0235	THE RANCH	0.00	2,364.37	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0245	HEALTH & WELLNESS FUND	0.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0255	SANTA'S ELVES DONATION FUND	0.00	0.00	0.00	0.00	0.00	0.00	15,000.00	0.00
05 1710 0260	HS QUIZ BOWL	0.00	0.00	500.00	0.00	0.00	235.00	0.00	0.00
05 1710 0265	JH QUIZ BOWL	0.00	125.00	500.00	25.00	0.00	0.00	500.00	0.00
05 1710 0266	ACTIVITIES SPONSOR	20,050.00	28,050.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0270	O'BRIEN READING CABINET	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0313	CLASS OF 2013	0.00	0.00	0.00	0.00	0.00	0.00	500.00	0.00
05 1710 0317	CLASS OF 2017	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0318	CLASS OF 2018	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0319	CLASS OF 2019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0320	CLASS OF 2020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0321	CLASS OF 2021	0.00	0.00	0.00	0.00	0.00	0.00	2,500.00	0.00
05 1710 0322	CLASS OF 2022	0.00	0.00	10,000.00	0.00	0.00	9,721.78	20,000.00	48.61

BOARD BUDGET REPORT OF REVENUES

Acct #	Acct Description	Current Mo	YTD	Budget	% of Budget	Prev Yr Mo	Prev YTD	Prev Budget	Prev % of Budget
05 1710 0323	CLASS OF 2023	0.00	15,545.08	10,000.00	155.45	0.00	1,397.73	500.00	279.55
05 1710 0324	CLASS OF 2024	0.00	3,955.60	5,000.00	79.11	0.00	(1,274.31)	0.00	0.00
05 1710 0325	CLASS OF 2025	0.00	506.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0400	GRADE ACTIVITY MISCELLANEOUS	0.00	394.20	1,500.00	26.28	0.00	127.80	1,500.00	8.52
05 1710 0410	GRADE ACTIVITY LEADERSHIP FUND	0.00	1,998.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0450	JANICEK STOCK MARKET FUNDRAISER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0500	HS MISCELLANEOUS FUND	0.00	445.44	1,000.00	44.54	0.00	870.00	0.00	0.00
05 1710 0501	HS HONOR ROLL CERTIFICATES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0502	HS INTEREST EARNED ON ACCOUNT	9.41	128.64	500.00	25.73	1.92	59.77	500.00	11.95
05 1710 0601	BAND ACTIVITY	0.00	847.00	1,500.00	56.47	0.00	1,261.50	1,500.00	84.10
05 1710 0602	SCHOOL INSTRUMENT & REPAIRS	0.00	0.00	500.00	0.00	0.00	0.00	1,500.00	0.00
05 1710 0603	CHORUS	0.00	0.00	500.00	0.00	0.00	351.00	0.00	0.00
05 1710 0606	SHOW CHOIR UNIFORMS	0.00	1,046.00	5,000.00	20.92	0.00	1,754.00	5,000.00	35.08
05 1710 0607	ELEM SHOW CHOIR	0.00	391.50	1,000.00	39.15	0.00	367.00	800.00	45.88
05 1710 0701	FFA FUND	0.00	23,430.68	20,000.00	117.15	0.00	13,870.40	18,000.00	77.06
05 1710 0703	JH CONCESSIONS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0705	CHEERLEADING FUNDRAISING	5,931.61	20,950.61	20,000.00	104.75	5,742.15	12,627.18	25,000.00	50.51
05 1710 0707	INTERACT CLUB	0.00	0.00	1,000.00	0.00	0.00	0.00	2,500.00	0.00
05 1710 0709	JH STUDENT COUNCIL	0.00	66.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0711	HS STUCO FUNDRAISER	0.00	0.00	2,000.00	0.00	0.00	0.00	2,000.00	0.00
05 1710 0713	NATIONAL HONOR SOCIETY FUNDRAISER	0.00	410.00	500.00	82.00	0.00	200.00	350.00	57.14
05 1710 0715	XC FUNDRAISING	0.00	244.00	2,000.00	12.20	0.00	0.00	2,000.00	0.00
05 1710 0717	BOYS GOLF FUNDRAISING	0.00	120.00	1,000.00	12.00	0.00	0.00	1,000.00	0.00
05 1710 0719	GIRLS GOLF FUNDRAISING	0.00	3,250.00	1,000.00	325.00	0.00	761.00	1,000.00	76.10
05 1710 0721	FB FUNDRAISING	0.00	215.03	2,000.00	10.75	283.00	1,105.00	2,000.00	55.25
05 1710 0723	VOLLEYBALL FUND	0.00	2,894.24	15,000.00	19.29	0.00	12,202.08	5,000.00	244.04
05 1710 0725	BBB FUNDRAISING	1,035.00	3,330.00	1,000.00	333.00	0.00	1,015.00	500.00	203.00
05 1710 0727	GBB FUNDRAISING	0.00	951.00	1,500.00	63.40	0.00	1,085.00	3,000.00	36.17
05 1710 0729	WRESTLING FUNDRAISING	0.00	1,629.00	3,000.00	54.30	0.00	526.34	750.00	70.18
05 1710 0731	TRACK FUNDRAISING	0.00	(35.00)	1,000.00	(3.50)	0.00	0.00	4,000.00	0.00
05 1710 0735	WEIGHT LIFTING CLUB	0.00	0.00	0.00	0.00	0.00	200.00	0.00	0.00
05 1710 0739	STAND	0.00	0.00	1,000.00	0.00	0.00	0.00	2,000.00	0.00
05 1710 0741	ART CLASS PROJECTS	0.00	12.84	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0743	MATH CLUB	0.00	40.00	100.00	40.00	0.00	20.00	100.00	20.00
05 1710 0745	SCIENCE CLUB	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0753	SPEECH FUNDRAISING	0.00	0.00	2,000.00	0.00	0.00	1,804.74	250.00	721.90
05 1710	ONE ACT FUNDRAISING	0.00	678.53	1,000.00	67.85	0.00	0.00	1,000.00	0.00

BOARD BUDGET REPORT OF REVENUES

Acct #	Acct Description	Current Mo	YTD	Budget	% of Budget	Prev Yr Mo	Prev YTD	Prev Budget	Prev % of Budget
0755									
05 1710 0757	LONGHORNS COMMITTED	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0759	CIVICS FUNDRAISER	0.00	0.00	1,000.00	0.00	0.00	5,647.83	0.00	0.00
05 1710 0761	KIMBALL PREVENTION COALITION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0762	EDUCATION QUEST	1,688.56	1,688.56	0.00	0.00	0.00	(122.78)	0.00	0.00
05 1710 0763	TOM SOUTHARD MEMORIAL	0.00	0.00	0.00	0.00	0.00	2,310.00	0.00	0.00
05 1710 0764	LONGHORN APPAREL	0.00	1,922.00	0.00	0.00	0.00	0.00	0.00	0.00
05 1710 0999	SCHOLARSHIP INCOME	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05 5200	TRANSFERS FROM OTHER FUNDS	0.00	0.00	0.00	0.00	0.00	0.00	75,000.00	0.00
		<u>30,275.78</u>	<u>141,327.29</u>	<u>196,950.00</u>	<u>71.76</u>	<u>6,147.07</u>	<u>89,732.00</u>	<u>268,500.00</u>	<u>33.42</u>
05	ACTIVITIES	<u>30,275.78</u>	<u>141,327.29</u>	<u>196,950.00</u>	<u>71.76</u>	<u>6,147.07</u>	<u>89,732.00</u>	<u>268,500.00</u>	<u>33.42</u>
06	SCHOOL NUTRITION								
06 1611	STUDENT LUNCHES	0.00	44,650.38	15,000.00	297.67	(7.35)	20,503.08	77,750.00	26.37
06 1612	STUDENT BREAKFASTS	0.00	0.00	0.00	0.00	0.00	0.00	9,000.00	0.00
06 1613	SPECIAL MILK PROGRAM	0.00	0.00	0.00	0.00	0.00	0.00	500.00	0.00
06 1620	FOOD PROGRAM ADULT RECEIPTS	0.00	0.00	1,000.00	0.00	0.00	741.77	37,750.00	1.96
06 1990	OTHER LOCAL RECEIPTS	0.00	814.63	30,000.00	2.72	0.00	28,043.85	0.00	0.00
06 3150	SCHOOL LUNCH-STATE SHARE	7,178.24	268,384.32	230,000.00	116.69	8,962.67	217,194.14	130,000.00	167.07
06 3990	OTHER STATE RECEIPTS	0.00	0.00	30,000.00	0.00	0.00	28,022.12	0.00	0.00
06 4210	SCHOOL LUNCH (FED ONLY)	0.00	0.00	0.00	0.00	0.00	0.00	1,000.00	0.00
06 5200	TRANSFERS FROM OTHER FUNDS	0.00	0.00	0.00	0.00	0.00	15,000.00	5,000.00	300.00
		<u>7,178.24</u>	<u>313,849.33</u>	<u>306,000.00</u>	<u>102.57</u>	<u>8,955.32</u>	<u>309,504.96</u>	<u>261,000.00</u>	<u>118.58</u>
06	SCHOOL NUTRITION	<u>7,178.24</u>	<u>313,849.33</u>	<u>306,000.00</u>	<u>102.57</u>	<u>8,955.32</u>	<u>309,504.96</u>	<u>261,000.00</u>	<u>118.58</u>
08	SPECIAL BUILDING FUND								
08 1100	PROPERTY TAXES	2,180.88	269,018.36	417,020.00	64.51	730.75	115,228.08	105,730.00	108.98
08 1115	CARLINE TAXES	0.00	1,722.53	0.00	0.00	0.00	431.49	0.00	0.00
08 1125	MOTOR VEHICLE TAXES	0.00	(539.93)	0.00	0.00	0.00	69.97	0.00	0.00
08 1140	PROP TAXES PENALTIES & INTEREST	20.79	488.11	0.00	0.00	22.43	650.22	0.00	0.00
08 1510	INTEREST ON LOCAL REV RECEIPTS	190.56	1,244.68	0.00	0.00	52.96	2,024.73	0.00	0.00
08 1920	CONTRIBUTIONS/DONATIONS PRIVATE	0.00	0.00	0.00	0.00	0.00	1,280.00	0.00	0.00
08 3130	HOMESTEAD ALLOCATION	1,098.96	5,494.80	0.00	0.00	273.91	1,369.55	0.00	0.00
08 3131	PROPERTY TAX CREDIT	0.00	23,502.56	0.00	0.00	0.00	5,710.64	0.00	0.00
08 3132	PROP TAX CREDIT-RAILROADS/PUBLIC SERVICE	0.00	0.00	0.00	0.00	0.00	583.48	0.00	0.00
08 3133	NAMEPLATE CAPACITY TAX	0.00	4,500.23	0.00	0.00	0.00	1,174.23	0.00	0.00
08 3134	PERS PROP PUB SERV & RR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08 3180	PRO-RATA MOTOR VEHICLE	0.00	462.33	0.00	0.00	0.00	335.18	0.00	0.00
08 5400	LOAN PROCEEDS	0.00	1,699,570.00	0.00	0.00	0.00	0.00	0.00	0.00
		<u>3,491.19</u>	<u>2,005,463.67</u>	<u>417,020.00</u>	<u>480.90</u>	<u>1,080.05</u>	<u>128,857.57</u>	<u>105,730.00</u>	<u>121.87</u>
08	SPECIAL BUILDING FUND	<u>3,491.19</u>	<u>2,005,463.67</u>	<u>417,020.00</u>	<u>480.90</u>	<u>1,080.05</u>	<u>128,857.57</u>	<u>105,730.00</u>	<u>121.87</u>
Grand Total:		<u>261,053.25</u>	<u>9,898,337.63</u>	<u>8,184,570.00</u>	<u>120.94</u>	<u>167,826.55</u>	<u>7,811,801.55</u>	<u>8,336,263.00</u>	<u>93.71</u>

<u>Chart of Account Number</u>	<u>Chart of Account Description</u>	<u>Beginning Balance</u>	<u>Expenses</u>	<u>Revenues</u>	<u>Balance Change</u>	<u>Balance</u>
05 704	FUND BALANCE	695.14	0.00	1,688.56	0.00	2,383.70
05 704 0100	ATHLETIC FUND	(18,662.77)	8,846.04	1,261.20	0.00	(26,247.61)
05 704 0101	ACTIVITY TICKETS	5,917.40	0.00	0.00	0.00	5,917.40
05 704 0107	WT ROOM SUPPLIES/EQUIP/MISC	0.00	752.28	0.00	0.00	(752.28)
05 704 0109	UNIFORMS	(18,051.92)	0.00	0.00	0.00	(18,051.92)
05 704 0110	FB GATE RECEIPTS	5,660.00	0.00	0.00	0.00	5,660.00
05 704 0111	FB OFFICIALS	(4,260.00)	0.00	0.00	0.00	(4,260.00)
05 704 0113	FB SUPPLIES/EQUIP/MISC	(4,500.52)	209.97	0.00	0.00	(4,710.49)
05 704 0120	VB GATE RECEIPTS	7,697.76	0.00	0.00	0.00	7,697.76
05 704 0121	VB OFFICIALS	(2,262.00)	0.00	0.00	0.00	(2,262.00)
05 704 0123	VB SUPPLIES/EQUIP/MISC	(812.19)	0.00	0.00	0.00	(812.19)
05 704 0130	XC ENTRY FEES	600.00	0.00	0.00	0.00	600.00
05 704 0133	XC SUPPLIES/EQUIP/MISC	(1,410.26)	0.00	0.00	0.00	(1,410.26)
05 704 0137	CHEERLEADING TRAVEL	(2,786.20)	0.00	0.00	0.00	(2,786.20)
05 704 0138	CHEERLEADING SUPPLIES/EQUIP/MISC	0.00	0.00	0.00	0.00	0.00
05 704 0140	BBB/GBB GATE RECEIPTS	13,332.87	0.00	0.00	0.00	13,332.87
05 704 0141	BBB/GBB OFFICIALS	(6,345.98)	0.00	0.00	0.00	(6,345.98)
05 704 0143	BBB SUPPLIES/EQUIP/MISC	(43.32)	0.00	0.00	0.00	(43.32)
05 704 0150	WR GATE RECEIPTS	176.00	0.00	0.00	0.00	176.00
05 704 0151	WR OFFICIALS	(862.00)	0.00	0.00	0.00	(862.00)
05 704 0152	WR TRAVEL	(109.17)	0.00	0.00	0.00	(109.17)
05 704 0153	WR SUPPLIES/EQUIP/MISC	(270.00)	0.00	0.00	0.00	(270.00)
05 704 0160	TR GATE RECEIPTS	1,000.00	0.00	0.00	0.00	1,000.00
05 704 0161	TR OFFICIALS	(300.00)	0.00	0.00	0.00	(300.00)
05 704 0162	TR TRAVEL	750.00	0.00	0.00	0.00	750.00
05 704 0163	TR SUPPLIES/EQUIP/MISC	(5,194.66)	497.45	0.00	0.00	(5,692.11)
05 704 0170	BOYS GOLF ENTRY FEES	(487.00)	0.00	0.00	0.00	(487.00)
05 704 0172	BOYS GOLF TRAVEL	(52.00)	0.00	0.00	0.00	(52.00)
05 704 0173	BOYS GOLF SUPPLIES/EQUIP/MISC	(1,218.40)	0.00	0.00	0.00	(1,218.40)
05 704 0176	GIRLS GOLF ENTRY FEES	(248.00)	0.00	0.00	0.00	(248.00)
05 704 0178	GIRLS GOLF SUPPLIES/EQUIP/MISC	(1,559.58)	0.00	0.00	0.00	(1,559.58)
05 704 0180	JH FOOTBALL	(639.54)	0.00	0.00	0.00	(639.54)
05 704 0181	JH VOLLEYBALL	1,571.01	0.00	0.00	0.00	1,571.01
05 704 0182	JH BASKETBALL	(848.75)	0.00	0.00	0.00	(848.75)
05 704 0183	JH WRESTLING	260.64	0.00	0.00	0.00	260.64
05 704 0184	JH TRACK	10.33	0.00	0.00	0.00	10.33
05 704 0199	STATE/NATIONAL EXPENSES	(14,860.72)	298.61	0.00	0.00	(15,159.33)
05 704 0201	TRANSFER ACCOUNT	(5.10)	0.00	0.00	0.00	(5.10)

<u>Chart of Account Number</u>	<u>Chart of Account Description</u>	<u>Beginning Balance</u>	<u>Expenses</u>	<u>Revenues</u>	<u>Balance Change</u>	<u>Balance</u>
05 704 0202	YEARBOOK	(3,067.88)	0.00	0.00	0.00	(3,067.88)
05 704 0203	VO AG PROJECT MATERIALS	89.04	0.00	0.00	0.00	89.04
05 704 0204	AG EQUIPMENT FUND	500.00	0.00	0.00	0.00	500.00
05 704 0205	FFA PLASMACAM FUND	3,746.51	76.32	300.00	0.00	3,970.19
05 704 0206	SPECIAL EDUCATION	38.61	0.00	0.00	0.00	38.61
05 704 0207	JR CLASS CONCESSION EQUIP FUND	1,054.56	0.00	0.00	0.00	1,054.56
05 704 0208	FACILITY USE	640.00	0.00	0.00	0.00	640.00
05 704 0210	PADLOCK DEPOSITS	809.41	0.00	0.00	0.00	809.41
05 704 0211	BOOK FINES/FEES	2,005.01	0.00	0.00	0.00	2,005.01
05 704 0215	SPEECH	(1,504.13)	0.00	0.00	0.00	(1,504.13)
05 704 0216	WORLD STRIDES TRIP FUND	12.38	0.00	0.00	0.00	12.38
05 704 0218	HS STUDENT COUNCIL	(1,058.03)	0.00	0.00	0.00	(1,058.03)
05 704 0219	NATIONAL HONOR SOCIETY	(30.00)	0.00	0.00	0.00	(30.00)
05 704 0220	WOODSHOP PROJECTS	(1,019.80)	0.00	0.00	0.00	(1,019.80)
05 704 0222	BACKPACK FOOD PROGRAM	2,979.00	0.00	0.00	0.00	2,979.00
05 704 0225	ONE ACTS	(1,747.06)	0.00	0.00	0.00	(1,747.06)
05 704 0230	MILK BREAK	559.90	0.00	0.00	0.00	559.90
05 704 0235	THE RANCH	(2,770.98)	0.00	0.00	0.00	(2,770.98)
05 704 0240	PALS MENTORING	1,446.08	0.00	0.00	0.00	1,446.08
05 704 0245	HEALTH & WELLNESS FUND	3,266.34	0.00	0.00	0.00	3,266.34
05 704 0250	DISTRICT PROJECT FUND	8,230.19	0.00	0.00	0.00	8,230.19
05 704 0255	SANTA'S ELVES DONATION FUND	62.20	0.00	0.00	0.00	62.20
05 704 0260	HS QUIZ BOWL	98.10	0.00	0.00	0.00	98.10
05 704 0265	JH QUIZ BOWL	946.46	0.00	0.00	0.00	946.46
05 704 0266	ACTIVITIES SPONSORS	8,000.00	0.00	20,050.00	0.00	28,050.00
05 704 0270	O'BRIEN READING CABINET	941.31	0.00	0.00	0.00	941.31
05 704 0316	CLASS OF 2016	608.32	0.00	0.00	0.00	608.32
05 704 0317	CLASS OF 2017	1,509.60	0.00	0.00	0.00	1,509.60
05 704 0318	CLASS OF 2018	1,090.49	0.00	0.00	0.00	1,090.49
05 704 0319	CLASS OF 2019	162.52	0.00	0.00	0.00	162.52
05 704 0320	CLASS OF 2020	28.68	0.00	0.00	0.00	28.68
05 704 0321	CLASS OF 2021	(319.20)	0.00	0.00	0.00	(319.20)
05 704 0322	CLASS OF 2022	2,206.22	0.00	0.00	0.00	2,206.22
05 704 0323	CLASS OF 2023	3,334.00	0.00	0.00	0.00	3,334.00
05 704 0324	CLASS OF 2024	2,192.31	0.00	0.00	0.00	2,192.31
05 704 0400	GRADE ACTIVITY MISCELLANEOUS	15,093.78	0.00	0.00	0.00	15,093.78
05 704 0410	GRADE ACTIVITY LEADERSHIP FUND	598.36	0.00	0.00	0.00	598.36
05 704 0420	GRADE ACTIVITY SPECIAL EDUCATION	323.63	0.00	0.00	0.00	323.63

<u>Chart of Account Number</u>	<u>Chart of Account Description</u>	<u>Beginning Balance</u>	<u>Expenses</u>	<u>Revenues</u>	<u>Balance Change</u>	<u>Balance</u>
05 704 0450	JANICEK STOCK MARKET FUNDRAISER	650.10	0.00	0.00	0.00	650.10
05 704 0500	HS MISCELLANEOUS FUND	13,614.51	0.00	0.00	0.00	13,614.51
05 704 0501	HS HONOR ROLL CERTIFICATES	(484.65)	4.00	0.00	0.00	(488.65)
05 704 0502	HS INTEREST EARNED ON ACCOUNT	15,355.02	0.00	9.41	0.00	15,364.43
05 704 0601	BAND ACTIVITY	1,633.29	0.00	0.00	0.00	1,633.29
05 704 0602	SCHOOL INSTRUMENT & REPAIRS	2,343.46	0.00	0.00	0.00	2,343.46
05 704 0603	CHORUS	643.14	0.00	0.00	0.00	643.14
05 704 0605	MUSICAL PRODUCTIONS	2,195.15	0.00	0.00	0.00	2,195.15
05 704 0606	SHOW CHOIR UNIFORMS	2,387.12	0.00	0.00	0.00	2,387.12
05 704 0607	ELEM SHOW CHOIR	416.54	0.00	0.00	0.00	416.54
05 704 0701	FFA FUND	23,063.82	180.00	0.00	0.00	22,883.82
05 704 0703	JH CONCESSIONS	200.00	0.00	0.00	0.00	200.00
05 704 0705	CHEERLEADING FUNDRAISING	13,284.91	0.00	5,931.61	0.00	19,216.52
05 704 0707	INTERACT CLUB	367.92	0.00	0.00	0.00	367.92
05 704 0709	JH STUDENT COUNCIL	362.71	0.00	0.00	0.00	362.71
05 704 0711	HS STUCO FUNDRAISER	1,275.74	0.00	0.00	0.00	1,275.74
05 704 0713	NATIONAL HONOR SOCIETY FUNDRAISER	242.45	0.00	0.00	0.00	242.45
05 704 0715	XC FUNDRAISING	520.35	0.00	0.00	0.00	520.35
05 704 0717	BOYS GOLF FUNDRAISING	132.34	0.00	0.00	0.00	132.34
05 704 0719	GIRLS GOLF FUNDRAISING	7,561.97	0.00	0.00	0.00	7,561.97
05 704 0721	FB FUNDRAISING	615.39	0.00	0.00	0.00	615.39
05 704 0723	VOLLEYBALL FUNDRAISING	4,420.33	625.00	0.00	0.00	3,795.33
05 704 0725	BBB FUNDRAISING	1,614.95	0.00	1,035.00	0.00	2,649.95
05 704 0727	GBB FUNDRAISING	2,213.30	0.00	0.00	0.00	2,213.30
05 704 0729	WRESTLING FUNDRAISING	844.30	0.00	0.00	0.00	844.30
05 704 0731	TRACK FUNDRAISING	849.46	0.00	0.00	0.00	849.46
05 704 0735	WEIGHT LIFTING CLUB	200.00	0.00	0.00	0.00	200.00
05 704 0737	SPORTSMANSHIP FUND	202.73	0.00	0.00	0.00	202.73
05 704 0739	STAND	1,216.54	0.00	0.00	0.00	1,216.54
05 704 0741	ART CLASS PROJECTS	702.08	0.00	0.00	0.00	702.08
05 704 0743	MATH CLUB	(413.18)	0.00	0.00	0.00	(413.18)
05 704 0745	SCIENCE CLUB	2.54	0.00	0.00	0.00	2.54
05 704 0747	MITCHELL SCIENCE GRANT	294.35	0.00	0.00	0.00	294.35
05 704 0749	SPANISH CLUB	68.79	0.00	0.00	0.00	68.79
05 704 0751	7-12 RESOURCE RM FUNDRAISING	64.00	0.00	0.00	0.00	64.00
05 704 0753	SPEECH FUNDRAISING	1,758.62	0.00	0.00	0.00	1,758.62
05 704 0755	ONE ACT FUNDRAISING	4,194.95	0.00	0.00	0.00	4,194.95
05 704 0757	LONGHORNS COMMITTED	2,287.14	0.00	0.00	0.00	2,287.14

Activity Fund Balance Report - Summary - Exclude Encumbrances

07/2022 - 07/2022

<u>Chart of Account Number</u>	<u>Chart of Account Description</u>	<u>Beginning Balance</u>	<u>Expenses</u>	<u>Revenues</u>	<u>Balance Change</u>	<u>Balance</u>
05 704 0759	CIVICS FUNDRAISER	267.72	0.00	0.00	0.00	267.72
05 704 0761	KIMBALL PREVENTION COALITION	951.23	0.00	0.00	0.00	951.23
05 704 0762	EDUCATION QUEST	(5,842.67)	0.00	0.00	0.00	(5,842.67)
Fund Total: 05		<u>105,215.46</u>	<u>11,489.67</u>	<u>30,275.78</u>	<u>0.00</u>	<u>124,001.57</u>

August 2022 Superintendent Report

- Financial Update –

- 70.38% of the budget spent; 92% of fiscal year completed. 8% of year remaining and 29.62% of budget unspent.
- Through July 2022, we have spent 70.38% at this point in 2021 59.19%, and in 2020 60.70% had been spent.
- Actual Year-To-Date Expenditures are \$7,864,670.49
- Compared to \$6,616,625 last year, \$6,666,740 two years ago and \$7,294,412 three years ago.
- The current cash balance in the General Fund is \$2,582,772.72.
- In 2021 at this time the balance was \$2,343,739.29 in 2020 the balance was at \$1,268,514.39.

- ESSER FUNDS Update –

- All of our ESSER I, II, and III funds have been expended by the end of this fiscal year which wraps up August 31.
- These funds totaled: ESSER I - \$71,221 ESSER II - \$271,376, ESSER III - \$610,515. Total: \$953,112
- These funds were utilized for: cleaning supplies, personal protective equipment, chromebooks, enhancing wireless connectivity at the buildings, online curriculum for students, interactive panels for all classrooms, and HVAC renovations currently ongoing at the facilities.
- We have been reimbursed \$774,575 with the remaining \$178,537 to be reimbursed, hopefully, later this month.

RESOLUTION NUMBER 2022-001

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 South Platte 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 KIMBALL 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 KIMBALL PUBLIC SCHOOLS in the form of a resolution and further requesting approval of the plan at the Federal Level; and

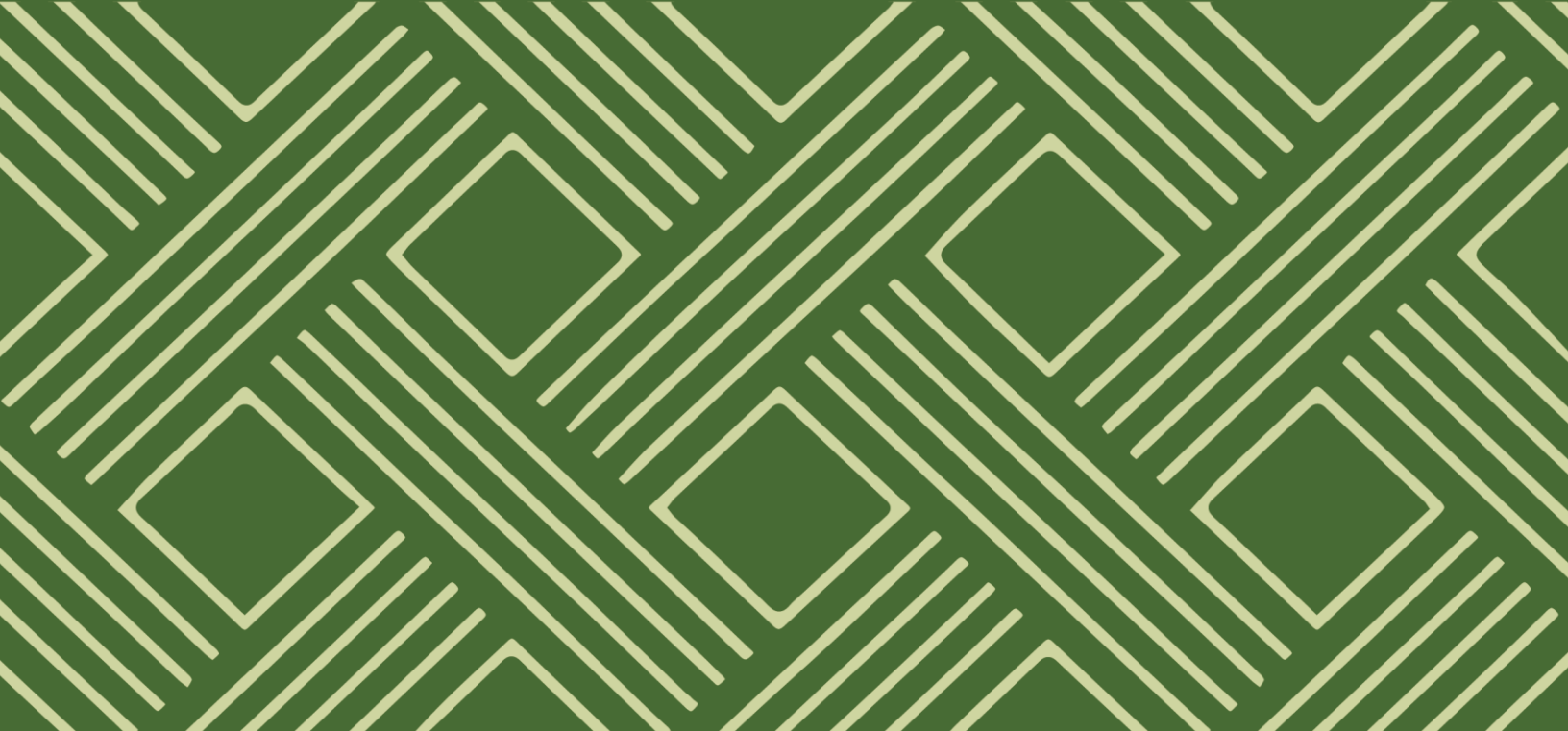
NOW, THEREFORE, the governing body of KIMBALL PUBLIC SCHOOLS does herewith adopt the most recent and FEMA approved version of the South Platte NRD Multi-Jurisdictional Hazard Mitigation Plan Update in its entirety; and

PASSED AND APPROVED this _____ day of _____, 2022.

President of Board

ATTEST:

Secretary



South Platte NRD Multi-Jurisdictional
Hazard Mitigation Plan 2022



Plan developed for the
South Platte NRD by
JEO Consulting Group

Hazard Mitigation Planning Team

Name	Title	Jurisdiction
Ryan Reisdorff	Assistant Manager	South Platte NRD
Travis Glanz	Water Resources Specialist	South Platte NRD
Ron Leal	Emergency Manager	Region 21 Emergency Management Agency
*Phil Luebbert	Project Manager	JEO Consulting Group Inc.
*Anthony Kohel	Planner	JEO Consulting Group Inc.

**Served in a consultant or advisory role.*

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- Village of Gurley
- Village of Lodgepole
- Village of Potter
- City of Sidney

Deuel County Appendix

- Deuel County
- Village of Big Springs
- City of Chappell

Kimball County Appendix

- Kimball County
- Village of Bushnell
- City of Kimball

Special Jurisdictions Appendix

- South Platte Natural Resources District
- Region 21 Emergency Management Agency
- Bushnell Fire District
- Dix Fire District
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List of Acronyms

ACS – American Community Survey	NCEI – National Centers for Environmental Information
BRIC – Building Resilient Infrastructure and Communities	NDA – Nebraska Department of Agriculture
CDC – Centers for Disease Control and Prevention	NDMC – National Drought Mitigation Center
CF – Cubic Feet	NeDNR – Nebraska Department of Natural Resources
CFR – Code of Federal Regulations	NEMA – Nebraska Emergency Management Agency
COVID-19 – Coronavirus Disease 2019	NFIP – National Flood Insurance Program
CRS – Community Rating System	NFS – Nebraska Forest Service
CWPP – Community Wildfire Protection Plans	NOAA – National Oceanic and Atmospheric Administration
CyanoHABs – Cyanobacterial Harmful Algae Blooms	NPI – Nonpharmaceutical Interventions
DMA 2000 – Disaster Mitigation Act of 2000	NRC – National Response Center
EAB – Emerald Ash Borer	NWS – National Weather Service
EAP – Emergency Action Plan	PDSI – Palmer Drought Severity Index
EPA – Environmental Protection Agency	PHMSA – U.S. Pipeline and Hazardous Material Safety Administration
ESL – English as Second Language	Risk MAP – Risk Mapping, Assessment, and Planning
FBI – Federal Bureau of Investigation	RMA – Risk Management Agency
FEMA – Federal Emergency Management Agency	SBA – Small Business Administration
FIRM – Flood Insurance Rate Map	SPIA – Sperry-Piltz Ice Accumulation Index
FMA – Flood Mitigation Assistance Program	START – National Consortium for the Study of Terrorism and Responses to Terrorism
FR – FEMA’s Final Rule	TORRO – Tornado and Storm Research Organization
GIS – Geographic Information Systems	SPNRD – South Platte Natural Resources District
HMA – Hazard Mitigation Assistance	USACE – United States Army Corps of Engineers
HMGP – Hazard Mitigation Grant Program	USDA – United States Department of Agriculture
HMP – Hazard Mitigation Plan	USGS – United States Geological Survey
HPSA – Health Professional Shortage Areas	WHO – World Health Organization
HPRCC – High Plains Regional Climate Center	
HRSA – Health Resources and Services Administration	
JEO – JEO Consulting Group, Inc.	
LEOP – Local Emergency Operations Plan	
LGA – Liquid Gallons	
MUA – Medically Underserved Areas	
MUP – Medically Underserved Populations	

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Executive Summary

Introduction

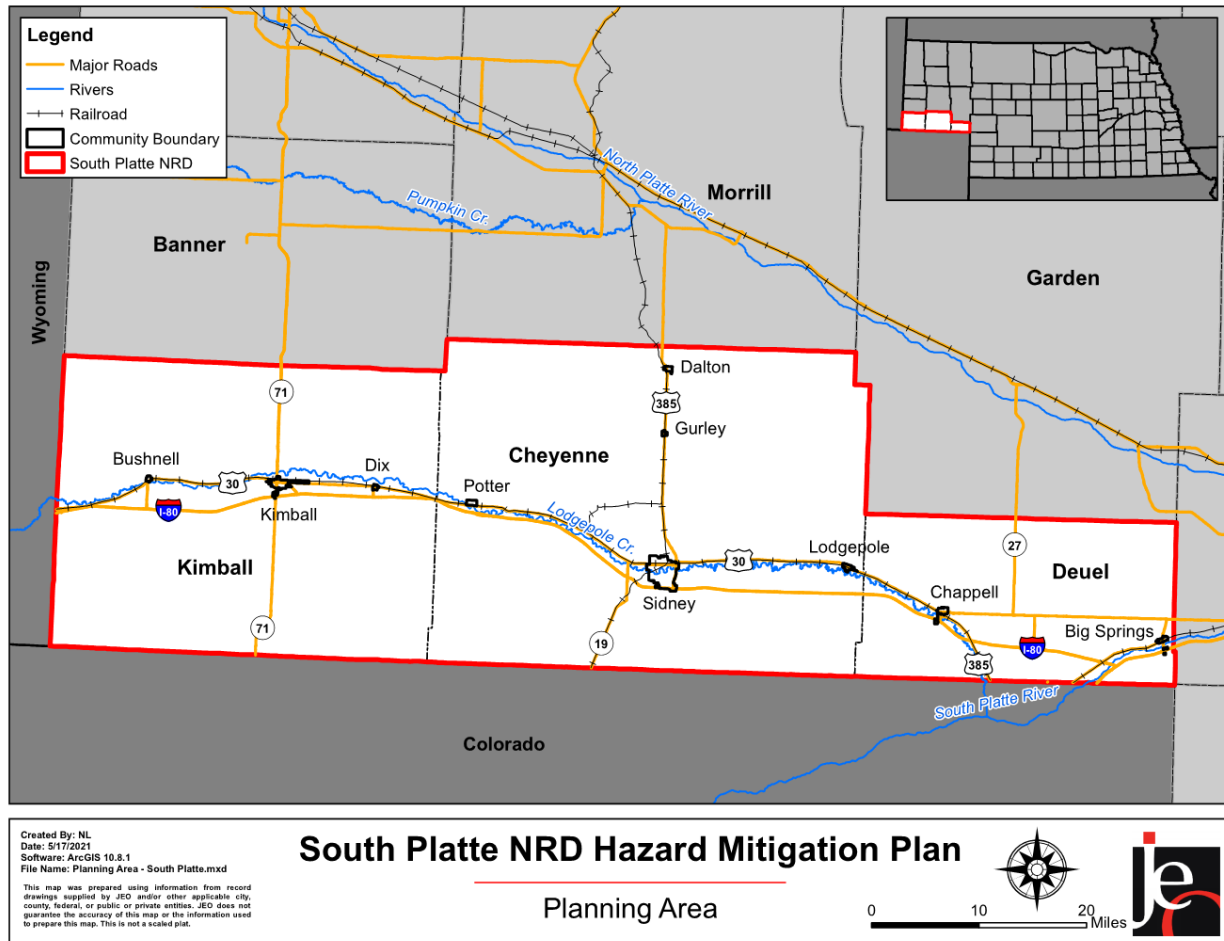
This plan is an update to the South Platte Natural Resources District (SPNRD) Hazard Mitigation Plan (HMP) approved in 2017. The plan update was developed in compliance with the requirements of the Disaster Mitigation Act of 2000 (DMA 2000).

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 to effectively function in the face of natural and human-caused disasters. The goal of the process is to reduce risk and vulnerability, in order to lessen impacts to life, the economy, and infrastructure. Plan participants are listed in the following table and illustrated in the following planning area map.

Table 1: Participating Jurisdictions

Participating Jurisdictions	
Cheyenne County	South Platte NRD
Village of Dalton	Region 21 Emergency Management
Village of Gurley	Bushnell Fire District
Village of Lodgepole	Dix Fire District
Village of Potter	Kimball Municipal Airport
City of Sidney	Kimball Public Schools
Deuel County	Leyton Public Schools
Village of Big Springs	Lodgepole Fire District
City of Chappell	Potter Fire District
Kimball County	Sidney Fire District
Village of Bushnell	Sidney Public Schools
City of Kimball	

Figure 1: Project Area



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 Hazard Mitigation Planning Team reviewed and approved goals which helped guide the process of identifying both broad-based and community-specific mitigation strategies and projects that will, if implemented, reduce their vulnerability and help build stronger, more resilient communities.

Goals from the 2017 HMP were reviewed, and the Hazard Mitigation Planning Team agreed that they are still relevant and applicable for this plan update. Jurisdictions that participated in this plan update agreed that the goals identified in 2017 would be carried forward and utilized for the 2022 plan. The goals for this plan update are as follows:

Goal 1: Protect the Health and Safety of the Public

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

Goal 2: Reduce Future Losses from Hazard Events

- Objective 2.1: Provide protection for existing structures, future development, critical facilities, services, utilities, and trees to the extent possible.
- Objective 2.2: Develop hazard-specific plans, conduct studies or assessments, and retrofit structures to mitigate for 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 on the Vulnerability to Hazards

- Objective 3.1: Develop and provide information to residents and businesses about the types of hazards they are exposed to, what the effects may be, where they occur, and what they can do to better prepare for them.

Goal 4: Improve Emergency Management Capabilities

- Objective 4.1: Develop or improve Emergency Response Plans, procedures, and abilities.
- Objective 4.2: Develop or improve Evacuation Plans and procedures.
- Objective 4.3: Improve warning systems and ability to communicate to the public during and following a disaster or emergency.

Goal 5: Pursue Multi-Objective Opportunities (whenever possible)

- Objective 5.1: When possible, use existing resources, agencies, and programs to implement the projects.
- Objective 5.2: When possible, implement projects that achieve several goals and will positively impact multiple community lifelines.

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 2017 Hazard Mitigation Plan and planning process in this update included: combined risk assessment for hazards with similar impacts and mitigation strategies (Terrorism and Civil Disorder); the elimination of Urban Fire as a discussed hazard; modified public meeting planning process to respond to the COVID-19 pandemic; and the inclusion of Plan Maintenance sections to individual community profiles.

This update also works to unify the various planning mechanisms in place throughout the participating communities (i.e. comprehensive plans, local emergency operation plans, zoning ordinances, building codes, etc.) to ensure that the goals and objectives identified in those planning mechanisms are consistent with the strategies and projects included in this plan. Other changes were made based on comments from the 2017 Review Tool:

- Included information about comments received during the Public Review period.
- Updated guidance book references to the Local Mitigation Planning Handbook (2013).

Executive Summary

It should also be noted that due to the coronavirus disease 2019 (COVID-19), some adjustments were made to the planning process to appropriately accommodate plan meeting dates and requirements. To best protect residents and staff members in the planning area, some meetings were held via an online and phone format rather than in-person public workshop meetings. Additional changes and a summary of the planning process are described in Section Two.

Plan Implementation

Various communities across the planning area have implemented hazard mitigation and strategic projects following the 2017 Hazard Mitigation Plan. A few examples of completed projects include: a new warning siren, impact resistant roof covering, hazardous spill emergency exercise, a backup generator, and others. In order to build upon these prior successes and to continue implementation of mitigation and strategic projects, despite limited resources, communities will need to continue relying upon multi-agency coordination as a means of leveraging resources. Communities across the region have been able to work with a range of entities to complete projects; potential partners for future project implementation include but are not limited to: Nebraska Forest Service (NFS), Nebraska Department of Transportation (NDOT), Nebraska Department of Natural Resources (NeDNR), Nebraska Emergency Management Agency (NEMA), United States Department of Agriculture (USDA), and United States Army Corps of Engineers (USACE).

Hazard Profiles

The hazard mitigation plan includes a description of the hazards considered, including a risk and vulnerability assessment. Data considered during the risk assessment process included: historic occurrences and recurrence intervals; historic losses (physical and monetary); impacts to the built environment (including privately-owned structures as well as critical facilities); and the local risk assessment. The following tables provide an overview of the risk assessment for each hazard and the losses associated with each hazard. See *Section Four: Risk Assessment* for further discussion of counts, probabilities, and likely extent.

Table 2: Regional Risk Assessment

Hazard	Previous Occurrences	Approximate Annual Probability*	Likely Extent
Animal and Plant Disease	Animal Disease: 0	Animal Disease 0/6 = <1%	Varies by event
	Plant Disease: 108	Plant Disease 18/21 = 86%	Crop damage or loss
Dam Failure	1	1/125 = 1%	Varies by structure
Drought	438/1,512 months	29%	D1-D4
Earthquakes	0	0/120 = <1%	Less than 5.0 on the Richter Scale
Extreme Heat	172	47/128 = 37%	>100°F
Flooding	77	18/26 = 69%	Some inundation of structures. Some evacuations of people may be necessary.
Grass/Wildfire	674	21/21 = 100%	Avg 40 acres Some homes and structures threatened or at risk
Hail	721	25/26 = 96%	Hail range 0.5-4.25" Avg hailstone 1.2"
Hazardous Materials – Fixed Sites	38	10/31 = 32%	0 – 400 Gallons 0 – 8,300 Pounds
Hazardous Materials – Transportation	68	26/50 = 52%	0 – 5,900 Gallons
High Winds	190	24/26 = 92%	40 – 90 mph
Levee Failure	0/120	Less than 1%	Varies by event
Severe Thunderstorms	238	24/26 = 92%	>1" rainfall Avg 65 mph winds
Severe Winter Storms	273	26/26 = 100%	8-70 degrees below zero (wind chill) 2-25" snow 10-60 mph winds
Terrorism and Civil Disorder	0/47	Less than 1%	Varies by event

Executive Summary

Tornadoes	71	17/26 = 65%	Mode: EF0 Range: EF0-EF1
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* Annual Probability = Total Years with an Event Occurrence / Total Years of Record

The following table provides loss estimates for hazards with sufficient data. Description of major events are included in *Section Seven: Community Profiles*.

Table 3: Hazard Loss Estimates for the Planning Area

Hazard Type		Count	Property	Crop ²
Animal and Plant Disease	Animal Disease ¹	0	0 animals	N/A
	Plant Disease ²	108	N/A	\$4,541,827
Dam Failure⁵		1	-	N/A
Drought^{6,8}		438/1,512 months	\$50,000	\$52,680,199
Earthquakes¹¹		0	-	-
Extreme Heat⁷		Avg 3 days per year	-	\$8,669,018
Flooding⁸ <i>1 Injury</i>	Flash Flood	66	\$3,217,000	\$80,700
	Flood	11	\$7,000	
Grass/Wildfire¹² <i>5 Injuries, 5 Fatalities</i>		674	\$249,720	\$54,457
Hail⁸ <i>1 Injury</i>		721	\$13,357,000	\$73,331,957
Hazardous Materials – Fixed Sites³		38	-	N/A
Hazardous Materials – Transportation⁴		68	\$460,168	N/A
High Winds⁸		190	\$106,000	\$10,231,488
Levee Failure¹⁰		0	-	N/A
Severe Thunderstorms⁸	Heavy Rain	19	-	\$8,833,408
	Lightning	1	\$1,000	
	Thunderstorm Wind	218	\$282,700	
Severe Winter Storms⁸ <i>22 Injuries, 4 Fatalities</i>	Blizzard	43	\$110,000	\$21,176,066
	Extreme Cold/Wind Chill	22	-	
	Heavy Snow	53	\$5,000	
	Ice Storm	1	\$50,000	
	Winter Storm	119	\$496,000	
	Winter Weather	35	\$138,200	
Terrorism and Civil Disorder⁹		0	-	N/A
Tornadoes⁸ <i>2 injuries</i>		71	\$248,000	\$9,475
Total		2,458	\$18,777,788	\$179,601,039

N/A: Data not available

1 NDA (2015-2020)

2 USDA RMA (2000-2020)

3 NRC (1990-2020)

4 PHMSA (1971-Jan 2021)

5 NeDNR Correspondence (July 2021)

- 6 NOAA (1895-2020)
- 7 NOAA Regional Climate Center (1893-2020)
- 8 NCEI (1996-April 2021)
- 9 Global Terrorism Database (1970-2017)
- 10 USACE (1900-June 2021)
- 11 USGS (1900-June 2021)
- 12 NFS (2000-2020)

Events like plant disease, extreme heat, grass/wildfires, hail, severe thunderstorms, and severe winter storms will occur annually. Other hazards like dam failure, earthquakes, levee failure, and terrorism/civil disorder will occur less often. The scope of events and how they will manifest themselves locally is not known regarding hazard occurrences. Historically, drought, hail, high winds, and severe winter storms have resulted in the most significant damages within the planning area. Current trends show an increase in event magnitude and a higher number of occurrences for several hazards, as will be explained in *Section Four: Risk Assessment*.

Mitigation Strategies

There are a wide variety of strategies that can be used to reduce the impacts of hazards for the built environment and planning area residents. *Section Five: Mitigation Strategy* shows the mitigation and strategic actions chosen by the participating jurisdictions to assist in preventing future losses.

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Section One: Introduction

Hazard Mitigation Planning

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

Natural hazards, such as severe winter storms, high winds and tornadoes, severe thunderstorms, flooding, extreme heat, drought, agriculture diseases, and wildfires are part of the world around us. Human-caused hazards are a product of the society and can occur with significant impacts to communities. Human-caused hazards can include dam failure, hazardous materials release, transportation incidents, and terrorism. These hazard events can occur as a part of normal operation or as a result of human error. All jurisdictions participating in this planning process are vulnerable to a wide range of natural and human-caused hazards that threaten the safety of residents and have the potential to damage or destroy both public and private property, cause environmental degradation, and disrupt the local economy and overall quality of life.

The South Platte NRD has prepared this multi-jurisdictional hazard mitigation plan in an effort to reduce impacts from natural and human-caused hazards and to better protect the people and property of the region from the effects of these hazards. This plan demonstrates a regional commitment to reducing risks from hazards and serves as a tool to help decision makers establish mitigation activities and resources. Further, this plan was developed to ensure the counties and participating jurisdictions are eligible for federal Hazard Mitigation Assistance (HMA) programs and to accomplish the following objectives:

- Minimize the disruption to each jurisdiction following a disaster.
- Establish actions to reduce or eliminate future damages in order to efficiently recover from disasters.
- Investigate, review, and implement activities or actions to ensure disaster related hazards are addressed by the most efficient and appropriate solution.
- Educate citizens about potential hazards.
- Facilitate development and implementation of hazard mitigation management activities to ensure a sustainable community.



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.”

Disaster Mitigation Act of 2000

The U.S. Congress passed the Disaster Mitigation Act 2000 to amend the Robert T. Stafford Disaster Relief and Emergency Assistance Act¹. Section 322 of the DMA 2000 requires that state and local governments develop, adopt, and routinely update a hazard mitigation plan to remain eligible for pre- and post-disaster mitigation funding.² These funds currently include the Hazard Mitigation Grant Program (HMGP)³, Building Resilient Infrastructure and Communities (BRIC)⁴, and the Flood Mitigation Assistance Program (FMA)⁵. The Federal Emergency Management Agency (FEMA) administers these programs under the Department of Homeland Security.⁶

This plan was developed in accordance with current state and federal rules and regulations governing local hazard mitigation plans. The plan shall be monitored and updated on a routine basis to maintain compliance with the legislation – Section 322, Mitigation Planning, of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as enacted by Section 104 of the DMA 2000 (P.L. 106-390)⁷ and by FEMA’s Final Rule (FR)⁸ published in the Federal Register on November 30, 2007, at 44 Code of Federal Regulations (CFR) Part 201.

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.

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

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

- **HMGP:** To qualify for post-disaster mitigation funds, local jurisdictions must have adopted 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 of state, tribal, and local mitigation plans.

1 Federal Emergency Management Agency, Public Law 106-390. 2000. "Disaster Mitigation Act of 2000." https://www.fema.gov/sites/default/files/2020-11/fema_disaster-mitigation-act-of-2000_10-30-2000.pdf.

2 Federal Emergency Management Agency. 2021. "Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended, and Related Authorities." Federal Emergency Management Agency 592: 22. Sec. 322. Mitigation Planning (42 U.S.C. 5165). https://www.fema.gov/sites/default/files/documents/fema_stafford_act_2021_vol1.pdf.

3 Federal Emergency Management Agency. "Hazard Mitigation Grant Program." Last modified August 6, 2021. <https://www.fema.gov/grants/mitigation/hazard-mitigation>.

4 Federal Emergency Management Agency. "Building Resilient Infrastructure and Communities." Last modified December 1, 2021. <https://fema.gov/bric>.

5 Federal Emergency Management Agency. "Flood Mitigation Assistance Grant Program." Last modified August 6, 2021. <https://www.fema.gov/flood-mitigation-assistance-grant-program>.

6 Federal Emergency Management Agency. "Hazard Mitigation Assistance." Last modified September 30, 2021. <https://www.fema.gov/grants/mitigation>.

7 Federal Emergency Management Agency: Federal Register. 2002. "Section 104 of Disaster Mitigation Act 2000: 44 CFR Parts 201 and 206: Hazard Mitigation Planning and Hazard Mitigation Grant Programs; Interim Final Rule." <https://www.fema.gov/pdf/help/fr02-4321.pdf>.

8 Federal Emergency Management Agency: Federal Register. 2002. "44 CFR Parts 201 and 206: Hazard Mitigation Planning and Hazard Mitigation Grant Programs; Interim Final Rule." <https://www.fema.gov/pdf/help/fr02-4321.pdf>.

- **FMA:** To qualify to receive FMA funds to reduce or eliminate risk of repetitive flood damage to buildings and structures, local jurisdictions must have an adopted and approved mitigation plan. Furthermore, local jurisdictions must be participating communities in the National Flood Insurance Program (NFIP). The goal of FMA is to reduce or eliminate claims under the NFIP.
- **BRIC:** To qualify for funds, local jurisdictions must adopt a mitigation plan that is approved by FEMA. BRIC assists states, territories, Indian tribal governments, and local governments in implementing a sustained pre-disaster hazard mitigation program.

Plan Financing

Regarding the plan financing, the South Platte NRD as the “sub-applicant”, is the eligible entity that submits a sub-application for FEMA assistance to the “Applicant”, which is the State of Nebraska. If HMA funding is awarded, the sub-applicant becomes the “sub-grantee” and is responsible for managing the sub-grant and complying with program requirements, such as quarterly reporting and reimbursement requests, as well as other applicable federal, state, territorial, tribal, and local laws and regulations.

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Section Two: Planning Process

Introduction

The process utilized to develop a hazard mitigation plan is often as important as the final planning document. For this planning process, South Platte NRD adapted the four-step hazard mitigation planning process outlined by FEMA to fit the needs of the participating jurisdictions. The following pages will outline how the Hazard Mitigation Planning Team was established; the function of the Hazard Mitigation Planning Team; critical project meetings and community representatives; outreach efforts to the general public; key stakeholders and neighboring jurisdictions; general information relative to the risk assessment process; general information relative to local/regional capabilities; plan review and adoption; and ongoing plan maintenance.

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.

Multi-Jurisdictional Approach

According to FEMA, “A multi-jurisdictional hazard mitigation plan is a plan jointly prepared by more than one jurisdiction.” The term ‘jurisdiction’ means ‘local government.’ Title 44 Part 201, Mitigation Planning in the CFR, defines a ‘local government’ as “any county, municipality, city, town, township, public authority, school district, special district, intrastate district, council of governments, regional or interstate government entity, or agency or instrumentality of a local government; any Indian tribe or authorized tribal organization, any rural community, unincorporated town or village, or other public entity.” For the purposes of this plan, a ‘taxing authority’ was utilized as the qualifier for jurisdictional participation. FEMA recommends the multi-jurisdictional approach under the DMA 2000 for the following reasons.

- It provides a comprehensive approach to the mitigation of hazards that affect multiple jurisdictions.
- It allows economies of scale by leveraging individual capabilities and sharing cost and resources.
- It avoids duplication of efforts.
- It imposes an external discipline on the process.

Both FEMA and NEMA recommend this multi-jurisdictional approach through the cooperation of counties, regional emergency management, and natural resources districts. South Platte NRD

utilized the multi-jurisdiction planning process recommended by FEMA (Local Mitigation Plan Review Guide⁹, Local Mitigation Planning Handbook¹⁰, and Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards¹¹) to develop this plan.

Hazard Mitigation Planning Process

The hazard mitigation planning process as outlined by FEMA has four general steps which are detailed below. The mitigation planning process is rarely a linear process. It's common that ideas developed during the initial risk assessment may need revision later in the process, or that additional information may be identified while developing the mitigation plan or during plan implementation that results in new goals or additional risk assessments.

Organization of Resources

- Focus on the resources needed for a successful mitigation planning process. Essential steps include: Organizing interested community members; and Identifying technical expertise needed.

Assessment of Risk

- Identify the characteristics and potential consequences of the hazard. Identify how much of the jurisdiction can be affected by specific hazards and the potential impacts on local assets.

Mitigation Plan Development

- Determine priorities and identify possible solutions to avoid or minimize the undesired effects. The result is the hazard mitigation plan and strategy for implementation.

Plan Implementation and Progress Monitoring

- Bring the plan to life by implementing specific mitigation and strategic projects and changing day-to-day operations. It is critical that the plan remains relevant to succeed. Thus, it is important to conduct periodic evaluations and revisions, as needed.

Organization of Resources

Plan Update Process

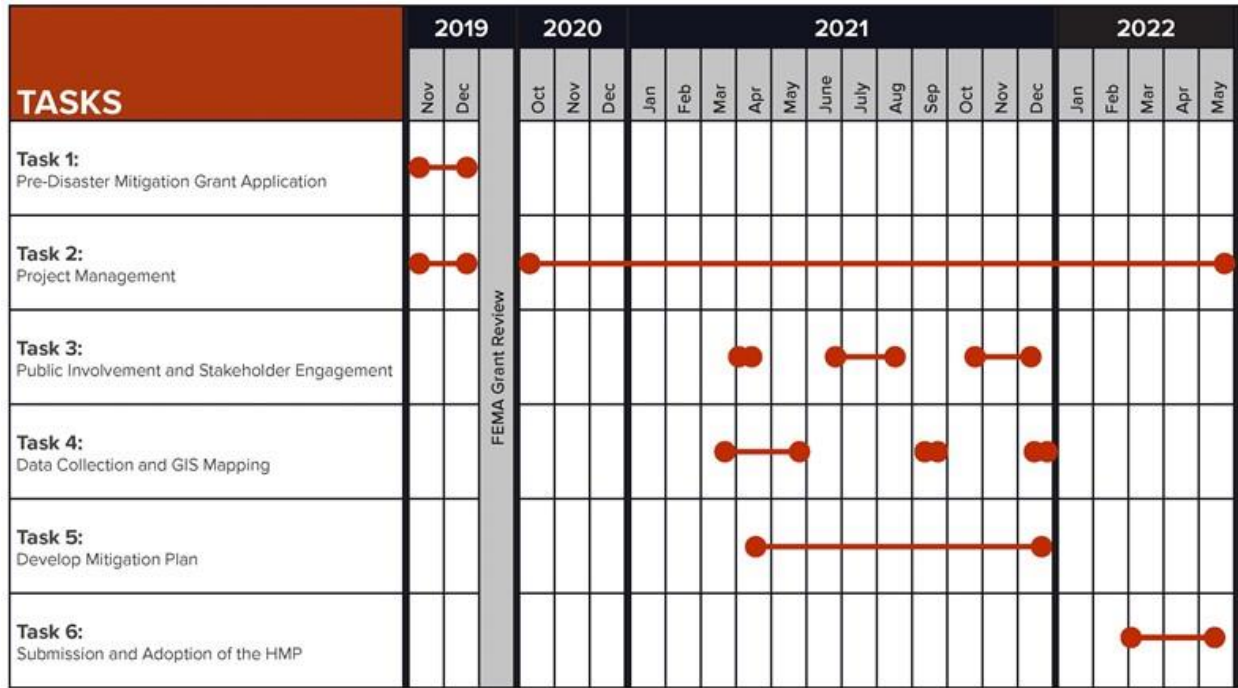
South Platte NRD applied for PDM funding for their multi-jurisdictional hazard mitigation plan in fiscal year 2019. JEO Consulting Group, Inc. (JEO) was contracted in January 2020 to guide and facilitate the planning process and write and assemble the multi-jurisdictional hazard mitigation plan. For the planning area, Ryan Reisdorff with South Platte NRD led the development of the plan and served as the primary point of contact throughout the project. A clear timeline of this plan update process is provided in Figure 2.

9 Federal Emergency Management Agency. 2011. "Local Mitigation Plan Review Guide." https://www.fema.gov/sites/default/files/2020-06/fema-local-mitigation-plan-review-guide_09_30_2011.pdf.

10 Federal Emergency Management Agency. 2013. "Local Mitigation Planning Handbook." https://www.fema.gov/sites/default/files/2020-06/fema-local-mitigation-planning-handbook_03-2013.pdf.

11 Federal Emergency Management Agency. 2013. "Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards." https://www.fema.gov/sites/default/files/2020-06/fema-mitigation-ideas_02-13-2013.pdf.

Figure 2: Project Timeline



Planning Team

At the beginning of the planning process, South Platte NRD and JEO staff identified who would be the regional Hazard Mitigation Planning Team. This planning team was established to guide the planning process, review the existing plan, and serve as a liaison to plan participants throughout the planning area. A list of planning team members can be found in Table 4. Staff from NEMA and NeDNR provided additional technical support.

Table 4: Hazard Mitigation Planning Team

Name	Title	Jurisdiction
Ryan Reisdorff	Assistant Manager	South Platte NRD
Travis Glanz	Water Resources Specialist	South Platte NRD
Ron Leal	Emergency Manager	Region 21 Emergency Management Agency
Phil Luebbert	Project Manager	JEO Consulting Group Inc.
Anthony Kohel	Planner	JEO Consulting Group Inc.

A kick-off meeting was held via Zoom on April 12, 2021, to discuss an overview of the planning process between JEO staff and members of the Hazard Mitigation Planning Team. Preliminary discussion was held over hazards to be included in this plan, changes to be incorporated since the last plan, goals and objectives, identification of key stakeholders to include in the planning process, and a general schedule for the plan update. This meeting also assisted in clarifying the role and responsibilities of the Hazard Mitigation Planning Team and strategies for public engagement throughout the planning process. Table 5 shows kick-off meeting attendees.

Table 5: Kick-off Meeting Attendees

Name	Title	Jurisdiction
Ryan Reisdorff	Assistant Manager	South Platte NRD

Ron Leal	Emergency Manager	Region 21 Emergency Management Agency
Tim Newman	Emergency Manager	Region 22 Emergency Management Agency
Phil Luebbert	Project Manager	JEO Consulting Group Inc.
Anthony Kohel	Planner	JEO Consulting Group Inc.
Mary Baker	Resiliency Strategist	JEO Consulting Group Inc.

Table 6 shows the date, location, and agenda items of for the kick-off meeting.

Table 6: Kick-off Meeting Location and Time

Location and Time	Agenda Items
Online Zoom Meeting April 12, 2021 10:00am	<ul style="list-style-type: none"> -Consultant and planning team responsibilities -Overview of plan update process and changes from 2017 HMP -Review and adoption of goals and objectives <ul style="list-style-type: none"> -Plan goals/objectives -Hazard identification -Project schedule and dates/locations for public meetings

Public Involvement and Outreach

To notify and engage the public in the planning process, a wide range of stakeholder groups were contacted and encouraged to participate. There were 20 stakeholder groups or entities that were identified and sent letters to participate. Of the 20 invited, Kimball County Manor, Panhandle Public Health District, and Sidney Regional Medical Center attended meetings. Any comments these stakeholders provided were incorporated into the appropriate community profiles (see *Section Seven*). NEMA also attended meetings and provided data and guidance during the planning process. The general public was encouraged to participate through the project website by providing comments to the Hazard Mitigation Planning Team members. No comments were received from the general public.

Table 7: Notified Stakeholder Groups

Organizations		
Aging Office of Western Nebraska	Kimball Health Services	Region 22 Emergency Management Agency
American Red Cross - Central Plains	Kimball-Banner County Chamber of Commerce	Sidney Municipal Airport
Cheyenne County Chamber of Commerce	Nebraska Public Power District	Sidney Regional Medical Center
High West Energy	Panhandle Area Development District	Sidney Regional Medical Center-Extended Care
Highline Electric Association	Panhandle Public Health District	Sloan Estates Assisted Living
Kimball County Manor	Region 21 CERT	Wheat Belt Public Power District

Neighboring Jurisdictions

Neighboring jurisdictions were notified and invited to participate in the planning process. The following table indicates which neighboring communities or entities were notified of the planning process. Invitation and informational letters were sent to county clerks, county and regional emergency managers, and NRDs. Jurisdictions outside of the planning area did not participate in the planning process.

Table 8: Notified Neighboring Jurisdictions

Notified Neighboring Jurisdictions	
Banner County, NE	Morrill County, NE
Garden County, NE	North Platte NRD
Goshen County, WY	Perkins County, NE
Keith County, NE	Sedgwick County, CO
Laramie County, WY	Twin Platte NRD
Logan County, CO	Weld County, CO

Participant Involvement

Participants play a key role in identifying hazards, providing a record of historical disaster occurrences and localized impacts, identifying and prioritizing potential mitigation projects and strategies, and the developing annual review procedures.

To be a participant in the development of this plan update, jurisdictions were required to have at a minimum, one representative present at the Round 1 and Round 2 meeting or attend a follow-up meeting with a JEO staff member. Some jurisdictions sent multiple representatives to meetings. For jurisdictions who had only one representative, they were encouraged to bring meeting materials back to their governing bodies, to collect diverse input on their jurisdiction's meeting documents. Sign-in sheets are not available for Round 1 or Round 2 meetings as they were held virtually, however, attendance was recorded. Jurisdictions that were unable to attend the scheduled public meetings were able to request a meeting with JEO staff to satisfy the meeting attendance requirement. This effort enabled jurisdictions which could not attend a scheduled public meeting to participate in the planning process.

Outreach to eligible jurisdictions included notification prior to all public meetings, phone calls and email reminders of upcoming meetings, and reminders to complete worksheets required for the planning process. Table 9 provides a summary of outreach activities utilized in this process.

Table 9: Outreach Activity Summary

Action	Intent
Project Website	Informed the public and local/planning team members of past, current, and future activities (https://jeo.com/spnrd-hmp).
Round 1 Meeting Letters and Emails (30-day notification)	Sent to participants, stakeholders, and neighboring jurisdictions to discuss the agenda/dates/times/ locations of the first round of public meetings.
Round 2 Meeting Letters and Emails (30-day notification)	Sent to participants to discuss the agenda/dates/times/locations of the second round of public meetings.
Notification Phone Calls	Called potential participants to remind them about upcoming meetings.
Follow-up Emails and Phone Calls	Correspondence was provided to remind and assist participating jurisdictions with the collection and submission of required local data.
Project Updates at NRD Board Meetings	Update the public and NRD board of ongoing plan progress.
Word-of-Mouth	Staff discussed the plan with jurisdictions throughout the planning process.

Round 1 Meetings: Hazard Identification

At the Round 1 meetings, jurisdictional representatives (i.e., the local planning teams) reviewed the hazards identified at the kick-off meeting and conducted risk and vulnerability assessments based on these hazards' previous occurrence and the communities' exposure. (For a complete list of hazards reviewed, see *Section Four: Risk Assessment*.)

Due to COVID-19 numbers across Nebraska, the first round of meetings was held via an online and phone format rather than in-person public workshop meetings. This was done to protect the health of residents and staff members in the planning area and to help reduce the spread of the virus. Table 10 shows the date and location of meetings held for the Round 1 meeting phase of the project.

Table 10: Round 1 Meeting Dates and Locations

Agenda Items	
General overview of the HMP update process, discuss participation requirements, begin the process of risk assessment and impact reporting, update critical facilities, capabilities assessment, and status update on current mitigation and strategic projects	
Location and Time	Date
Virtual Zoom Meeting Online or by Phone, 2:00 PM	Wednesday, July 28, 2021
Virtual Zoom Meeting Online or by Phone, 6:00 PM	Thursday, July 29, 2021

The intent of these meetings was to familiarize local planning team members 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 HMP. Data collected at these meetings included: updates to mitigation and strategic actions from the 2017 South Platte NRD HMP; identify the top concerns from each jurisdiction; and to begin reviewing and updating community profiles for demographics, capabilities, and critical facilities. Information/data reviewed include but was not limited to local hazard prioritization results; identified critical facilities and their location within the community; future development areas; and expected growth trends (refer to *Appendix B*).

The following tables show the attendees for each jurisdiction who attended a Round 1 meeting or had a one-on-one discussion with JEO staff. Follow-up one-on-one meetings were held for communities who did not have representatives present at public meetings either through watching a recording of the meeting or via conference call with a member of the Hazard Mitigation Planning Team.

Table 11: Round 1 Meeting Attendees

Name	Title	Jurisdiction
Online Zoom Meeting – Wednesday, July 28, 2021		
Beth Fiegenschuh	County Clerk	Cheyenne County
Bill Bohac	Maintenance Supervisor	Kimball County Manor
Bill Hinton	Interim City Administrator, Electric Superintendent	City of Kimball
Colleen Terman	Planning & Zoning Administrator	Cheyenne County
Diana Mendoza-Cauley	Hazard Mitigation Community Planner	FEMA Region VII
Jason Petik	CEO	Sidney Regional Medical Center

Jeff Juelfs	Utility Superintendent	Village of Dalton
John Cook	Program Specialist	NEMA
Kevin Kubo	City Inspector/Floodplain Administrator	City of Sidney
Mark Onstott	Fire Chief	Potter Fire District
Melissa Gorsuch	Clerk	Village of Potter
Michelle Hill	Emergency Preparedness Coordinator	Panhandle Public Health District
Ron Leal	Emergency Manager	Region 21 EMA
Ryan McElroy	Manager	Kimball Municipal Airport
Ryan Reisdorff	Assistant Manager	South Platte NRD
Sheila Newell	Zoning Administrator	Kimball County
Anthony Kohel	Planner	JEO Consulting Group
Mary Baker	Resiliency Strategist	JEO Consulting Group
Phil Luebbert	Project Manager	JEO Consulting Group
Online Zoom Meeting – Thursday, July 29, 2021		
Ryan Reisdorff	Assistant Manager	South Platte NRD
Walter Kielian	Fire Chief	Dix Fire District
Anthony Kohel	Planner	JEO Consulting Group
Phil Luebbert	Project Manager	JEO Consulting Group

Table 12: Round 1 Recorded Meeting Viewers

Name	Title	Jurisdiction
Ashlea Bauer	Administrator/Clerk	City of Chappell
Chris Geary	Superintendent	Leyton Public Schools
Curtis Brown	Utility Superintendent	Village of Big Springs
Gregg Fossand	Building & Grounds/Transportation Director	Kimball Public Schools
Jay Ehler	Superintendent	Sidney Public Schools
Klent Schnell	Fire Chief	Bushnell Fire District
LaVerne Bown	Fire Chief	Sidney Fire Department
Leigh Niekum	Clerk/Floodplain Administrator	Village of Gurley
Rick Dickinson	Utility Superintendent	Village of Bushnell
Steven Fischer	County Commissioner	Deuel County
Wade Dickinson	Fire Chief	Lodgepole Fire District

Round 2 Meetings: Mitigation Strategies

Round 2 meetings are designed to identify and prioritize mitigation measures and evaluate potential integration of the HMP alongside other local planning mechanisms. Mitigation and strategic actions and plan integration are essential components in effective hazard mitigation plans. Participating jurisdictions were asked to identify any new mitigation and strategic actions to pursue alongside continued actions from the 2017 HMP and provide copies or descriptions of current jurisdictional plans in which hazard mitigation goals and principals can be integrated. Participating jurisdictions were also asked to review the information collected from the Round 1 meeting related to their community through this planning process for accuracy. Information/data reviewed included but was not limited to local hazard prioritization results, identified critical facilities and their location within the community, future development areas, and expected growth trends (refer to *Appendix B*).

There was also a brief discussion about the planning process, when the plan would be available for public review and comment, annual review of the plan, and the approval and grant opportunities available once the plan was approved. As with Round 1 meetings, any jurisdictions unable to attend were given the opportunity to have a one-on-one phone conference with the consultant or view a recording of the meeting in order to meet plan participation requirements and complete required information.

For the Round 2 meetings, one was held in person, and one was held via an online and phone format. Table 13 shows the date and location of meetings held for Round 2 Meetings. Meeting attendees are identified in Table 14 and Table 15.

Table 13: Round 2 Meeting Dates and Locations

Agenda Items	
Identify new mitigation and strategic actions, review of local data and community profile, discuss review process, discuss available grants and eligibility, and complete plan integration tool.	
Location and Time	Date
South Platte NRD Office Sidney, Nebraska, 2:00 PM	Thursday, December 16, 2021
Online Zoom Meeting Online or by Phone, 2:00 PM	Monday, December 20, 2021

Table 14: Round 2 Meeting Attendees

Name	Title	Jurisdiction
Sidney, NE – Thursday, December 16, 2021		
Chris Geary	Superintendent	Leyton Public Schools
Colleen Terman	Planning & Zoning Administrator	Cheyenne County
David Scott	City Manager	City of Sidney
Douglas Hart	Highway Superintendent	Cheyenne County
Jeff Juelfs	Utility Supervisor	Village of Dalton
Joe Aikens	Chief of Police	City of Sidney
LaVerne Bown	Fire Chief	Sidney Fire Department
Rick Dickinson	Utility Superintendent	Village of Bushnell
Ron Leal	Emergency Manager	Region 21 EMA
Ryan Reisdorff	Assistant Manager	South Platte NRD
Travis Glanz	Water Resources Specialist	South Platte NRD
Anthony Kohel	Planner	JEO Consulting Group
Phil Luebbert	Project Manager	JEO Consulting Group
Zoom Meeting – Monday, December 20, 2021		
Annette Brower	City Clerk	City of Kimball
Ashlea Bauer	Administrator/Clerk	City of Chappell
Gregg Fossand	Building & Grounds/Transportation Director	Kimball Public Schools
Jason Petik	Administrator	Sidney Regional Medical Center
Klent Schnell	Fire Chief	Bushnell Fire Department
Marisa Alvares	Planning Specialist	NEMA

Name	Title	Jurisdiction
Melissa Gorsuch	Clerk	Village of Potter
Rita Bartling	Village Clerk/Treasurer	Village of Lodgepole
Ryan McElroy	Manager	Kimball Municipal Airport
Ryan Reisdorff	Assistant Manager	South Platte NRD
Sheila Newell	Zoning Administrator	Kimball County
Travis Glanz	Water Resources Specialist	South Platte NRD
Anthony Kohel	Planner	JEO Consulting Group
Phil Luebbert	Project Manager	JEO Consulting Group

Table 15: Round 2 Recorded Meeting Viewers

Name	Title	Jurisdiction
Curtis Brown	Utility Superintendent	Village of Big Springs
Jay Ehler	Superintendent	Sidney Public Schools
Leigh Niekum	Clerk/Floodplain Administrator	Village of Gurley
Steven Fischer	County Commissioner	Deuel County
Wade Dickinson	Fire Chief	Lodgepole Fire District
Walter Kielian	Fire Chief	Dix Fire District

Data Sources and Information

Effective hazard mitigation planning requires the review and inclusion of a wide range of data, documents, plans, and studies. The following table identifies many of the sources utilized during this planning process. Specific references are included as footnotes when used as applicable. The following table is not exhaustive as many studies, plans, and data resources at the local level are not publicly available. Individual examples of plan integration are identified in *Section Seven: Community Profiles*.

Table 16: General Plans, Documents, and Information

Documents	
Disaster Mitigation Act of 2000 DMA https://www.fema.gov/sites/default/files/2020-11/fema_disaster-mitigation-act-of-2000_10-30-2000.pdf	Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards (2013) https://www.fema.gov/sites/default/files/2020-06/fema-mitigation-ideas_02-13-2013.pdf
Final Rule (2007) https://www.fema.gov/emergency-managers/risk/hazard-mitigation/regulations-guidance/archive	National Flood Insurance Program Community Status Book (2020) https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book
Hazard Mitigation Assistance Unified Guidance (2015) https://www.fema.gov/sites/default/files/2020-07/fy15_HMA_Guidance.pdf	National Response Framework (2019) https://www.fema.gov/emergency-managers/national-preparedness/frameworks/response
Hazard Mitigation Assistance Guidance and Addendum (2015) https://www.fema.gov/sites/default/files/2020-07/fy15_hma_addendum.pdf	Robert T. Stafford Disaster Relief and Emergency Assistance Act (2021) https://www.fema.gov/disasters/stafford-act
Local Mitigation Plan Review Guide (2011) https://www.fema.gov/sites/default/files/2020-06/fema-local-mitigation-plan-review-guide_09_30_2011.pdf	The Census of Agriculture (2017) https://www.nass.usda.gov/Publications/AqCensus/2017/Full_Report/Census_by_State/Nebraska/
Local Mitigation Planning Handbook (2013)	What is a Benefit: Guidance on Benefit-Cost Analysis on Hazard Mitigation Projects

https://www.fema.gov/sites/default/files/2020-06/fema-local-mitigation-planning-handbook_03-2013.pdf	https://www.fema.gov/grants/guidance-tools/benefit-cost-analysis
Plans and Studies	
South Platte NRD Hazard Mitigation Plan (2017) https://jeo.com/spnrd-hmp	Nebraska Drought Mitigation and Response Plan (2000) http://carc.nebraska.gov/docs/NebraskaDrought.pdf
Flood Insurance Studies https://msc.fema.gov/portal/home	State of Nebraska Hazard Mitigation Plan (2021) https://nema.nebraska.gov/sites/nema.nebraska.gov/files/doc/hazmitplan2021.pdf
Fourth National Climate Assessment (2018) https://nca2018.globalchange.gov/	State of Nebraska Hazard Mitigation Plan (2019) https://nema.nebraska.gov/sites/nema.nebraska.gov/files/doc/hazmitplan2019.pdf
National Climate Assessment (2014) https://nca2014.globalchange.gov/	State of Nebraska Flood Hazard Mitigation Plan (2013) https://nema.nebraska.gov/sites/nema.nebraska.gov/files/doc/flood-hazmit-plan.pdf
Data Sources/Technical Resources	
Arbor Day Foundation – Tree City Designation https://www.arborday.org/programs/treecityusa/directory.cfm	Nebraska Department of Natural Resource – Geographic Information Systems (GIS) https://dnr.nebraska.gov/data
Environmental Protection Agency - Chemical Storage Sites https://www.epa.gov/toxics-release-inventory-tri-program	Nebraska Department of Natural Resources https://dnr.nebraska.gov/
Federal Emergency Management Agency http://www.fema.gov	Nebraska Department of Natural Resources – Dam Inventory https://gis.ne.gov/portal/apps/webappviewer/index.html?id=2aab04a13817421992dc5398ad462e22
FEMA Flood Map Service Center https://msc.fema.gov/portal/advanceSearch	Nebraska Department of Revenue – Property Assessment Division www.revenue.ne.gov/PAD
High Plains Regional Climate Center http://climod.unl.edu/	Nebraska Department of Transportation http://dot.nebraska.gov/
National Agricultural Statistics Service http://www.nass.usda.gov/	Nebraska Emergency Management Agency https://nema.nebraska.gov/
National Centers for Environmental Information https://www.ncei.noaa.gov/	Nebraska Forest Service – Wildland Fire Protection Program http://nfs.unl.edu/fire
National Consortium for the Study of Terrorism and Responses to Terrorism (START) http://www.start.umd.edu/gtd/	Nebraska Forest Service http://www.nfs.unl.edu/
National Drought Mitigation Center – Drought Impact Reporter http://droughtreporter.unl.edu/map/	Nebraska Public Power District Service https://www.nppd.com/
National Drought Mitigation Center – Drought Monitor http://droughtmonitor.unl.edu/	Nebraska State Historical Society https://history.nebraska.gov/
National Environmental Satellite, Data, and Information Service http://www.nesdis.noaa.gov/	Stanford University - National Performance of Dams Program https://npdp.stanford.edu/
National Fire Protection Association https://www.nfpa.org/	Storm Prediction Center Statistics http://www.spc.noaa.gov

National Flood Insurance Program https://www.fema.gov/flood-insurance	United States Army Corps of Engineers – National Levee Database https://levees.sec.usace.army.mil/#/
National Flood Insurance Program https://dnr.nebraska.gov/floodplain/flood-insurance	United States Census Bureau http://www.census.gov
National Historic Registry https://www.nps.gov/subjects/nationalregister/index.htm	United States Census Bureau https://data.census.gov/cedsci/
National Oceanic Atmospheric Administration (NOAA) http://www.noaa.gov/	United States Department of Agriculture http://www.usda.gov
National Weather Service http://www.weather.gov/	United States Department of Agriculture – Risk Management Agency http://www.rma.usda.gov
Natural Resources Conservation Service www.ne.nrcs.usda.gov	United States Department of Agriculture – Web Soil Survey https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx
Nebraska Association of Resources Districts http://www.nrdnet.org	United States Department of Commerce http://www.commerce.gov/
Nebraska Climate Assessment Response Committee http://carc.agr.ne.gov	United States Department of Transportation – Pipeline and Hazardous Materials Safety Administration https://www.phmsa.dot.gov/
Nebraska Department of Education http://nep.education.ne.gov/	United States Geological Survey http://www.usgs.gov/
Nebraska Department of Education http://educdirsrc.education.ne.gov/	United States National Response Center https://nrc.uscg.mil/
Nebraska Department of Environment and Energy http://dee.ne.gov/	United States Small Business Administration http://www.sba.gov
Nebraska Department of Health and Human Services http://dhhs.ne.gov/Pages/default.aspx	UNL – College of Agricultural Sciences and Natural Resources – Schools of Natural Resources http://casnr.unl.edu

Public Review

Once the HMP draft was completed, a public review period was opened to allow for participants and community members at large to review the plan, provide comments, and request changes. The public review period was open from March 25, 2022, through April 15, 2022. Participating jurisdictions and relevant stakeholders were emailed and mailed a letter notifying them of this public review period. The draft HMP was also made available on the project website (<https://jeo.com/spnrd-hmp>) for download. Jurisdictions and the public could provide comments via mail, fax, email, or by using the comment box on the project website. A review of the comments and who they were from can be found below. All changes and comments from participating jurisdictional representatives (i.e., local planning teams) and stakeholders were incorporated into the plan.

Table 17: Public Review Revisions

Plan Section	Name, Title, and/or Agency	Comment/Revision
Section 7: Bushnell Profile	Joyce Vrbka, Clerk, Village of Bushnell	Planning Team member corrections
Section 7: Kimball County Profile	Sheila Newell, Zoning Administrator, Kimball County	Typographical errors, data/capability clarification
Section 7: Kimball Profile	Annette Brower, Clerk, City of Kimball	Status updates to Mitigation Actions
Section 7: Potter Fire District Profile	Mark Onstott, Fire Chief, Potter Fire District	Data clarification
Section 7: South Platte NRD Profile	Ryan Reisdorff, Assistant Manager, South Platte NRD	Typographical and grammatical errors
Section 4: Dam Failure	Tim Gokie, Chief Engineer – Dam Safety, NeDNR	Typographical and grammatical errors
Section 4: Grass/Wildfire; Section 7: Deuel County Profile, Big Springs Profile, Chappell Profile, Region 21 EMA Profile	Sandy Benson, Forest Fuels Management Specialist, Nebraska Forest Service	Data clarification, typographical and grammatical errors

Plan Adoption and Implementation

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 submitted to participating jurisdictions is located in *Appendix A*. Copies of adoption resolutions may be requested from the NEMA's State Hazard Mitigation Officer.

Requirement

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

Hazard mitigation plans are living documents. Once an HMP has been adopted locally, participants are responsible for implementing identified projects, maintaining the plan with relevant information, and fully updating the plan every five years. The plan must be monitored, evaluated, and updated on a five-year or less cycle. Those who participated directly in the planning process would be logical champions during the annual reviews and five-year cycle update of the plan. It is critical the plan be reviewed and updated annually or when a hazard event occurs that significantly affects the area or individual participants. These annual reviews are the responsibility of each jurisdiction's local planning team and should be documented and reflected in the plan via amendments. However, participants are encouraged to work alongside the plan sponsor, South Platte NRD or the consultant, JEO, to document updates and revise the HMP as needed.

Additional implementation of the mitigation plan should include integrating HMP goals, objectives, and mitigation and strategic actions into county and local comprehensive or capital improvement plans as they are developed or updated. *Section Six* describes the system that jurisdictions participating in the HMP have established to monitor the plan; provides a description of how, when, and by whom the HMP process and mitigation and strategic actions will be evaluated; presents the criteria used to evaluate the plan; and explains how the plan will be maintained and updated.

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Section Three: Planning Area Profile

Introduction

To identify jurisdictional vulnerabilities, it is vitally important to understand the people and built environment of the planning area. The following section is meant to provide an overall description of the planning area's characteristics to create a summary profile for the region. Specific characteristics are covered in each jurisdiction's community profile, including demographics, transportation routes, and structural inventory. Redundant information will not be covered in this section. Therefore, this section will highlight at-risk populations and characteristics of the built environment that add to regional vulnerabilities.

Planning Area Geographic Summary

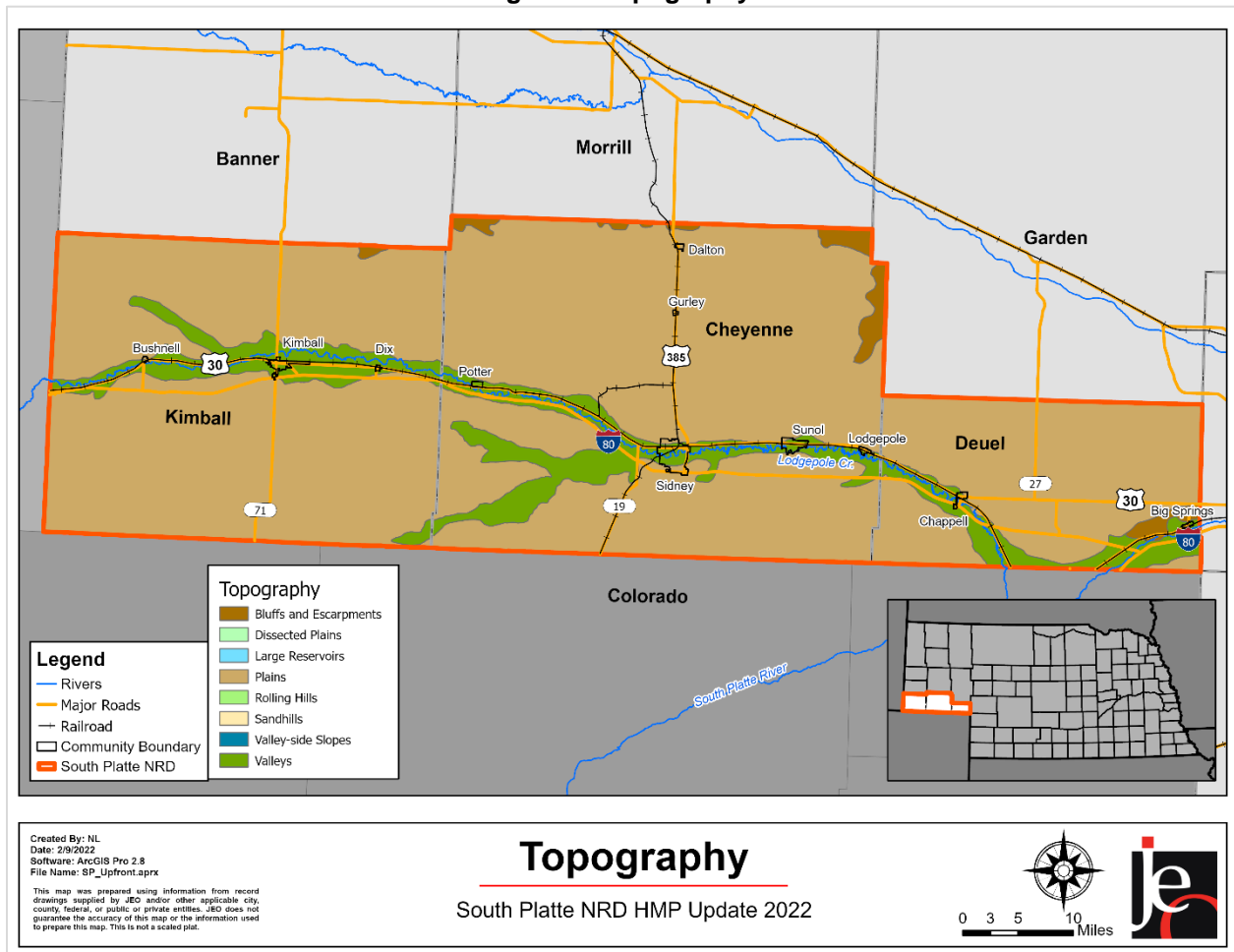
South Platte NRD's planning area includes the southern portion of Nebraska's panhandle and spans 2,589 square miles. For the purpose of this plan update, the planning area includes all of Cheyenne, Deuel, and Kimball counties. The planning area has a diverse range of topographic regions including bluffs and escarpments, plains, and valleys (Figure 3). Descriptions of these topographic regions are below.

- **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.
- **Valleys:** Flat-lying land along the major streams.¹²

The region resides in the South Platte watershed, with a portion of the North Platte watershed in Cheyenne County. Main waterways in the planning area include Lodgepole Creek and the South Platte River. The Lodgepole Creek joins the South Platte River just south of the Colorado-Nebraska border in Ovid.

¹² Conservation and Survey Division/Institute of Agriculture and Natural Resources. 2001. "Topographic regions map of Nebraska."
<https://digitalcommons.unl.edu/caripubs/62>.

Figure 3: Topography



Demographics and At-Risk Populations

As noted above, the planning area includes all of Cheyenne, Deuel, and Kimball counties. The U.S. Census Bureau collects specific demographic information for each county. The estimated population of the planning area is 15,068.¹³

Table 18: Estimated Population for Planning Area

Age	Planning Area	State of Nebraska
<5	5.5%	6.9%
5-19	17.6%	20.6%
20-64	54.7%	57.1%
>64	22.2%	15.4%
Median	45.1	36.5

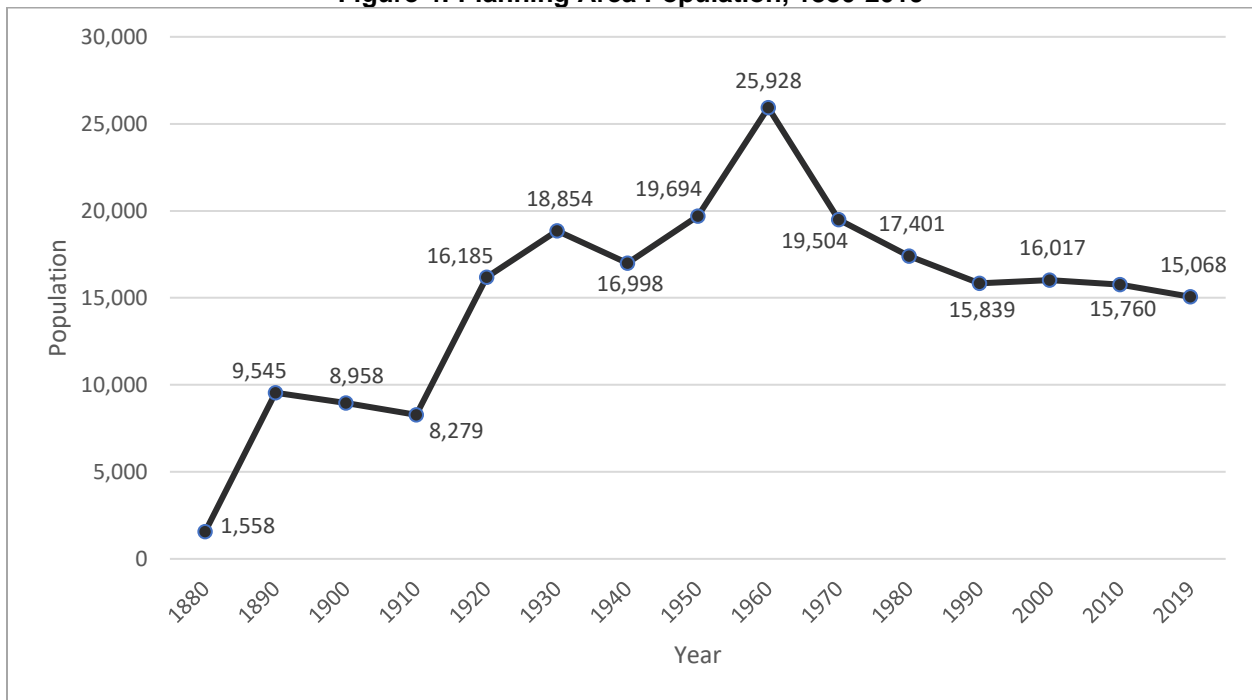
Source: U.S. Census Bureau

Community and regional vulnerability are impacted by growing or declining populations. Communities growing quickly may lack resources to provide services for all members of the

13 United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <https://data.census.gov>.

community in a reasonable timeframe including snow removal, emergency storm shelters, repairs to damaged infrastructure, or even tracking the location of vulnerable populations. Communities experiencing population decline may be more vulnerable to hazards as a result of vacant and/or dilapidated structures, an inability to properly maintain critical facilities and/or infrastructure, and higher levels of unemployment and populations living in poverty. It is important for communities to monitor their population changes and ensure that potential issues be incorporated into hazard mitigation plans, as well as other planning mechanisms within the community.

Figure 4: Planning Area Population, 1880-2019



Source: U.S. Census Bureau¹⁴

The planning area has displayed a relatively stable population since 1990. While the U.S. Census Bureau conducts a formal census every ten years, the estimated population of the three-county planning area in 2019 was 15,068. Subsequent updates to this HMP should include updated census data from the 2020 census to determine if the trend is continuing.

At-risk Populations

In general, at-risk populations may have difficulty with medical issues, poverty, extremes in age, and communication issues due to language barriers. Several outliers may be considered when discussing potentially at-risk populations, including:

- 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,

¹⁴ United States Census Bureau. “2019 Census Bureau American Community Survey: S0101: Age and Sex.” [database file]. <https://data.census.gov>.

including but not limited to: maintaining independence, communication, transportation, supervision, and medical care.”¹⁵

Dependent children under 20 years old are one of the most vulnerable populations to disasters.¹⁶ The majority of people in this age group do not have access to independent financial resources and transportation. They lack 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 approximately 23% 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 within the planning area 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 Figure 5 is a map of the school district boundaries.

Table 19: School Inventory

School District	Total Enrollment (2020-2021)	Total Teachers
Creek Valley Public Schools	196	19
Kimball Public Schools	397	48
Leyton Public Schools	141	30
Potter-Dix Public Schools	184	27
Sidney Public Schools	1,323	122
South Platte Public Schools	216	24

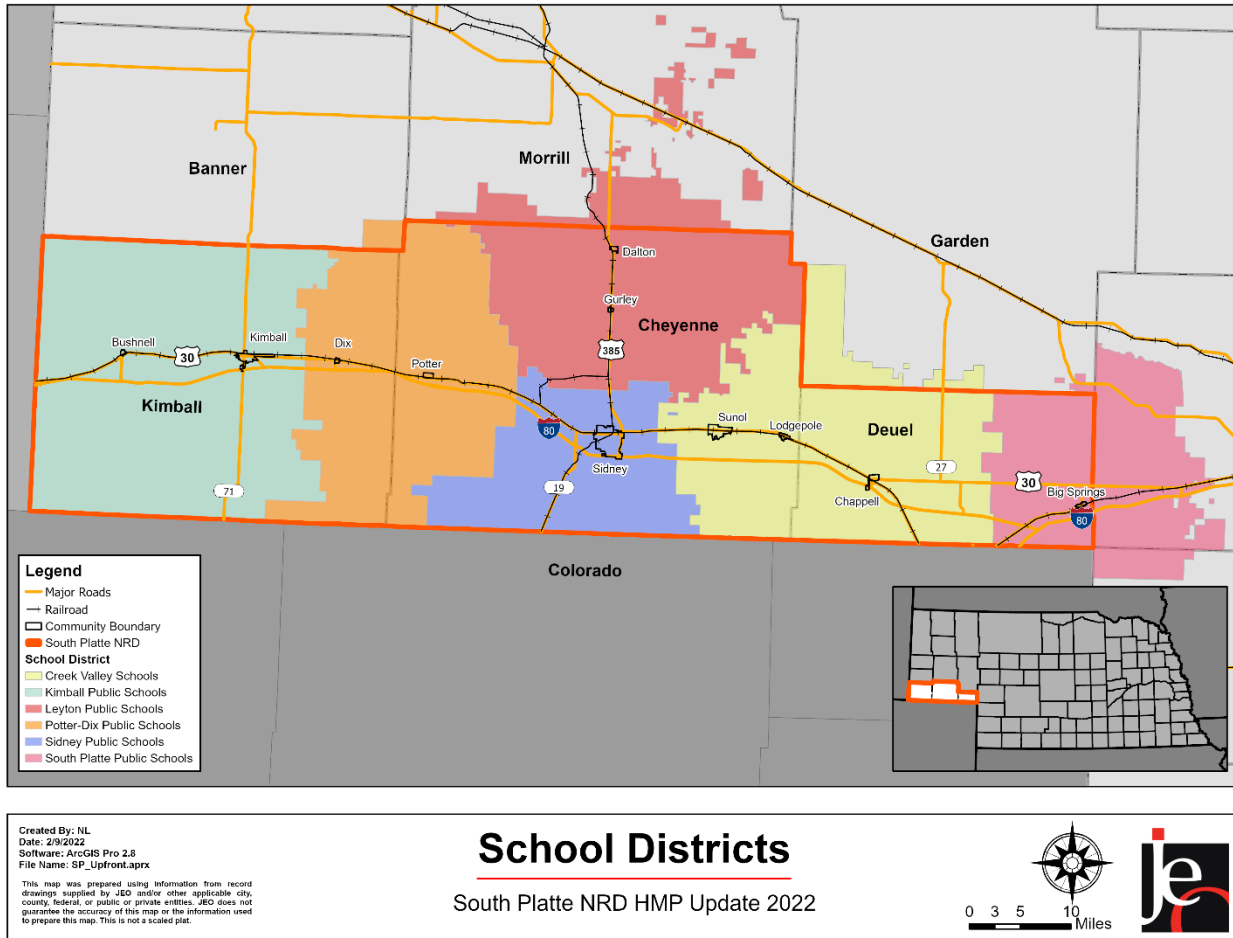
Source: Nebraska Department of Education¹⁷

15 United States Department of Homeland Security. October 2019. “National Response Framework Third Edition.” <https://www.fema.gov/media-library/assets/documents/117791>.

16 Flanagan, Gregory, Hallisey, Heitgerd, & Lewis. 2011. “A Social Vulnerability Index for Disaster Management.” *Journal of Homeland Security and Emergency Management*, 8(11): Article 3.

17 Nebraska Department of Education. 2019. “Nebraska Education Profile.” Accessed December 2020. <http://nep.education.ne.gov/>.

Figure 5: Regional School Districts



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 55.¹⁸ 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 the senior population lives throughout the planning area, there is the potential that they will be located in higher concentrations at care facilities. Table 20 identifies the number and capacity of care facilities throughout the planning area.

¹⁸ Center for Injury Research and Policy. January 2011. "Snow Shoveling Safety." Accessed July 2017. <http://www.nationwidechildrens.org/cirp-snow-shoveling>.

Table 20: Inventory of Care Facilities

County	Hospitals	Hospital Beds	Health Clinics	Adult Care Homes	Adult Care Beds	Assisted Living Homes	Assisted Living Beds
Cheyenne	1	25	2	1	63	1	42
Deuel	0	0	1	0	0	0	0
Kimball	1	15	1	1	49	1	18

Source: Nebraska Department of Health and Human Services^{19,20,21,22}

In addition to residents being classified as at-risk by age, there are other specific groups within the planning area that experience vulnerabilities related to their ability to communicate or their economic status. Table 21 provides statistics per county regarding households with English as a second language (ESL) and population reported as in poverty within the past 12 months.

Table 21: ESL and Poverty At-Risk Populations

County	Percent that speak English as second language	People below poverty level
Cheyenne	3.1%	9.6%
Deuel	2.7%	8.8%
Kimball	3.8%	10.8%

Source: U.S. Census Bureau^{23,24}

Residents below the poverty line 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. These structures could be mobile homes; located in the floodplain; located in remote rural areas away from urban amenities; located near known hazard sites (e.g., chemical storage areas); or older poorly maintained structures. Residents below the poverty line will be more vulnerable to all hazards within the planning area.

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 taking action in a timely manner. Further, educational materials related to regional 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. Residents

19 Department of Health and Human Services. February 2022. "Assisted Living Facilities." <http://dhhs.ne.gov/licensure/Documents/ALF%20Roster.pdf>.

20 Department of Health and Human Services. February 2022. "Hospitals." <http://dhhs.ne.gov/licensure/Documents/Hospital%20Roster.pdf#search=hospital%20roster>.

21 Department of Health and Human Services. February 2022. "Long Term Care Facilities." <http://dhhs.ne.gov/licensure/Documents/LTCRoster.pdf#search=long%20term%20care%20facilities%20roster>.

22 Department of Health and Human Services. February 2022. "Rural Health Clinic." http://dhhs.ne.gov/licensure/Documents/RHC_Roster.pdf#search=hospital%20roster.

23 U.S. Census Bureau. 2021. "Language Spoken at Home: 2019 American Community Survey (ACS) 5-year estimates." <https://data.census.gov/cedsci/>.

24 U.S. Census Bureau. 2021. "Selected Economic Characteristics: 2019 ACS 5-year estimate." <https://data.census.gov/cedsci/>.

with limited English proficiency would be at an increased vulnerability to all hazards within the planning area.

Similar to residents below the poverty line, racial minorities tend to have access to fewer financial and systemic resources that would enable them to implement hazard mitigation and strategic projects and to respond and recover from hazard events, including residence in standard housing and possession of financial stability. The mostly homogenous racial profile of the planning area indicates that racial inequity will not significantly affect the community's vulnerability to hazards (Table 22).

Table 22: Racial Composition Trends

Race	2010		2019		% Change
	Number	% of Total	Number	% of Total	
White, Not Hispanic	15,177	95.9%	14,282	94.8%	-1.1%
Black	1	<0.1%	86	0.6%	+0.5%
American Indian and Alaskan Native	134	0.8%	126	0.8%	-
Asian	239	1.5%	89	0.6%	-0.9%
Native Hawaiian and Other Pacific Islander	7	<0.1%	2	<0.1%	-
Other Races	86	0.5%	50	0.3%	-0.2%
Two or More Races	182	1.2%	433	2.9%	+1.7%
Total Population	15,826	-	15,068	-	-

Source: U.S. Census Bureau^{25,26}

Built Environment and Structural Inventory

The U.S. Census provides information related to housing units and potential areas of vulnerability as described in the following discussion.

Of the occupied housing units in the planning area, more than 28 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. Of the counties in the planning area, Cheyenne County has the highest percentage of renter-occupied housing units. The City of Sidney, the largest community in the planning area, has more than 39 percent of housing stock occupied by renters.

Deuel County has the highest percentage of vacant housing units compared to the other two counties. Unoccupied homes may not be maintained as well as occupied housing, thus adding to their vulnerability. During disaster events like high winds or tornadoes, 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.

25 U.S. Census Bureau. 2021. "Race: 2010 ACS 5-year estimate." <https://data.census.gov/cedsci/>.

26 U.S. Census Bureau. 2021. "Race: 2019 ACS 5-year estimate." <https://data.census.gov/cedsci/>.

Table 23: Housing Characteristics

Jurisdiction	Total Housing Units				Occupied Housing Units			
	Occupied		Vacant		Owner		Renter	
	#	%	#	%	#	%	#	%
Cheyenne County	4,395	87.7%	619	12.3%	2,928	66.6%	1,467	33.1%
Deuel County	830	77.9%	236	22.1%	633	76.3%	197	23.7%
Kimball County	1,577	82%	347	18%	1,126	71.4%	451	28.6%
Big Springs	230	92%	20	8%	168	73%	62	27%
Bushnell	74	69.8%	32	30.2%	70	94.6%	4	5.4%
Chappell	389	77.3%	114	22.7%	292	75.1%	97	24.9%
Dalton	151	81.6%	34	18.4%	132	87.4%	19	12.6%
Dix	121	86.4%	19	13.6%	111	91.7%	10	8.3%
Gurley	94	81%	22	19%	75	79.8%	19	20.2%
Kimball	1,100	84.4%	204	15.6%	677	61.5%	423	38.5%
Lodgepole	166	81.8%	37	18.2%	138	83.1%	28	16.9%
Potter	158	82.3%	34	17.7%	136	86.1%	22	13.9%
Sidney	3,051	91.4%	288	8.6%	1,853	60.7%	1,198	39.3%
Planning Area	2,267	-	1,202	-	4,687	-	2,115	-

Source: U.S. Census Bureau²⁷

The US Census provides information related to housing units and potential areas of vulnerability. The selected characteristics examined in Table 24 include lacking complete plumbing facilities; lacking complete kitchen facilities; no telephone service available; housing units that are mobile homes; and housing units with no vehicles.

Table 24: Selected Housing Characteristics

	Cheyenne	Deuel	Kimball	Total
Occupied Housing Units	4,395 (87.7%)	830 (77.9%)	1,577 (82%)	6,802
Lacking Complete Plumbing Facilities	0.4%	0.8%	0.8%	35 (0.5%)
Lacking Complete Kitchen Facilities	0.5%	1.1%	1.1%	50 (0.7%)
No Telephone Service Available	2%	2.2%	1.6%	132 (1.9%)
No Vehicles Available	4.8%	4%	5.3%	329 (4.8%)
Mobile Homes	4.4%	5%	9.6%	456 (6.7%)

Source: U.S. Census Bureau²⁸

27 U.S. Census Bureau. 2021. "Selected Housing Characteristics: 2019 ACS 5-year estimate." <https://data.census.gov/cedsci/>.

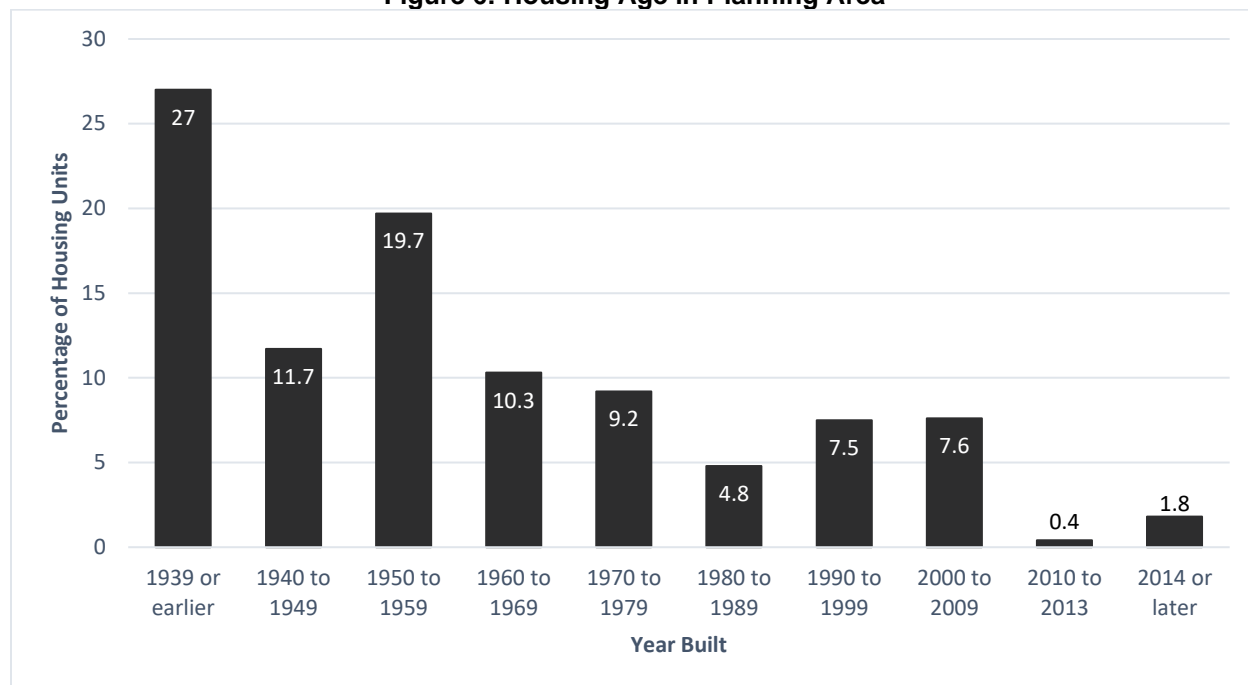
28 U.S. Census Bureau. 2021. "Selected Housing Characteristics: 2019 ACS 5-year estimate." <https://data.census.gov/cedsci/>.

Approximately 2 percent of housing units lack access to landline telephone service. This does not necessarily indicate that there is not a phone in the housing unit, as cell phones are now the primary form of telephone service. However, this lack of access to landline telephone service does represent a population at increased risk to disaster impacts. Reverse 911 systems are designed to contact households via landline services and as a result, some homes in hazard prone areas may not receive notification of potential impacts in time to take protective actions. Emergency managers should continue to promote the registration of cell phone numbers with Reverse 911 systems. The CodeRED system is available for many communities and residents to use in the planning area. This opt-in program sends emergency alerts and hazard event updates to cellular devices located within specific geographical areas based on cell tower reception. Additionally, emergency managers, the National Weather Service, and other government agencies can utilize FEMA's Integrated Public Alert and Warning System (IPAWS) to send emergency alerts and weather warnings to cellphones within a designated area. Like CodeRED, notifications are sent to all cell phone users within specific geographical areas without needing to opt-in.

Approximately 7 percent of housing units in the planning area are mobile homes. Kimball County has the highest rate of mobile homes in its housing stock at 9.6 percent. Mobile homes have a higher risk of sustaining damages during high wind events, tornadoes, severe thunderstorms, and severe winter storms. Mobile homes that are either not anchored or are anchored incorrectly can be overturned by 60 mph winds. A thunderstorm is classified as severe when wind speeds exceed 58 mph, placing improperly anchored mobile homes at risk. Furthermore, approximately 5 percent of all housing units in the planning area do not have a vehicle available. Households without vehicles may have difficulty evacuating during a hazardous event and a reduced ability to access resources in times of need.

The majority of homes within the planning area were built prior to 1970 (69%), with 27% of homes built prior to 1939 (Figure 6). Housing age can serve as an indicator of risk, as structures built prior to the development of state building codes may be more vulnerable. Residents living in these homes maybe at higher risk to the impacts of high winds, tornadoes, severe winter storms, and thunderstorms.

Figure 6: Housing Age in Planning Area



Source: U.S. Census Bureau²⁹

State and Federally Owned Properties

Other than Nebraska Department of Transportation maintenance yards and U.S post offices, the only state or federally owned facility within the planning area is the Pony Express National Historic Trail.^{30 31}

Historical Sites

According to the National Register of Historic Places for Nebraska by the National Park Service, there are 21 historic sites located in the planning area. The only known site located in the one percent annual chance floodplain is the Gridley-Howe-Faden-Atkins Farmstead.

Table 25: Historical Sites

Site Name	Date Listed	Nearest Community, County	In Floodplain
Christ Episcopal Church	10/21/1994	Sidney, Cheyenne	No
Deadwood Draw	11/12/1992	Sidney, Cheyenne	No
Deuel County Courthouse	1/10/1990	Chappell, Deuel	No
Fort Sidney Historic District	3/28/1973	Sidney, Cheyenne	No
Fraternal Hall	2/28/1983	Kimball, Kimball	No
Gridley-Howe-Faden-Atkins Farmstead	7/9/1997	Kimball, Kimball	Yes
Herboldsheimer Ranch	4/5/1990	Potter, Cheyenne	No

²⁹ U.S. Census Bureau. 2021. "Selected Housing Characteristics: 2019 ACS 5-year estimate." <https://data.census.gov/cedsci/>.

³⁰ Nebraska Game and Parks. 2021. "Public Access ATLAS." <https://maps.outdoornebraska.gov/PublicAccessAtlas/>.

³¹ U.S National Park Service. 2021. "Parks." <https://www.nps.gov/state/ne/index.htm>.

Kimball County Courthouse	7/5/1990	Kimball, Kimball	No
Lodgepole Opera House	7/7/1988	Lodgepole, Cheyenne	No
Maginnis Irrigation Aqueduct	10/21/1994	Kimball, Kimball	No
Menter Farmstead	12/7/2011	Big Springs, Deuel	No
Phelps Hotel	10/15/1970	Big Springs, Deuel	No
Sidney Carnegie Library	7/3/1991	Sidney, Cheyenne	No
Sidney Historic Business District	10/21/1994	Sidney, Cheyenne	No
Sioux Ordnance Depot Fire & Guard Headquarters	10/24/1994	Sidney, Cheyenne	No
Sudman House	12/6/1990	Chappell, Deuel	No
Water Holes Ranch	11/12/1992	Gurley, Cheyenne	No
Waterman Sod House	2/17/1995	Big Springs, Deuel	No
Wes Stevens Site	8/28/1973	Potter, Cheyenne	Unlisted
Wheat Growers Hotel	7/11/2002	Kimball, Kimball	No
Wild Horse Draw – Leeman’s Springs Archeological District	7/12/2006	Sidney, Cheyenne	Unlisted

Source: National Park Service³²

32 U.S. National Park Service. January 2021. "National Register of Historic Places NPGallery Database." <https://npgallery.nps.gov/nrhp>.

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Section Four: Risk Assessment

Introduction

The ultimate purpose of this hazard mitigation plan is to minimize the loss of life and property across the planning area. The basis for the planning process is the regional and local risk assessment. This section contains a description of potential hazards, regional vulnerabilities and exposures, probability of future occurrences, and potential impacts and losses. By conducting a regional and local risk assessment, coupled with a thorough local capability assessment, participating jurisdictions can develop specific strategies to address areas of concern identified through this process. The following table defines terms that will be used throughout this section of the plan.

Table 26: Term 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
Probability	Likelihood of a hazard occurring in the future

Methodology

The risk assessment methodology utilized for this plan 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 plan 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 vulnerable assets will be conducted across the entire planning area, *Section Seven* will discuss community-specific assets at risk for relevant hazards. Analysis for regional 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). Finally, each hazard identified in the plan will provide a summary statement encapsulating the information provided during each of the previous steps of the risk assessment process.

For each of the hazards profiled, the best available and most appropriate data available have been considered. Further discussion relative to each hazard is discussed in the hazard profile portion of this section.

Requirement §201.6(c)(2): Risk assessment. The plan shall 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 shall include a] description of the type ... of all natural hazards that can affect the jurisdiction.

Requirement §201.6(c)(2)(i): The risk assessment shall 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 shall 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 and Frequency

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 three main pieces of data used throughout 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 are data available for recorded events. During this planning process, vetted and cleaned NCEI data are available for January 1996 to April 2021. Although some data are available back to 1950, this plan update only utilizes the more current and more accurate data available. Wildfire data are available from the Nebraska Forest Service from 2000 to 2020.
- **Number of Hazard Events:** This shows how often an event occurs. The frequency of a hazard event will affect how a community responds. A thunderstorm may not cause much

damage each time, but multiple storms can have an incremental effect on housing and utilities. In contrast, a rare tornado can have a widespread effect on a community.

An example of the Event Damage Estimate is found below:

$$\text{Annual Damages (\$)} = \frac{\text{Total Damages in Dollars (\$)}}{\text{Total Years Recorded (\#)}}$$

Each hazard will be included, while those which have caused significant damages or occurred in significant numbers are discussed in detail. It should be noted 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 Risk Management Agency (RMA) of the USDA was also utilized for this update of the plan for counties with available data. The collected data were from 2000 to 2020. Data for all the hazards are not always available, so only those with an available dataset are included in the loss estimation.

Annual probability 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 probability estimate is found below:

$$\text{Annual Probability (\%)} = \frac{\text{Total Years with an Event Occuring(\$)}}{\text{Total Years of Record (\#)}}$$

Hazard Identification

The identification of relevant hazards for the planning area began with a review of the 2021 State of Nebraska Hazard Mitigation Plan. The Regional Planning Team and participating jurisdictions reviewed the list of hazards addressed in the state mitigation plan and determined which hazards were appropriate for discussion relative to the planning area. The hazards for which a risk assessment was completed are included in the following table.

Table 27: Hazards Addressed in the Plan

Hazards Addressed in the Plan		
Animal and Plant Disease	Grass/Wildfire	Severe Thunderstorms
Dam Failure	Hail	Severe Winter Storms
Drought	Hazardous Materials - Fixed Sites	Terrorism and Civil Disorder
Earthquakes	Hazardous Materials - Transportation	Tornadoes
Extreme Heat	High Winds	
Flooding	Levee Failure	

Hazard Elimination or Changes

Given the location and history of the planning area, some hazards from the State HMP were eliminated from further review. These hazards are listed below with a brief explanation of why the hazards were eliminated or changed.

Animal Disease: This hazard is addressed for the planning area under Animal and Plant Disease and is not broken out separately.

Human Infectious Disease: This hazard was not included due to the relatively low number of COVID cases, and the planning team sees a pandemic to be a lower threat for the area.

Plant Disease and Pests: This hazard is addressed for the planning area under Animal and Plant Disease and is not broken out specifically.

Power Failure: Power failure commonly occurs as an impact after major hazard events. Additionally, there are limited data resources available to quantify power failure events and cost estimates.

The Chemical and Radiological hazard was broken out into two separate hazards: Hazardous Materials - Fixed Sites and Hazardous Materials - Transportation. Terrorism and Civil Disorder have been combined in this plan update.

Hazard Assessment Summary Tables

The following table provides an overview of the data contained in the hazard profiles. Hazards listed in this table and throughout the section are in alphabetical order. This table is intended to be a quick reference for people using the plan and does not contain source information. Source information and full discussion of individual hazards are included later in this section. Annual probability is based off the number of years that had at least one event.

Table 28: Regional Risk Assessment

Hazard	Previous Occurrences	Approximate Annual Probability*	Likely Extent
Animal and Plant Disease	Animal Disease: 0	Animal Disease 0/6 = <1%	Varies by event
	Plant Disease: 108	Plant Disease 18/21 = 86%	Crop damage or loss
Dam Failure	1	1/125 = 1%	Varies by structure
Drought	438/1,512 months	29%	D1-D4
Earthquakes	0	0/120 = <1%	Less than 5.0 on the Richter Scale
Extreme Heat	172	47/128 = 37%	>100°F
Flooding	77	18/26 = 69%	Some inundation of structures. Some evacuations of people may be necessary.
Grass/Wildfire	674	21/21 = 100%	Avg 40 acres Some homes and structures threatened or at risk
Hail	721	25/26 = 96%	Hail range 0.5-4.25" Avg hailstone 1.2"
Hazardous Materials - Fixed Sites	38	10/31 = 32%	0 – 400 Gallons 0 – 8,300 Pounds
Hazardous Materials - Transportation	68	26/50 = 52%	0 – 5,900 Gallons

High Winds	190	24/26 = 92%	40 – 90 mph
Levee Failure	0/120	Less than 1%	Varies by event
Severe Thunderstorms	238	24/26= 92%	>1" rainfall Avg 65 mph winds
Severe Winter Storms	273	26/26 = 100%	8-70 degrees below zero (wind chill) 2-25" snow 10-60 mph winds
Terrorism and Civil Disorder	0/47	Less than 1%	Varies by event
Tornadoes	71	17/26 = 65%	Mode: EF0 Range: EF0-EF1

* Annual Probability = Total Years with an Event Occurrence / Total Years of Record

The following table provides loss estimates for hazards with sufficient data. Detailed descriptions of major events are included in *Section Seven: Community Profiles*.

Table 29: Hazard Loss Estimates for the Planning Area

Hazard Type		Count	Property	Crop ²
Animal and Plant Disease	Animal Disease ¹	0	0 animals	N/A
	Plant Disease ²	108	N/A	\$4,541,827
Dam Failure⁵		1	-	N/A
Drought^{6,8}		438/1,512 months	\$50,000	\$52,680,199
Earthquakes¹¹		0	-	-
Extreme Heat⁷		Avg 3 days per year	-	\$8,669,018
Flooding⁸ <i>1 Injury</i>	Flash Flood	66	\$3,217,000	\$80,700
	Flood	11	\$7,000	
Grass/Wildfire¹² <i>5 Injuries, 5 Fatalities</i>		674	\$249,720	\$54,457
Hail⁸ <i>1 Injury</i>		721	\$13,357,000	\$73,331,957
Hazardous Materials - Fixed Sites³		38	-	N/A
Hazardous Materials - Transportation⁴		68	\$460,168	N/A
High Winds⁸		190	\$106,000	\$10,231,488
Levee Failure¹⁰		0	-	N/A
Severe Thunderstorms⁸	Heavy Rain	19	-	\$8,833,408
	Lightning	1	\$1,000	
	Thunderstorm Wind	218	\$282,700	
Severe Winter Storms⁸ <i>22 Injuries, 4 Fatalities</i>	Blizzard	43	\$110,000	\$21,176,066
	Extreme Cold/Wind Chill	22	-	
	Heavy Snow	53	\$5,000	
	Ice Storm	1	\$50,000	
	Winter Storm	119	\$496,000	

	Winter Weather	35	\$138,200	
Terrorism and Civil Disorder⁹		0	-	N/A
Tornadoes⁸ <i>2 injuries</i>		71	\$248,000	\$9,475
Total		2,458	\$18,777,788	\$179,601,039

N/A: Data not available

1 NDA (2015-2020)

2 USDA RMA (2000-2020)

3 NRC (1990-2020)

4 PHMSA (1971-Jan 2021)

5 NeDNR Correspondence (July 2021)

6 NOAA (1895-2020)

7 NOAA Regional Climate Center (1893-2020)

8 NCEI (1996-April 2021)

9 Global Terrorism Database (1970-2017)

10 USACE (1900-June 2021)

11 USGS (1900-June 2021)

12 NFS (2000-2020)

Historical Disaster Declarations

The following tables show past disaster declarations that have been granted within the planning area.

Farm Service Agency Small Business Administration Disasters

The U.S. Small Business Administration (SBA) was created in 1953 as an independent agency of the federal government to aid, counsel, assist, and protect the interests of small business concerns, to preserve free competitive enterprise, and maintain and strengthen the overall economy of our nation. A program of the SBA includes disaster assistance for those affected by major natural disasters. The following table summarizes the SBA Disasters involving the planning area since 2006.

Table 30: SBA Declarations

Declaration Date	Disaster Declaration Number	Title	Primary Counties	Contiguous Counties
01/07/2007	NE-00011	Severe Winter Storms	Cheyenne, Kimball	
07/31/2009 08/10/2009	NE-00027	Severe Storms, Tornadoes, and Flooding	Deuel	
07/15/2010 08/29/2010 09/01/2010	NE-00038	Severe Storms, Flooding, and Tornadoes	Cheyenne	
04/1/2013	NE-00049	Drought	Cheyenne, Deuel, Kimball	
12/10/2013	NE-00053	Drought	Cheyenne, Deuel, Kimball	
01/28/2015	NE-00059	Drought	Deuel	Cheyenne

Source: Small Business Administration, 2006-2021³³

33 Small Business Administration. 2001-2019. [data files]. Office of Disaster Assistance | Resources." <https://www.sba.gov/offices/headquarters/oda/resources/1407821>.

Presidential Disaster Declarations

Presidential disaster declarations are available via FEMA from 1953 to 2021. Declarations prior to 1962 are not designated by county on the FEMA website and are not included below. The following table describes presidential disaster declarations within the planning area for the period of record. Note that while data is available from 1953 onward, the planning area has received 11 presidential disaster declarations, beginning in 1997.

Table 31: Presidential Disaster Declarations

Disaster Declaration Number	Declaration Date	Title	Affected Counties	Public Assistance (Statewide)
1190	11/01/1997	Severe Snow Storms, Rain, and Strong Winds	Cheyenne, Kimball	-
1373	05/16/2001	Severe Winter Storms, Flooding and Tornadoes	Cheyenne, Deuel, Kimball	\$2,982,075.51
1480	07/21/2003	Severe Storms and Tornadoes	Deuel	\$3,891,329.31
3245	09/13/2005	Hurricane Katrina Evacuees	Cheyenne, Deuel, Kimball	\$393,813.27
1674	01/07/2007	Severe Winter Storms	Cheyenne, Deuel, Kimball	\$124,357,843.32
1853	07/31/2009	Severe Storms, Tornadoes, and Flooding	Deuel	\$4,491,366.48
1924	07/15/2010	Severe Storms and Flooding	Cheyenne	\$49,926,354.50
4375	06/29/2018	Severe Winter Storm and Straight-Line Winds	Cheyenne, Deuel	\$7,428,072.28
4420	03/21/2019	Severe Winter Storm, Straight-Line Winds, and Flooding	Cheyenne, Deuel, Kimball	\$465,996,605.51
3483	03/13/2020	COVID-19	Cheyenne, Deuel, Kimball	-
4521	04/04/2020	COVID-19 Pandemic	Cheyenne, Deuel, Kimball	\$255,179,559.23

Source: Federal Emergency Management Agency, 1953-2021³⁴

Climate Adaptation

Long-term climate trends have shifted throughout the 21st century and have created significant changes in precipitation and temperature which have altered the severity and subsequent impacts from severe weather events. The Regional and Local Planning Teams identified changes in the regional climate as a top concern impacting communities, Indian tribes, residents, local economies, and infrastructure throughout the planning area. Discussions on temperature, precipitation, and climate impacts are included below.

The planning area is located in the Northern Great Plains region of the United States, which includes Montana, Wyoming, North Dakota, South Dakota, and Nebraska. A large elevation change across the region contributes to high geographical, ecological, and climatological variability, including a strong gradient of decreasing precipitation moving from east to west across

³⁴ Federal Emergency Management Agency. 2021. "Disaster Declarations." Accessed March 2022. <https://www.fema.gov/disasters>.

the region. Significant weather extremes impact this area, including winter storms, extreme heat and cold, severe thunderstorms, drought, and flood producing rainfall. The Fourth National Climate Assessment has provided an overview of potential impacts within the planning area.³⁵

- **Water:** Water is the lifeblood of the Northern Great Plains, and effective water management is critical to the region's people, crops and livestock, ecosystems, and energy industry. Even small changes in annual precipitation can have large effects downstream; when coupled with the variability from extreme events, these changes make managing these resources a challenge. Future changes in precipitation patterns, warmer temperatures, and the potential for more extreme rainfall events are very likely to exacerbate these challenges.
- **Agriculture:** Agriculture is an integral component of the economy, the history, and the culture of the Northern Great Plains. Recently, agriculture has benefited from longer growing seasons and other recent climatic changes. Some additional production and conservation benefits are expected in the next two to three decades as land managers employ innovative adaptation strategies but rising temperatures and changes in extreme weather events are very likely to have negative impacts on parts of the region. Adaptation to extremes and to longer-term, persistent climate changes will likely require transformative changes in agricultural management, including regional shifts of agricultural practices and enterprises.
- **Recreation and Tourism:** Ecosystems across the Northern Great Plains provide recreational opportunities and other valuable goods and services that are at risk in a changing climate. Rising temperatures have already resulted in shorter snow seasons, lower summer stream flows, and higher stream temperatures. These changes have important consequences for local economies that depend on winter or river-based recreational activities. Climate-induced land-use changes in agriculture can have cascading effects on closely entwined natural ecosystems, such as wetlands, and the diverse species and recreational amenities they support.
- **Energy:** Fossil fuel and renewable energy production and distribution infrastructure is expanding within the Northern Great Plains. Climate change and extreme weather events put this infrastructure at risk, as well as the supply of energy it contributes to support individuals, communities, and the U.S. economy as a whole. The energy sector is also a significant source of greenhouse gases and volatile organic compounds that contribute to climate change and ground-level ozone pollution.

Nebraska's Changing Climate

The United States is experiencing significant changes in temperature, precipitation, and severe weather events resulting from climate change. According to a University of Nebraska report (Understanding and Assessing Climate Change: Implications for Nebraska), the following changes can be expected for Nebraska's future climate:³⁶

- Increase in extreme heat events (days over 100°F).

35 U.S. Global Change Research Program. 2018. "Fourth National Climate Assessment". <https://nca2018.globalchange.gov/>.

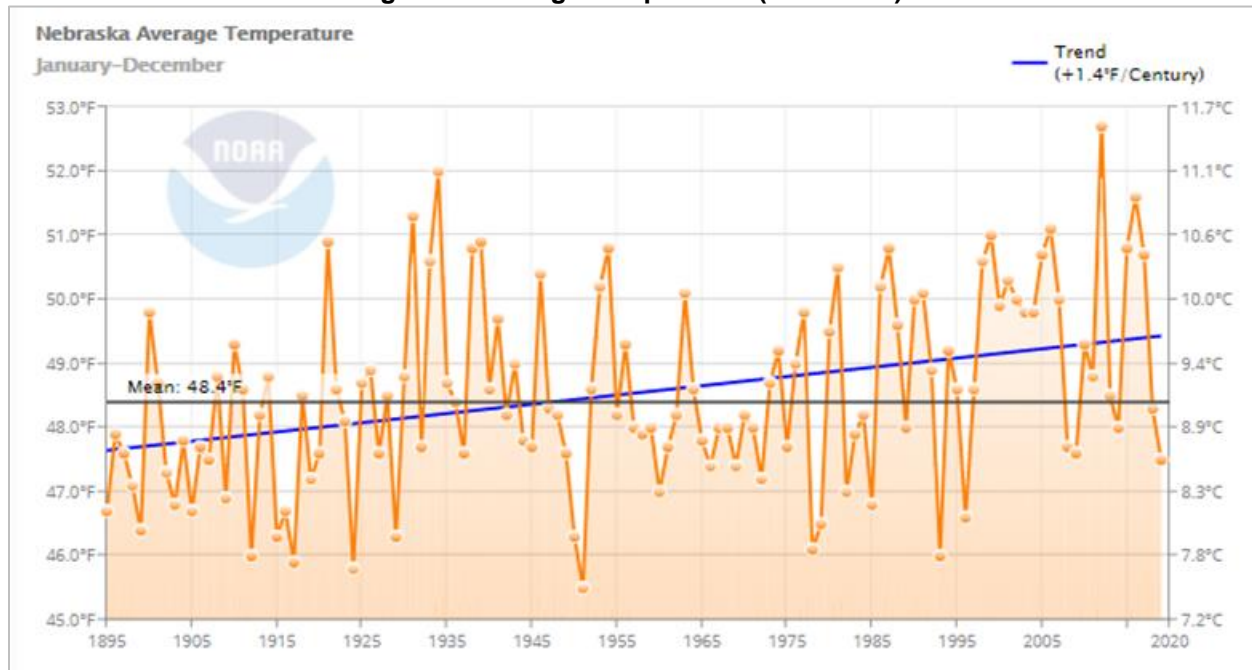
36 University of Nebraska-Lincoln. 2014. "Understanding and Assessing Climate Change: Implications for Nebraska". <http://snr.unl.edu/download/research/projects/climateimpacts/2014ClimateChange.pdf>.

- Decrease in soil moisture by 5-10%.
- Increase in drought frequency and severity.
- Increase in heavy rainfall events.
- Increase in flood magnitude.
- Decrease in water flow in the Missouri River and Platte River from reduced snowpack in the Rocky Mountains.
- Additional 30-40 days in the frost-free season.

Changes in Temperature

Since 1895 Nebraska's overall average temperature has increased by almost 1.5°F (Figure 7). Climate modeling suggests warmer temperature conditions will continue in the coming decades and rise steadily into mid-century. Warming has increased the most in winter and spring months with winter minimum temperatures rising 2-4°F. In addition, there is greater warming for nighttime lows than for daytime highs. Since 1985, the length of the frost season has increased by an average of more than one week across Nebraska, with the length likely to continue to increase in the future. Projected temperature changes range from 4-9°F by 2099.³⁷

Figure 7: Average Temperature (1895-2020)



Source: NOAA, 2020³⁸

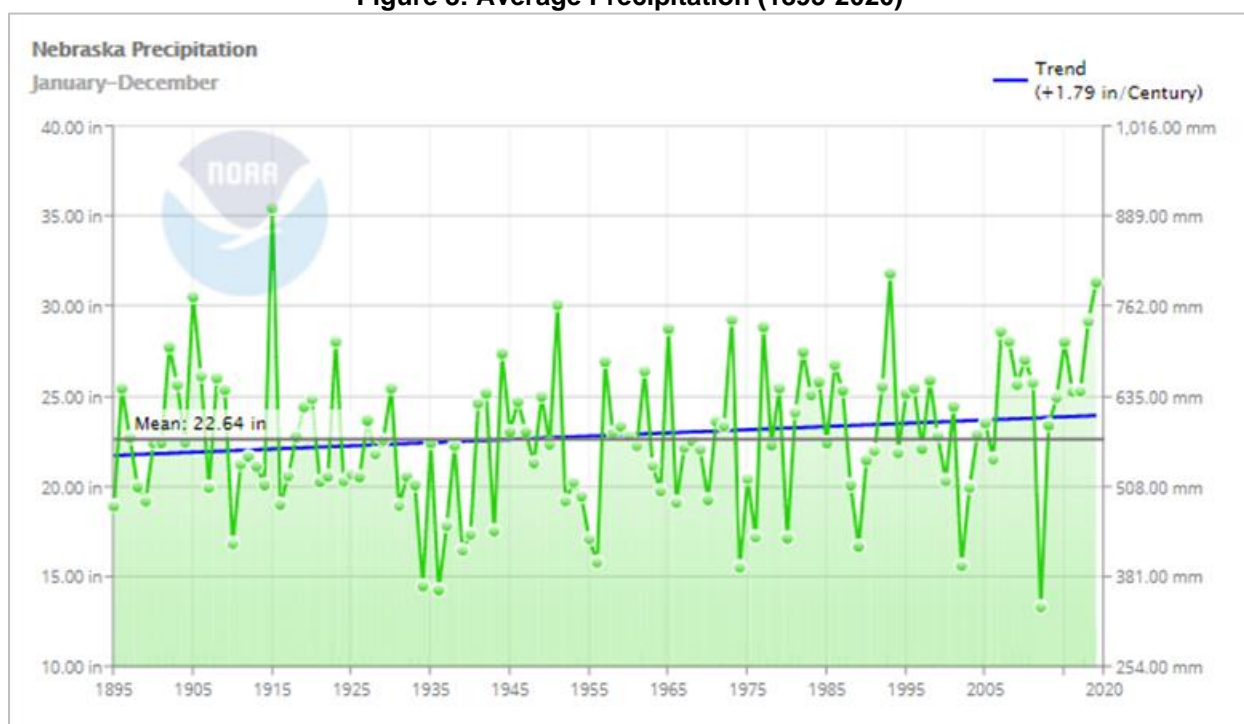
37 University of Nebraska-Lincoln. 2014. "Understanding and Assessing Climate Change: Implications for Nebraska". <http://snr.unl.edu/download/research/projects/climateimpacts/2014ClimateChange.pdf>.

38 NOAA. 2020. "Climate at a Glance: Statewide Time Series." Accessed September 2020. https://www.ncdc.noaa.gov/cag/statewide/time-series/25/tavg/12/12/1895-2020?base_prd=true&begbaseyear=1901&endbaseyear=2000&trend=true&trend_base=100&begtrendyear=1895&endtrendyear=2020.

Changes in Precipitation

Changing extremes in precipitation are anticipated in the coming decades, with more significant rain and snowfall events and more intense drought periods. Seasonal variations will be heightened, with more frequent and more significant rainfall expected in the spring and winter and hotter, drier periods in the summer. Since 1895, yearly annual precipitation for Nebraska has increased slightly (Figure 8). This trend is expected to continue as the impacts of climate change continue to be felt. Climate modeling may show only moderate precipitation and streamflow changes; however, the state is already at risk to large annual and seasonable variability as seen by flooding and drought events occurring in concurrent years. There will likely be more days with a heavy precipitation event (rainfall of greater than one inch per day) across the state. Precipitation varies significantly across the state (Figure 9) and moves in a longitudinal gradient. The east receives twice as much precipitation (35 inches annually) as the Nebraska Panhandle (15 inches) on average.³⁹

Figure 8: Average Precipitation (1895-2020)

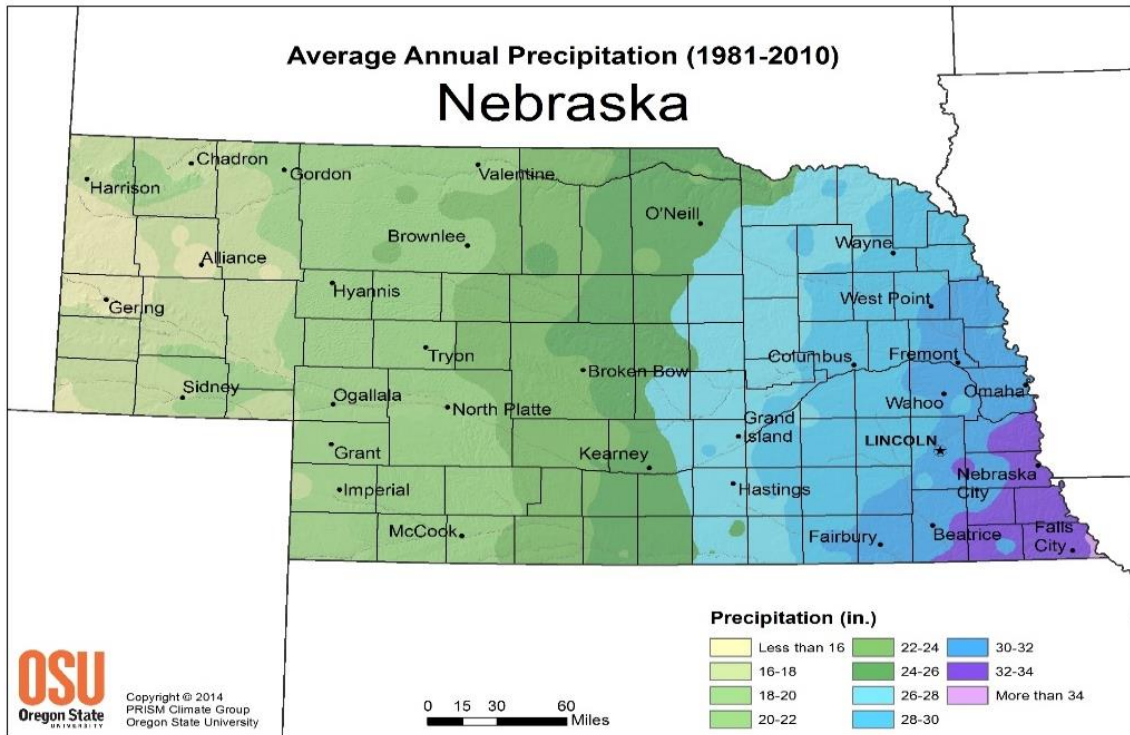


Source: NOAA, 2020⁴⁰

39 North Central Climate Collaborative. January 2020. "NC3 Nebraska Climate Summary." Accessed April 2021. https://northcentralclimate.org/files/2020/01/nc3-Nebraska-Climate-Summary-FINAL_2.12.pdf?x24082.

40 U.S. Drought Monitor. January 2021. "Time Series." Accessed February 2021. <https://droughtmonitor.unl.edu/Data/Timeseries.aspx>.

Figure 9: Average Annual Precipitation for Nebraska (1981-2010)



Source: Oregon State University PRISM Climate Group, 2014

Impacts from Climate Change

Observed changes in the intensity and frequency of extreme events are a significant concern now and in the future because of the social, environmental, and economic costs associated with their impacts. Challenges that are expected to affect communities, environments, and residents as a result of climate change include:

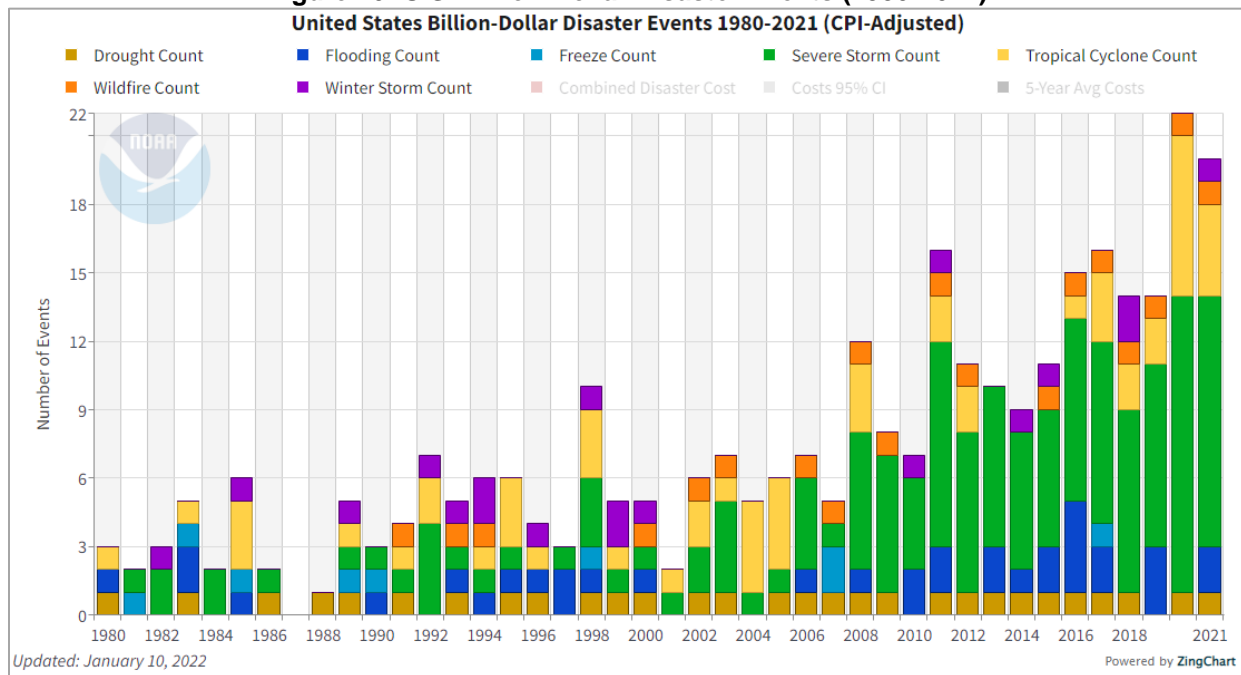
- Developing and maintaining sustainable agricultural systems.
- Resolving increasing competition among land, water, and energy resources.
- Conserving vibrant and diverse ecological systems.
- Enhancing the resilience of the region’s people to the impacts of climatic extremes.

Certain groups of people may face greater difficulty when dealing with the impacts of a changing climate. Older adults, immigrant communities, and those living in poverty are particularly susceptible. Additionally, specific industries and professions tied to weather and climate, like outdoor tourism, commerce, and agriculture, are especially vulnerable.⁴¹

As seen in the figure below, the United States is experiencing an increase in the number of billion-dollar natural disasters due to increases in development and climate change.

41 U.S. Environmental Protection Agency. "Climate Impacts on Society." Accessed April 2021. https://19january2017snapshot.epa.gov/climate-impacts/climate-impacts-society_.html.

Figure 10: U.S. Billion-Dollar Disaster Events (1980-2021)



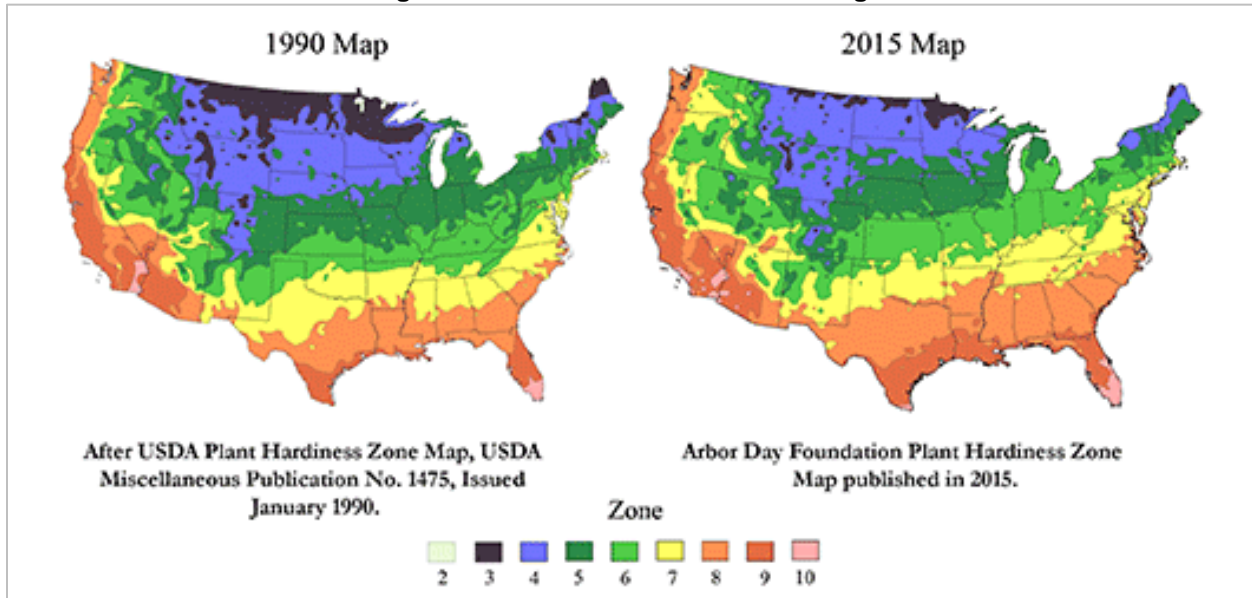
Source: NOAA, 2022⁴²

Agriculture

The agricultural sector will experience an increase in droughts, an increase in grass and wildfire events, changes in the growth cycle as winters warm, an influx of new and damaging agricultural diseases or pests, and changes in the timing and magnitude of rainfall. As described in the Plant Hardiness Zone map available for the United States (Figure 11), these changes have shifted the annual growing season and expected agricultural production conditions. Nebraska is vulnerable to changes in growing season duration and growing season conditions as a heavily agriculturally dependent state. These added stressors on agriculture could have devastating economic effects if new agricultural and livestock management practices are not developed and adopted.

42 NOAA National Centers for Environmental Information. 2022. "U.S. Billion-Dollar Weather and Climate Disasters". <https://www.ncdc.noaa.gov/billions/>.

Figure 11: Plant Hardiness Zone Change



Source: Arbor Day Foundation, 2018⁴³

Air Quality

Rising temperatures will also impact air quality. Harmful air pollutants and allergens increase as temperatures increase. More extended periods of warmth contribute to longer pollen seasons that allow plant spores to travel farther and increase exposure to allergens. More prolonged exposure to allergens can increase the risk and severity of asthma attacks and worsen existing allergies in individuals.⁴⁴ An increase in air pollutants can occur from the increased number of grass/wildfires. The public can be exposed to harmful particulate matter from smoke and ash that can cause various health issues. Depending on the length of exposure, age, and individual susceptibility, effects from wildfire smoke can range from eye and respiratory irritation to severe disorders like bronchitis, asthma, and aggravation of pre-existing respiratory and cardiovascular diseases.⁴⁵

Water Quality

Increasing temperatures, shifting precipitation patterns, and extreme weather events impact water quality throughout the state. With the increasing intensity and frequency of extreme precipitation events, impacts to water systems ultimately threaten human health. Events can lead to flooding and stormwater runoff that can carry pollutants across landscapes and threaten human health by contaminating water wells, groundwater, and other bodies of water. Common pollutants include pesticides, bacteria, nutrients, sediment, animal waste, oil, and hazardous waste.

As average temperatures increase, water temperatures also rise and put water bodies at risk for eutrophication and excess algal growth that reduce water quality. In agricultural landscapes this can be exacerbated from major storm events that cause sediment and nutrients such as phosphorous and nitrogen to runoff into nearby water sources. The runoff can contribute to the buildup of nutrients in the water, increasing plant and algae growth that can deplete oxygen and

43 Arbor Day Foundation. 2018. "Hardiness Zones." https://www.arborday.org/media/map_change.cfm.

44 Asthma and Allergy Foundation of America. 2010. "Extreme Allergies and Climate Change." Accessed 2021. <https://www.aafa.org/extreme-allergies-and-climate-change/>.

45 AirNow. 2019. "Wildfire Smoke: A Guide for Healthcare Professionals." Accessed 2021. https://www.airnow.gov/sites/default/files/2020-10/wildfire-smoke-guide-revised-2019-chapters-1-3_0.pdf.

kill aquatic life. Nutrient enrichment can lead to toxic cyanobacterial harmful algae blooms (CyanoHABs), which can be harmful to animal and human health. CyanoHABs can cause economic damage such as decreasing property values, reducing recreational revenue, and increasing the costs for treating drinking water.⁴⁶

Zoonotic Disease

Changes in temperature and precipitation can alter the geographic range of disease-carrying insects and pests. Mosquitoes that transmit viruses such as Zika, West Nile and dengue may become more prevalent in Nebraska because of the increased temperatures and precipitation. These diseases may initially spread faster as the local population is not aware of the proper steps to reduce their risk.

Energy

As the number of 100°F days increases, along with warming nights, the stress placed on the energy grid will likely increase and possibly lead to more power outages. Severe weather events also stress emergency production, infrastructure transmission, and transportation. Roads, pipelines, and rail lines are all at risk of damages from flooding, extreme heat, erosion, or added stress from increased residential demands.⁴⁷ Critical facilities and vulnerable populations that are not prepared to handle periods of power outages, particularly during heat waves, will be at risk.

Drought and Extreme Heat

An increase in average temperatures will contribute to the raise in the frequency and intensity of hazardous events like extreme heat and drought, which will cause significant economic, social, and environmental impacts on Nebraskans. Although drought is a natural part of the climate system, increasing temperatures will increase evaporation rates, decrease soil moisture, and lead to more intense droughts in the future, having negative impacts on farming and community water systems. Extreme heat events have adverse effects on both human and livestock health. Heatwaves may also impact plant health, with negative effects on crops during essential growth stages. Increasing temperatures and drought may reduce the potential for aquifers to recharge, which has long-term implications for the viability of agriculture in Nebraska.

Grass/Wildfire

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 increase ignition potential. Dry and dead trees will increase fuel loads causing fires to spread much quicker. Additionally, warmer nighttime temperatures contribute to the continued spread of wildfires over multiple days.⁴⁸

Severe Storms and Flooding

Nebraska experiences frequent snowstorms and ice storms during winter, which can produce heavy snowfall and high wind gusts that lead to whiteout conditions. In the warmer months, convective storms are common and include flash flood-producing rainstorms and severe thunderstorms capable of producing hail, damaging winds, and tornadoes. As temperatures

46 USGS. "Nutrients and Eutrophication". Accessed February 2021. https://www.usgs.gov/mission-areas/water-resources/science/nutrients-and-eutrophication?qt-science_center_objects=0#qt-science_center_objects.

47 USGCRP, 2018: Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II: Report-in-Brief [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, 186 pp.

48 NASA Global Climate Change. September 2019. "Satellite Data Record Shows Climate Change's Impact on Fires." Accessed 2021. <https://climate.nasa.gov/news/2912/satellite-data-record-shows-climate-changes-impact-on-fires/>.

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 severe storms and heavy rain events will lead to more flooding and larger magnitude flood events. These severe storm and flooding events can cause increased damages to structures and put more people at risk of injury or death.

Future Adaptation and Mitigation

The planning area will have to adapt to a changing climate and its impacts or experience an increase in economic losses, property damages, agricultural damages, and loss of life. Past events have typically informed HMPs to be more resilient to future events. This HMP includes strategies for the planning area to address these changes and increase resilience. However, future updates of this HMP should consider including adaptation as a core strategy to be better informed by future projections on the frequency, intensity, and distribution of hazards. Jurisdictions in the planning area should consider past and future climate changes and impacts when incorporating mitigation and strategic actions into local planning processes.

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 region. Hazards of local concern or events which have deviated from the norm are discussed in greater detail in each respective community profile (see *Section Seven* of this plan). The following table identifies the prioritization of hazards by participating jurisdictions (i.e., hazards of top concern). Local jurisdictional planning teams selected these hazards from the regional hazard list as the prioritized hazards for the community based on historical hazard occurrences, potential impacts, and the jurisdictions' capabilities. However, it is important to note that while a jurisdiction may not have selected a specific hazard to be profiled, hazard events can impact any community at any time and their selection is not a full indication of risk.

Table 32: Top Hazards of Concern

Jurisdiction	Animal and Plant Disease	Dam Failure	Drought	Earthquakes	Extreme Heat	Flooding	Grass/Wildfire	Hail	Hazardous Materials - Fixed Sites	Hazardous Materials - Transportation	High Winds	Levee Failure	Severe Thunderstorms	Severe Winter Storms	Terrorism and Civil Disorder	Tornadoes
Cheyenne County		X	X			X	X					X	X	X		
Dalton							X	X		X				X		X
Gurley																
Lodgepole	X					X	X				X					
Potter		X				X	X	X		X			X			X
Sidney						X		X		X				X		X
Deuel County	X	X				X	X			X			X	X		X
Big Springs			X			X		X						X		X
Chappell								X		X	X		X	X		
Kimball County		X	X			X	X				X		X	X		
Bushnell			X				X	X					X	X		X
Kimball		X						X		X	X		X	X		
Bushnell Fire District			X				X			X						

Jurisdiction	Animal and Plant Disease	Dam Failure	Drought	Earthquakes	Extreme Heat	Flooding	Grass/Wildfire	Hail	Hazardous Materials - Fixed Sites	Hazardous Materials - Transportation	High Winds	Levee Failure	Severe Thunderstorms	Severe Winter Storms	Terrorism and Civil Disorder	Tornadoes
Dix Fire District							X		X	X						
Kimball Airport								X		X	X					X
Kimball Public Schools								X					X	X	X	X
Leyton Public Schools					X					X			X	X		X
Lodgepole Fire District						X	X			X	X					X
Potter Fire District							X			X	X		X	X		
Sidney Fire Department			X				X		X	X			X	X		
Sidney Public Schools								X			X		X	X		X
Region 21 Emergency Management						X		X		X	X		X	X		X
South Platte NRD		X	X			X										X

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.

The State of Nebraska's economy is heavily invested in both livestock and crop sales. According to the Nebraska Department of Agriculture (NDA) in 2017, the market value of agricultural products sold was estimated at nearly \$22 billion; this total is split between crops (estimated \$9.31 billion) and livestock (estimated \$12.67 billion). For the planning area, the market value of sold agricultural products exceeded \$148 million.⁴⁹

Table 33 shows the population of livestock within the planning area. This count does not include wild populations that are also at risk from animal diseases.

Table 33: Livestock Inventory

County	Market Value of 2017 Livestock Sales	Cattle and Calves	Hogs and Pigs	Sheep and Lambs	Poultry Egg Layers
Cheyenne	\$102,874,000	44,295	0	315	588
Deuel	\$36,033,000	27,052	27	0	384
Kimball	\$9,638,000	17,397	274	(D)*	558
Total	\$148,545,000	88,744	301	315	1,530

Source: U.S. Census of Agriculture, 2017

*(D) Withheld to avoid disclosing data for individual farms.

The following tables provide the value and acres of land in farms for the planning area. Cheyenne County has the highest number of farms and the most land (acres) in farms in the planning area. Cheyenne County has highest crop sales, which accounts for 48% of sales in the three-county area. Wheat is the most prevalent crop type in the region followed by corn.

Table 34: Land and Value of Farms in the Planning Area

County	Number of Farms	Land in Farms (acres)	Market Value of 2017 Crop Sales
Cheyenne	572	759,469	\$61,058,000
Deuel	225	276,135	\$35,283,000
Kimball	443	603,457	\$30,337,000
Total	1,240	1,639,061	\$126,678,000

Source: U.S. Census of Agriculture, 2017

49 US Department of Agriculture, National Agricultural Statistics Server. 2020. "2017 Census of Agriculture – County Data." Accessed July 2020. https://www.nass.usda.gov/Publications/AgCensus/2017/Full_Report/Volume_1,_Chapter_2_County_Level/Nebraska/.

Table 35: Crop Values

County	Corn		Soybeans		Wheat	
	Acres Planted	Value (2017)	Acres Planted	Value (2017)	Acres Planted	Value (2017)
Cheyenne	51,059	\$19,361,000	4,998	\$2,390,000	155,372	\$20,563,000
Deuel	38,663	\$20,461,000	2,784	\$1,030,000	66,471	\$7,664,000
Kimball	35,705	\$10,398,000	(D)	(D)	93,586	\$9,557,000
Total	125,427	\$50,220,000	7,782	\$3,420,000	315,429	\$37,784,000

Source: U.S. Census of Agriculture, 2017

*(D) Withheld to avoid disclosing data for individual farms.

Location

Given the strong agricultural presence in the planning area, animal and plant disease have the potential to occur across the planning area. If a major outbreak were to occur, the economy in the entire region would be affected, including urban areas.

The primary land uses where animal and plant disease will be observed include agricultural lands, range or pasture lands, and forests. It is possible that animal or plant disease will occur in domestic animals or crops in urban areas.

Historical Occurrences

Animal Disease

The NDA provides reports on diseases occurring in the planning area. There were zero instances of animal disease reported between 2015 and 2021 by the NDA.⁵⁰

Plant Disease

A variety of diseases can impact crops and often vary from year to year. The NDA provides information on some of the most common plant diseases, which are listed below.

Table 36: Common Crop Diseases in Nebraska by Crop Types

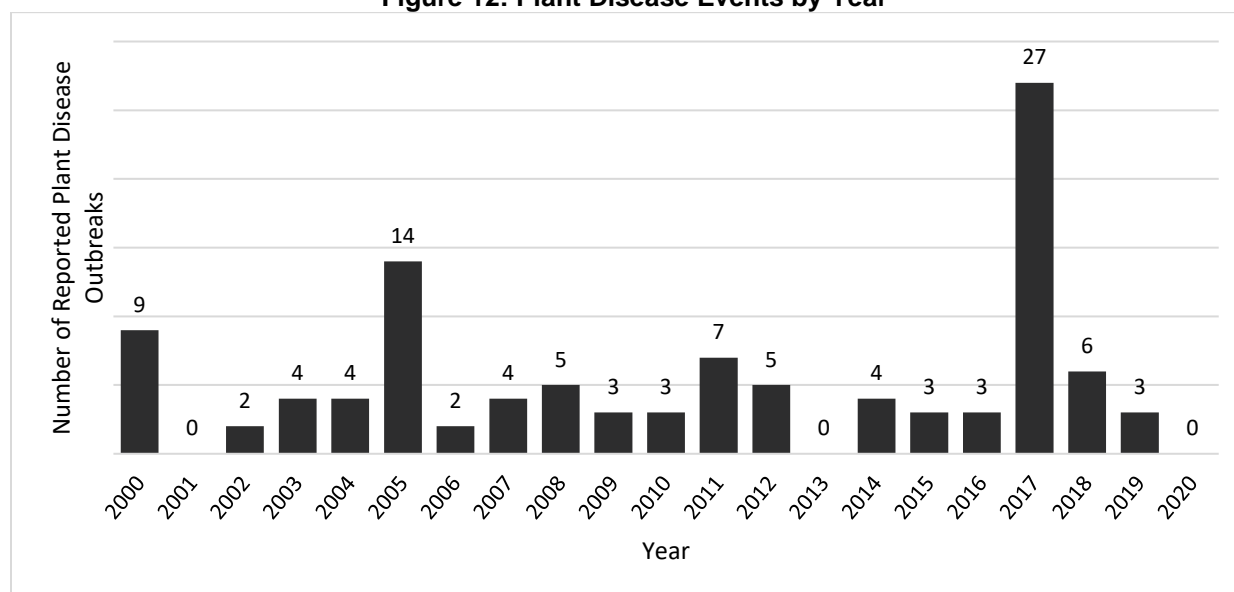
Crop Diseases		
Corn	Anthracnose	Southern Rust
	Bacterial Stalk Rot	Stewart’s Wilt
	Common Rust	Common Smut
	Fusarium Stalk Rot	Goss’s Wilt
	Fusarium Root Rot	Head Smut
	Gray Leaf Spot	Physoderma
	Maize Chlorotic Mottle Virus	
Soybeans	Anthracnose	Pod and Stem Blight
	Bacterial Blight	Purple Seed Stain
	Bean Pod Mottle	Rhizoctonia Root Rot
	Brown Spot	Sclerotinia Stem Rot
	Brown Stem Rot	Soybean Mosaic Virus
	Charcoal Rot	Soybean Rust

⁵⁰ Nebraska Department of Agriculture. January 2021. “Livestock Disease Reporting.” <https://nda.nebraska.gov/animal/reporting/NovemberYTD2020.pdf>.

	Frogeye Leaf Spot	Stem Canker
	Phytophthora Root and Stem Rot	Sudden Death Syndrome
Wheat	Barley Yellow Dwarf	Leaf Rust
	Black Chaff	Tan Spot
	Crown and Root Rot	Wheat Soil-borne Mosaic
	Fusarium Head Blight	Wheat Streak Mosaic
Sorghum	Ergot	Zonate Leaf Spot
	Sooty Stripe	
Other Pests	Grasshoppers	Western Bean Cutworm
	European Corn Borer	Corn Rootworm
	Corn Nematodes	Bean Weevil
	Mexican Bean Beetle	Soybean Aphids
	Rootworm Beetles	Emerald Ash Borer

The RMA provides data on plant disease events and plant losses in the planning area. There are 108 instances of plant diseases reported from 2000-2020 by the RMA (Figure 12). These outbreaks caused \$4,541,827 in crop losses.

Figure 12: Plant Disease Events by Year



Source: NDA, 2000-2020

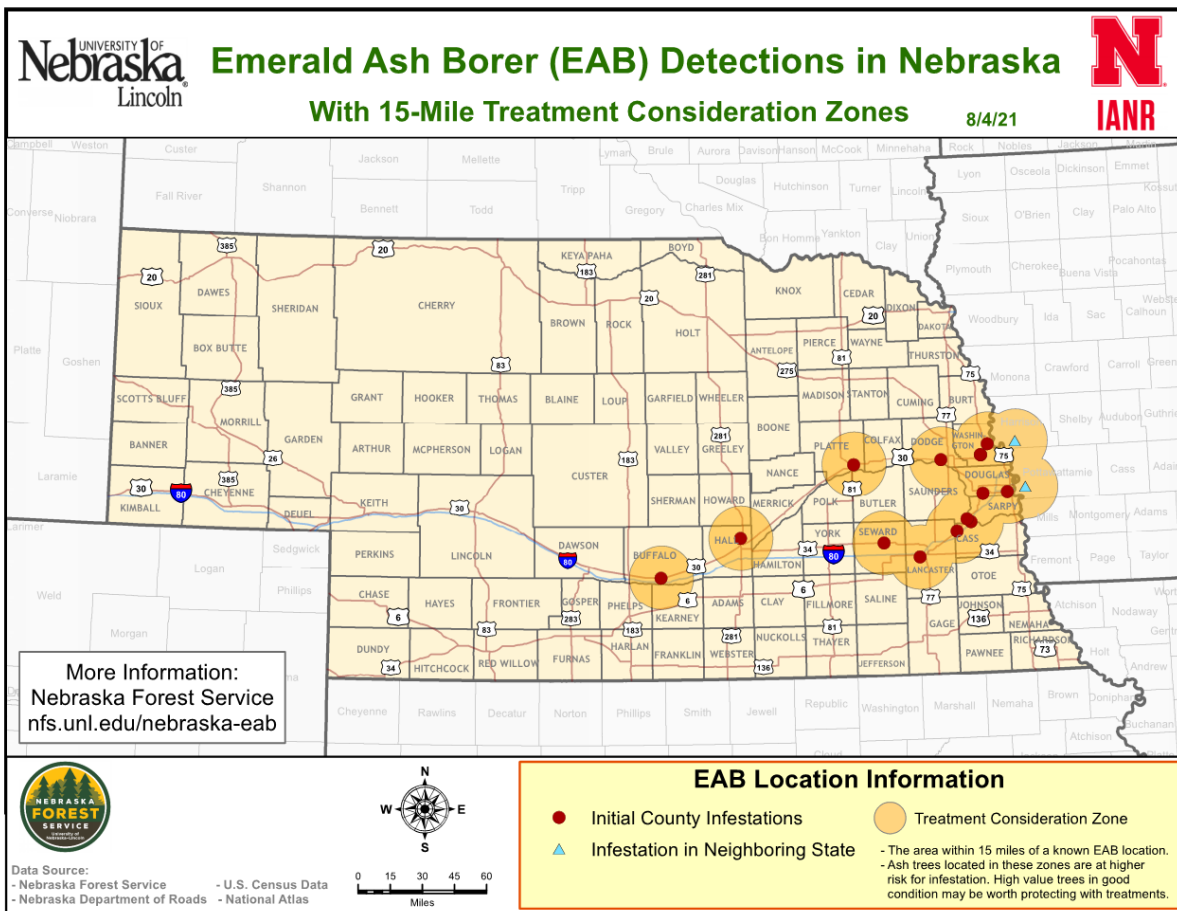
Emerald Ash Borer

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 three Canadian provinces and 35 US states, primarily in the eastern, southern, and midwestern regions. The two most recent infestation confirmations came from South Dakota, Maine, and Vermont in early 2018; however, EAB can be found in Iowa, Missouri, Kansas, South Dakota, and Colorado. Nebraska’s first confirmed cases

occurred on private land in Omaha and Greenwood in 2016.⁵¹ Figure 13 shows the locations of Nebraska’s confirmed EAB cases as of August 2021. No confirmed cases have occurred in the planning area; however, the beetle is spreading west. Many communities across the state are prioritizing the removal of ash trees to help curb potential infestations and tree mortality.

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 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.⁵² Estimated economic impacts to Nebraska’s 44 million ash trees exceed \$981 million.⁵³

Figure 13: EAB Detections in Nebraska



Source: Nebraska Forest Service, 2022

51 Emerald Ash Borer Information Network. April 2018. "Emerald Ash Borer." <http://www.emeraldashborer.info/>.

52 Arbor Day Foundation. 2015. "Emerald Ash Borer." <https://www.arborday.org/trees/health/pests/emerald-ash-borer.cfm>.

53 "Nebraska Emerald Ash Borer Response Plan." May 2015. <https://nfs.unl.edu/NebraskaEABResponsePlan.pdf>.

Mountain Pine Beetle

The Mountain Pine Beetle (MPB) is an insect pest that has appeared in the Pine Ridge and Wildcat Hills areas of the Nebraska Panhandle. The beetle is native to the western forests of North America and outbreaks have resulted in millions of trees being killed. The beetles attack various pine trees, including limber, lodgepole, ponderosa, and Scotch pines. Once a tree is infested by MPB, there is nothing one can do to stop it from being killed. Forest management is an effective way to prevent MPB from killing forests, through diversifying tree ages and spacing them out. Various sprays can also be used to prevent infestation, but there are currently no labeled pesticides to control an already infested tree.⁵⁴ Dead or dying trees affected by MPB (or 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.

Average Annual Losses

According to the USDA RMA (2000-2020) there were 108 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 from the Nebraska Department of Agriculture. There were no reported livestock disease losses from 2015 to 2020 according to the NDA.

Table 37: Agricultural Plant Disease Losses

Hazard Type	Number of Events	Events per Year	Total Crop Loss	Average Annual Crop Loss
Plant Disease	108	5.1	\$4,541,827	\$216,277

Source: RMA, 2000-2020

Table 38: Agricultural Livestock Disease Losses

Hazard Type	Number of Events	Events per Year	Total Animal Losses	Average Animal Losses per Event
Animal Disease	0	0	0	0

Source: NDA, 2015-2020

Extent

There is no standard for measuring the magnitude of agricultural disease. 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 entire planning area’s economy.

Probability

Given the historic record of occurrence for animal disease (zero animal disease outbreaks reported in all six years), for the purposes of this plan, the annual probability of animal disease occurrence is less than one percent. Given the historic record of occurrence for agricultural plant disease events (18 out of 21 years with a reported event), for the purposes of this plan, the annual probability of agricultural plant disease occurrence is 86%.

⁵⁴ Nebraska Invasive Species Program. 2021. "Mountain Pine Beetle." <https://neinvasives.com/species/insects/mountain-pine-beetle>.

Community Top Hazard Status

The following table lists jurisdictions which identified Animal and Plant Disease as a top hazard of concern:

Jurisdictions	
Deuel County	Lodgepole

Regional Vulnerabilities

The following table provides information related to regional vulnerabilities; for jurisdictional-specific vulnerabilities, refer to *Section Seven: Community Profiles*.

Table 39: 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	-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	None
Infrastructure	-Transportation routes can be closed during quarantine
Critical Facilities	None
Climate	-Exacerbate outbreaks, impacts, and/or recovery period -Changes in seasonal normals can promote spread of invasive species and agricultural disease

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 is:

- 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 or
- 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:

- 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; or
- water storage or evaporation ponds regulated by the United States Nuclear Regulatory Commission.⁵⁵

The NeDNR uses a classification system for dams throughout the state, including those areas participating in this plan. The classification system includes three classes, which are defined in the table below.

Table 40: Dam Size Classification

Size	Effective Height (feet) x Effective Storage (acre-feet)	Effective Height
Small	≤ 3,000 acre-feet	and ≤ 35 feet
Intermediate	> 3,000 acre-feet to < 30,000 acre-feet	or > 35 feet
Large	≥ 30,000 acre-feet	Regardless of Height

Source: NeDNR, 2013⁵⁶

The effective height of a dam is defined as the difference in elevation in feet between the natural bed of the stream or watercourse measured at the downstream toe (or from the lowest elevation of the outside limit of the barrier if it is not across stream) to the auxiliary spillway crest. The effective storage is defined as the total storage volume in acre-feet in the reservoir below the elevation of the crest of the auxiliary spillway. If the dam does not have an auxiliary spillway, the effective height and effective storage should be measured at the top of dam elevation.

55 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.

56 Nebraska Department of Natural Resources. 2013. “Classification of Dams: Dam Safety Section.” <https://dnr.nebraska.gov/sites/dnr.nebraska.gov/files/doc/dam-safety/resources/Classification-Dams.pdf>.

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:

- 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

The NeDNR and U.S. Army Corps of Engineers (USACE) regulate 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:

- **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 USACE’s National Inventory of Dams, there are a total of 49 dams located within the planning area, with classifications ranging from low to high hazard. Figure 14 maps the location of these dams in the planning area.

Table 41: Dams in the Planning Area

County	Low Hazard	Significant Hazard	High Hazard
Cheyenne	13	5	5
Deuel	3	0	0
Kimball	19	1	2
Total	35	6	7

Source: USACE, 2021⁵⁷

⁵⁷ United States Army Corps of Engineers. February 2021. "National Inventory of Dams." <https://nid.sec.usace.army.mil/ords/f?p=105:19:15077170345077::NO::>

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 situation can occur at any time; however, emergencies are more likely to happen when extreme conditions are present. There are seven high hazard dams located within the planning area. Five are in Cheyenne County and two are in Kimball County.

Table 42: High Hazard Dams in the Planning Area

County	Dam Name	NID ID	Dam Height (Feet)	Dam Height (Feet)	Condition	Inspection Date
Cheyenne	Heimer Dam	NE00601	27	76	Fair	8/11/2020
Cheyenne	Potter Dam	NE02293	24	50	Satisfactory	8/11/2020
Cheyenne	Sidney East Dam	NE01146	25	126	Satisfactory	8/11/2020
Cheyenne	Sidney West Dam	NE01147	26	50	Satisfactory	8/11/2020
Cheyenne	Verde Lane Dam	NE00607	28	160	Satisfactory	8/11/2020
Kimball	Janicek Dam	NE00750	19.6	360	Fair	8/11/2020
Kimball	Oliver Dam	NE00749	48	8,428	Satisfactory	6/10/2020

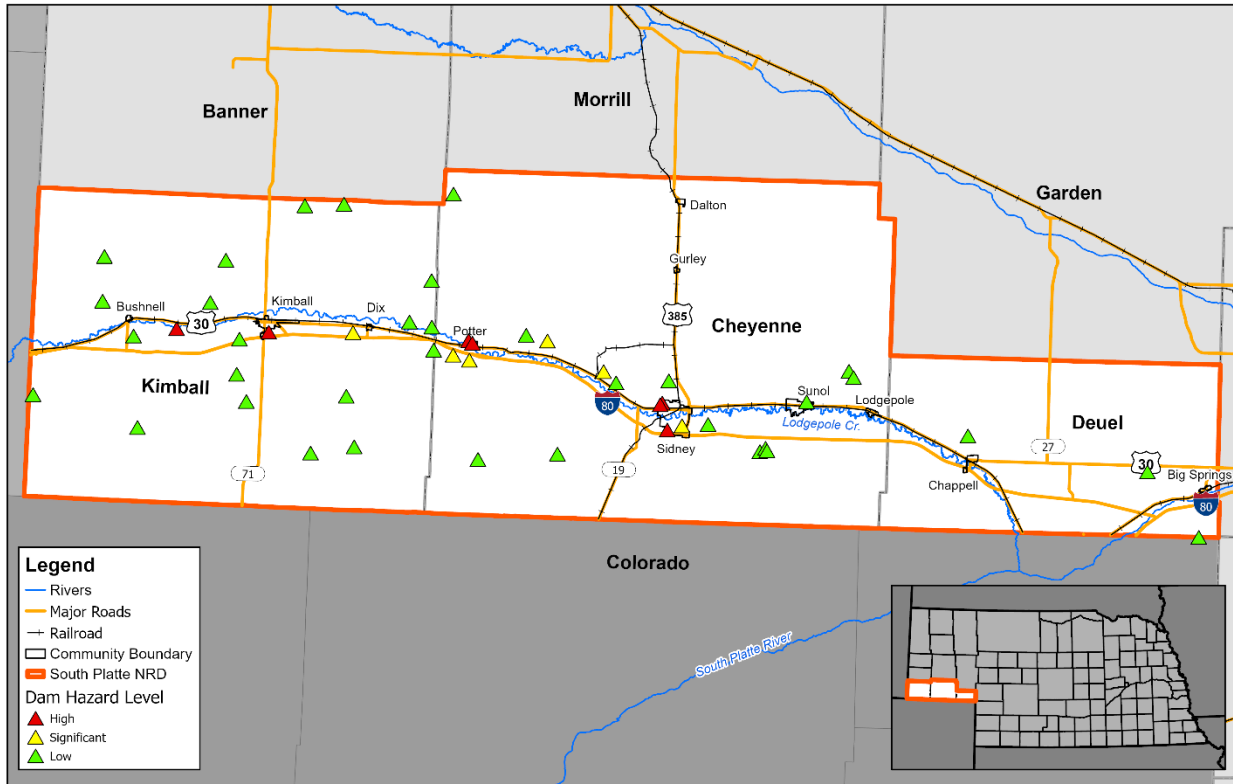
Source: USACE, 2021⁵⁸

Upstream Dams Outside the Planning Area

According to the Deuel, Cheyenne, and Kimball County’s Local Emergency Operations Plans,^{59,60,61} there are no upstream dams outside of the planning area that would impact the counties.

58 United States Army Corps of Engineers. February 2021. "National Inventory of Dams." <https://nid.sec.usace.army.mil/ords/f?p=105:19:15077170345077::NO::>
 59 Deuel County Emergency Management Agency. 2017. "Deuel County Local Emergency Operations Plan."
 60 Cheyenne County Emergency Management Agency. 2018. "Cheyenne County Local Emergency Operations Plan."
 61 Kimball County Emergency Management Agency. 2017. "Kimball County Local Emergency Operations Plan."

Figure 14: Dam Locations



Created By: NL
 Date: 2/9/2022
 Software: ArcGIS Pro 2.8
 File Name: SP_Upfront.aprx

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 plot.

Dam Locations

South Platte NRD HMP Update 2022

Historical Occurrences

NeDNR reported one dam failure within the planning area. The following table lists information about this failure event. No damages were reported to have occurred.

Table 43: Dam Failures

Dam Name	County	Failure Year	Hazard Class	Downstream damage
Deford Southeast Dam	Cheyenne	2012	Low	None

Source: NeDNR, 2021

Average Annual Losses

There were no reported damages from any of the dam failures. In general, dam failure events would be confined to damage in the inundation area. Community members in the planning area that wish to quantify and evaluate the threat of dam failure should contact their County Emergency Management, local NRD, or NeDNR to view EAPs and breach inundation area maps.

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 extent of dam failure is indicated by its hazard classification and location. Note that hazard classification does not indicate the likelihood of a dam failure event to occur, but rather the extent of potential damages 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. Key facilities located in inundation areas are discussed in each county’s LEOP.

Probability

Based on the historic record of reported incidents, there is a one percent probability (1 out of 125 years with an occurrence) that dam failure will occur annually in the planning area.

Community Top Hazard Status

The following table lists jurisdictions which identified Dam Failure as a top hazard of concern:

Jurisdictions	
Cheyenne County	Kimball County
Deuel County	Potter
Kimball	South Platte NRD

Regional Vulnerabilities

The following table provides information related to regional vulnerabilities; for jurisdictional-specific vulnerabilities, refer to *Section Seven: Community Profiles*.

Table 44: Regional Dam Failure Vulnerabilities

Sector	Vulnerability
People	<ul style="list-style-type: none"> -Those living downstream of high hazard dams -Those at recreational sites situated near high hazard dams -Evacuation needs likely with high hazard dam failure events -Hospitals, nursing homes, and the elderly at greater risk due to low mobility -Cheyenne County: LEOP estimated 25% of the population would be affected -Deuel County: LEOP estimated 3% of the population would be affected -Kimball County: The Oliver Dam EAP estimated that 150 people would be affected
Economic	<ul style="list-style-type: none"> -Loss of downstream agricultural land -Businesses or recreation sites located in inundation areas would be impacted and closed for an extended period of time -Employees of closed businesses may be out of work for an extended period of time
Built Environment	-Damage to facilities, recreation areas, and roads
Infrastructure	-Transportation routes could be closed for extended period of time
Critical Facilities	-Any critical facilities in inundation areas are vulnerable to damages
Climate	<ul style="list-style-type: none"> -Increased annual precipitation contributes to sustained stress on systems -Changes in water availability and supply can constrain energy production and reservoir stores

Drought

Drought is generally defined as a natural hazard that results from a substantial period of below normal precipitation. Although many erroneously consider it a rare and random event, drought is a normal, recurrent feature of climate. It occurs in virtually all climatic zones, but its characteristics 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. The planning area is largely rural, which presents an added vulnerability to drought events; drought conditions can significantly and negatively impact the agricultural economic base.

Drought is a slow-onset, creeping phenomenon that can affect a wide range of people, livestock, and industries. While many impacts of these hazards are non-structural, there is the potential that during prolonged drought events structural impacts can occur. Drought normally affects more people than other natural hazards, and its impacts are spread over a larger geographical area. As a result, the detection and early warning signs of drought conditions and assessment of impacts are more difficult to identify than that of quick-onset natural hazards (e.g., flood) that results in more visible impacts. According to the National Drought Mitigation Center (NDMC), droughts are classified into four major types:

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.

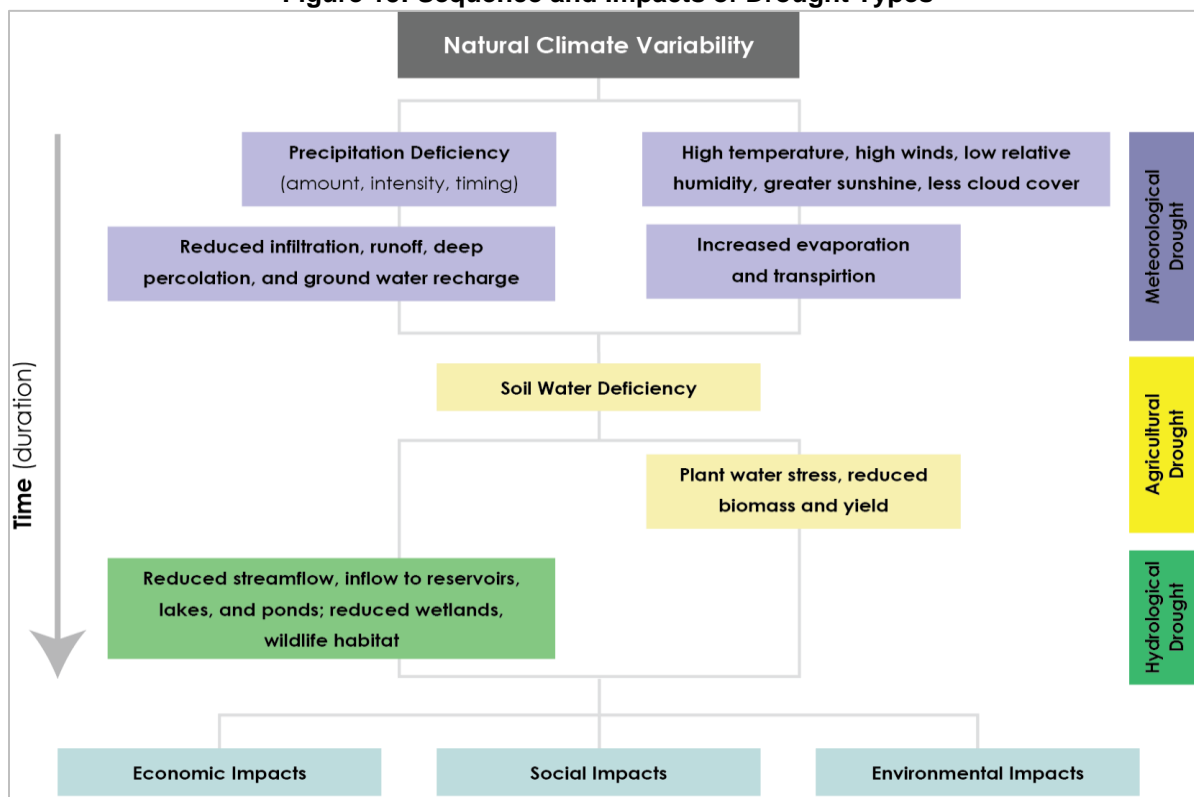
~National Drought Mitigation Center

- **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 and frequencies (norms) 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 are not limited to, water, forage, food grains, fish, and hydroelectric power.⁶²

62 National Drought Mitigation Center. 2017. "Drought Basics." <https://drought.unl.edu/>.

The following figure indicates different types of droughts, their temporal sequence, and the various types of effects they can have on a region.

Figure 15: Sequence and Impacts of Drought Types



Source: National Drought Mitigation Center, University of Nebraska-Lincoln, 2017⁶³

Location

The entire planning area is susceptible to drought impacts.

Historical Occurrences

Table 45 indicates it is reasonable to expect extreme drought to occur 4.4% of the time for the planning area (66 extreme drought months in 1,512 months). Severe drought occurred in 60 months of the 1,512 months of record (4.0% of months). Moderate drought occurred in 129 months of the 1,512 months of record (8.5% of months), and mild drought occurred in 183 of the 1,512 months of record (12.1% of months). Non-drought conditions occurred in 1,074 months, or 71% percent of months. These statistics show that the drought conditions of the planning area are highly variable. The average annual planning area precipitation is approximately 17.6 inches according to the NCEI.⁶⁴

63 National Drought Mitigation Center. 2017. "Types of Drought." <https://drought.unl.edu/>.

64 NOAA National Centers for Environmental Information. March 2021. "Data Tools: 1981-2010 Normals." [datafile]. <https://www.ncdc.noaa.gov/cdo-web/datatools/normals>.

Table 45: Historic Droughts

Drought Magnitude	Months in Drought	Percent Chance
-1 Magnitude (Mild)	183/1,512	12.1%
-2 Magnitude (Moderate)	129/1,512	8.5%
-3 Magnitude (Severe)	60/1,512	4.0%
-4 Magnitude or Greater (Extreme)	66/1,512	4.4%

Source: NCEI, 1895-2020⁶⁵

Extent

The Palmer Drought Severity Index (PDSI) is utilized by climatologists to standardize global long-term drought analysis. The data for the planning area was collected for Climate Division 1, which includes the planning area. This particular station's period of record started in 1895. Table 46 shows the details of the Palmer classifications. Figure 16 shows drought data from this time period. 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. The planning area has experienced several extreme droughts and moderate, severe, and extreme droughts are likely in the future.

Table 46: Palmer Drought Severity Index Classification

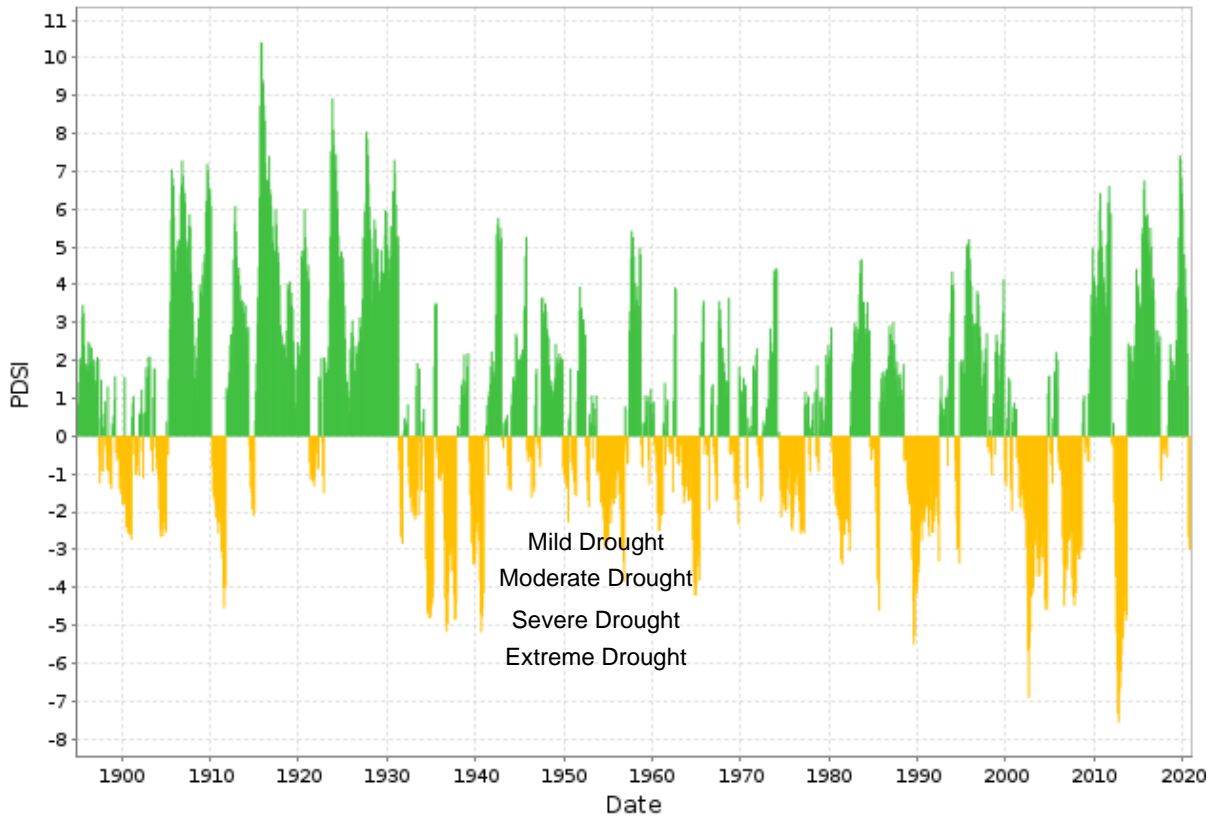
Numerical Value	Description	Numerical Value	Description
4.0 or more	Extremely wet	-0.5 to -0.99	Incipient dry spell
3.0 to 3.99	Very wet	-1.0 to -1.99	Mild drought
2.0 to 2.99	Moderately wet	-2.0 to -2.99	Moderate drought
1.0 to 1.99	Slightly wet	-3.0 to -3.99	Severe drought
0.5 to 0.99	Incipient wet spell	-4.0 or less	Extreme drought
0.49 to -0.49	Near Normal	--	--

Source: Climate Prediction Center⁶⁶

65 National Centers for Environmental Information. 1895-2020. Accessed January 20, 2021. <https://www7.ncdc.noaa.gov/CDO/CDODivisionalSelect.jsp>

66 National Weather Service. 2017. "Climate Prediction Center." <https://www.cpc.ncep.noaa.gov/>.

**Figure 16: Palmer Drought Severity Index
NE Panhandle - PDSI
189501 - 202012**

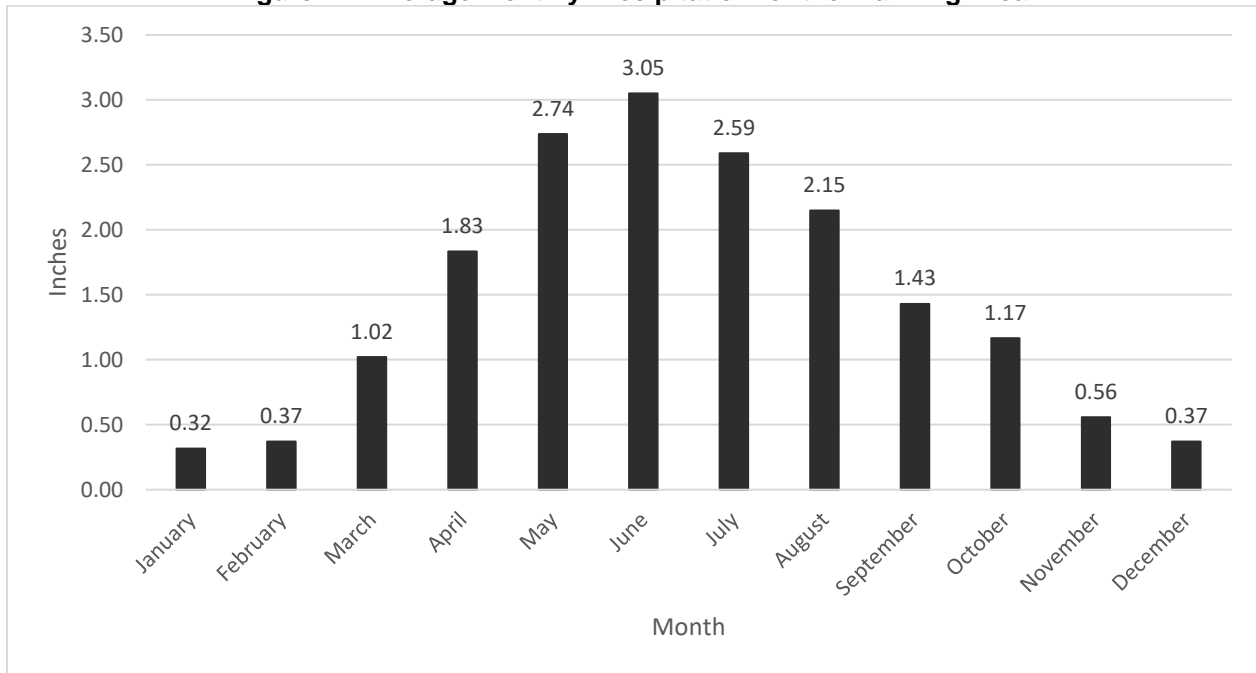


Source: NCEI, 1895-2020⁶⁷

Figure 17 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 deviation from the norm showcases drought conditions and influence growing conditions for farmers.

⁶⁷ National Centers for Environmental Information. 1895-2020. Accessed January 20, 2021. <https://www7.ncdc.noaa.gov/CDO/CDODivisionalSelect.jsp>

Figure 17: Average Monthly Precipitation for the Planning Area



Source: NCEI, 1981-2010⁶⁸

Average Annual Losses

The annual property estimate was determined based upon NCEI Storm Events Database since 1996. The annual crop loss was determined based upon the RMA Cause of Loss Historical Database since 2000. This does not include losses from displacement, functional downtime, economic loss, injury, or loss of life. The direct and indirect effects of drought are difficult to quantify. Potential losses such as power outages could affect businesses, homes, and critical facilities. High demand and intense use of air conditioning or water pumps can overload the electrical systems and damage infrastructure.

Table 47: 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	\$50,000	\$1,923	\$52,680,199	\$2,508,581

Source: 1 Indicates data is from NCEI (1996-April 2021); 2 Indicates data is from USDA RMA (2000-2020)

Probability

Drought conditions are also likely to occur regularly in the planning year. The following table summarizes the magnitude of drought and monthly probability of occurrence.

68 NOAA National Centers for Environmental Information. March 2021. "Data Tools: 1981-2010 Normals." [datafile]. <https://www.ncdc.noaa.gov/cdo-web/datatools/normals>.

Table 48: Period of Record in Drought

PDSI Value	Magnitude	Drought Occurrences by Month	Monthly Probability
4 or more to -0.99	No Drought	1,074/1,512	71.0%
-1.0 to -1.99	Mild Drought	183/1,512	12.1%
-2.0 to -2.99	Moderate Drought	129/1,512	8.5%
-3.0 to -3.99	Severe Drought	60/1,512	4.0%
-4.0 or less	Extreme Drought	66/1,512	4.4%

Source: NCEI, 1895-2020⁶⁹

Community Top Hazard Status

The following table lists jurisdictions which identified Drought as a top hazard of concern:

Jurisdictions	
Big Springs	Kimball County
Bushnell	Sidney Fire District
Bushnell Fire District	South Platte NRD
Cheyenne County	

Regional Vulnerabilities

The Drought Impact Reporter is a database of drought impacts throughout the United States, with data going back to 2000. The Drought Impact Reporter has recorded a total of 26 drought-related impacts throughout the region. Notable drought impacts are summarized in the following table. This is not a comprehensive list of droughts that may have impacted the planning area.

Table 49: Notable Drought Impacts in Planning Area

Category	Date	Affected Counties	Title
Agriculture, Plants & Wildlife	9/13/2020	Cheyenne, Deuel, Kimball	Grass growth slowed in western Nebraska
Agriculture, Relief, Response & Restrictions	1/9/2014	Cheyenne, Deuel, Kimball	Drought-Related USDA Disaster Declarations in 2014
Society & Public Health	2/28/2013	Cheyenne, Deuel, Kimball	County roads in the Nebraska Panhandle deteriorated during the drought
Agriculture, Relief, Response & Restrictions	1/9/2013	Cheyenne, Deuel, Kimball	Drought-Related USDA Disaster Declarations in 2013
Agriculture, Water Supply & Quality	8/7/2012	Cheyenne, Deuel, Kimball	Nebraska ranchers hauling water to livestock
Plants & Wildlife	6/1/2012	Cheyenne, Deuel, Kimball	Many trees in western Nebraska died from drought, high temperatures and strong winds in 2012
Agriculture, Plants & Wildlife	5/1/2012	Cheyenne, Deuel, Kimball	Drought led ranchers in western Nebraska to cull cow herds by 25 to 60 percent

69 National Centers for Environmental Information. 1895-2020. Accessed January 2021. <https://www7.ncdc.noaa.gov/CDO/CDODivisionalSelect.jsp>

Category	Date	Affected Counties	Title
Relief, Response & Restrictions	8/15/2007	Kimball	Drought-Related USDA Disaster Declarations in 2007
Relief, Response & Restrictions	9/13/2006	Cheyenne, Deuel, Kimball	Livestock drought assistance from USDA
Relief, Response & Restrictions	11/4/2005	Cheyenne, Deuel	Drought-Related USDA Disaster Declarations in 2005
Relief, Response & Restrictions	6/24/2004	Cheyenne, Deuel, Kimball	Drought-Related USDA Disaster Declarations in 2004
Relief, Response & Restrictions	7/2/2002	Cheyenne, Deuel, Kimball	USDA approved emergency grazing on CRP lands

Source: NDMC, 2000-Aug. 2021⁷⁰

The following table provides information related to regional vulnerabilities. For jurisdictional-specific vulnerabilities, refer to *Section Seven: Community Profiles*.

Table 50: 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 -Loss of tourism dollars -Decrease in cattle prices -Decrease of land prices→ jeopardizes educational funds
Built Environment	-Cracking foundations (residential and commercial structures) -Damages to landscapes
Infrastructure	-Damages to waterlines below ground -Damages to roadways (prolonged extreme events)
Critical Facilities	-Loss of power and impact on infrastructure
Climate	-Increased risk of wildfire events, damaging buildings and agricultural land

⁷⁰ National Drought Mitigation Center. 2021. "U.S. Drought Impact Reporter." Accessed August 2021. <http://droughtreporter.unl.edu/map/>.

Earthquakes

An earthquake is the result of a sudden release of energy in the Earth's tectonic plates that creates seismic waves. The seismic activity of an area refers to the frequency, type, and size of earthquakes experienced over a period of time. Although rather uncommon, earthquakes do occur in Nebraska and are usually small, generally not felt, and cause little to no damage. Earthquakes are measured by magnitude and intensity. Magnitude is measured by the Richter Scale, a base-10 logarithmic scale, which uses seismographs around the world to measure the amount of energy released by an earthquake. Intensity is measured by the Modified Mercalli Intensity Scale, which determines the intensity of an earthquake by comparing actual damage against damage patterns of earthquakes with known intensities. The following tables summarize the Richter Scale and Modified Mercalli Scale.

Table 51: Richter Scale

Richter Magnitudes	Earthquake Effects
Less Than 3.5	Generally not felt but recorded.
3.5 – 5.4	Often felt, but rarely causes damage.
Under 6.0	At most, slight damage to well-designed buildings. Can cause major damage to poorly constructed buildings over small regions.
6.1 – 6.9	Can be destructive in areas up to about 100 kilometers across where people live.
7.0 – 7.9	Major earthquake. Can cause serious damage over larger areas.
8 Or Greater	Great earthquake. Can cause serious damage in areas several hundred kilometers across.

Source: FEMA, 2016⁷¹

71 Federal Emergency Management Agency. 2016. "Earthquake." <https://www.fema.gov/earthquake>.

Table 52: Modified Mercalli Intensity Scale

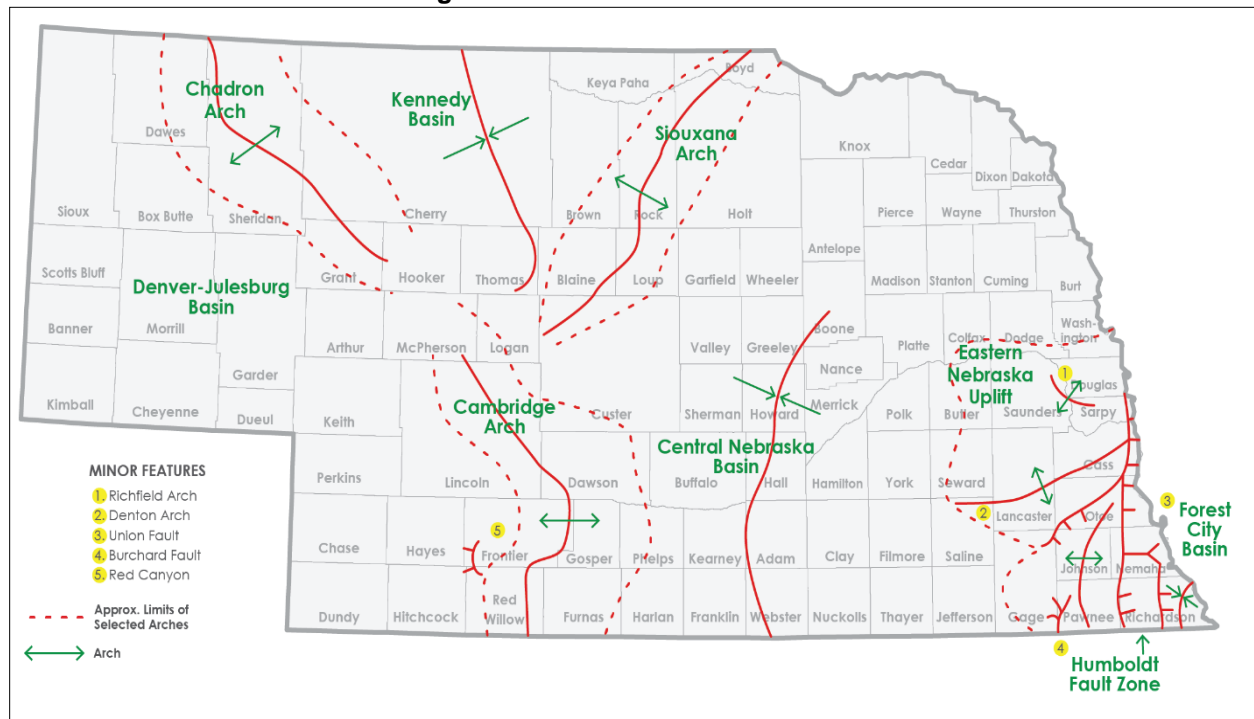
Scale	Intensity	Description of Effects	Corresponding Richter Scale Magnitude
I	Instrumental	Detected only on seismographs	
II	Feeble	Some people feel it	< 4.2
III	Slight	Felt by people resting, like a truck rumbling by	
IV	Moderate	Felt by people walking	
V	Slightly Strong	Sleepers awake; church bells ring	< 4.8
VI	Strong	Trees sway, suspended objects swing, objects fall off shelves	< 5.4
VII	Very Strong	Mild Alarm; walls crack; plaster falls	< 6.1
VIII	Destructive	Moving cars uncontrollable; masonry fractures, poorly constructed buildings damaged	
IX	Ruinous	Some houses collapse; ground cracks; pipes break open	< 6.9
X	Disastrous	Ground cracks profusely; many buildings destroyed; liquefaction and landslides widespread	< 7.3
XI	Very Disastrous	Most buildings and bridges collapse; roads, railways, pipes and cables destroyed; general triggering of other hazards	< 8.1
XII	Catastrophic	Total destruction, trees fall, ground rises and falls in waves	> 8.1

Source: FEMA, 2016

Location

The planning area has one fault line crossing it. The Denver-Julesburg Basin covers the planning area. The following figure shows the fault lines in Nebraska.

Figure 18: Fault Lines in Nebraska



Source: Nebraska Department of Natural Resources

Historical Occurrences

According to the United States Geological Survey (USGS), there have been zero earthquakes that have occurred in the planning area since 1900.

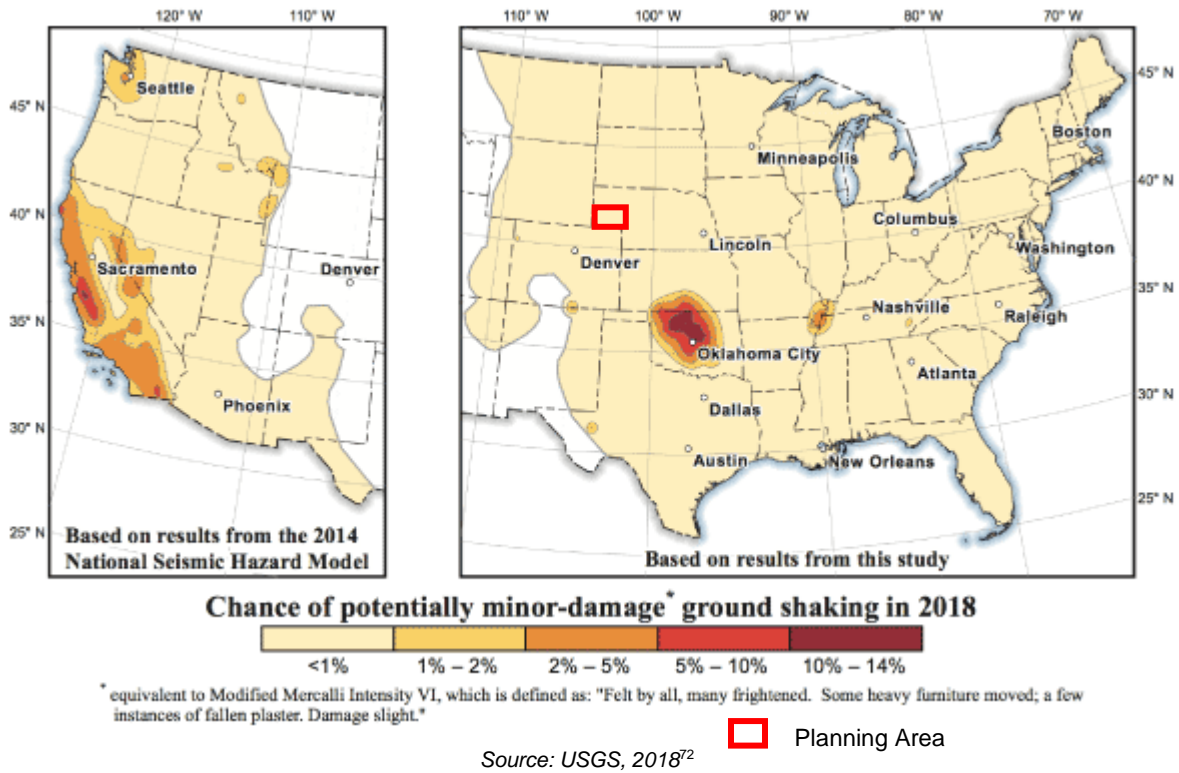
Extent

If an earthquake were to occur in the planning area, it would likely measure between 5.0 or less on the Richter Scale. Very little to no damage is anticipated from events of these magnitudes.

Average Annual Losses

Due no historical earthquakes and low earthquake risk for the area, it is not feasible to utilize the 'event damage estimate formula' to estimate potential losses for the planning area. Figure 19 shows the probability of damage from earthquakes, according to the USGS. The figure shows that the planning area has a less than one percent chance of damages from earthquakes.

Figure 19: 2018 Probability of Damage from Earthquakes

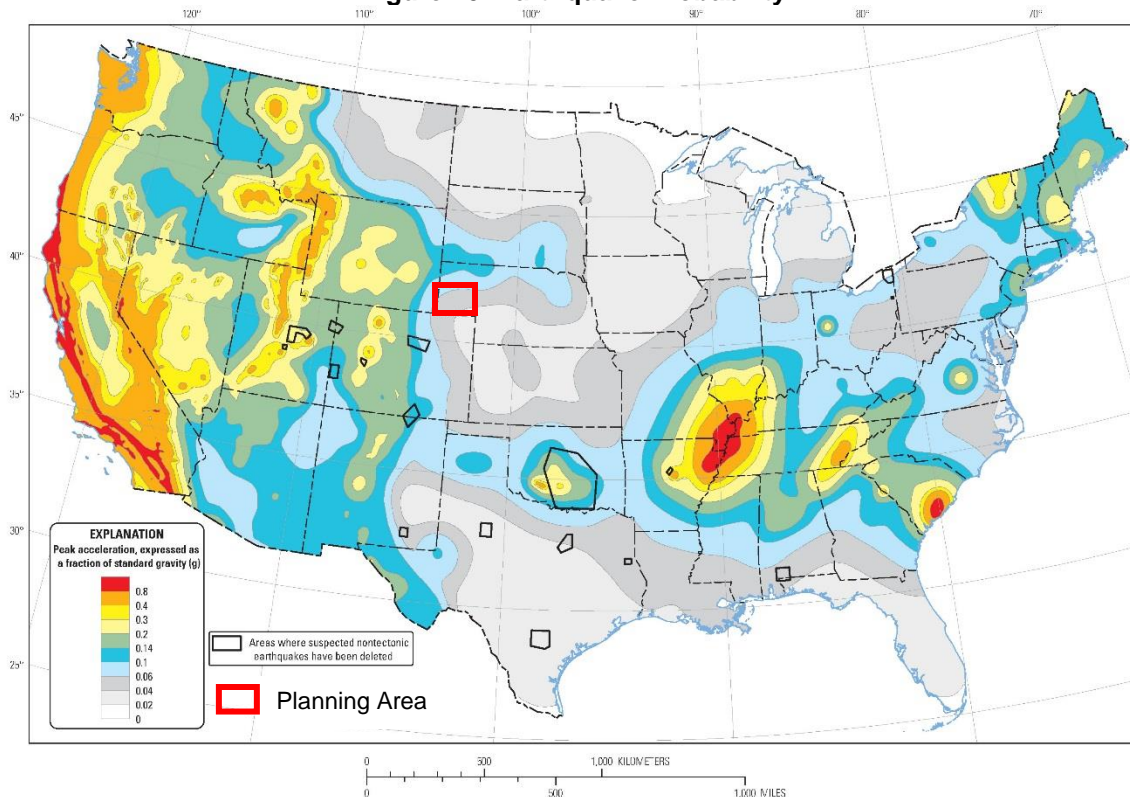


Probability

The following figure visualizes the probability of a 5.0 or greater earthquake occurring in the planning area within 50 years. Based on zero occurrences of earthquakes over 121-year period, the probability of an earthquake in the three-county region in any given year is less than one percent.

72 United States Geological Survey. 2018. "Short-term Induced Seismicity Models: 2018 One-Year Model." https://www.usgs.gov/natural-hazards/earthquake-hazards/science/short-term-induced-seismicity-models?qt-science_center_objects=0#qt-science_center_objects.

Figure 20: Earthquake Probability



Source: USGS 2009 PSHA Model

*Map shows the two-percent probability of exceedance in 50 years of peak ground acceleration.

Community Top Hazard Status

No jurisdictions identified Earthquakes as a top hazard of concern.

Regional Vulnerabilities

The following table provides information related to regional vulnerabilities; for jurisdictional-specific vulnerabilities, refer to *Section Seven: Community Profiles*.

Table 53: Regional Earthquakes Vulnerabilities

Sector	Vulnerability
People	-Risk of injury or death from falling objects and structures
Economic	-Short term interruption of business
Built Environment	-Damage to buildings, homes, or other structures from foundation cracking, falling objects, shattered windows, etc.
Infrastructure	-Damage to subterranean infrastructure (i.e. waterlines, gas lines, etc.) -Damage to roadways
Critical Facilities	-Same as all other structures
Climate	-None

Extreme Heat

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 the evaporation of perspiration. Health risks arise when a person is overexposed to heat. Extreme heat can also cause people to overuse air conditioners, which can lead to power failures. Power outages for prolonged periods increase the risk of heat stroke and subsequent fatalities due to loss of cooling and proper ventilation. The planning area is largely rural, which presents an added vulnerability to extreme heat events; those suffering from an extreme heat event may be farther away from medical resources as compared to those living in an urban setting.

Along with humans, animals also can be affected by high 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 not vital to survival, such as milk production, reproduction, or muscle building.

Other secondary concerns connected to extreme heat hazards include water shortages brought on by drought-like conditions and high demand. Government authorities report that civil disturbances and riots are more likely to occur during heat waves. In cities, pollution becomes a problem because the heat traps pollutants in densely populated urban areas. Adding pollution to the stresses associated with the heat magnifies the health threat to the urban population.

The National Weather Service (NWS) is responsible for issuing excessive heat outlooks, excessive heat watches, and excessive heat warnings.

- **Excessive heat outlooks** are issued when the potential exists for an excessive heat event in the next three to seven days. Excessive heat outlooks can be utilized by public utility staffs, emergency managers, and public health officials to plan for extreme heat events.
- **Excessive heat watches** are issued when conditions are favorable for an excessive heat event in the next 24 to 72 hours.
- **Excessive heat warnings** are issued when an excessive heat event is expected in the next 36 hours. Excessive heat warnings are issued when an extreme heat event is occurring, is imminent, or has a very high probability of occurring.

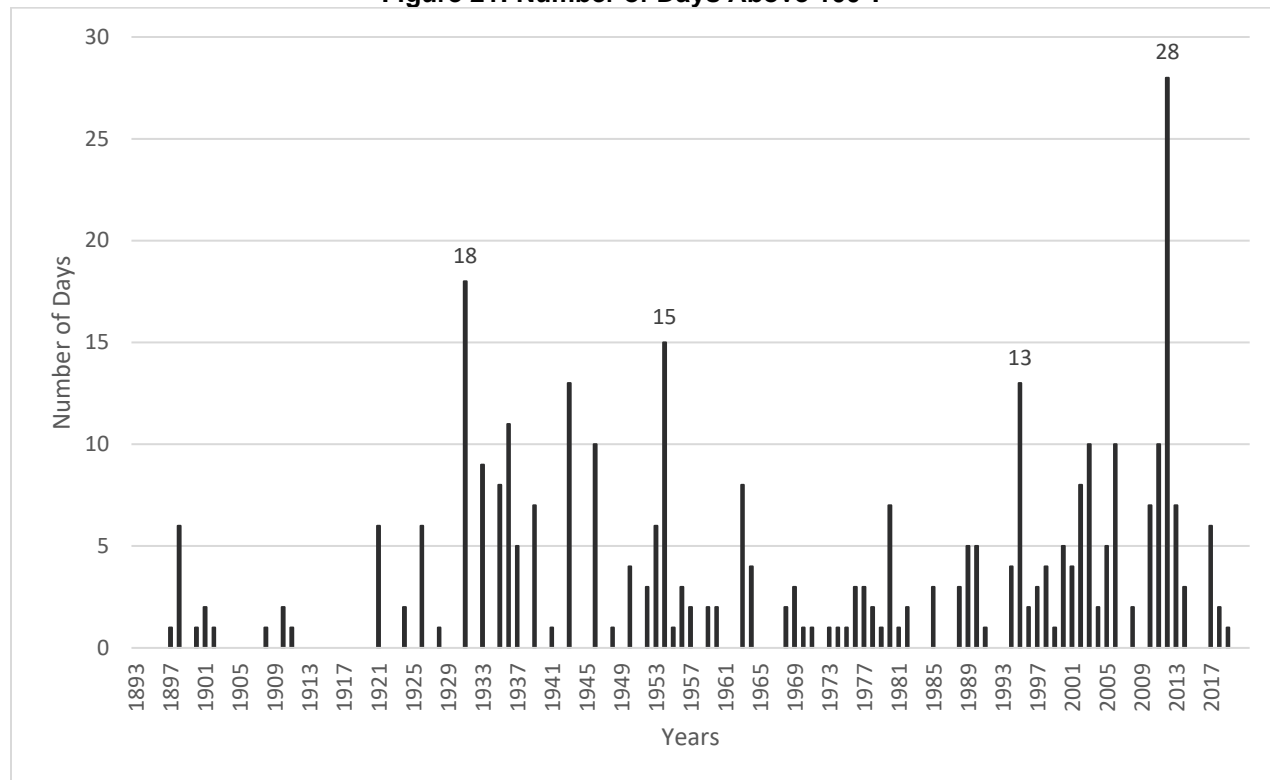
Location

The entire planning area is susceptible to extreme heat impacts.

Historical Occurrences

According to the High Plains Regional Climate Center (HPRCC), on average, the planning area experiences three days above 100°F per year. The planning area experienced the most days on record above 100°F is 2012 with 28 days. Conversely, there were several years with zero days above 100°F.

Figure 21: Number of Days Above 100°F



Source: HPRCC, 1893-2020

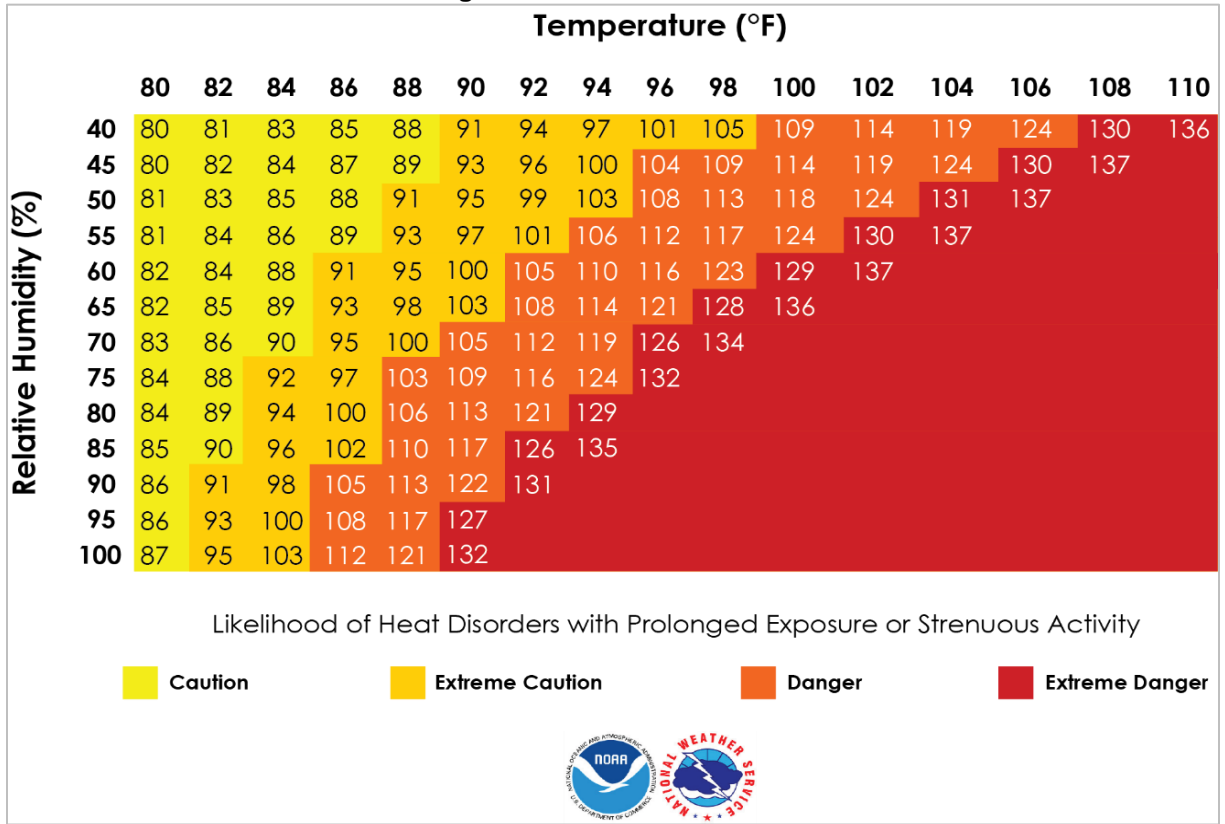
Extent

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%, require 94°F. The combination of relative humidity and temperature result in a heat index as demonstrated below:

$$100\% \text{ Relative Humidity} + 86^{\circ}\text{F} = 112^{\circ}\text{F Heat Index}$$

Figure 22 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. For the purposes of this plan, extreme heat is being defined as temperatures of 100°F or greater. In the planning area, the months with the highest temperatures are June, July, and August.

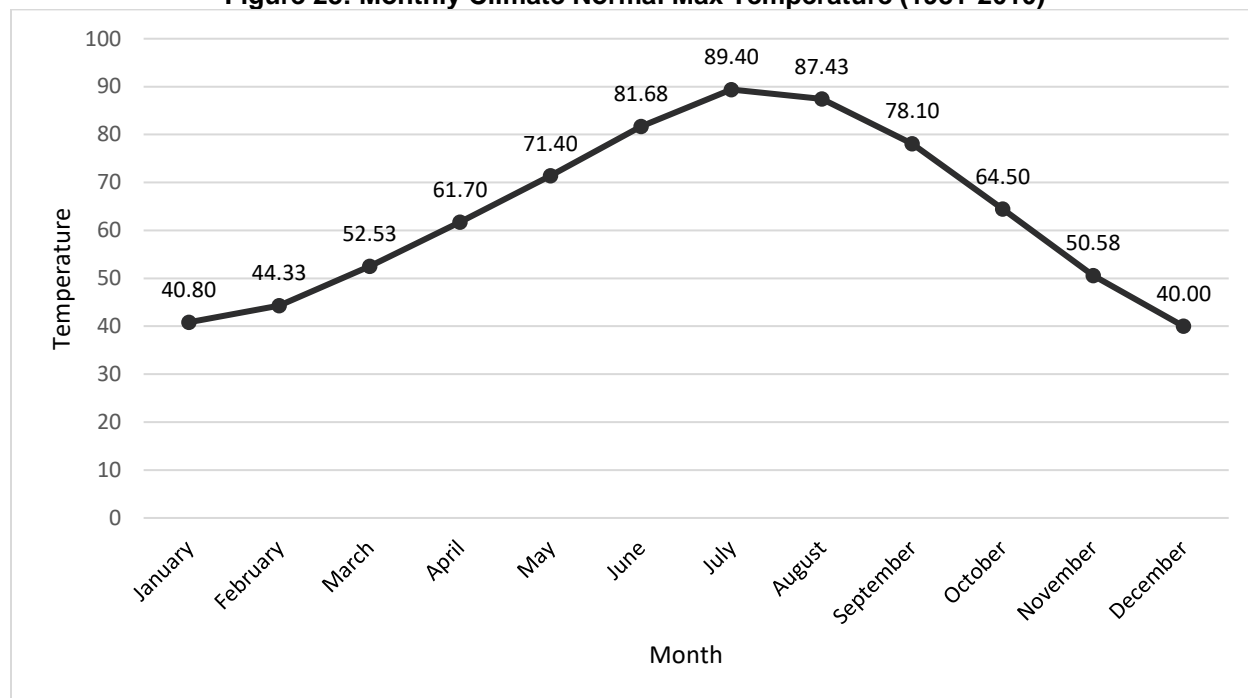
**Figure 22: NOAA Heat Index
Temperature (°F)**



Source: NOAA, 2017⁷³

73 National Oceanic and Atmospheric Administration, National Weather Service. 2017. "Heat Index." http://www.nws.noaa.gov/om/heat/heat_index.shtml.

Figure 23: Monthly Climate Normal Max Temperature (1981-2010)



Source: NCEI, 2021

Average Annual Losses

The annual property estimate was determined based upon NCEI Storm Events Database since 1996. The annual crop loss was determined based upon the RMA Cause of Loss Historical Database since 2000. This does not include losses from displacement, functional downtime, economic loss, injury, or loss of life. The direct and indirect effects of extreme heat are difficult to quantify. Potential losses such as power outages could affect businesses, homes, and critical facilities. High demand and intense use of air conditioning or water pumps can overload the electrical systems and damage infrastructure.

Table 54: Loss Estimate for Extreme Heat

Hazard Type	Avg. Number of Days Above 100°F ¹	Total Property Loss ²	Average Annual Property Loss ²	Total Crop Loss ³	Average Annual Crop Loss ³
Extreme Heat	3 days	\$0	\$0	\$8,669,018	\$412,810

Source: 1 HPRCC (1893-2020); 2 Indicates data is from NCEI (1996 to April 2021); 3 Indicates data is from USDA RMA (2000 to 2020)

Estimated Loss of Electricity

According to the FEMA Benefit Cost Analysis Reference Guide, if an extreme heat event occurred within the planning area, the following table assumes the event could potentially cause a loss of electricity for 10% of the population at a cost of \$126 per person per day.⁷⁴ In rural areas, the percent of the population affected, and duration may increase during extreme events. The

74 Federal Emergency Management Agency. June 2009. "BCA Reference Guide."

assumed damages do not take into account physical damages to utility equipment and infrastructure.

Table 55: Loss of Electricity - Assumed Damage by Jurisdiction

Jurisdiction	(Est.) 2019 Population	Population Affected (Assumed)	Electric Loss of Use Assumed Damage Per Day
Cheyenne	9,604	960	\$120,960
Deuel	1,831	183	\$23,058
Kimball	3,633	363	\$45,738
Total	15,068	1,506	\$189,756

Probability

Extreme heat is a regular part of the climate for the planning area; with 47 years out of 128 having at least one day of 100°F. The probability that extreme heat will occur in any given year in the planning area is 37 percent.

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*⁷⁵ 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.

Table 56: Extreme Heat Predictions for Days over 100°F

Jurisdiction	Midcentury Prediction 2036-2065 (days per year)	Late Century Prediction 2070-2099 (days per year)
Cheyenne	5	22
Deuel	11	34
Kimball	2	12

Source: Union of Concerned Scientists, 1971-2000⁷⁶

Community Top Hazard Status

Leyton Public Schools was the only jurisdiction that identified Extreme Heat as a top hazard of concern.

Regional Vulnerabilities

The following table provides information related to regional vulnerabilities. For jurisdictional-specific vulnerabilities, refer to *Section Seven: Community Profiles*.

75 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>.

76 Union of Concerned Scientists. 2021. "Extreme Heat and Climate Change: Interactive Tool". <https://www.ucsusa.org/global-warming/global-warming-impacts/extreme-heat-interactive-tool?location=kimball-county--ne>

Table 57: Regional Extreme Heat Vulnerabilities

Sector	Vulnerability
People	-Heat exhaustion -Heat stroke Vulnerable populations include: -People working outdoors -People without air conditioning -Young children outdoors or without air conditioning -Elderly outdoors or without air conditioning
Economic	-Short-term interruption of business -Loss of power -Agricultural losses
Built Environment	-Damage to air conditioning/HVAC systems if overworked
Infrastructure	-Damages to roadways (prolonged extreme events) -Stressing electrical systems (brownouts during peak usage)
Critical Facilities	-Loss of power
Climate	-Increased risk of wildfire events -Increases in extreme heat conditions are likely, adding stress on livestock, crops, people, and infrastructure

Flooding

Flooding can occur on a local level, sometimes affecting only a few streets, but can also extend throughout an entire district, affecting whole drainage basins and impacting people and property in multiple states. Heavy accumulations of ice or snow can also cause flooding during the melting stage. 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: 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 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 flood” refer to the area in the floodplain that is subject to a one percent or greater 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 draining to a 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. Flooding from excessive rainfall events in Nebraska usually occurs between late spring and early fall.

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. Ice formation in streams occurs during periods of cold weather when finely divided colloidal particles called “frazil ice” form. These particles combine to form what is commonly known as “sheet ice.” This type of ice covers the entire river. 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 winter 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 more frequently occur on wide, shallow rivers such as the Platte, although other rivers can be impacted.

Location

The region resides in the South Platte watershed, with a portion of the North Platte watershed in Cheyenne County. The South Platte River and Lodgepole Creek, as well as their tributaries, are potential locations for flooding to occur.

Effective Digital Flood Insurance Rate Maps (DFIRM) were not available for any jurisdictions within the planning area. Therefore, the best available digital data for depicting the flood hazard for these counties is a modeled floodplain using Hazards United States Multi-Hazard (HAZUS-MH). In the absence of DFIRM data, HAZUS-MH Level 1 analysis was used to generate a 1 percent annual flood event for major rivers and creeks (those with a 10-square mile minimum drainage area). HAZUS does not provide a perfect reflection of the situation on the ground. There may be rivers or streams which cause flooding damages but have drainages areas smaller than 10 square miles: these streams will not be included for analysis. A USGS 30-meter resolution digital elevation model (DEM) was used as the terrain base in the model; features smaller than 30 square meters may not be included in analysis. The Special Flood Hazard Areas shown in this plan are not regulatory and are only approximations of vulnerability. Table 58 shows current statuses of FIRM panels. For additional details on localized flood risk such as flood zone types, please refer to the official FIRM available from FEMA’s Flood Map Service Center. Figure 24 shows the modeled floodplain for the planning area. For jurisdictional-specific maps as well as an inventory of structures in the floodplain, please refer to *Section Seven: Participant Sections*.

Table 58: FEMA FIRM Panel Status

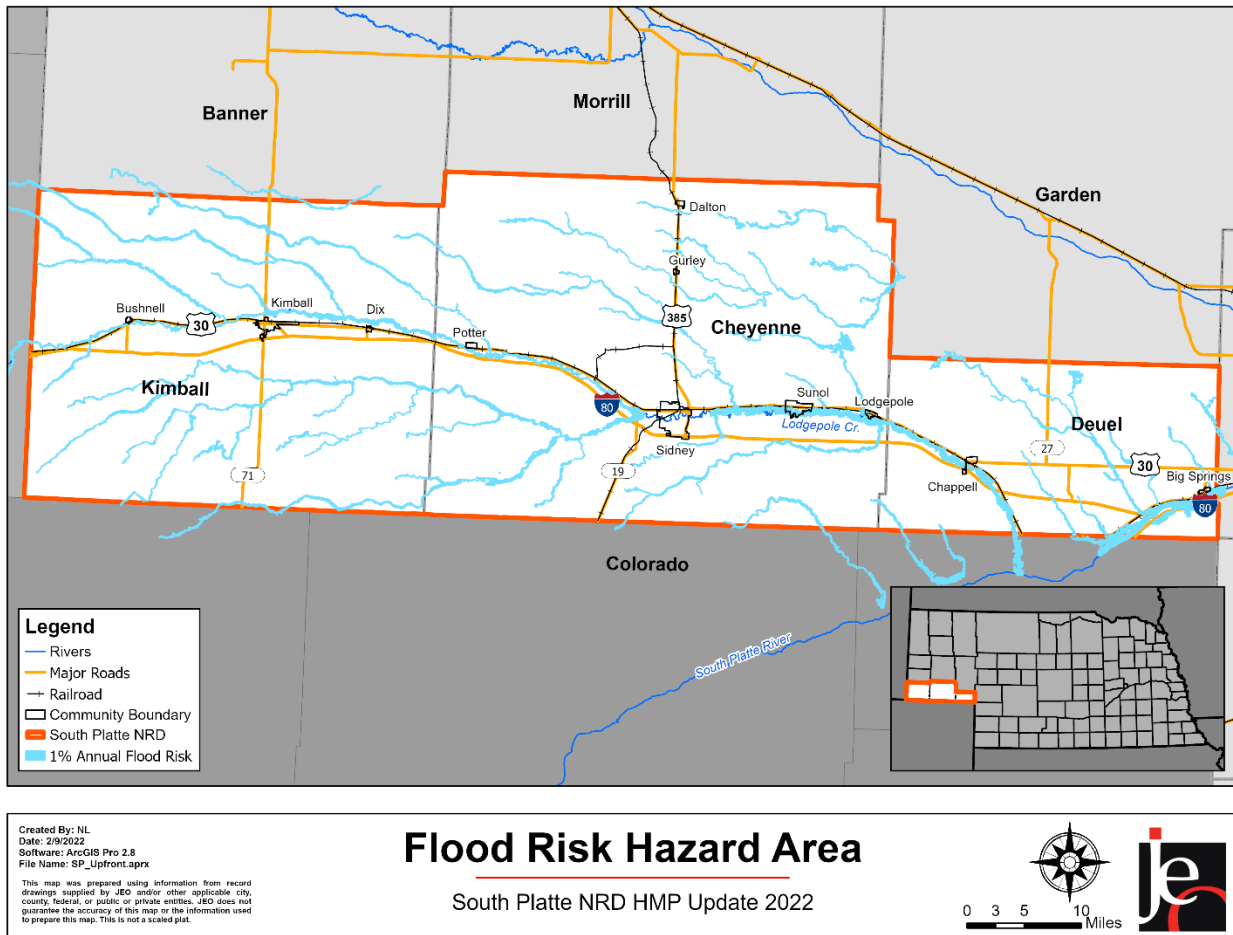
Jurisdiction	Participating in NFIP? (Y/N)	Panel Number	Effective Date
Cheyenne County	Y	310039IND0, 310424IND0, 310038A, 3100390005B, 3100390010B, 3104240025B, 3104240050B, 3104240075B, 3104240100B, 3104240125B, 3104240150B, 3104240175B, 3104240200B, 3104240225B, 3104240250B, 3104240275B, 3104240300B, 3104240325B, 3104240350B	9/27/1985
Gurley	Y	Unmapped	N/A
Lodgepole	Y	310038A	9/27/1985
Potter	Y	Unmapped	N/A
Sidney	Y	310039IND0, 3100390005B, 3100390010B	3/16/1981
Deuel County	Y	310430IND0, 3104309999A, 310066, 3104300001B, 3104300002B, 3104300003B, 3104300004B, 3104300005B, 3104300006B	1/1/1987
Big Springs	N	310066	12/20/1974
Chappell	Y	Unmapped	N/A
Bushnell	Y	3102559999A, 310255A	4/2/2001
Dix	Y	Unmapped	N/A

Source: FEMA, 2021^{77,78}

77 Federal Emergency Management Agency. 2021. "FEMA Flood Map Service Center." Accessed March 2022. <http://msc.fema.gov/portal/advanceSearch>.

78 Federal Emergency Management Agency. 2021. "Community Status Book Report." Accessed March 2022. <https://www.fema.gov/national-flood-insurance-program-community-status-book>.

Figure 24: 1% Annual Flood Risk Hazard Areas



**Flood risk is based off a HAZUS created floodplain.*

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 enhance their mitigation plans and take action to better protect their citizens. As of 2021, portions of the planning area are currently undergoing data development, paper inventory reduction, and preliminary production activities.

Paper inventory reduction and preliminary production projects are being done in Cheyenne and Deuel Counties, while a data development project is being done in the northern portion of Cheyenne County. As data becomes available, NeDNR hosts the Risk Map products on an interactive web map, which can be viewed here: <https://dnr.nebraska.gov/floodplain/interactive-maps>.

Extent

The NWS has three categories to define the severity of a flood once a river reaches flood stage as indicated in Table 59.

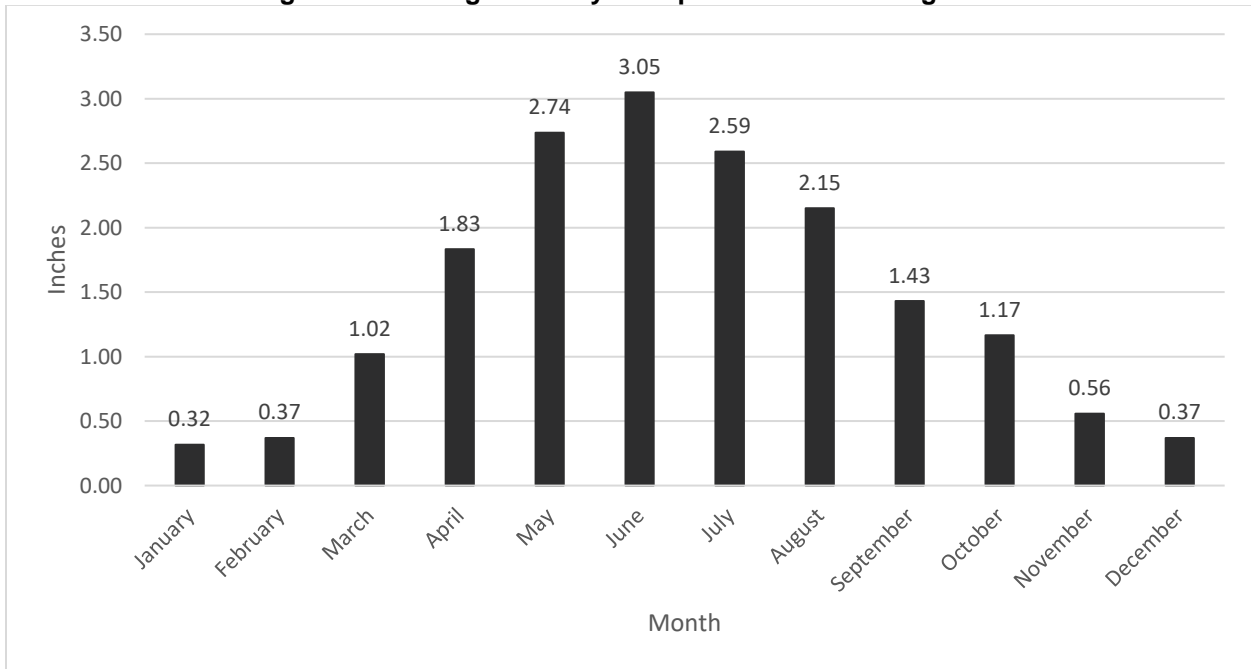
Table 59: Flooding Stages

Flood Stage	Description of Flood Impacts
Minor Flooding	Minimal or no property damage, but possibly some public threat or inconvenience
Moderate Flooding	Some inundation of structures and roads near streams. Some evacuations of people and/or transfer of property to higher elevations are necessary
Major Flooding	Extensive inundation of structures and roads. Significant evacuations of people and/or transfer of property to higher elevations

Source: NOAA, 2017⁷⁹

Figure 26 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. As indicated in Figure 27, the most common months for flooding within the planning area are May and June.

Figure 26: Average Monthly Precipitation for Planning Area

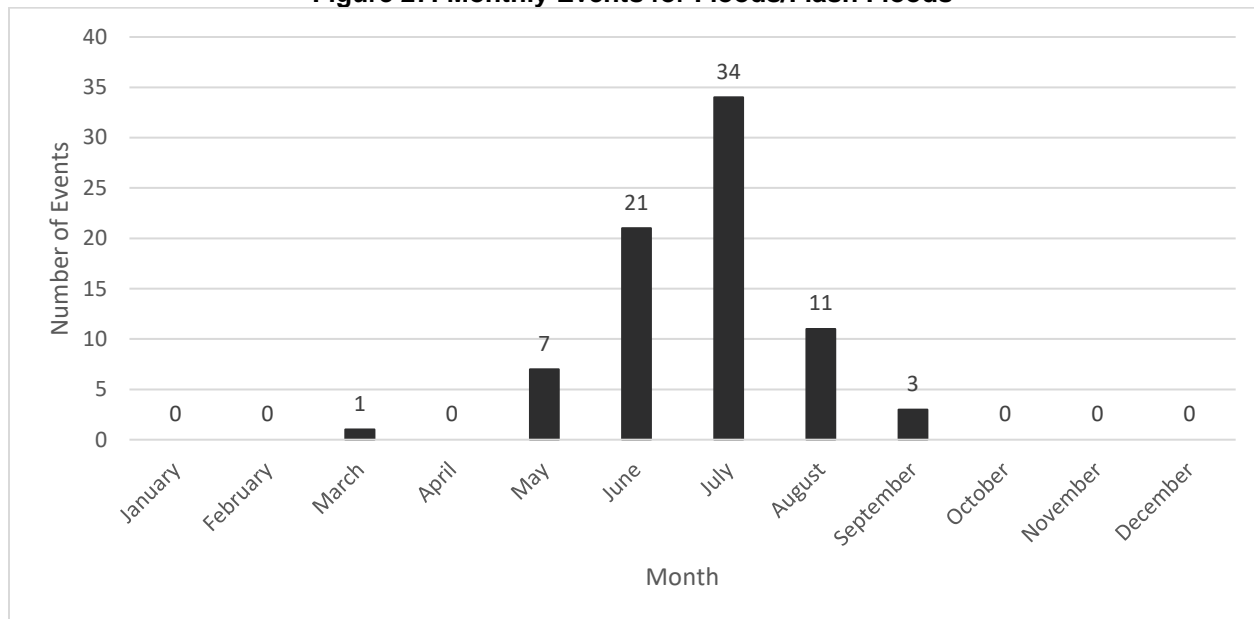


Source: NCEI, 1981-2010⁸⁰

79 National Weather Service. 2017. "Flood Safety." <https://www.weather.gov/safety/flood>.

80 NOAA National Centers for Environmental Information. March 2021. "Data Tools: 1981-2010 Normals." [datafile]. <https://www.ncdc.noaa.gov/cdo-web/datatools/normals>.

Figure 27: Monthly Events for Floods/Flash Floods



Source: NCEI, 1996-2021

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 residents of 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 planning area.

Table 60: NFIP Participants

Jurisdiction	Participate in NFIP	Eligible-Regular Program	Date Current Map	Sanction	Suspension	Rescinded
Cheyenne County	Y	09/27/1985	09/27/1985(M)	-	-	-
Gurley	Y	07/14/1978	(NSFHA)	-	-	-
Lodgepole	Y	09/27/1985	09/27/1985(M)	-	-	-
Potter	Y	09/24/1984	(NSFHA)	-	-	-
Sidney	Y	03/16/1981	03/16/1981	-	-	-
Deuel County	Y	01/01/1987	01/01/1987(L)	-	-	-
Chappell	Y	04/15/1985	(NSFHA)	-	-	-

Bushnell	Y	06/02/2003	04/02/2001(L)			
Dix	Y	04/02/2001	04/02/2001(M)			
Kimball	Y	12/23/2010 (E)	-	-	-	-

Source: Federal Emergency Management Agency, National Flood Insurance Program, 2022⁸¹

*(M) indicates no elevation determined – All Zone A, C, and X; (L) indicates original FIRM by Letter – All Zone A, C, and X; (E) indicates entry in Emergency Program

The NFIP Emergency Program allows a community to voluntarily participate in the NFIP if no flood hazard information is available for their area; the community has a Flood Hazard Boundary Map but no FIRM; or the community has been identified as flood-prone for less than a year.

Table 61: NFIP Policies in Force and Total Payments

Jurisdiction	Policies In-force	Total Coverage	Total Premiums	Total Losses	Total Payments
Cheyenne County	6	\$897,000	\$6,602	3	\$8,627
Lodgepole	3	\$420,000	\$5,025	7	\$45,852
Sidney	3	\$539,700	\$2,370	5	\$411
Deuel County	3	\$403,800	\$3,187	3	\$15,883

Source: HUEDX, August 2021

This plan highly recommends and strongly encourages plan participants to enroll, participate, and remain in good standing 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 (CRS) Coordinator's Manual.⁸² Currently no jurisdictions in the planning area participate in the CRS program.

NFIP Repetitive Loss Structures

NeDNR was contacted to determine if any existing buildings, infrastructure, or critical facilities are classified as NFIP Repetitive Loss Structures. As of October 2021, there was one repetitive loss property and no severe repetitive loss properties located in the planning area. The single-family repetitive loss property is an NFIP repetitive loss and is located in the Village of Lodgepole.

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)

81 Federal Emergency Management Agency: National Flood Insurance Program. March 2022. "Policy & Claim Statistics for Flood Insurance." Accessed March 2022. <https://www.fema.gov/policy-claim-statistics-flood-insurance>.

82 Federal Emergency Management Agency. December 2020. "National Flood Insurance Program Community Rating System: Coordinator's Manual FIA-15/2017." Accessed August 2021. <https://www.fema.gov/media-library/assets/documents/8768>.

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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 (includes only building) have been made under such coverage, with the cumulative amount of such claims exceeding the market value of the insured structure.

Purpose of the HMA definitions: The HMA definitions were allowed by the Biggert-Waters Flood Insurance Reform Act of 2012 to provide an increased federal cost share under the FMA grant when a property meets the HMA definition.

Historical Occurrences

The NCEI reports events as they occur in each community. A single flooding 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, 66 flash flooding events resulted in \$3,217,000 in property damage, while eleven riverine flooding events resulted in \$7,000 in property damage. USDA RMA data does not distinguish the difference between riverine flooding damages and flash flooding damages. The total crop loss according to the RMA is \$80,700. Descriptions of the most damaging flood events from the NCEI are below:

- **May 25, 1997 – Flash Flood – Cheyenne and Kimball Counties:** A large area of western Kimball County received in excess of 5 inches of rain in less than 5 hours, with the remainder of the county and western Cheyenne County averaging more than 2 inches.

The maximum rainfall reported was 7.5 inches in the southwest corner of the county. Cropland flooding was widespread throughout both counties, and Lodgepole Creek spilled out of its banks from Bushnell in western Kimball County to Lodgepole in extreme eastern Cheyenne County, affecting several communities. Two bridges were washed out along Lodgepole Creek--one on a county road north of Dix in eastern Kimball County, and the second on Highway 30 outside of Potter in western Cheyenne County. While flood waters were reported in Bushnell and Lodgepole, the most severe occurred in Potter, where 4 feet of water inundated numerous homes and businesses, washing away a dozen large propane tanks and washing out 30 feet of Union Pacific Railroad track serving as a dike on Lodgepole Creek. Numerous county roads in both counties were damaged or washed out, and more than 80 miles of farmland along Lodgepole Creek and Sand Draw were covered with several feet of flood water.

- **August 29, 1996 – Flash Flood – Cheyenne County:** Very heavy rainfall from thunderstorms caused flooding in and around the Sidney area. Many roads were under water and the city of Sidney was closed to all traffic for a time between 600PM and 1000PM. Estimates of around 5 inches of rain were reported. Many basements were flooded.
- **July 6, 2010 – Flash Flood – Cheyenne County:** Lodgepole Creek overflowed its banks roughly 3.3 miles west of town and flowed east between U.S. Highway 385 and the railroad tracks. The railroad and highway narrowed near the COOP in Lodgepole causing waters to build up pressure and then erode the railroad bed causing flooding in the south part of town by 11 pm. During the worst of the flooding water was five feet deep in places. Other areas in town saw two to three feet of water cover an area three blocks wide and five blocks long.

In March 2019, much of the State of Nebraska was impacted by a large winter storm and flood event. Within the planning area, no counties declared an emergency or reported damages. The NeDNR has collected and reviewed extensive data records from the flood event. An event-wide ArcGIS Story Map has been developed and provides an excellent resource to understand the cause, duration, impacts, and recovery efforts from this event. The ArcGIS Story Map can be viewed at: <https://storymaps.arcgis.com/stories/9ce70c78f5a44813a326d20035cab95a>.

Average Annual Damages

The average damage per event estimate was determined based upon 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. Flooding causes an average of \$127,846 in property damages and \$3,104 in crop losses per year for the planning area.

Table 62: Flood Loss Estimate

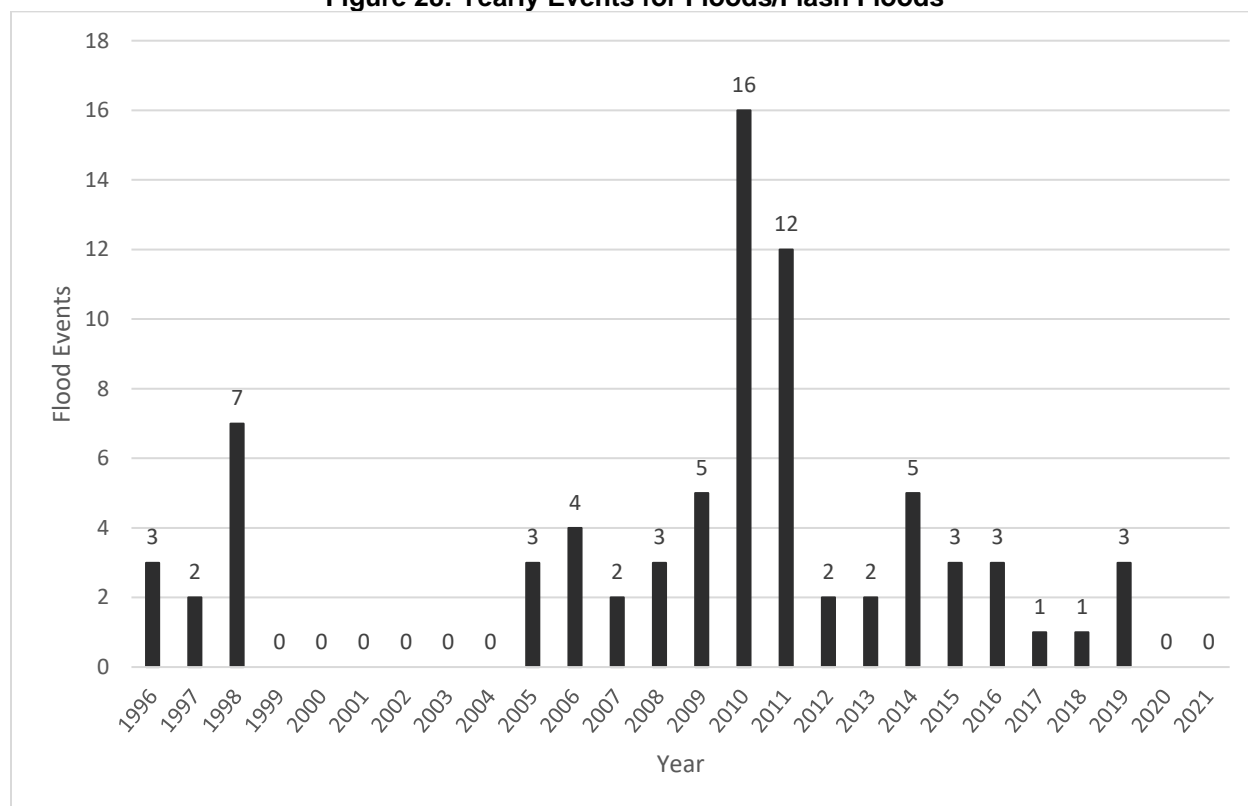
Hazard Type	Number of Events ¹	Average Events Per Year	Total Property Loss ¹	Average Annual Property Loss ¹	Total Crop Loss ²	Average Annual Crop Loss ²
Flooding	77	3	\$3,324,000	\$127,846	\$80,700	\$3,104

Source: 1 Indicates data is from NCEI (1996 to April 2021); 2 Indicates data is from USDA RMA (2000 to 2020)

Probability

The NCEI reports 11 flooding and 66 flash flooding events for a total of 77 events from January 1996 to April 2021. Some years had multiple flooding events. Figure 28 shows the events broken down by year. Based on the historic record and reported incidents by participating communities, there is a 69% percent probability that flooding will occur annually in the planning area.

Figure 28: Yearly Events for Floods/Flash Floods



Source: NCEI, 1996-2021

Community Top Hazard Status

The following table lists jurisdictions which identified Flooding as a top hazard of concern:

Jurisdictions	
Big Springs	Lodgepole Fire District
Cheyenne County	Potter
Deuel County	Region 21 EMA
Kimball County	Sidney
Lodgepole	South Platte NRD

Regional Vulnerabilities

Low-income and minority populations are disproportionately vulnerable to flood events.⁸³ These groups may lack needed resources 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 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.

On a state level, the Nebraska's State National Flood Insurance Coordinator's office has studied who lives in special flood hazard areas. According to the NeDNR, floodplain areas have a few unique characteristics which differ from non-floodplain areas:

- Higher vacancy rates within floodplain
- Far higher percentage of renters within floodplain
- Higher percentage of non-family households in floodplain
- More diverse population in floodplain
- Much higher percentage of Hispanic/Latino populations in the floodplain

To analyze parcels and populations located in the floodplain, GIS parcel data were acquired from each County Assessor. This data was analyzed for the location, number, and value of property improvements at the parcel level. Property improvements include any built structures such as roads, buildings, and paved lots. The data did not contain the number of structures on each parcel. A summary of the results of this analysis for the three-county planning area is provided in the following table. Specific jurisdictional parcel improvements in the floodplain can be found in the corresponding community profiles in *Section Seven*.

Table 63: Parcel Improvements and Value in the 1% Annual Flood Risk Area

County	Number of Improvements	Total Improvement Value	Number of Improvements in Floodplain	Value of Improvements in Floodplain	Percentage of Improvements in Floodplain
Cheyenne	5,071	\$576,001,932	304	\$26,704,880	6%
Deuel	1,229	\$93,834,680	116	\$16,967,245	9%
Kimball	2,449	\$315,136,990	177	\$14,294,225	7%
Total	8,749	\$984,973,602	597	\$57,966,350	6.8%

Source: County Assessors, 2021

*Based off a HAZUS created floodplain.

83 Cutter, Susan and Finch, Christina. February 2008. "Temporal and Spatial Changes in Social Vulnerability to Natural Hazards".

The following table is a summary of regional vulnerabilities. For jurisdictional-specific vulnerabilities, refer to *Section Seven: Community Profiles*.

Table 64: Regional Flooding Vulnerabilities

Sector	Vulnerability
PEOPLE	<ul style="list-style-type: none"> -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 -Residents living in the floodplain may need to evacuate for extended periods -Cheyenne County: LEOP estimates 50% of people reside within the one percent annual chance floodplain -Deuel County: LEOP estimates 3% of people reside within the one percent annual chance floodplain -Kimball County: LEOP contains no estimate of people that reside within the one percent annual chance floodplain
ECONOMIC	<ul style="list-style-type: none"> -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	<ul style="list-style-type: none"> -Buildings may be damaged
INFRASTRUCTURE	<ul style="list-style-type: none"> -Damages to roadways and railways
CRITICAL FACILITIES	<ul style="list-style-type: none"> -Wastewater facilities are at risk, particularly those in the floodplain -Critical facilities, especially those in the floodplain, are at risk to damage (critical facilities are noted within individual community profiles)
CLIMATE	<ul style="list-style-type: none"> -Changes in seasonal and annual precipitation normals will likely increase frequency and magnitude of flood events

Grass/Wildfire

Wildfires, also known as brush fires, forest fires, or wildland fires, are uncontrolled fires that occur in the countryside or wildland. Wildland areas may include but are not limited to grasslands, forests, woodlands, agricultural fields, pastures, and other vegetated areas. Wildfires differ from other fires by their potential extensive size, the speed at which they can spread from the original source, their ability to change direction unexpectedly, and to jump gaps (such as roads, rivers, and fire breaks). While some wildfires burn in remote forested and grassland regions, others can cause extensive destruction of homes and other property located in the wildland-urban interface (WUI), the zone of transition between developed areas and undeveloped wilderness (Figure 30).

Lightning starts approximately 10,000 forest fires each year, yet ninety percent of forest fires are started by humans.

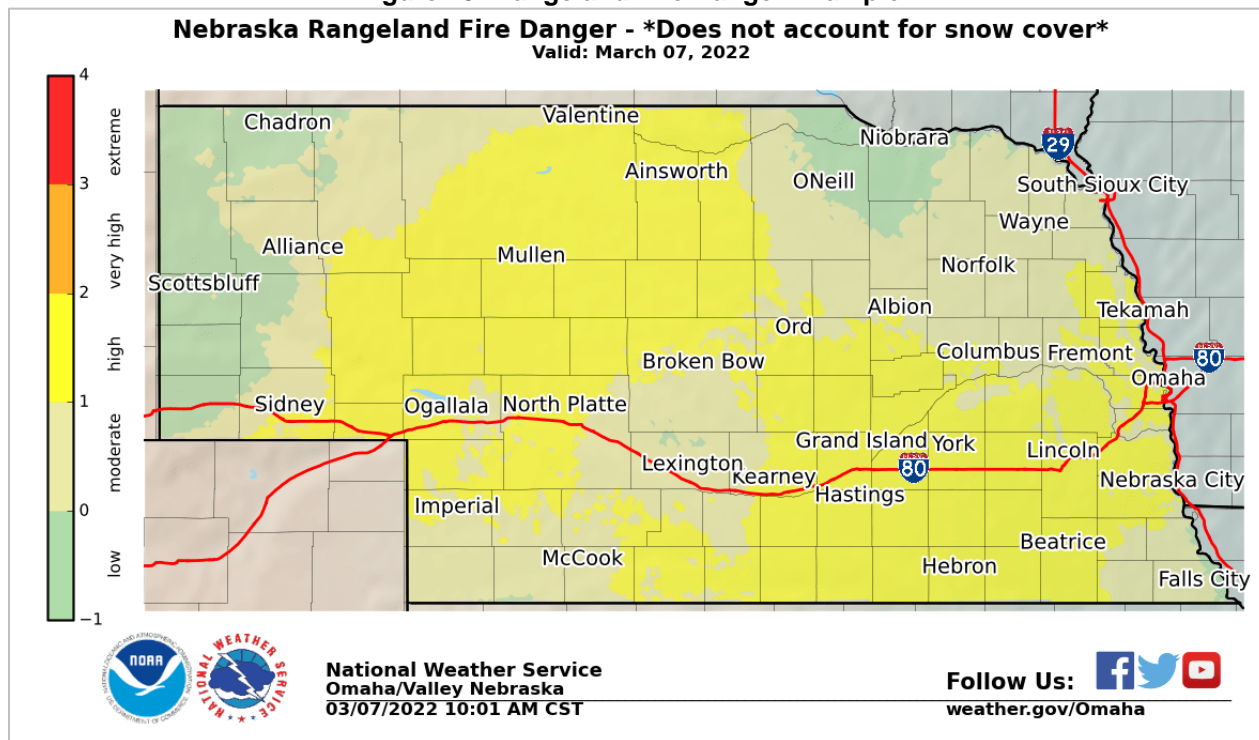
~National Park Service

Wildfires are a growing hazard in most regions of the United States, posing a threat to life and property, particularly where native ecosystems meet urban developed areas or where local economies are heavily dependent on open agricultural 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.

Wildfire behavior is often complex and variably dependent on factors such as fuel type and moisture content, humidity, wind speed, topography, geographic location, and ambient temperature. Fuel is the only one of these factors that humans can control and is the target of most mitigation efforts. The NWS monitors the risk factors including high temperature, high wind speed, fuel moisture (greenness of vegetation), low humidity, and cloud cover in the state on a daily basis (Figure 29). These fire danger predictions are updated regularly and should be reviewed frequently by community leaders and fire department officials.

In recent decades, as the population of the United States has decentralized and residents have moved farther away from the center of villages and cities, the WUI has developed significantly, in both terms of population and building stock. The WUI is defined as the zone of transition between developed areas and undeveloped wilderness, where structures and other human development meet wildland. The expansion of the WUI increases the likelihood that wildfires will threaten people and homes, making this area the focus of the majority of wildfire mitigation efforts.

Figure 29: Rangeland Fire Danger Example



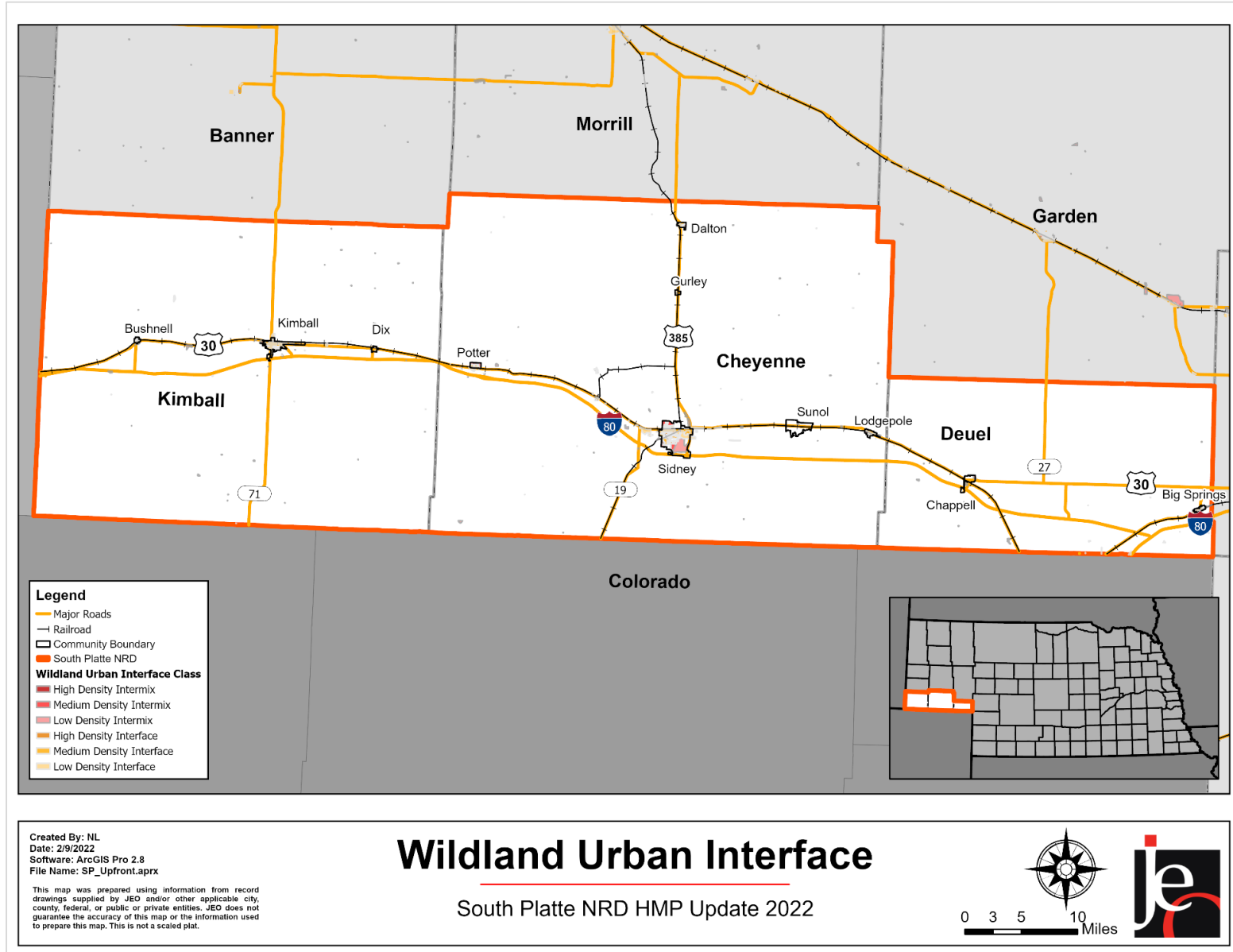
Source: NWS, 2022⁸⁴

The Nebraska Forest Service (NFS) develops Community Wildfire Protection Plans (CWPP) for regions across the state 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. Counties within the planning area are part of two different Community Wildfire Protection Plans. Deuel County is part of the 2019 Western Sandhills CWPP. Cheyenne and Kimball Counties are part of the 2021 Wildcat Hills CWPP. These documents are updated every five years.⁸⁵

84 National Weather Service. March 2022. "Nebraska Fire Danger Map." <https://www.weather.gov/oax/fire>.

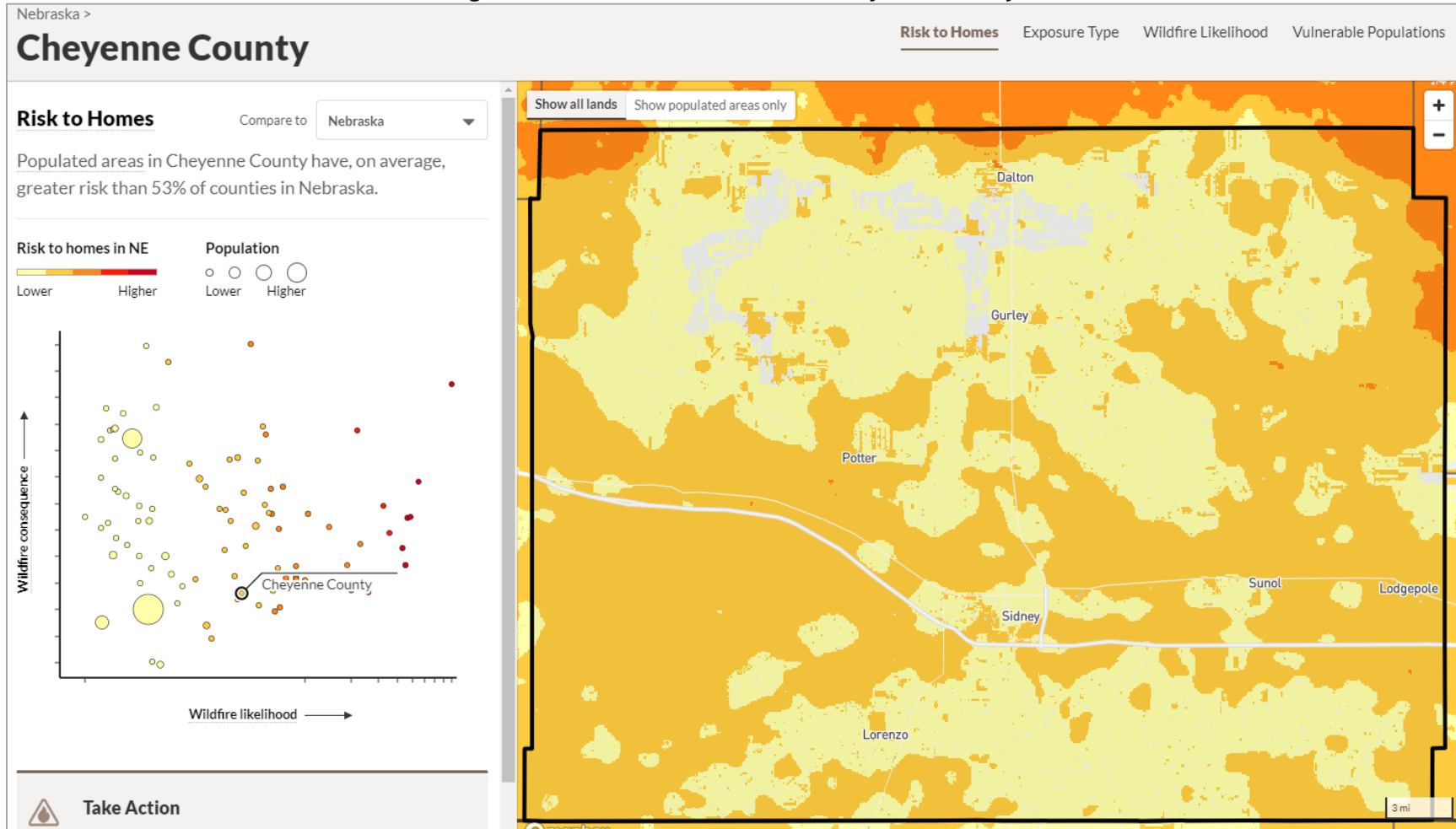
85 Nebraska Forest Service. 2021. "Community Wildfire Protection Plans." <https://nfs.unl.edu/publications/community-wildfire-protection-plans>.

Figure 30: Wildland Urban Interface Map



The United States Department of Agriculture Forest Service created the interactive web resource *Wildfire Risk to Communities* to help communities and jurisdictions understand, explore, and reduce wildfire risk. Additionally, the Nebraska Forest Service developed the *Nebraska Wildfire Risk Explorer* to evaluate localized fire risks. The following figures show and compare wildfire risk to homes per county in the planning area from both sources.

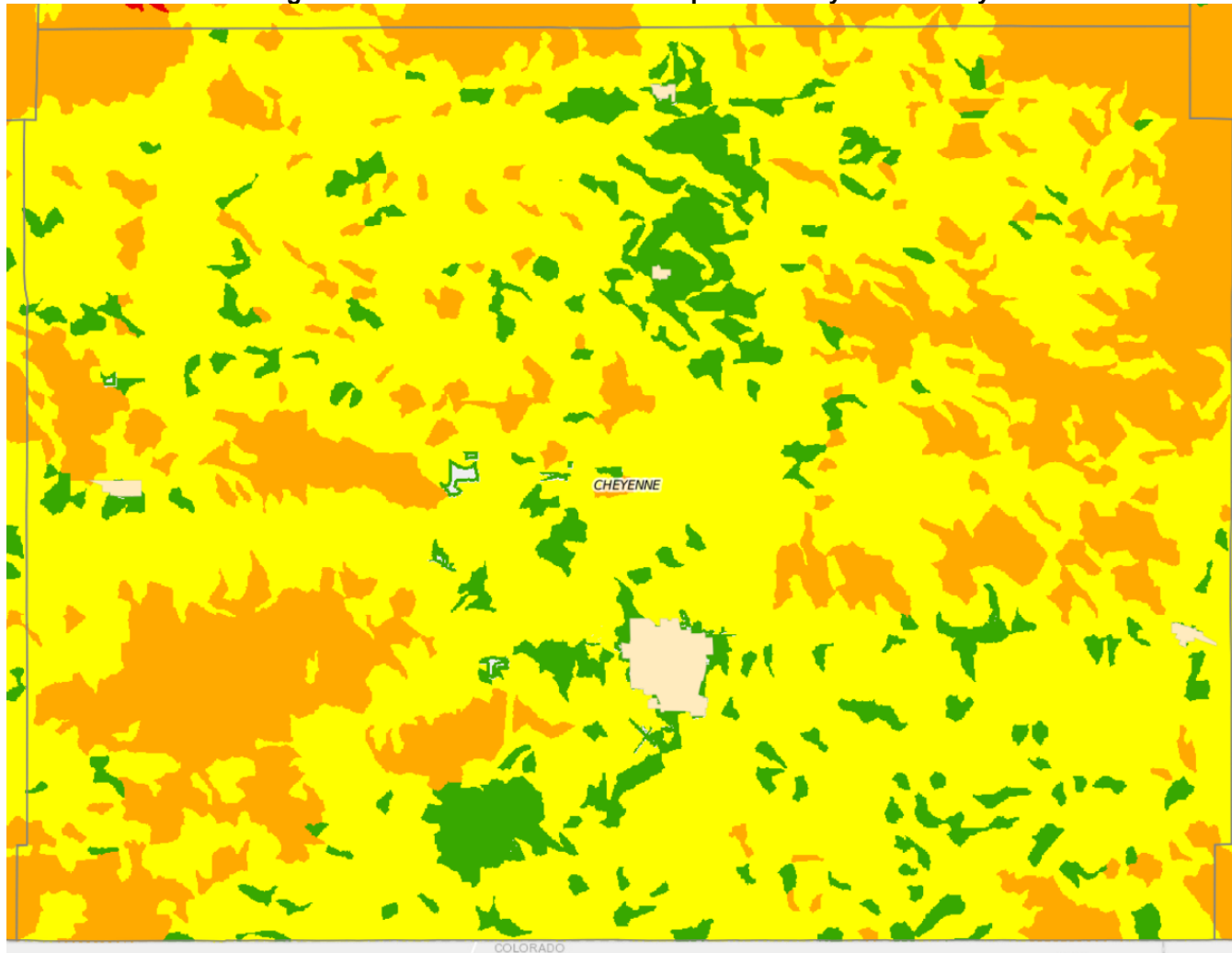
Figure 31: Wildfire Risk to Homes - Cheyenne County



Source: *Wildfire Risk to Communities*⁸⁶

⁸⁶ United States Department of Agriculture, United States Forest Service. 2022. "Wildfire Risk to Communities." Accessed February 2022. <https://wildfirerisk.org/>.

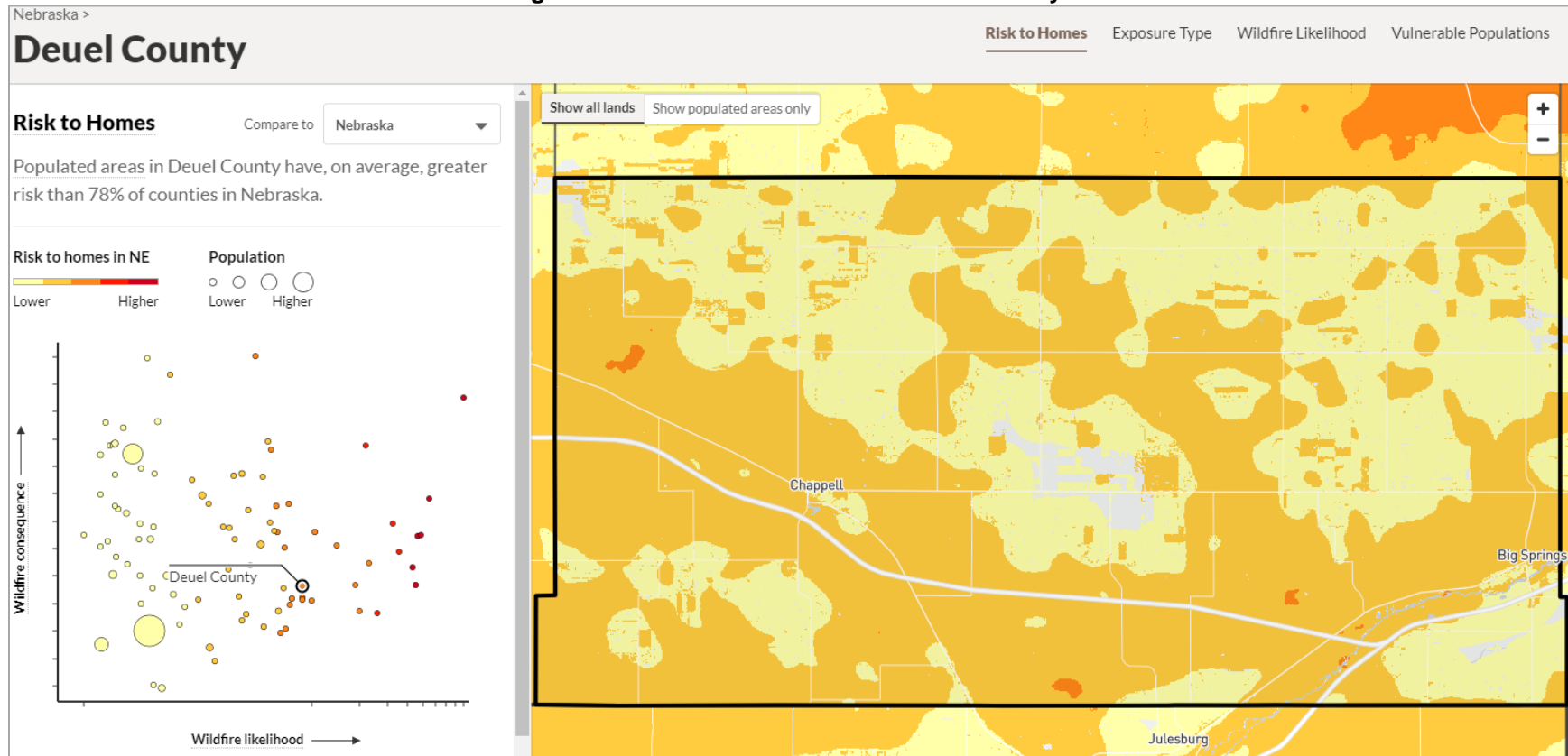
Figure 32: Nebraska Wildfire Risk Explorer - Cheyenne County



Source: Nebraska Wildfire Risk Explorer⁸⁷

⁸⁷ Nebraska Forest Service. 2022. "Nebraska Wildfire Risk Explorer." Accessed March 2022. <https://wrap.nebraskawildfirerisk.com/Map/Public/#whats-your-risk>.

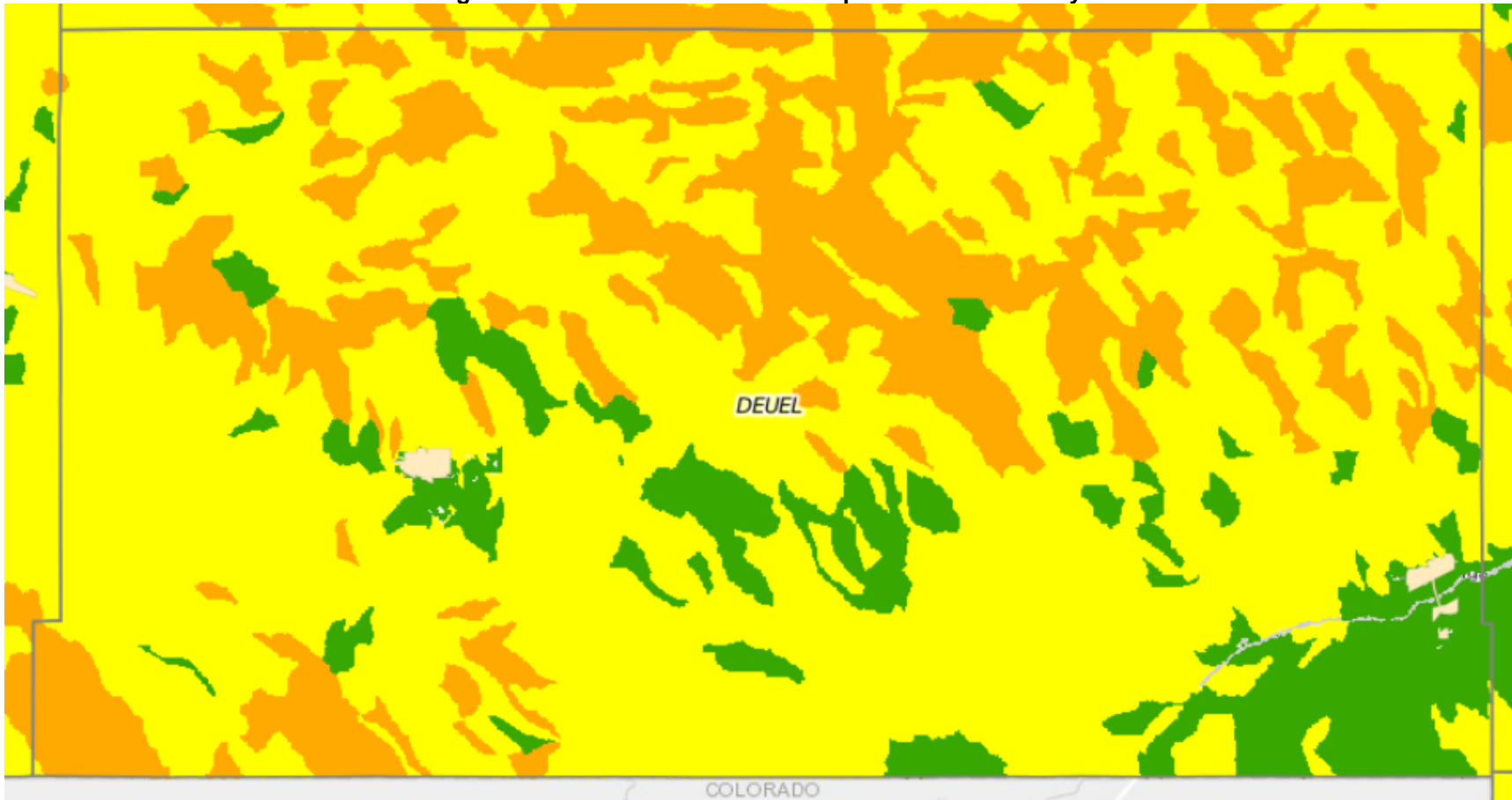
Figure 33: Wildfire Risk to Homes - Deuel County



Source: *Wildfire Risk to Communities*⁸⁸

⁸⁸ United States Department of Agriculture, United States Forest Service. 2022. "Wildfire Risk to Communities." Accessed February 2022. <https://wildfirerisk.org/>.

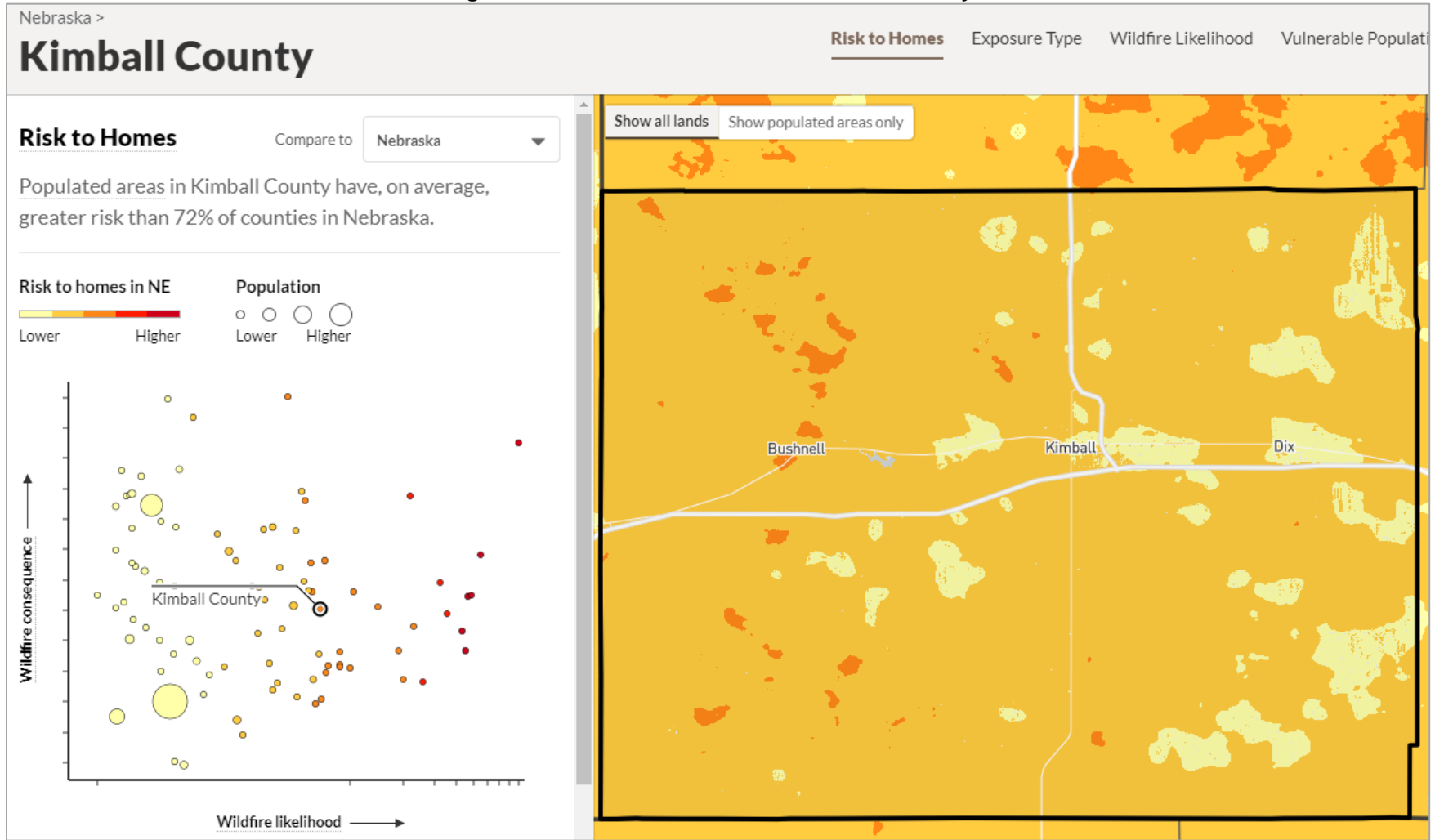
Figure 34: Nebraska Wildfire Risk Explorer - Deuel County



Source: Nebraska Wildfire Risk Explorer⁸⁹

⁸⁹ Nebraska Forest Service. 2022. "Nebraska Wildfire Risk Explorer." Accessed March 2022. <https://wrap.nebraskawildfirerisk.com/Map/Public/#whats-your-risk>.

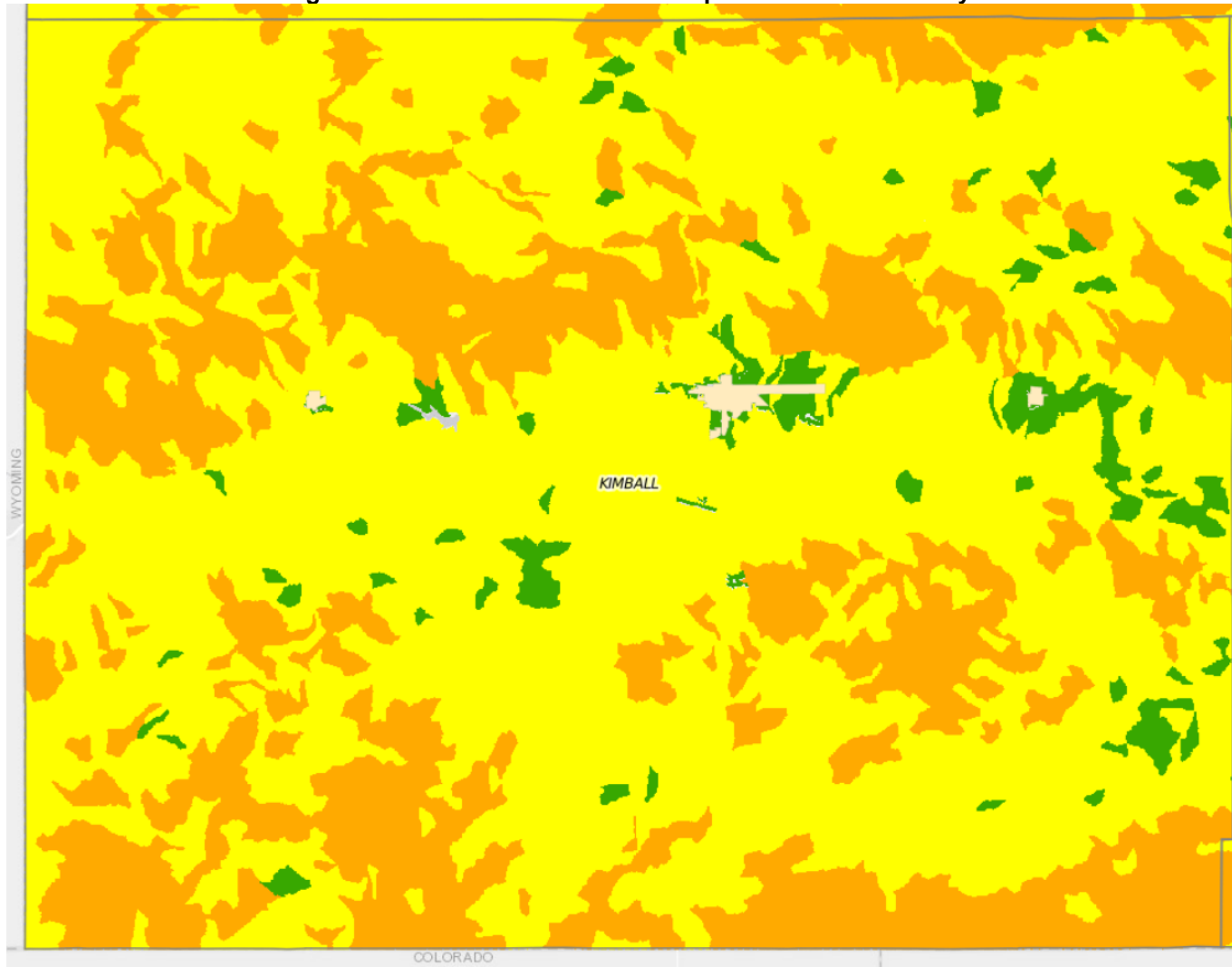
Figure 35: Wildfire Risk to Homes - Kimball County



Source: Wildfire Risk to Communities⁹⁰

⁹⁰ United States Department of Agriculture, United States Forest Service. 2022. "Wildfire Risk to Communities." Accessed February 2022. <https://wildfirerisk.org/>.

Figure 36: Nebraska Wildfire Risk Explorer - Kimball County



Source: Nebraska Wildfire Risk Explorer⁹¹

⁹¹ Nebraska Forest Service. 2022. "Nebraska Wildfire Risk Explorer." Accessed March 2022. <https://wrap.nebraskawildfirerisk.com/Map/Public/#whats-your-risk>.

Table 65: Wildfire Vulnerabilities by County

County	Risk to Homes (compared to NE Counties)	Exposure Type	Wildfire Likelihood (compared to NE Counties)
Cheyenne	53%	Indirect Sources	58%
Deuel	78%	Indirect Sources	83%
Kimball	72%	Indirect Sources	75%

Source: *Wildfire Risk to Communities, 2022*⁹²

Table 66: Wildfire Vulnerable Populations by County

County	Families in Poverty	People with Disabilities	People over 65	Difficulty with English	Households with no Vehicle	Mobile Homes
Cheyenne	7.1%	14.3%	17.9%	0.1%	4.1%	4.1%
Deuel	6.3%	17.2%	24.6%	1.3%	3.8%	4.7%
Kimball	6.5%	17.5%	24.4%	0.7%	6.6%	8.1%

Source: *Wildfire Risk to Communities, 2022*⁹³

Location

There were nine volunteer, rural, or municipal fire districts identified in the planning area. The following table lists these fire districts by county.

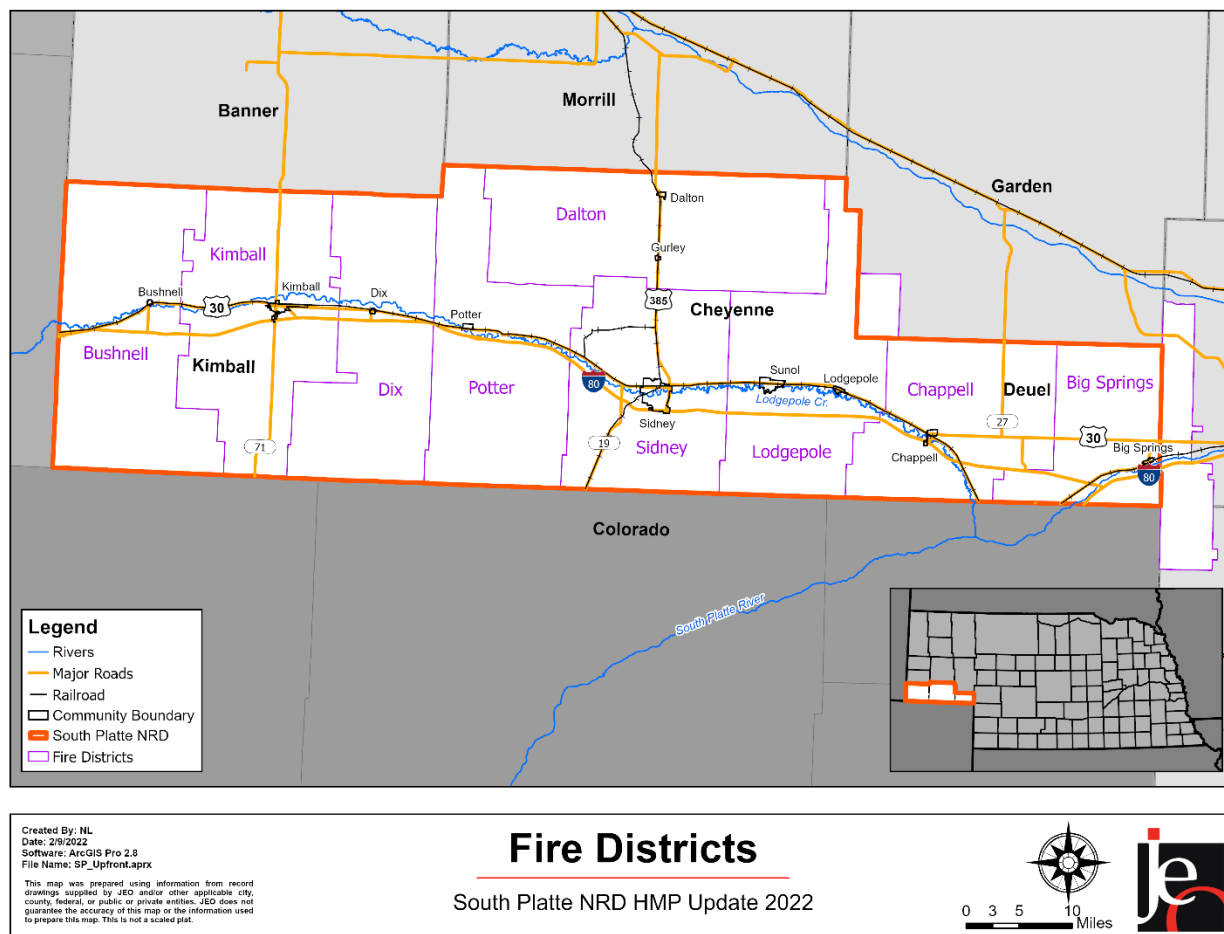
Table 67: Fire Districts in the Planning Area

County	Fire Districts			
Cheyenne	Dalton Fire District	Lodgepole Fire District	Potter Fire District	Sidney Fire District
Deuel	Big Springs Fire District	Chappell Fire District		
Kimball	Bushnell Fire District	Dix Fire District	Kimball Fire District	

⁹² United States Department of Agriculture, United States Forest Service. 2021. "Wildfire Risk to Communities." <https://wildfirerisk.org/>.

⁹³ United States Department of Agriculture, United States Forest Service. 2021. "Wildfire Risk to Communities." <https://wildfirerisk.org/>.

Figure 37: Fire Districts in the Planning Area



Historical Occurrences

For the planning area, nine different fire departments reported a total of 674 wildfires between 2000 and 2020 according to the Nebraska Forest Service. The reported events burned 26,932 acres in total and resulted in five fatalities and five injuries. While the Risk Management Agency lists no damages from fire in the planning area, the local fire departments reported \$54,457 in crop loss and \$249,720 in property damages. Most fires occurred in 2007, 2012, and 2017 (Figure 38). The majority of wildfires were caused by Debris Burning, Equipment Failure, or Miscellaneous causes (Figure 39). Wildfire events have ranged from less than one acre to 8,500 acres, with an average event burning 40 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 and local reporting standards can vary between departments. Actual fire events and their impacts are likely underreported in the available data.

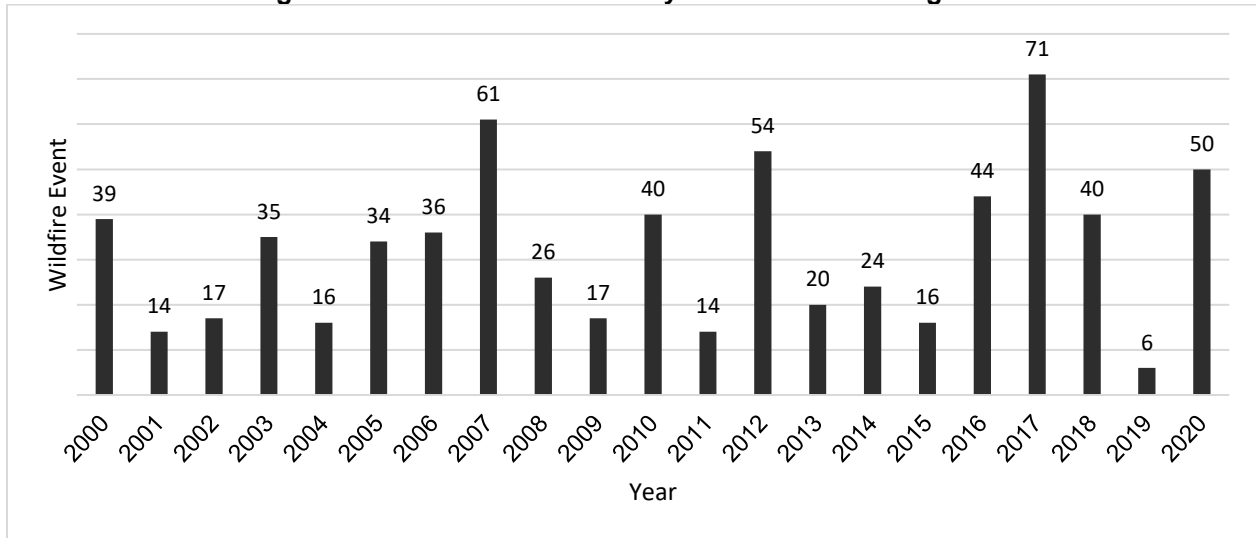
Wildfire count data was provided by the Nebraska Forest Service from 2000 to 2020. As the number of reported wildfires by county indicates, wildfire is a severe threat throughout the planning area. Cheyenne County has reported the greatest number of fires and had the greatest number of acres burned.

Table 68: Reported Wildfires by County

County	Reported Wildfires	Acres Burned	Other Impacts
Deuel	380	18,617	2 Injuries, 5 Fatalities
Cheyenne	153	1,969	1 Injury
Kimball	141	6,346	2 Injuries
Total	674	26,932	5 Injuries, 5 Fatalities

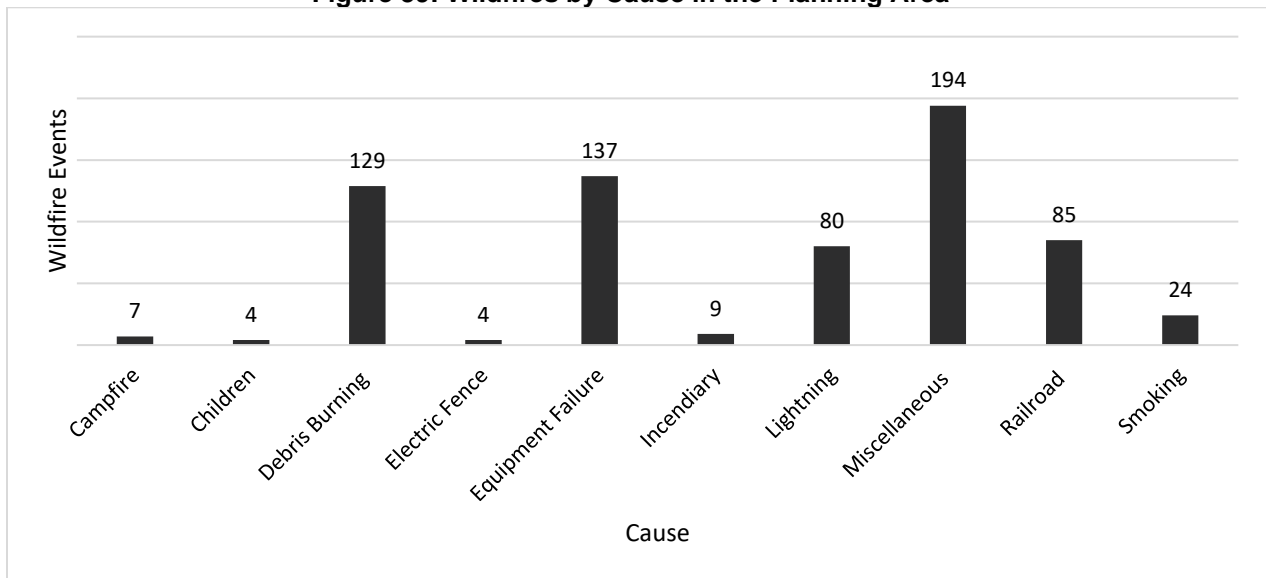
Source: Nebraska Forest Service, 2000-2020⁹⁴

Figure 38: Number of Wildfires by Year in the Planning Area



Source: Nebraska Forest Service, 2000-2020

Figure 39: Wildfires by Cause in the Planning Area

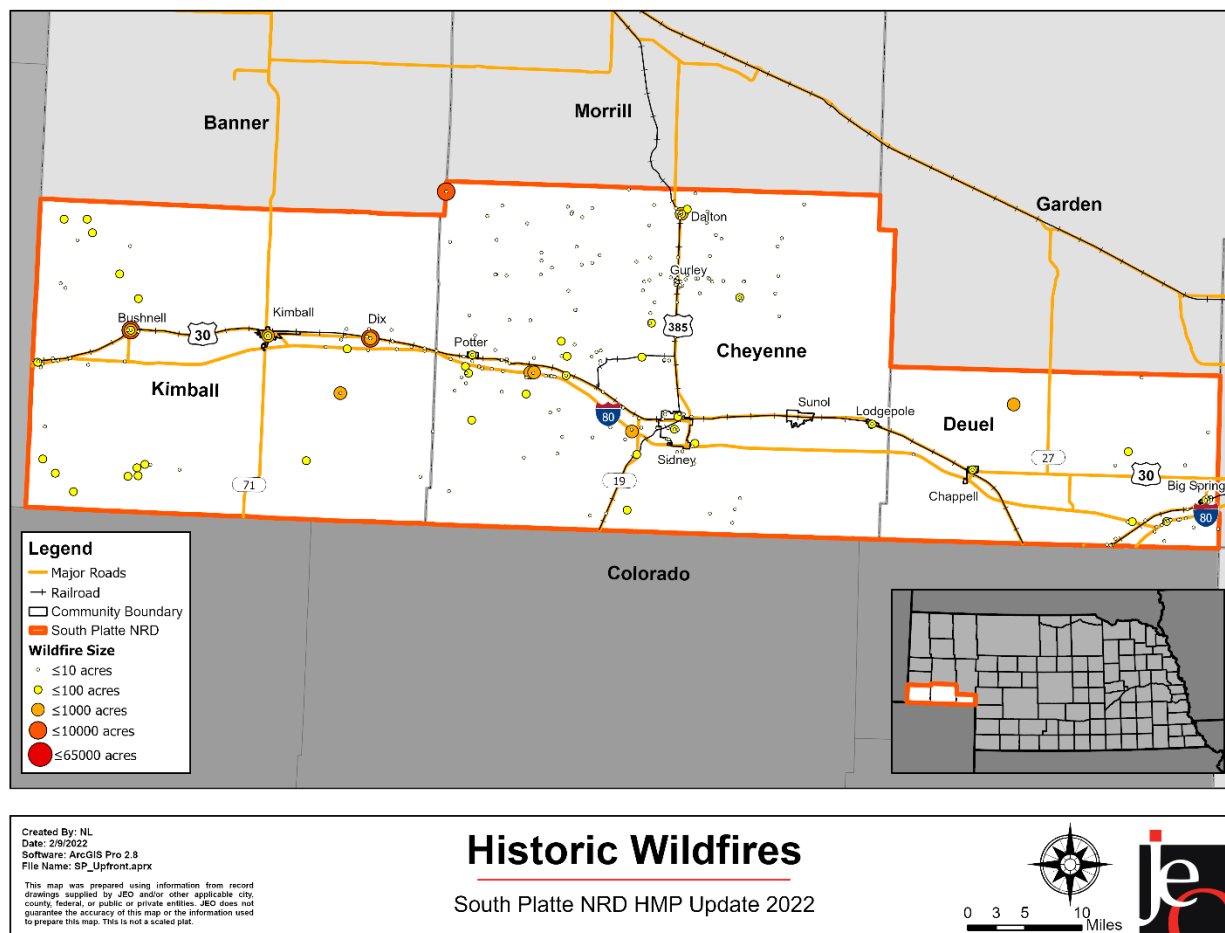


Source: Nebraska Forest Service, 2000-2020

94 Nebraska Forest Service. 2000-2020. "Fire Incident Type Summary." Data Files 2000-2020.

Figure 40 shows the location and general size of wildfires from 2000 to 2020.

Figure 40: Wildfire Occurrences in the Planning Area



Average Annual Damages

The average damage per event estimate was determined based upon records from the Nebraska Forest Service Wildfires Database from 2000 to 2020 and number of historical occurrences. This does not include losses from displacement, functional downtime, economic loss, injury, or loss of life. During the 20-year period, 674 wildfires burned 26,932 acres and caused \$54,457 in crop damages and \$249,720 in property damages to the planning area.

Damages caused by wildfires extend past 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.

Table 69: Wildfire Loss Estimation

Hazard Type	Number of Events	Events Per Year	Total Property Loss	Average Annual Property Loss	Total Crop Loss	Average Annual Crop Loss
Wildfires	674	32.1	\$249,720	\$11,891	\$54,457	\$2,388

Source: Nebraska Forest Service, 2000-2020

Table 70: Wildfire Threats

Hazard Type	Injuries	Fatalities	Homes Threatened or Destroyed	Other Structures Threatened or Destroyed	Total Acres Burned	Average Acres Per Fire
Wildfires	5	5	38	41	26,932 acres	40

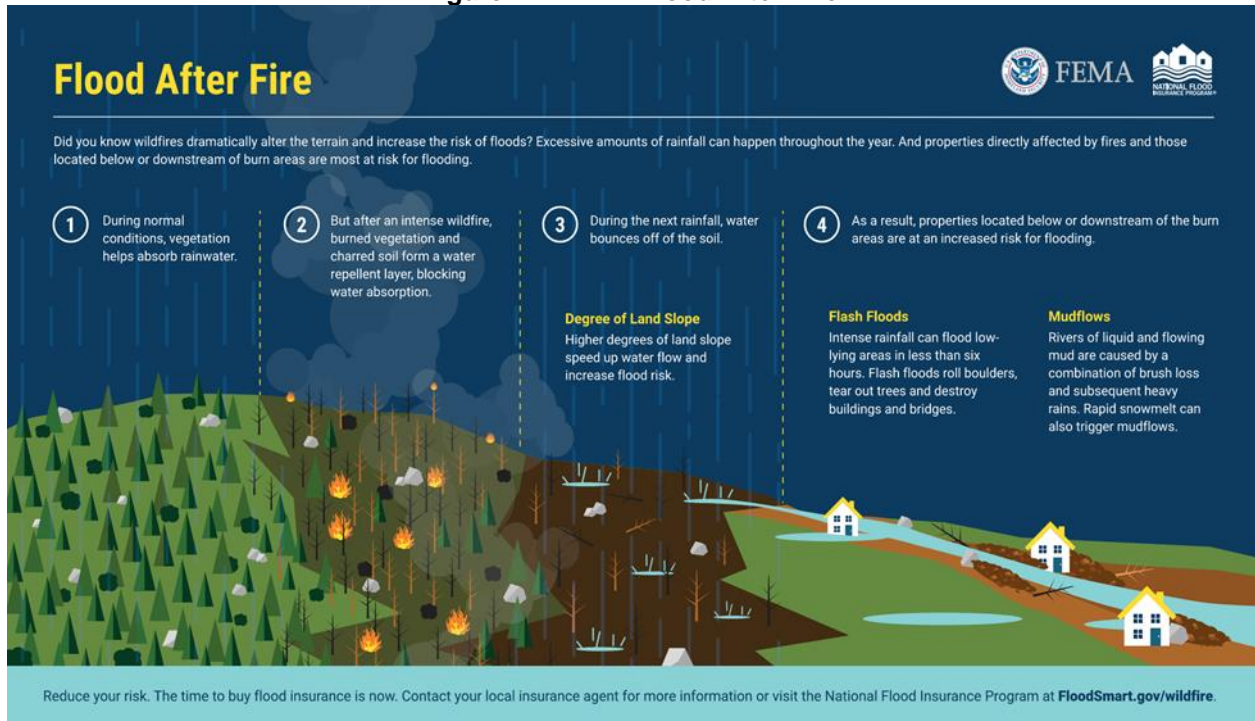
Source: Nebraska Forest Service, 2000-2020

Extent

As seen in Table 68 above, wildfires have burned 26,932 acres of land. In total, there were 674 reported wildfires in the planning area. Of these, 33 fires burned 100 acres or more, with the largest wildfire burning over 8,500 acres in Cheyenne County in 2012.

Wildfire also contributes to an increased risk from other hazard events, compounding damages and straining resources. FEMA has provided additional information in recent years detailing the relationship between wildfire and flooding (Figure 41). 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.

Figure 41: FEMA Flood After Fire

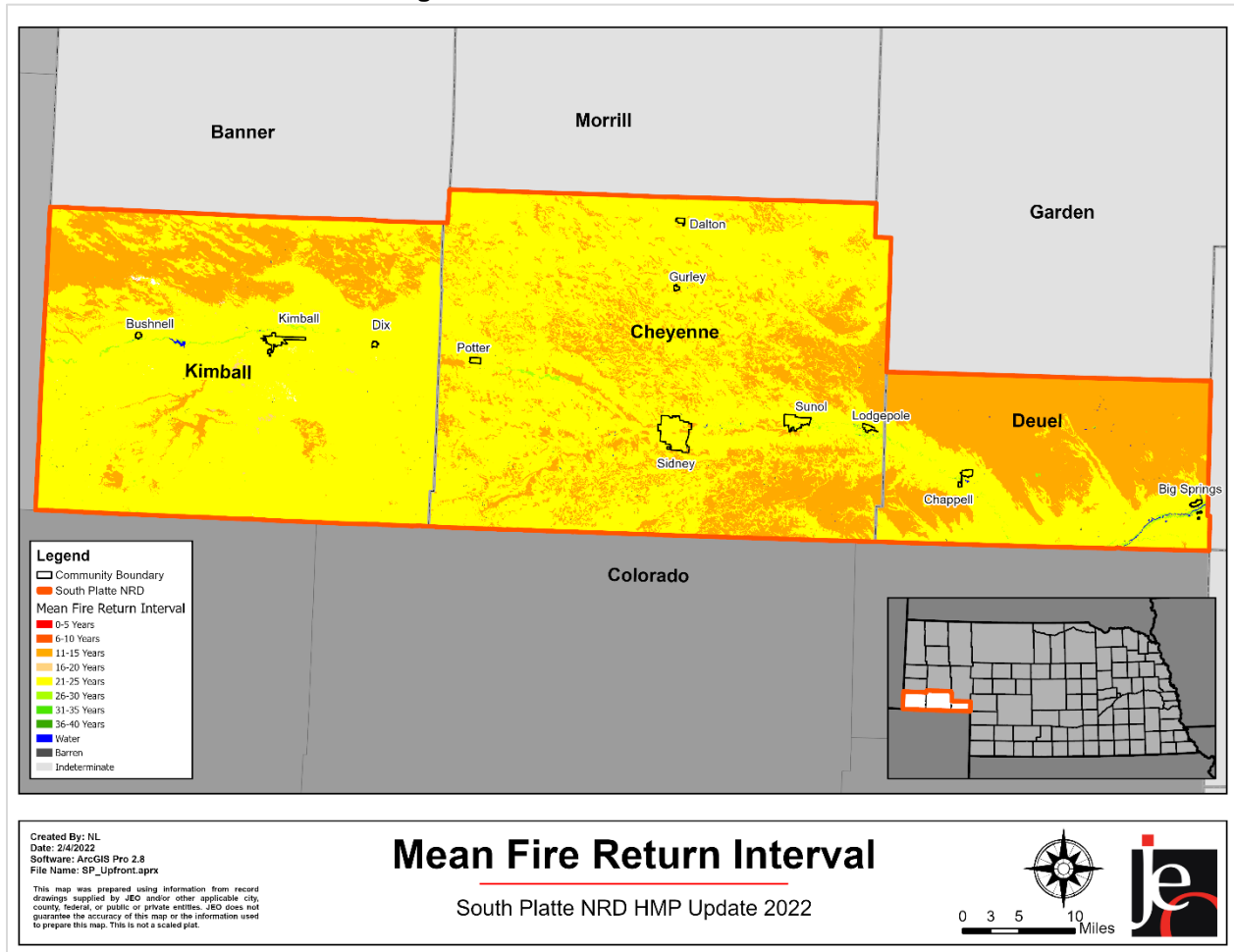


Source: FEMA, 2020⁹⁵

Figure 42 shows the USGS’ Mean Fire Return Interval for the planning area. This model considers a variety of factors, including landscape, fire dynamics, fire spread, fire effects, and spatial context. These values show how often fires occur in each area under natural conditions.

95 FEMA and NFIP. 2020. "Flood After Fire." Accessed September 2020. https://www.fema.gov/media-library-data/1573670012259-3908ab0344ff8bf5d537ee0c6fb531d/101844-019_FEMA_FAF_Infographic-ENG-web_v8_508.pdf.

Figure 42: Mean Fire Return Interval



Probability

The 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 in every year on record (Figure 38), there is a 100 percent annual probability of grass/wildfires occurring in the planning area each year.

Community Top Hazard Status

The following table lists jurisdictions which identified Grass/Wildfire as a top hazard of concern:

Jurisdictions	
Bushnell	Kimball County
Bushnell Fire District	Lodgepole
Cheyenne County	Lodgepole Fire District
Dalton	Potter
Deuel County	Potter Fire District
Dix Fire District	Sidney Fire District

Regional Vulnerabilities

Periods of drought can occur throughout the year while extreme heat conditions during summer months greatly increase the potential for and magnitude of wildland fires. Drought has a high probability of occurring in the planning area and the planning area sees, on average, three days above 100°F each year (Table 54). During a severe drought, dry conditions, and/or windy conditions, large wildfires can more easily spread.

Wildfire poses a threat to a range of demographic groups. Wildfire, wildfire within the WUI, 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, including on tribal reservation lands. Wildfires can cause extensive damage to both urban and rural building stock and properties including critical facilities and infrastructure, as well as agricultural producers which support the local industry and economy. Damaged homes can reduce available housing stock for residents, causing them to leave the area. Additionally, fire events threaten the health and safety of residents and emergency response personnel. Recreation areas, timber and grazing land, wildlife habitat, and scenic views can also be threatened by wildfires.

Development across the planning area may be located within the WUI, particularly in larger municipalities such as the City of Sidney with a large amount of intermix overlap. 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. Other notable vulnerabilities exist for fire departments which service both urban and rural areas as many fire districts lack adequate 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/or coverage.

The following table provides information related to regional vulnerabilities; for jurisdictional-specific vulnerabilities, refer to *Section Seven: Community Profiles*.

Table 71: Regional 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
Infrastructure	-Damage to power lines and utility structures -Potential loss of firefighting equipment and resources
Critical Facilities	-Risk of damages
Climate	-Changes in seasonal temperature and precipitation normals can increase frequency and severity of wildfire events

	-Changes in climate can help spread invasive species, changing potential fuel loads in wildland areas
Other	-Increased chance of landslides, erosion, and land subsidence -May lead to poor water quality -Post fire, flash flooding events may be exacerbated

Hail

According to the NWS, hail is defined as a showery precipitation in the form of irregular pellets or balls of ice more than five millimeters in diameter, falling from a cumulonimbus cloud. Early in the developmental stages of a hailstorm, ice crystals form within a low-pressure front due to the rapid rising of warm air into the upper atmosphere and the subsequent cooling of the air mass. Frozen droplets gradually accumulate on the ice crystals until, having developed sufficient weight; they fall as precipitation, in the form of balls or irregularly shaped masses of ice. The size of hailstones is a direct function of the size and severity of the storm. High velocity updraft winds are required to keep hail in suspension in thunderclouds. The strength of the updraft is a function of the intensity of heating at the Earth’s surface. Higher temperature gradients relative to elevation above the surface result in increased suspension time and hailstone size.

Location

The entire planning area is at risk to hail due to the regional nature of this type of event.

Extent

The Tornado and Storm Research Organization (TORRO) scale is used to classify hailstones and provides some detail related to the potential impacts from hail. Table 72 outlines the TORRO Hail Scale.

Table 72: TORRO Hail Scale

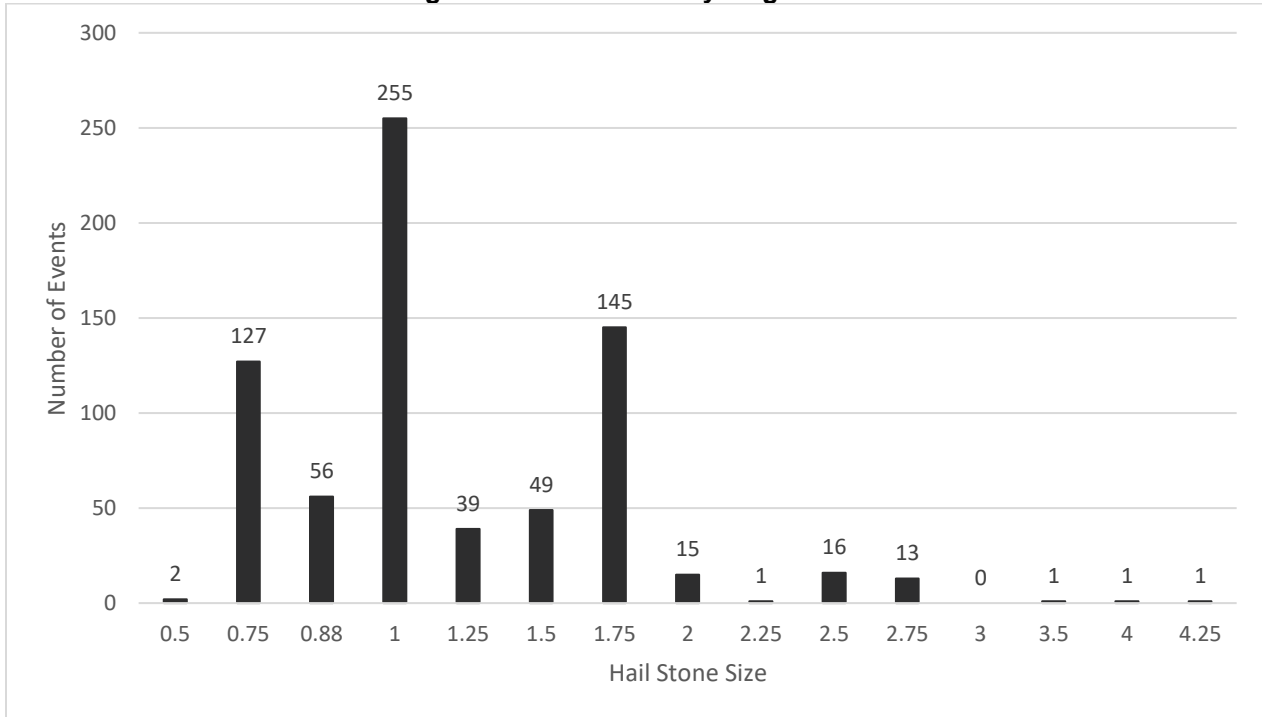
TORRO Classification / Intensity	Typical Hail Diameter	Typical Damage Impacts
H0: Hard Hail	5 mm; (Pea size); 0.2 in	No damage
H1: Potentially Damaging	5 -15 mm (Marble) 0.2 – 0.6 in	Slight general damage to plants and crops
H2: Significant	10 -20 mm (Grape) 0.4 – 0.8 in.	Significant damage to fruit, 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
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

TORRO Classification / Intensity	Typical Hail Diameter	Typical Damage Impacts
H10: Super Hail	>100mm (Melon); >4.0 in	Extensive structural damage; risk of severe or even fatal injuries to persons outdoors

Source: TORRO, 2019⁹⁶

Of the 721 hail events reported for the planning area, the average hailstone size was 1.2 inches. Events of this magnitude correlate to an H4 classification. It is reasonable to expect 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. The planning area has endured one H10 hail events (>4.0 inches) during the period of record. Figure 43 shows hail events based on the size of the hail.

Figure 43: Hail Events by Magnitude



Source: NCEI, 1996- April 2021

Historical Occurrences

The NCEI reports events as they occur in each community. A single hail 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 hail event covering a large portion of the planning area could be reported by the NCEI as several events. The NCEI reports a total of 721 hail events in the planning area between January 1996 and April 2021. These events were responsible for

96 Tornado and Storm Research Organization. 2019. "Hail Scale." <http://www.torro.org.uk/hscale.php>.

\$13,357,000 in property damages and \$73,331,957 in crop damages. The following narratives are NCEI descriptions of the two events which caused the most property damage in the planning area.

- Cheyenne County – June 26, 1999:** Thunderstorms with large hail and winds exceeding 80 mph caused extensive damage to crops and property over a large part of western Cheyenne county in Nebraska, with many crops completely destroyed. This was the most damaging hailstorm ever recorded in Cheyenne county. Power was knocked out in Sidney with some streets flooded in the city. Meteorological observation equipment at the Sidney airport was severely damaged.
- Kimball County (Kimball) – May 7, 2000:** Large hail damaged much of Kimball, NE, with 40 to 50 percent of the city reporting excessive damage. Estimated property damages totaled \$5,000,000.

Average Annual Losses

The average per event estimate was based on the NCEI Storm Events Database since 1996 and number of historical occurrences as described above. This does not include losses from displacement, functional downtime, economic loss, injury, or loss of life.

Table 73: Hail Loss Estimate

Hazard Type	Number of Events ¹	Events Per Year ¹	Total Property Loss ¹	Average Annual Property Loss ¹	Total Crop Loss ²	Average Annual Crop Loss ²
Hail	721	27.7	\$13,357,000	\$513,731	\$73,331,957	\$2,820,460

Source: 1 Indicates the data is from NCEI (1996-April 2021), 2 Indicates data is from USDA RMA (2000- 2020)

Probability

Based on historic records and reported events, hail is likely to occur several times annually within the planning area. The NCEI reported 721 hail events between 1996 and April 2021, or approximately 28 hail occurrences per year. Based on the historic record of reported incidents, there is a 96 percent probability (25 out of 26 years with an occurrence) that a hail event will occur annually in the planning area.

Community Top Hazard Status

The following table lists jurisdictions which identified Hail as a top hazard of concern:

Jurisdictions	
Big Springs	Kimball Public Schools
Bushnell	Potter
Chappell	Region 21 EMA
Dalton	Sidney
Kimball	Sidney Public Schools
Kimball Airport	

Regional Vulnerabilities

The following table summarizes regional vulnerabilities; for jurisdictional-specific vulnerabilities, refer to *Section Seven: Community Profiles*.

Table 74: Regional Hail Vulnerabilities

Sector	Vulnerability
People	<ul style="list-style-type: none"> -Elderly citizens with decreased mobility may have trouble evacuating or seeking shelter -Injuries can occur from not seeking shelter, standing near windows, and shattered windshields in vehicles
Economic	<ul style="list-style-type: none"> -Damages to buildings and property can cause significant losses to business owners and employees
Built Environment	<ul style="list-style-type: none"> --Roofs, siding, windows, gutters, HVAC systems, etc. can incur damage
Infrastructure	<ul style="list-style-type: none"> -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
Critical Facilities	<ul style="list-style-type: none"> -Power outages are possible -Critical facilities may sustain damage from hail
Climate	<ul style="list-style-type: none"> -Changes in seasonal precipitation and temperature normals can increase frequency and magnitude of severe storm events

Hazardous Materials – Fixed Site

The following description of hazardous materials is provided by 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.⁹⁷

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.

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 1986.⁹⁸

Fixed sites are those that involve chemical manufacturing sites and stationary storage facilities. Table 75 demonstrates the nine classes of hazardous material according to the 2020 Emergency Response Guidebook.

⁹⁷ Federal Emergency Management Agency. 2017. "Hazardous Materials Incidents." <https://www.ready.gov/hazardous-materials-incidents>.

⁹⁸ Emergency Planning and Community Right-to-Know Act of 1986, Pub. L. No. 116 § 10904. 1986.

Table 75: Hazardous Materials Classes

Class	Type of Material	Divisions
1	Explosives	Division 1.1 – Explosives which have a mass explosion hazard Division 1.2 – Explosives which have a projection hazard but not a mass explosion hazard Division 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 Division 1.4 – Explosives which present no significant hazard Division 1.5 – Very insensitive explosives with a mass explosion hazard Division 1.6 – Extremely insensitive articles which do not have a mass explosion hazard
2	Gases	Division 2.1 – Flammable gases Division 2.2 – Non-flammable, non-toxic gases Division 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	Division 4.1 – Flammable solids, self-reactive substances and solid desensitized explosives Division 4.2 – Substances liable to spontaneous combustion Division 4.3 – Substances which in contact with water emit flammable gases
5	Oxidizing substances and Organic peroxides	Division 5.1 – Oxidizing substances Division 5.2 – Organic peroxides
6	Toxic Substances and infectious substances	Division 6.1 – Toxic substances Division 6.2 – Infectious substances
7	Radioactive materials	
8	Corrosive substances	
9	Miscellaneous hazardous materials/dangerous goods and articles	

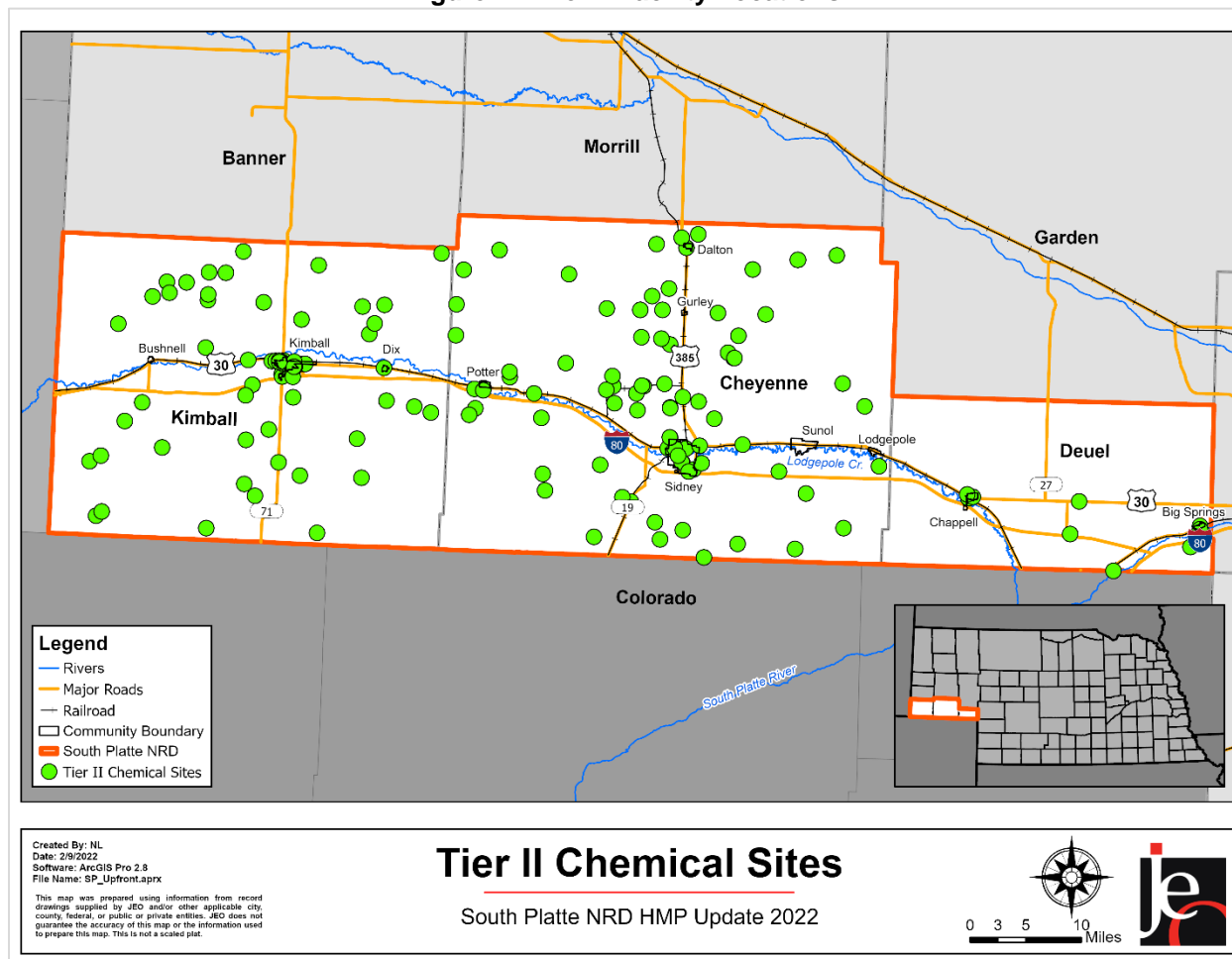
Source: *Emergency Response Guidebook, 2020*⁹⁹

Location

There are 229 locations across the planning area that house hazardous materials, according to the Tier II reports submitted to the Nebraska Department of Environment and Energy in 2021. A list of chemical storage sites can be found in *Section Seven: Community Profiles* for each county. Figure 44 shows the location of the chemical sites.

99 U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration. 2022. "2020 Emergency Response Guidebook." <https://www.phmsa.dot.gov/hazmat/erg/emergency-response-guidebook-erg>.

Figure 44: Tier II Facility Locations



Historical Occurrences

According to the U.S. Coast Guard’s National Response Center (NRC) database, there were 38 fixed site chemical spills from 1990 to 2020 in the planning area. There were no property damages or evacuations reported for these releases.

Extent

The extent of chemical spills at fixed sites varies and depends on the type of chemical that is released, with most events localized to the facility. 38 releases have occurred in the planning area, and the total amount spilled ranged from 1 to 400 gallons or 2 to 8,294 pounds of pollutant. HAZMAT incinerator ash was the most spilled pollutant. Of the 38 chemical spills, there were no reported injuries or hospitalizations.

Probability

Based on historical records and reported events, 10 out of the 31 years examined experienced a fixed site chemical spill. This means the annual probability of a fixed site chemical spill is 32%.

Community Top Hazard Status

The following table lists jurisdictions which identified Hazardous Materials – Fixed Site as a top hazard of concern:

Jurisdictions	
Dix Fire District	Sidney Fire District

Regional Vulnerabilities

The following table summarizes regional vulnerabilities; for jurisdictional-specific vulnerabilities, refer to *Section Seven: Community Profiles*.

Table 76: Regional Chemical and Radiological Fixed Site Vulnerabilities

Sector	Vulnerability
People	-Those in close proximity could have minor to severe 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 on the local economy
Built Environment	-Risk of fire or explosion
Infrastructure	-Transportation routes can be closed during evacuations
Critical Facilities	-Critical facilities are at risk of evacuation or damage from fire or explosion
Climate	-None

Hazardous Materials – Transportation

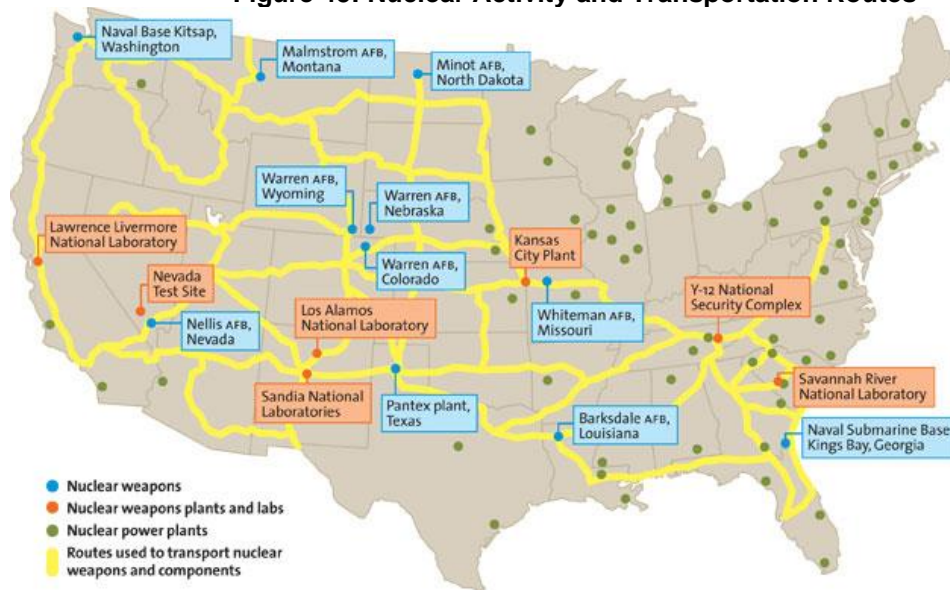
The transportation of hazardous materials is defined by the U.S. Pipeline and Hazardous Materials Safety Administration (PHMSA) as "...a substance that has been determined to be capable of posing an unreasonable risk to health, safety, and property when transported in commerce..."¹⁰⁰ According to PHMSA, hazardous materials traffic in the U.S. now exceeds 1,000,000 shipments per day.¹⁰¹

Nationally, the U.S has had 116 fatalities associated with the transport of hazardous materials between 2007 through 2017.¹⁰² While such fatalities are a low probability risk, even one event can harm many people. For example, a train derailment in Crete, Nebraska, in 1969 allowed anhydrous ammonia to leak from a ruptured tanker. The resulting poisonous fog killed nine people and injured 53.

Location

Chemical releases can occur during transportation, primarily on major transportation routes as identified in Figure 45 and Figure 46. A large number of spills also typically occur during the loading and unloading of chemicals. The UPPR runs east and west through Deuel, Cheyenne, and Kimball Counties. The BNSF runs north and south through Cheyenne County. There is one small Sidney and Lowe rail line that runs between UPPR and BNSF in Cheyenne County. According to PHMSA, the Tallgrass Pony Express Pipeline travels through Kimball County and the Tallgrass Interstate Gas Transmission Pipeline travels through Deuel, Cheyenne, and Kimball County.¹⁰³

Figure 45: Nuclear Activity and Transportation Routes



Source: Jeff Berlin

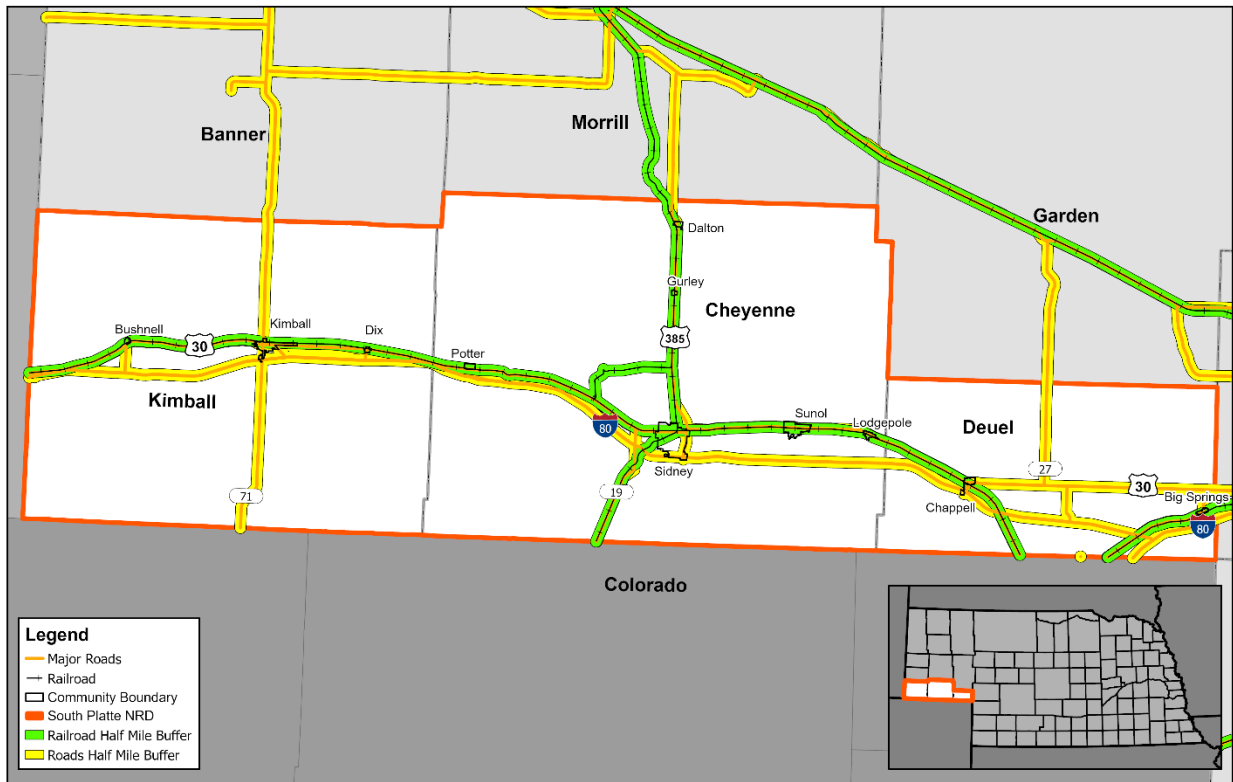
100 Pipeline and Hazardous Materials Safety Administration. 2018. "Hazmat Safety Community FAQ." <https://phmsa.dot.gov/regulations>.

101 U.S. Department of Transportation. 2015. "2012 Economic Census: Transportation." <https://www.census.gov/library/publications/2015/econ/ec12tcf-us.html>.

102 Pipeline and Hazardous Materials Safety Administration. 2017. "10 Year Incident Summary Reports." <https://www.phmsa.dot.gov/hazmat/library/data-stats/incidents>.

103 Pipeline and Hazardous Materials Safety Administration. 2019. "National Pipeline Mapping System." <https://www.npms.phmsa.dot.gov/>.

Figure 46: Major Transportation Routes with Half Mile Buffer



Created By: NL
 Date: 2/9/2022
 Software: ArcGIS Pro 2.8
 File Name: SP_Upfront.aprx

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 plot.

Transportation Routes

South Platte NRD HMP Update 2022

0 3 5 10 Miles

Historical Occurrences

PHMSA reports that 68 chemical spills have occurred during transportation in the planning area between 1971 and 2020. During these events, there was \$460,168 in damages with no fatalities or injuries. The following table provides a list of those chemical transportation events that have caused some of the most significant damages, injuries, or death.

Table 77: Historical Chemical Spills 1971-2020

Date of Event	Location of Release	Failure Description	Material Involved	Transportation Method	Injuries or Fatalities	Total Damage
12/11/1993	Chappell	Vehicle Accident	5,900 LGA Fuel Oil (N. 1, 2, 4, 5, or 6)	Highway	None	\$67,921
9/11/2005	Big Springs	Human Error	55 LGA Flammable Liquids N.O.S.	Highway	None	\$100,000
4/23/2009	Sidney	Vehicle Accident	4,800 LGA Pentanes	Highway	None	\$3,074,000

4/20/2020	Sidney	Unknown	2,500 LGA Ethanol or Ethyl Alcohol	Highway	None	\$52,500
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Source: PHMSA, 1971- 2020¹⁰⁴

Extent

The probable extent of chemical spills during transportation is difficult to anticipate and depends on the type and quantity of chemical released. Releases that have occurred during transportation in the planning area ranged from zero to 5,900 liquid gallons (LGA) and zero to 23.98 cubic feet (CF). Two events led to an evacuation.

Average Annual Losses

The average damage per event estimate was determined based upon PHMSA’s Incidents Reports since 1971 and the number of historical occurrences. This does not include losses from displacement, functional downtime, economic loss, injury, or loss of life. This hazard causes, on average, about \$9,391 per year in property damages.

Table 78: Chemical Transportation Losses

Hazard Type	Number of Events	Events Per Year	Total Property Loss	Average Annual Property Loss
Chemical Transportation Spills	68	0.72	\$460,168	\$9,391

Source: PHMSA 1971-2020

Probability

The historical record indicates that chemical releases during transportation have occurred in 26 of the 50 years on record, resulting in a 52 percent chance of it occurring annually in planning area.

Community Top Hazard Status

The following table lists jurisdictions which identified Hazardous Materials – Transportation as a top hazard of concern:

Jurisdictions	
Bushnell Fire District	Leyton Public Schools
Chappell	Lodgepole Fire District
Dalton	Potter
Deuel County	Potter Fire District
Dix Fire District	Region 21 EMA
Kimball	Sidney
Kimball Airport	Sidney Fire District

104 Pipeline and Hazardous Materials Safety Administration. 2021. "Office of Hazardous Materials Safety: Incident Reports Database Search." Accessed February 2021. <https://www.phmsa.dot.gov/hazmat/library/data-stats/incidents>.

Regional Vulnerabilities

The following table summarizes regional vulnerabilities; for jurisdictional-specific vulnerabilities, refer to *Section Seven: Community Profiles*.

Table 79: Regional Chemical and Radiological Transportation Vulnerabilities

Sector	Vulnerability
People	<ul style="list-style-type: none"> -Those in close proximity to transportation corridors -Possible evacuation -Hospitals, nursing homes, and the elderly at greater risk due to low mobility
Economic	<ul style="list-style-type: none"> -Evacuations and closed transportation routes could impact businesses near spill
Built Environment	<ul style="list-style-type: none"> -Risk of fire or explosion
Infrastructure	<ul style="list-style-type: none"> -Transportation routes can be closed
Critical Facilities	<ul style="list-style-type: none"> -Critical facilities near major transportation corridors are at risk
Climate	<ul style="list-style-type: none"> -None

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 to 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.¹⁰⁵ The NWS issues High Wind Advisories when there are sustained winds of 25 to 39 mph and/or gusts to 57 mph. Figure 47 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 located in Zone III which has maximum winds of 200 mph equivalent to an EF4/5 tornado.

Figure 47: Wind Zones in the U.S.



Source: FEMA, 2016

Location

High winds commonly occur throughout the planning area. The impacts would likely be greater in more densely populated areas.

¹⁰⁵ National Weather Service. 2017. "Glossary." <http://w1.weather.gov/glossary/index.php?letter=h>.

Extent

The Beaufort Wind Scale can be used to classify wind strength, while the magnitude of tornadoes is measured by the Enhanced Fujita Scale. Table 80 outlines the Beaufort scale, provides wind speed ranking, range of wind speeds per ranking, and a brief description of conditions for each ranking.

Table 80: Beaufort Wind Ranking

Beaufort Wind Force Ranking	Range of Wind	Conditions
0	<1 mph	Smoke rises vertically
1	1 – 3 mph	Direction shown by smoke but not wind vanes
2	4 – 7 mph	Wind felt on face; leaves rustle; wind vanes move
3	8 – 12 mph	Leaves and small twigs in constant motion
4	13 – 18 mph	Raises dust and loose paper; small branches move
5	19 – 24 mph	Small trees in leaf begin to move
6	25 – 31 mph	Large branches in motion; umbrellas used with difficulty
7	32 – 38 mph	Whole trees in motion; inconvenience felt when walking against the wind
8	39 – 46 mph	Breaks twigs off tree; generally, impedes progress
9	47 – 54 mph	Slight structural damage; chimneypots and slates removed
10	55 – 63 mph	Trees uprooted; considerable structural damages; improperly or mobiles homes with no anchors turned over
11	64 – 72 mph	Widespread damages; very rarely experienced

Source: Storm Prediction Center, 2017¹⁰⁶

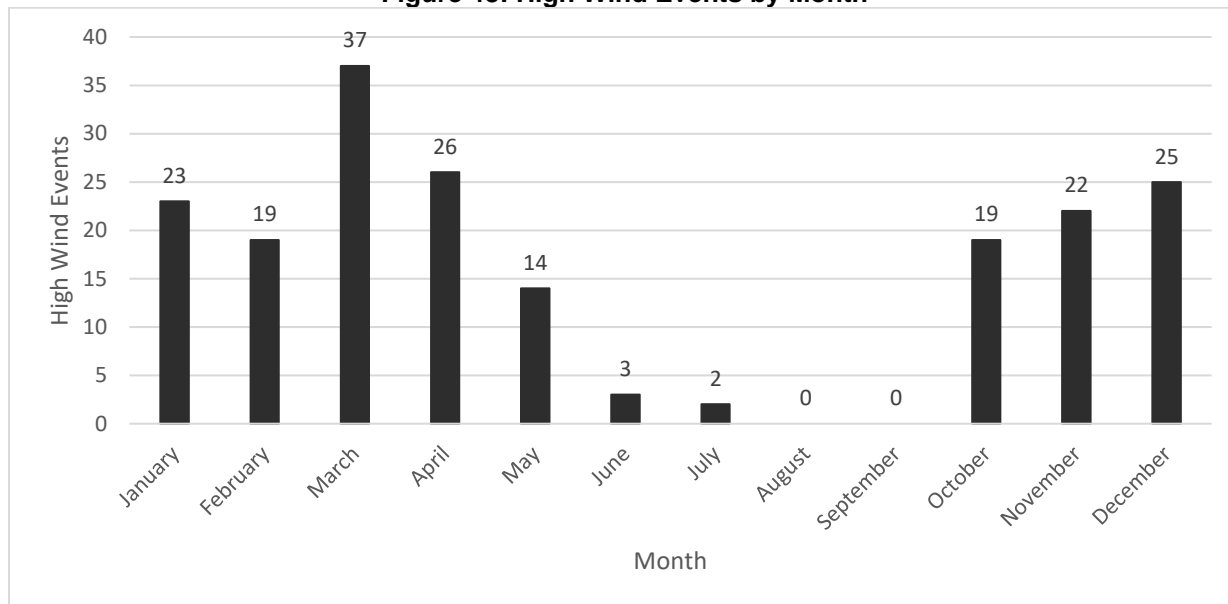
Using the NCEI reported events, the most common high wind event is ranked a level 9 on the Beaufort Wind Force Scale. The reported high wind events had an average of 54 mph winds. High wind is likely to occur annually in the planning area.

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 190 high wind events that occurred between January 1996 and April 2021. These events were responsible for \$106,000 in property damages and \$10,231,488 in crop damages. As seen in Figure 48, most high wind events occur in the late fall and winter months.

¹⁰⁶ Storm Prediction Center: National Oceanic and Atmospheric Administration. 1805. "Beaufort Wind Scale." <http://www.spc.noaa.gov/faq/tornado/beaufort.html>.

Figure 48: High Wind Events by Month



Source: NCEI, 1996-April 2021

Average Annual Losses

The average damage per event estimated was determined based upon NCEI Storm Events Database since 1996 and number of historical occurrences. 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 \$4,077 per year in property damage, and an average of \$393,519 per year in crop damage for the planning area.

Table 81: High Wind 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
High Winds	190	7.3	\$106,000	\$4,077	\$10,231,488	\$393,519

Source: 1 Indicates the data is from NCEI (1996-April 2021) 2 Indicates data is from USDA RMA (2000-2020)

Probability

Based on the historic record of reported incidents, there is a 92 percent probability (24 out of 26 years with an occurrence) that a high wind event will occur annually in the planning area.

Community Top Hazard Status

The following table lists jurisdictions which identified High Winds as a top hazard of concern:

Jurisdictions	
Chappell	Lodgepole Fire District
Kimball	Potter Fire District
Kimball Airport	Region 21 EMA
Kimball County	Sidney Public Schools
Lodgepole	

Regional Vulnerabilities

The following table summarizes regional vulnerabilities; for jurisdictional-specific vulnerabilities, refer to *Section Seven: Community Profiles*.

Table 82: Regional High Wind Vulnerabilities

Sector	Vulnerability
People	<ul style="list-style-type: none"> -Vulnerable populations include those living in mobile homes, especially if they are not anchored properly -People outdoors during events
Economic	<ul style="list-style-type: none"> -Agricultural losses -Damages to businesses and prolonged power outages can cause significant impacts to the local economy
Built Environment	<ul style="list-style-type: none"> -All building stock is at risk to damages from high winds
Infrastructure	<ul style="list-style-type: none"> -Downed power lines and power outages -Downed trees blocking road access
Critical Facilities	<ul style="list-style-type: none"> -All critical facilities are at risk to damages from high winds
Climate	<ul style="list-style-type: none"> -Changes in seasonal precipitation and temperature normals can increase frequency and magnitude of high wind and severe storm events

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.

The USACE, who is responsible for federal levee oversight and inspection of levees, has three ratings for levee inspections.

Table 83: USACE Levee Rating Categories

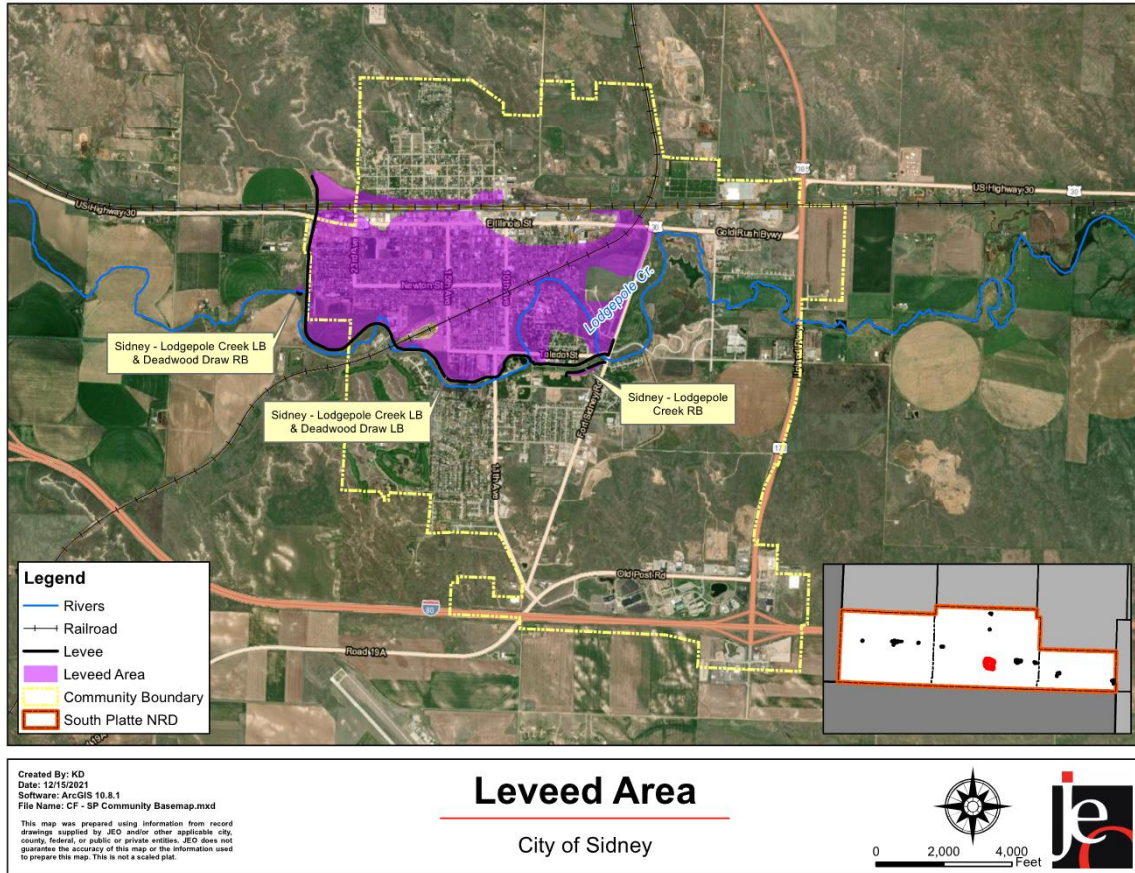
Ratings	Description
Acceptable	All inspection items are rated as Acceptable
Minimally Acceptable	One or more inspection items are rated as Minimally Acceptable, or one or more items are rated as Unacceptable and an engineering determination concludes that the Unacceptable inspection items would not prevent 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

Location

According to USACE’s National Levee Database, there is one levee in the planning area, which is located in Sidney. The Sidney Levee Project includes three main sections, spans approximately 2.75 miles in length, and protects 2,855 residents and 1,709 structures. The levee is sponsored by the City of Sidney and was classified as Low Risk by the USACE in February 2020. This levee can be seen in Figure 49.

Figure 49: Sidney Levee Area



Historical Occurrences

There have been no recorded instances of levee failure in the planning area.

Extent

Given that there are no historic levee failure incidents, we are not able to identify the exact impacts of levee failure. If any levees were to fail, it would likely result in flooding in Sidney.

Average Annual Losses

There are no recorded instances of levee failure in the planning area, so average annual losses are \$0.

Probability

With no recorded levee failure in the planning area, there is a less than 1% chance that levee failure will occur in the planning area annually.

Community Top Hazard Status

No jurisdictions identified Levee Failure as a top hazard of concern; however, this hazard was included in the community profiles for Cheyenne County and the City of Sidney due to the presence of a levee system in those jurisdictions. Because the levee was classified as Low Risk by the USACE, these jurisdictions also view Levee Failure as a low concern.

Regional Vulnerabilities

The following table summarizes regional vulnerabilities; for jurisdictional-specific vulnerabilities, refer to *Section Seven: Community Profiles*.

Table 84: Regional Vulnerabilities

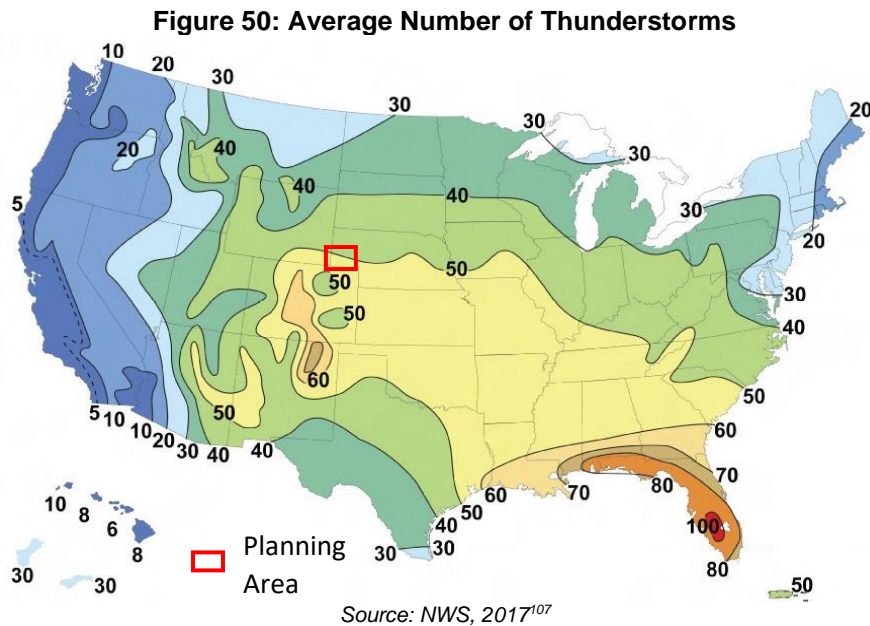
Sector	Vulnerability
People	-Minimal risk from unmapped private levees and berms
Economic	-Minimal impact to agricultural lands
Built Environment	-All buildings within leveed areas are at risk to damages
Infrastructure	-Minimal impact to infrastructure. Likely to be localized
Critical Facilities	-None. There are no critical facilities in leveed areas
Climate	-Changes in seasonal precipitation and temperature normals can increase strain on any unmapped private levees and berms

Severe Thunderstorms

Severe thunderstorms are common and unpredictable seasonal events throughout Nebraska. A thunderstorm is defined as a storm that contains lightning and thunder, which is caused by unstable atmospheric conditions. When the cold upper air sinks and the warm, moist air rises, storm clouds or “thunderheads” develop, resulting in thunderstorms. This can occur singularly, in clusters, or in lines.

Thunderstorms can develop in fewer than 30 minutes and can grow to an elevation of eight miles into the atmosphere. Lightning, by definition, is present in all 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 comes in contact with the ground. Lightning generally occurs when warm air mixes with colder air masses resulting in atmospheric disturbances necessary for polarizing the atmosphere. Severe thunderstorms usually occur in the evening during the spring and summer months.

Economically, thunderstorms are generally beneficial in that they provide moisture necessary to support Nebraska’s largest industry, agriculture. The majority of thunderstorms do not cause damage, but when they escalate to severe storms, the potential for damages increases. Damages can include crop losses from wind; property losses due to building and automobile damages from high wind, flash flooding, and death or injury to humans and animals from lightning, drowning, or getting struck by falling or flying debris. Figure 50 displays the average number of days with thunderstorms across the country each year. The planning area experiences an average of 40 to 50 thunderstorms over the course of one year.



107 National Weather Service. 2017. "Introduction to Thunderstorms." http://www.srh.noaa.gov/jetstream/tstorms/tstorms_intro.html.

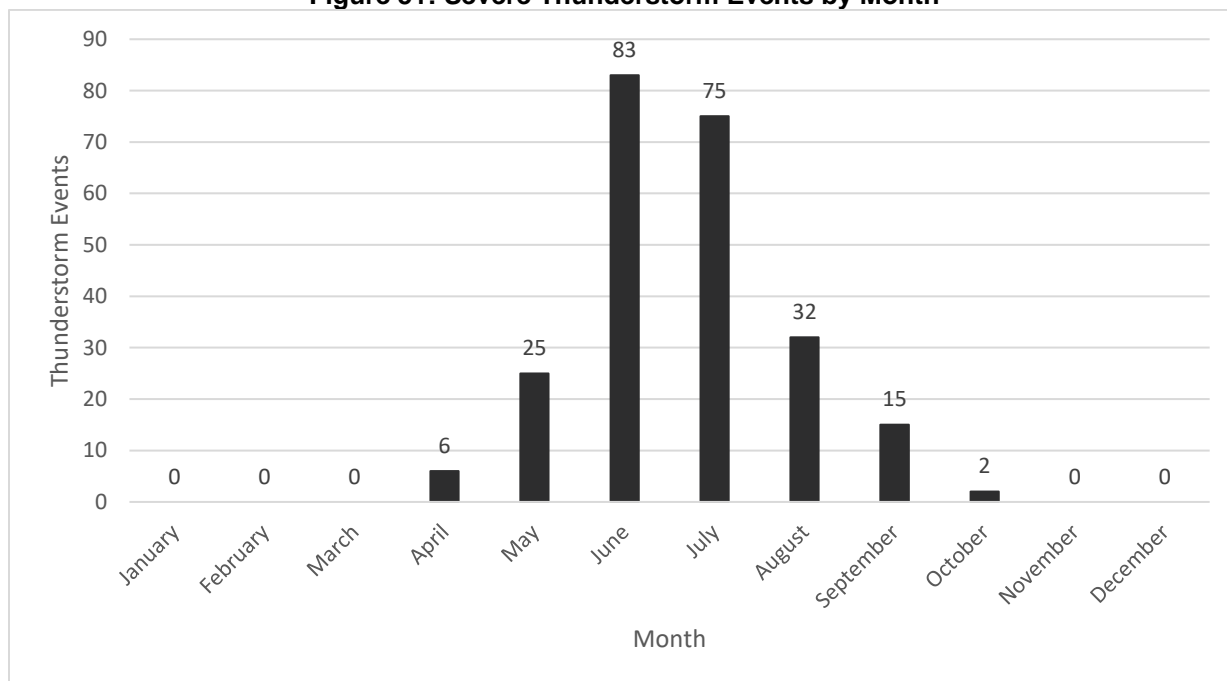
Location

The entire planning area is at risk to thunderstorms due to the regional nature of this type of event.

Historical Occurrences

Severe thunderstorms in the planning area usually occur in the afternoon and evening during the summer months (Figure 51).

Figure 51: Severe Thunderstorm Events by Month



Source: NCEI, 1996-2021

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 region could be reported by the NCEI as several events.

The NCEI reports a total of 19 heavy rain, one lightning, and 218 thunderstorm wind events in the planning area from 1996 to April 2021. In total these events were responsible for \$283,700 in property damages. The USDA RMA data shows that severe thunderstorms caused \$8,833,408 in crop damages. There were no injuries reported in association with these storms.

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 is capable of winds gusts of 58 mph or higher.

Average Annual Damages

The average damage per event estimate was determined based upon recorded damages from NCEI Storm Events Database since 1996 and number of historical occurrences. This does not include losses from displacement, functional downtime, economic loss, injury, or loss of life.

Severe thunderstorms cause an average of \$10,912 per year in property damages and \$339,746 in crop damages.

Table 85: 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
Heavy Rain	19	0.7	\$0	\$0	\$8,833,408	\$339,746
Lightning	1	0.04	\$1,000	\$38		
Thunderstorm Wind	218	8.4	\$282,700	\$10,873		
Total	238	9.2	\$283,700	\$10,912	\$8,833,408	\$339,746

Source: 1 Indicates data is from NCEI (1996 to April 2021); 2 Indicates data is from USDA RMA (2000 to 2020)

Probability

Based on historical records and reported events, severe thunderstorms events are likely to occur on an annual basis. The NCEI reported a severe thunderstorm 24 out of 26 years, resulting in a 92 percent chance for thunderstorms to occur annually.

Community Top Hazard Status

The following table lists jurisdictions which identified Severe Thunderstorms as a top hazard of concern:

Jurisdictions	
Bushnell	Leyton Public Schools
Chappell	Potter
Cheyenne County	Potter Fire District
Deuel County	Region 21 EMA
Kimball	Sidney Fire District
Kimball County	Sidney Public Schools
Kimball Public Schools	

Regional Vulnerabilities

The following table provides information related to regional vulnerabilities; for jurisdictional-specific vulnerabilities, refer to *Section Seven: Community Profiles*.

Table 86: 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 to hail damage -Downed trees and tree limbs -Roofs, siding, windows, gutters, HVAC systems, etc. can incur damage

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Infrastructure	-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
Critical Facilities	-Power outages are possible -Critical facilities may sustain damage from hail, lightning, and wind
Climate	-Changes in seasonal precipitation and temperature normals can increase frequency and magnitude of severe storm events

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. Blizzards are particularly dangerous due to drifting snow and the potential for rapidly occurring whiteout conditions which greatly inhibit vehicular traffic. 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.

Extreme Cold

Along with snow and ice storm events, extreme cold is dangerous to the well-being of people and animals. What constitutes extreme cold varies from region to region but is generally accepted as temperatures that are significantly lower than the region's average low temperature. For the planning area, the coldest months of the year are December, January, and February. The average low temperature for these months is below freezing (average low for the three months is 14 °F). The average high temperature for the months of December, January, and February is 43°F.¹⁰⁸

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

A blizzard can be defined as “blowing and/or falling snow with winds of at least 35 mph, reducing visibilities to a quarter of a mile or less for at least three hours”.¹⁰⁹ Blizzards are particularly dangerous due to drifting snow and the potential for rapidly occurring whiteout conditions, which greatly inhibits vehicular traffic. Heavy snow is usually the most defining element of a winter storm. Large snow events 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. Figure 52 shows the SPIA index.

¹⁰⁸ High Plains Regional Climate Center. 2021. “Monthly Climate Normals 1981-2010.” <http://climod.unl.edu/>.

¹⁰⁹ National Weather Service. 2022. “Winter Weather Safety.” <https://www.weather.gov/dmx/wintersafety>.

Figure 52: SPIA Index

ICE DAMAGE INDEX	*AVERAGE ICE AMOUNT (in inches) <i>Revised: Oct. 2011</i>	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 weeks 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.)

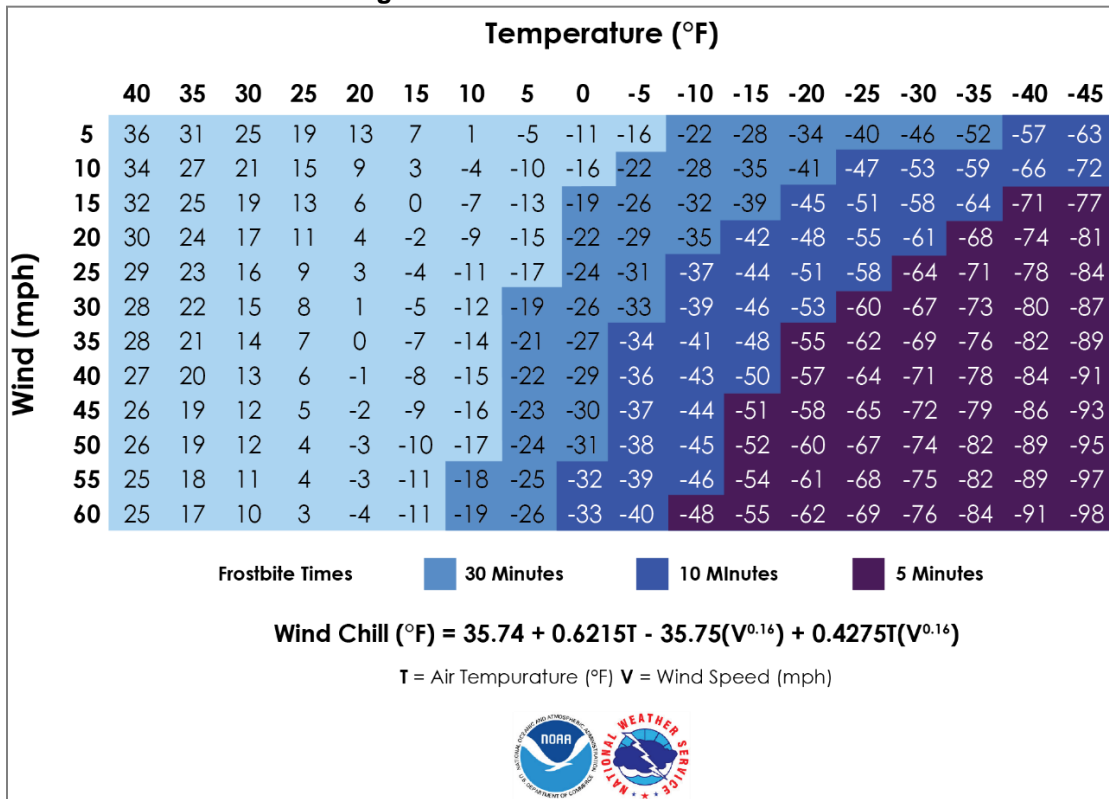
Source: SPIA-Index, 2017¹⁰

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 frost bite as it gets lower. Figure 53 shows the Wind Chill Index used by the NWS.

Average monthly snowfall for the planning area is shown in Figure 55, which shows the snowiest months are between December and March. A common snow event (likely to occur annually) will result in accumulation totals between one and six inches. Often these snow events are accompanied by high winds. It is reasonable to expect wind speeds of 25 to 35 mph with gusts reaching 50 mph or higher. Strong winds and low temperatures can combine to produce extreme wind chills of 20°F to 40°F below zero.

110 SPIA-Index. 2009. "Sperry-Piltz Ice Accumulation Index." Accessed June 2017. <http://www.spia-index.com/index.php>.

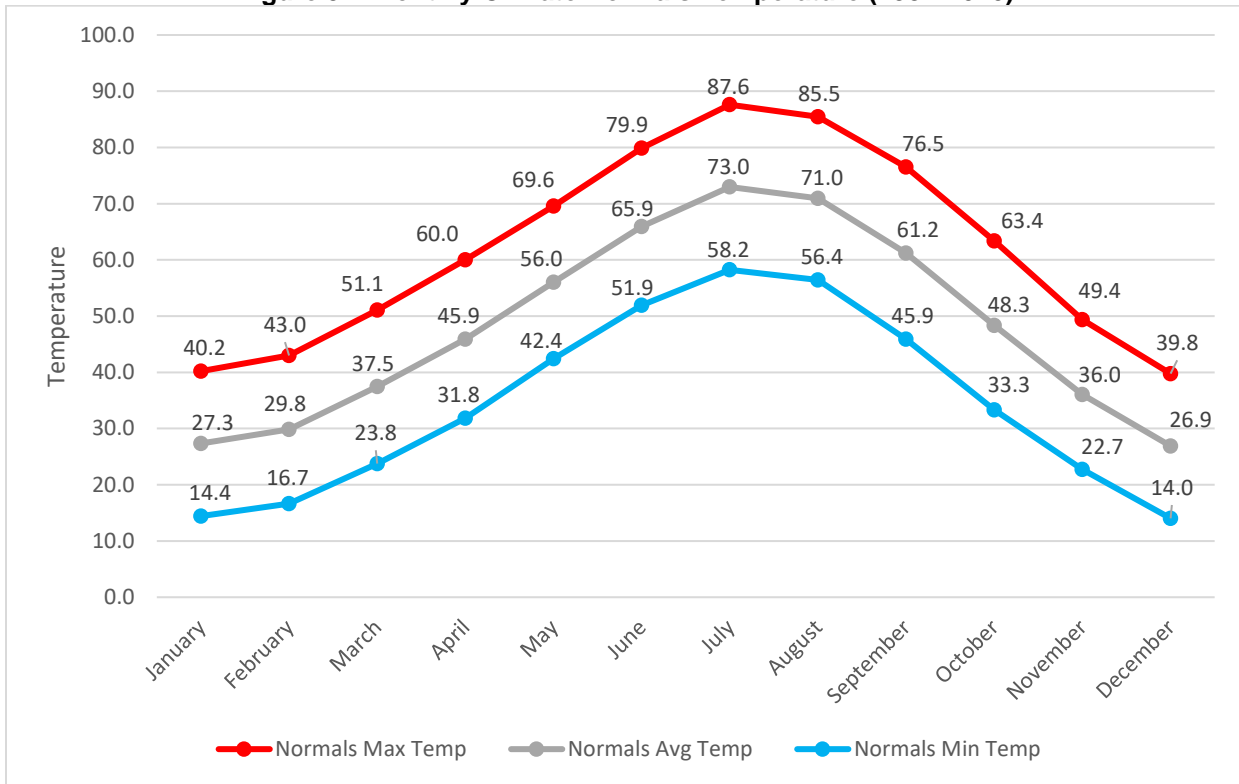
Figure 53: Wind Chill Index Chart



Source: NWS, 2017¹¹¹

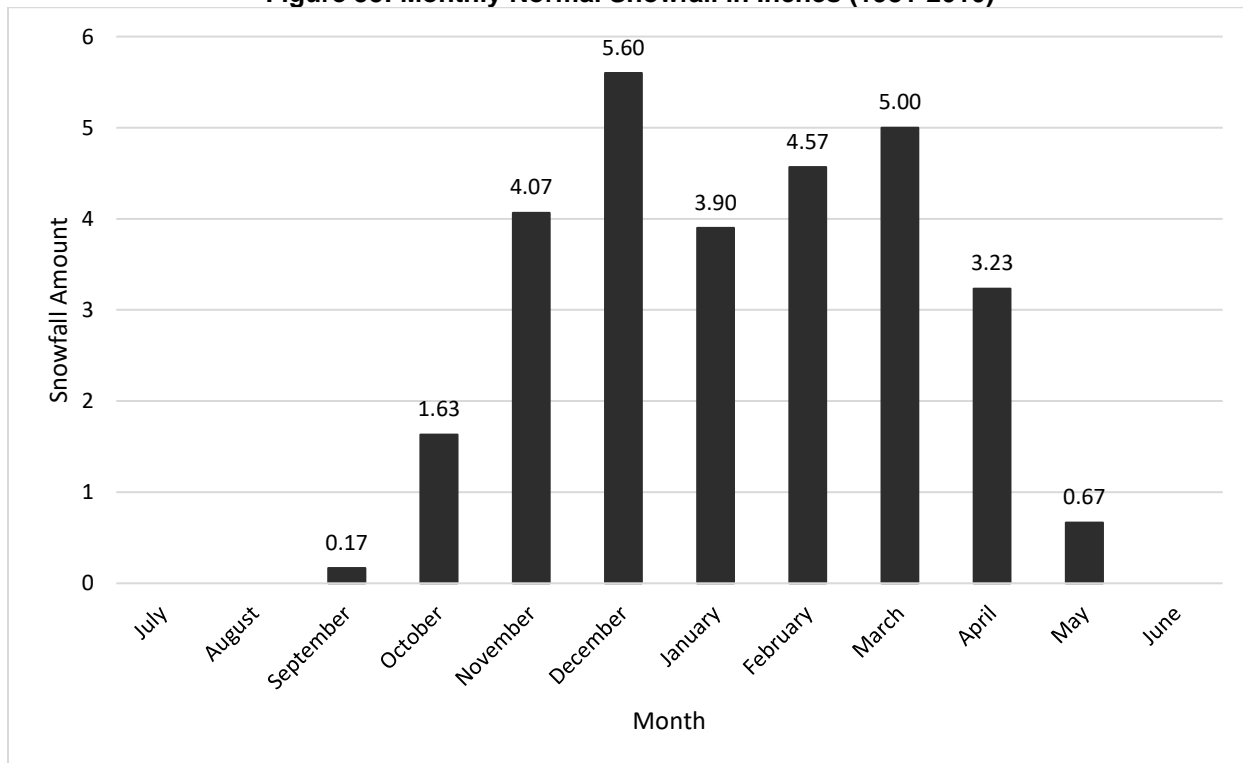
111 National Weather Service. 2001. "Wind Chill Chart." <https://www.weather.gov/safety/cold-wind-chill-chart>.

Figure 54: Monthly Climate Normals Temperature (1981-2010)



Source: NCEI, 2021

Figure 55: Monthly Normal Snowfall in Inches (1981-2010)



Source: High Plains Regional Climate Center, 2021

Historical Occurrences

Due to the regional scale of severe winter storms, the NCEI reports events as they occur in each county. According to the NCEI, there were a combined 273 severe winter storm events for the planning area from 1996 to April 2021. February had the most recorded events for the planning area. These recorded events caused a total of \$799,200 in reported property damages and \$21,176,066 in crop damages.

According to the NCEI, there were 22 injuries and four fatalities associated with winter storms in the planning area. Additional information from these events from NCEI and reported by each community are listed in *Section Seven: Community Profiles*.

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 six 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 \$30,738 per year in property damage and \$814,464 per year in crop damages for the planning area.

Table 87: Severe Winter Storm 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	43	1.7	\$110,000	\$4,231	\$21,176,066	\$814,464
Heavy Snow	53	2	\$5,000	\$192		
Ice Storm	1	0.04	\$50,000	\$1,923		
Winter Storm	119	4.6	\$496,000	\$19,077		
Winter Weather	35	1.3	\$138,200	\$5,315		
Extreme Cold/Wind Chill	22	0.8	\$0	\$0		
Total	273	10.5	\$799,200	\$30,738		

Source: 1 Indicates data is from NCEI (1996-April 2021); 2 Indicates data is from USDA RMA (2000-2020)

Probability

Based on historical records and reported events, severe winter storm events are likely to occur on an annual basis. The NCEI reported a severe winter storm event in 26 of 26 years, resulting in 100% percent chance annually for severe winter storms.

Community Top Hazard Status

The following table lists jurisdictions which identified Severe Winter Storms as a top hazard of concern:

Jurisdictions	
Big Springs	Kimball County
Bushnell	Kimball Public Schools

Cheyenne County	Potter Fire District
Chappell	Region 21 EMA
Dalton	Sidney
Deuel County	Sidney Fire District
Kimball	Sidney Public Schools
Leyton Public Schools	

Regional Vulnerabilities

The following table provides information related to regional vulnerabilities; for jurisdictional-specific vulnerabilities, refer to *Section Seven: Community Profiles*.

Table 88: 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 -Citizens without adequate heat and shelter at higher risk of injury or death
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
Infrastructure	-Heavy snow and ice accumulation can lead to downed power lines and prolonged power outages -Transportation may be difficult or impossible during blizzards, heavy snow, and ice events
Critical Facilities	-Emergency response and recovery operations, communications, water treatment plants, and others are at risk to power outages, impassable roads, and other damages
Climate	-Changes in seasonal precipitation and temperature normals can increase frequency and magnitude of severe winter storm events

Terrorism and Civil Disorder

Terrorism and civil disorder are broad terms typically used by law enforcement to describe groups of people protesting major socio-political problems by choosing not to observe a law or regulation or the unlawful use of force and violence against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof in furtherance of political or social objectives. Though peaceful public demonstrations are allowed under US Federal law, any domestic situations such as a strike or riot involving three or more people could be considered civil disorder if the demonstration has devolved into having a potential for causing injuries, casualties, or property damage.^{112,113}

According to the Federal Bureau of Investigation (FBI), there is no single, universally accepted definition of terrorism. Terrorism is defined in the Code of Federal Regulations as “the unlawful use of force and violence against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof in furtherance of political or social objectives”.¹¹⁴ Terrorist activities are also classified based on motivation behind the event (such as religious fundamentalism, national separatist movements, and social revolutionary movements). Terrorism can also be random with no ties to ideological reasoning.

The FBI further describes terrorism as either domestic or international, depending on the origin, base, and objectives of the terrorist organization. For this plan, the following definitions from the FBI will be used:

- Domestic terrorism is the unlawful use, or threatened use, of force or violence by a group or individual based and operating entirely within the United States or Puerto Rico without foreign direction committed against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof in furtherance of political or social objectives.
- International terrorism involves violent acts or acts dangerous to human life that are a violation of the criminal laws of the United States or any state, or that would be a criminal violation if committed within the jurisdiction of the United States or any state. These acts appear to be intended to intimidate or coerce a civilian population, influence the policy of a government by intimidation or coercion, or affect the conduct of a government by assassination or kidnapping. International terrorist acts occur outside the United States or transcend national boundaries in terms of the means by which they are accomplished, the persons they appear intended to coerce or intimidate, or the locale in which their perpetrators operate or seek asylum.

There are different types of terrorism depending on the target of attack, which are:

- Political terrorism
- Bio-terrorism
- Cyber-terrorism

¹¹² Civil Disorders, 18 U.S. Code § 231-233 (1992)

¹¹³ Terrorism, 28 U.S. Code § 0.85.

¹¹⁴ Terrorism, 28 U.S. Code Section 0.85

- Eco-terrorism
- Nuclear-terrorism
- Narco-terrorism
- Agro-terrorism

U.S. Code on civil disorder considers the following actions to be civil disorder:

- (1) Whoever teaches or demonstrates to any other person the use, application, or making of any firearm or explosive or incendiary device, or technique capable of causing injury or death to persons, knowing or having reason to know or intending that the same will be unlawfully employed for use in, or in furtherance of, a civil disorder which may in any way or degree obstruct, delay, or adversely affect commerce or the movement of any article or commodity in commerce or the conduct or performance of any federally protected function; or
- (2) Whoever transports or manufactures for transportation in commerce any firearm, or explosive or incendiary device, knowing or having reason to know or intending that the same will be used unlawfully in furtherance of a civil disorder; or
- (3) Whoever commits or attempts to commit any act to obstruct, impede, or interfere with any fireman or law enforcement officer lawfully engaged in the lawful performance of his official duties incident to and during the commission of a civil disorder which in any way or degree obstructs, delays, or adversely affects commerce or the movement of any article or commodity in commerce or the conduct or performance of any federally protected function

Threat assessment, mitigation, and response to civil disorder and terrorism are federal and state directives that work in conjunction with local law enforcement. Civil disorder and terrorism are addressed at the federal level by the US Department of Homeland Security and at the state level by the Nebraska Emergency Management Agency.

Location

Terrorist activities could occur throughout the entire planning area. In rural areas, concerns are primarily related to agro-terrorism and tampering with water supplies. In urban areas, concerns are related to political unrest, activist groups, and others that may be targeting businesses, police, and government buildings.

Extent

Incidents of civil disorder and terrorism can vary greatly in scale and magnitude, depending on the location of the attack, number of protesters, and reasoning for unrest.

Historical Occurrences

To identify any incidence of civil disorder or terrorism in the planning area, data was 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 (START). This database contains information for over 140,000 terrorist attacks. According to this database, there were zero civil disorder or terrorist incidents within the planning area from 1970-2017.

Average Annual Damages

According to the START Global Terrorism Database (1970-2017) no civil disorder or terrorist events have occurred in the planning area. As there were no such events within the planning area, there were no average annual damages.

Probability

Given zero incidences over a 48-year period, the annual probability for civil disorder and terrorism in the planning area has a less than one percent chance of occurring during any given year. This does not indicate that an event will never occur within the planning area, only that the likelihood of such an event is incredibly low.

Community Top Hazard Status

Kimball Public Schools was the only jurisdictions that identified Terrorism and Civil Disorder as a top hazard of concern.

Regional Vulnerabilities

The following table provides information related to regional vulnerabilities; for jurisdictional-specific vulnerabilities, refer to *Section Seven: Community Profiles*.

Table 89: Regional Terrorism Vulnerabilities

Sector	Vulnerability
People	-Police officers and first responders at risk of injury or death -Civilians at risk of injury or death -Students and staff at school facilities at risk of injury or death from school shootings
Economic	-Damaged businesses can cause loss of revenue and loss of income for workers -Agricultural attacks could cause significant economic losses for the region -Risk of violence in an area can reduce income flowing into and out of that area
Built Environment	-Targeted buildings may sustain heavy damage
Infrastructure	-Water supply, power plants, utilities may be damaged
Critical Facilities	-Police stations and government offices are at a higher risk
Climate	-None

Tornadoes

A tornado is typically associated with a supercell thunderstorm. For a rotation to be classified as a tornado, three characteristics must be met:

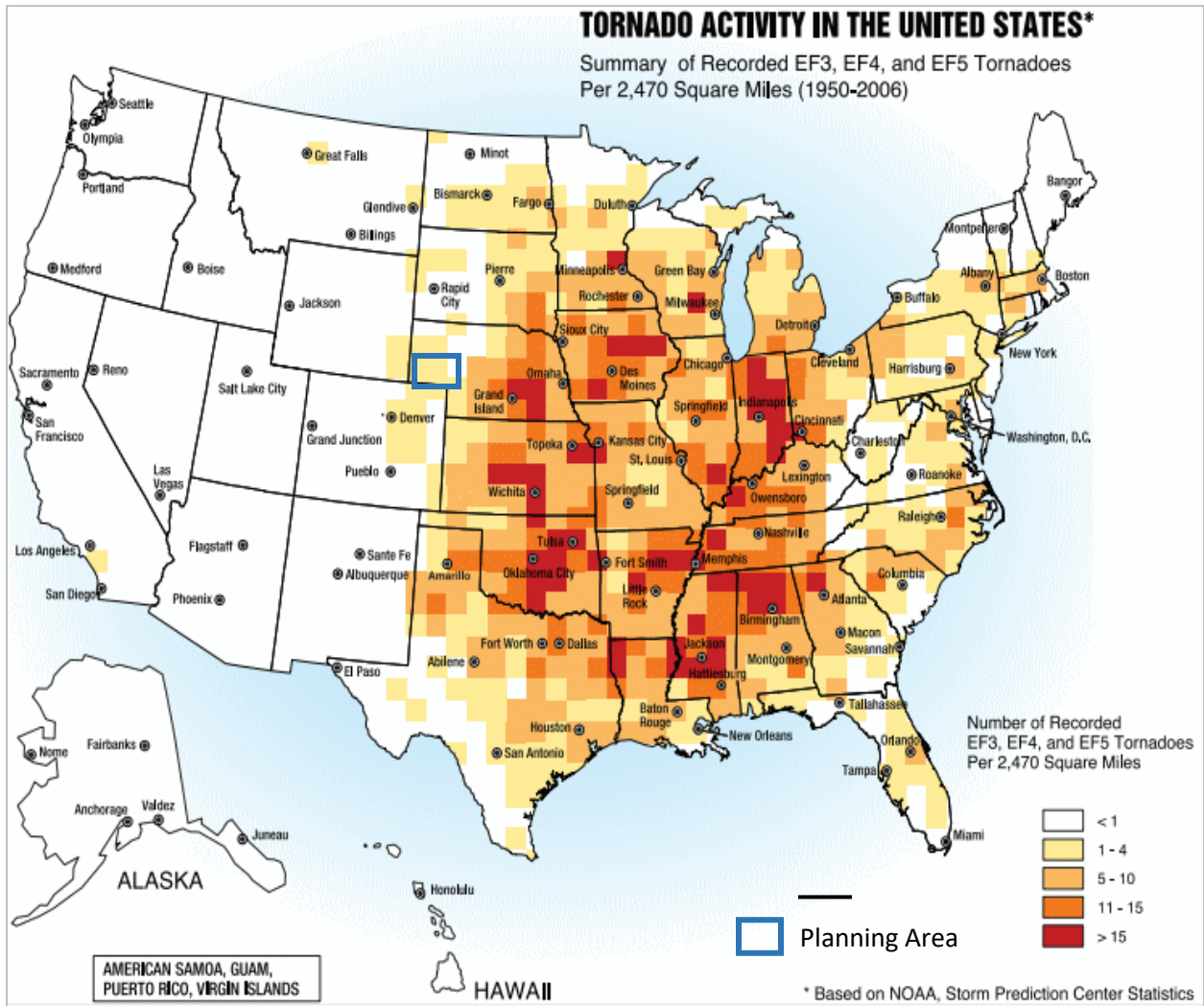
- There must be a microscale rotating area of wind, ranging in size from a few feet to a few miles wide;
- The rotating wind, or vortex, must be attached to a convective cloud base and must be in contact with the ground; and,
- The spinning vortex of air must have caused enough damage to be classified 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.” Approximately 1,250 tornadoes are reported annually in the contiguous United States. Tornadoes can travel distances over 100 miles and reach over 11 miles above ground. Tornadoes usually stay on the ground no more than 20 minutes. Nationally, the tornado season typically occurs between April and July. On average, 80% of tornadoes occur between noon and midnight. In Nebraska, 77% of all tornadoes occur in the months of May, June, and July.

Nebraska is ranked fifth in the nation for tornado frequency with an annual average of 57 tornadoes between 1991 to 2010.¹¹⁵ Figure 56 shows the tornado activity in the United States as a summary of recorded EF3, EF4, and EF5 tornadoes per 2,470 square miles from 1950 through 2006.

¹¹⁵ National Centers for Environmental Information. 2013. “U.S. Tornado Climatology.” <https://www.ncdc.noaa.gov/climate-information/extreme-events/us-tornado-climatology>.

Figure 56: Tornado Activity in the United States



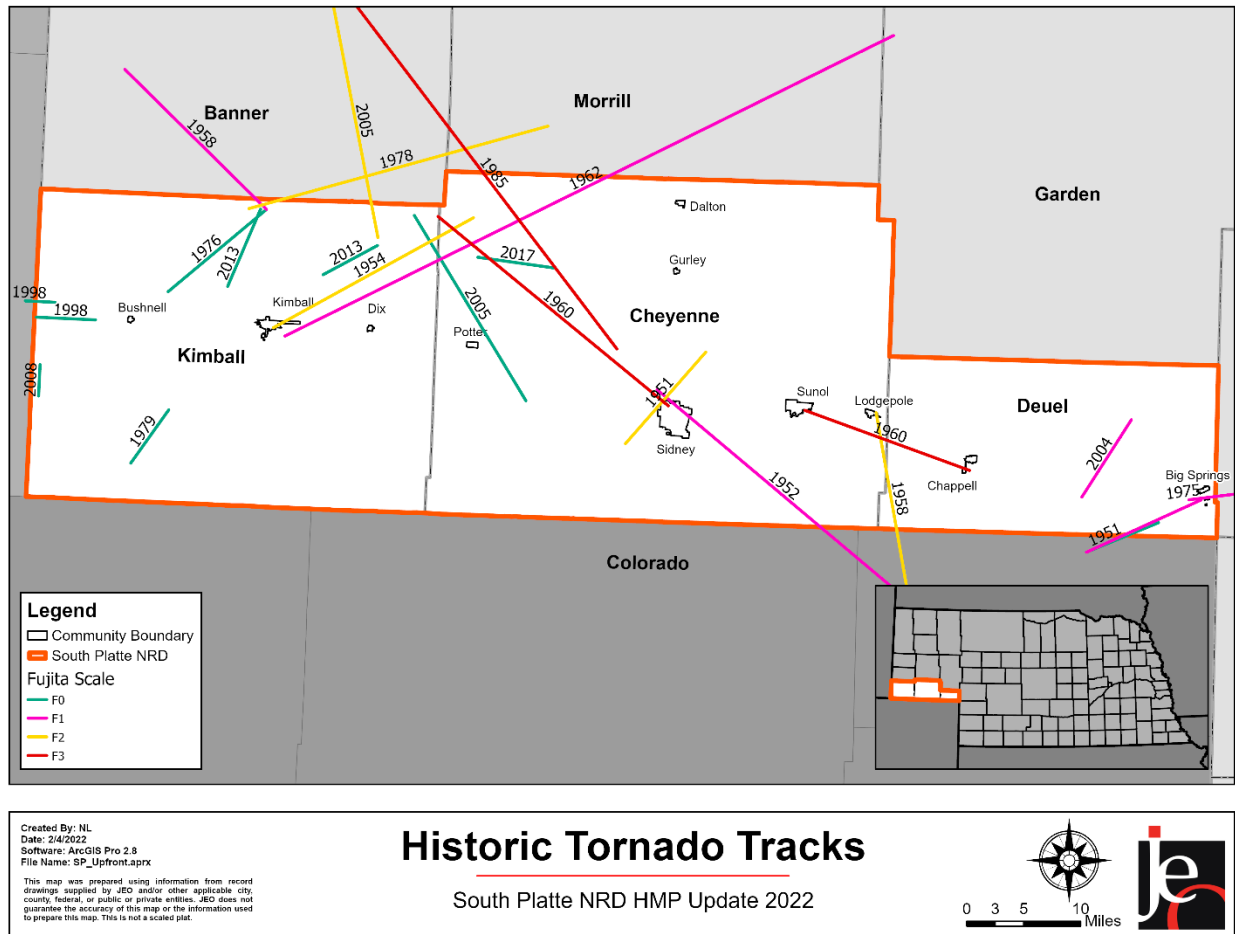
Source: FEMA, 2008¹¹⁶

Location

Tornadoes can occur anywhere in the planning area. The impacts would likely be greater in more densely populated areas. Figure 57 shows the historical track locations across the region from 1950 to 2017 according to the Midwestern Regional Climate Center.

¹¹⁶ Federal Emergency Management Agency. August 2008. "Taking Shelter From the Storm: Building a Safe Room for Your Home or Small Business, 3rd edition."

Figure 57: Historic Tornado Tracks

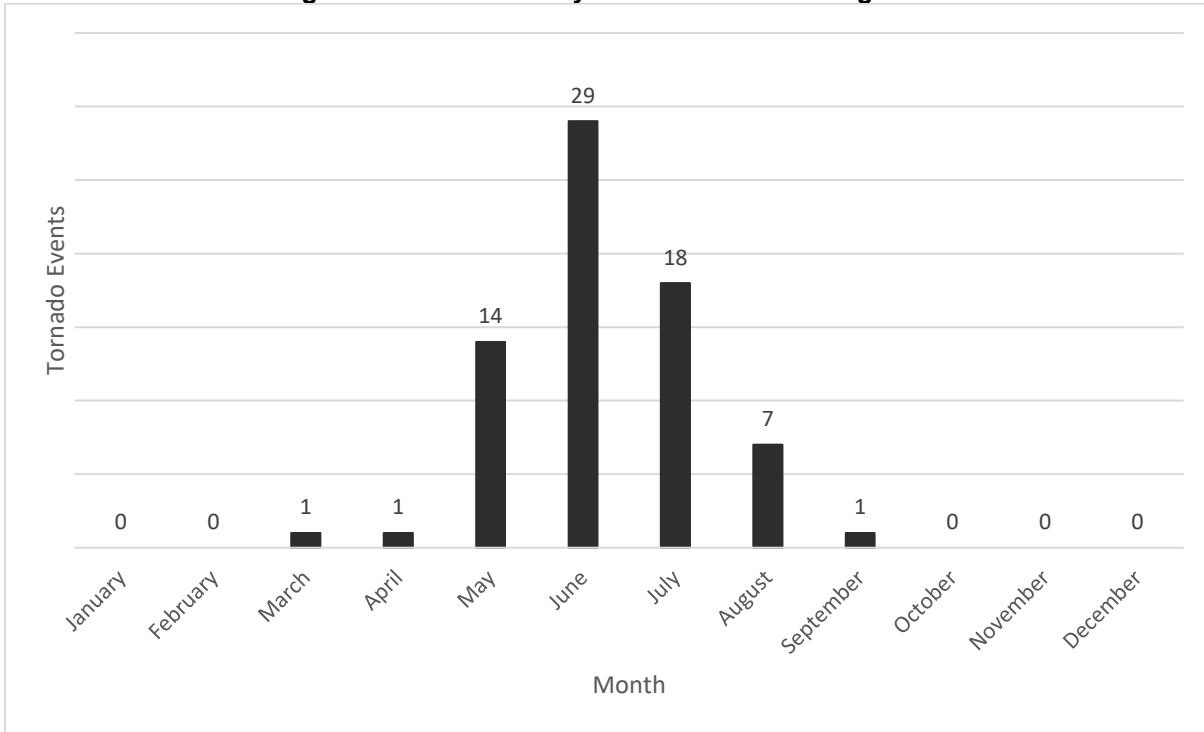


Historical Occurrences

The NCEI reported a total of 71 tornado events from January 1996 to April 2021. The events caused an estimated \$248,000 in property damage, \$9,475 in crop damage, and resulted in two injuries. In June 2018 an EF1 tornado caused \$125,000 in damages near Big Springs. The tornado hit two farmsteads in its path, damaging buildings and flipping over two irrigation pivots.

Figure 58 shows that the month of June is the busiest month of the year followed by July and May with the highest number of tornadoes in the planning area.

Figure 58: Tornadoes by Month in the Planning Area



Source: NCEI, 1996-April 2021

Extent

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. The following tables summarize the Enhanced Fujita Scale and damage indicators. According to a recent report from 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.¹¹⁷

¹¹⁷ 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."

Table 90: Enhanced Fujita Scale

Storm Category	3 Second Gust (mph)	Damage Level	Damage Description
EF0	65-85 mph	Gale	Some damages to chimneys; breaks branches off trees; pushes over shallow-rooted trees; damages to sign boards.
EF1	86-110 mph	Weak	The lower limit is the beginning of hurricane wind speed; peels surface off roofs; mobile homes pushed off foundations or overturned; moving autos pushed off the roads; attached garages might be destroyed.
EF2	111-135 mph	Strong	Considerable damage. Roofs torn off frame houses; mobile homes demolished; boxcars pushed over; large trees snapped or uprooted; light object missiles generated.
EF3	136-165 mph	Severe	Roof and some walls torn off well-constructed houses; trains overturned; most trees in forest uprooted.
EF4	166-200 mph	Devastating	Well-constructed houses leveled; structures with weak foundations blown off some distance; cars thrown, and large missiles generated.
EF5	200+ mph	Incredible	Strong frame houses lifted off foundations and carried considerable distances to disintegrate; automobile sized missiles fly through the air in excess of 100 meters; trees debarked; steel re-enforced concrete structures badly damaged.
EF No rating	--	Inconceivable	Should a tornado with the maximum wind speed in excess of F5 occur, the extent and types of damage may not be conceived. A number of missiles such as iceboxes, water heaters, storage tanks, automobiles, etc. will create serious secondary damage on structures.

Source: NOAA; FEMA

Table 91: 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 home (MHSW)	17	Low-rise (1-4 story) bldg.
4	Double-wide mobile home	18	Mid-rise (5-20 story) bldg.
5	Apartment, condo, townhouse (3 stories or less)	19	High-rise (over 20 stories)
6	Motel	20	Institutional bldg. (hospital, govt. or university)
7	Masonry apartment or motel	21	Metal building system
8	Small retail bldg. (fast food)	22	Service station canopy
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 bldg.	26	Free standing pole (light, flag, luminary)

13	Automobile showroom	27	Tree - hardwood
14	Automotive service building	28	Tree - softwood

Source: NOAA; FEMA

Based on historic record, it is most likely that tornadoes within the planning area will be of EF0 strength. Of the 71 reported tornado events, 65 were EF0, and six were EF1.

Average Annual Damages

The average damage per event estimate was determined based upon NCEI Storm Events Database since 1996 and number of historical occurrences. This does not include losses from displacement, functional downtime, economic loss, injury, or loss of life. It is estimated that tornadoes cause an average of \$9,538 per year in property damage and \$451 per year in crop damage.

Table 92: Tornado Loss Estimate

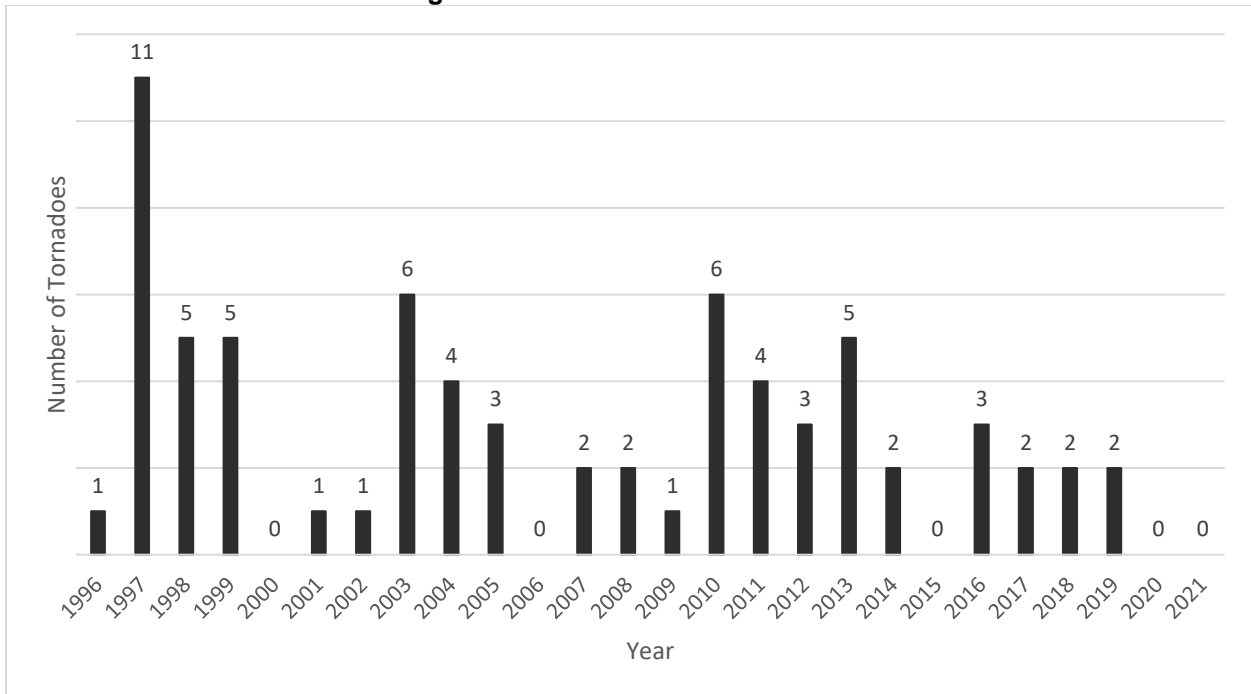
Hazard Type	Number of Events ¹	Average Events Per Year	Total Property Loss ¹	Average Annual Property Loss ¹	Total Crop Loss ²	Average Annual Crop Loss ²
Tornado	71	2.7	\$248,000	\$9,538	\$9,475	\$451

Source: 1 Indicates data is from NCEI (1996 to April 2021); 2 Indicates data is from USDA RMA (2000 to 2020)

Probability

Based on historical records and reported events, it is likely that tornadic events will occur within the planning area annually. For the 26 years examined, 17 had a reported tornado event, making the annual probability of tornadoes 65%.

Figure 59: Tornado Events Per Year



Source: NCEI, 1996-April 2021

Community Top Hazard Status

The following table lists jurisdictions which identified Tornadoes as a top hazard of concern:

Jurisdictions	
Big Springs	Lodgepole Fire District
Bushnell	Potter
Dalton	Region 21 EMA
Deuel County	Sidney
Kimball Municipal Airport	Sidney Public Schools
Kimball Public Schools	South Platte NRD
Leyton Public Schools	

Regional Vulnerabilities

The following table provides information related to regional vulnerabilities; for jurisdictional-specific vulnerabilities, refer to *Section Seven: Community Profiles*.

Table 93: Regional Tornado Vulnerabilities

Sector	Vulnerability
People	<ul style="list-style-type: none"> -Vulnerable populations include those living in mobile homes (especially if they are not anchored properly), nursing homes, and/or schools -People outdoors during events -Citizens without access to shelter below ground or in safe rooms -Elderly with decreased mobility or poor hearing may be higher risk -Lack of multiple ways of receiving weather warnings, especially at night
Economic	<ul style="list-style-type: none"> -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	<ul style="list-style-type: none"> -All building stock is at risk of significant damages
Infrastructure	<ul style="list-style-type: none"> -Downed power lines and power outages -All above ground infrastructure at risk to damages -Impassable roads due to debris blocking roadways
Critical Facilities	<ul style="list-style-type: none"> -All critical facilities are at risk to damages and power outages
Climate	<ul style="list-style-type: none"> -Changes in seasonal precipitation and temperature normals can increase frequency and magnitude of severe storm events

Section Five: 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. These actions should consider the most cost effective and technically feasible manner to address risk.

The establishment of goals and objectives took place during the kick-off meeting with the Hazard Mitigation Planning Team. Meeting participants reviewed the goals from the 2017 HMP and discussed recommended additions and modifications. The intent of each goal and set of objectives is to develop strategies to account for risks associated with hazards and identify ways to reduce or eliminate those risks.

The Hazard Mitigation Planning Team voted to maintain the same list of goals from the 2017 HMP. These goals and objectives were then shared with all planning team members at the Round 1 public meetings.

Summary of Changes

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

Goals

Below is the final list of goals as determined for this plan update. These goals provide direction to guide participants in reducing future hazard related losses.

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.

Goal 1: Protect the Health and Safety of the Public

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

Goal 2: Reduce Future Losses from Hazard Events

- Objective 2.1: Provide protection for existing structures, future development, critical facilities, services, utilities, and trees to the extent possible.
- Objective 2.2: Develop hazard-specific plans, conduct studies or assessments, and retrofit jurisdictions to mitigate for 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 on the Vulnerability to Hazards

- Objective 3.1: Develop and provide information to residents and businesses about the types of hazards they are exposed to, what the effects may be, where they occur, and what they can do to better prepare for them.

Goal 4: Improve Emergency Management Capabilities

- Objective 4.1: Develop or improve Emergency Response Plans, procedures, and abilities.
- Objective 4.2: Develop or improve Evacuation Plans and procedures.
- Objective 4.3: Improve warning systems and ability to communicate to the public during and following a disaster or emergency.

Goal 5: Pursue Multi-Objective Opportunities (whenever possible)

- Objective 5.1: When possible, use existing resources, agencies, and programs to implement the projects.
- Objective 5.2: When possible, implement projects that achieve several goals.

Selected Mitigation and Strategic Actions

Local planning teams evaluated and prioritized mitigation and strategic actions. These actions included: the mitigation and strategic actions identified per jurisdiction in the previous plan; additional mitigation and strategic actions discussed during the planning process; and recommendations from JEO for additional mitigation and strategic actions based on risk probability and vulnerability at the local level.

The Hazard Mitigation Planning Team provided each participant a link to the FEMA Handbook as a list of mitigation actions to be used as a starting point. Participants were also encouraged to think of actions that may need FEMA grant assistance and to review their hazard prioritization for potential mitigation actions. These suggestions helped participants determine which actions would best assist their respective jurisdiction in alleviating damages in the event of a disaster. The listed priority rating does not indicate which actions will be implemented first but serves as a guide in determining the order in which each action should be implemented. Participants were informed of the STAPLEE (Social, Technical, Administrative, Political, Legal, Economic,

Environmental) feasibility review process and were encouraged to use it when determining project priorities.

These prioritized projects are the core of a hazard mitigation plan. The local planning teams were instructed that each action must directly relate to the goals of the plan and the hazards of top concern for their jurisdiction. Actions must be specific activities that are concise and can be implemented individually. Mitigation and strategic actions were evaluated based on referencing the community's risk assessment and capability assessment. Jurisdictions were encouraged to choose mitigation and strategic actions that were realistic and relevant to the concerns identified.

A final list of alternatives was established including the following information: description of action; which hazard(s) the action addresses; responsible party; priority; cost estimate; potential local funding sources; and estimated timeline. This information was established through input from participants and determination by the Hazard Mitigation Planning Team.

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. The cost estimates, priority rating, potential funding, and identified agencies are used to give communities an idea of what actions may be most feasible over the next five years. This information will serve as a guide for the participants to assist in hazard mitigation for the future. Also, some jurisdictions may identify and pursue additional mitigation and strategic actions not identified in this HMP.

Participant Mitigation and Strategic Actions

Mitigation and strategic actions identified by participants of the South Platte NRD HMP are found in the Mitigation and Strategic Actions Project Matrix below. Additional information about selected actions can be found in respective *Section Seven: Community Profiles*. Each action includes the following information in the respective community profile.

- Action: General title of the action item.
- Description: Brief summary of what the action item(s) will accomplish.
- Hazard(s) Addressed: Which hazard the action aims to address.
- Estimated Cost: General cost estimate for implementing the action for the appropriate jurisdiction.
- 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); priority may vary between each community, mostly dependent on funding capabilities and the size of the local tax base.
- 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 for any projects listed is beyond the scope of this plan and could potentially be completed prior to submittal of a project grant application or as part of an annual or five-year update. Completed, removed, and ongoing or new

mitigation actions for each participating jurisdiction can be found in *Section Seven: Community Profiles*.

Mitigation and Strategic Actions Project Matrix

During public meetings, each participant was asked to review mitigation and strategic projects listed in the 2017 HMP and identify new potential actions, if needed, to reduce the effects of the hazards profiled for their area. Selected projects varied per jurisdiction depending upon the significance of each hazard present. The information listed in the following tables is a compilation of new and ongoing mitigation and strategic actions identified by jurisdiction. Completed and removed actions can be found in respective community profiles.

Table 94: Mitigation and Strategic Actions Selected by Each Jurisdiction (1 of 2)

Actions	Goal	South Platte NRD	Region 21 EMA	Cheyenne County	Village of Dalton	Village of Gurley	Village of Lodgepole	Village of Potter	City of Sidney	Deuel County	Village of Big Springs	City of Chappell	Kimball County	Village of Bushnell	City of Kimball
Alert/Warning Sirens	1.1, 4.3, 5.2	X	X	X				X				X			
Backup and Emergency Generators	1.1		X		X		X		X				X	X	X
Backup Municipal Records	1.1					X			X						
Bank Stabilization	2.1						X		X		X				
Channel and Bridge Improvements	2.1						X								
Civil Service Improvements	1.1, 2.1			X			X							X	X
Clean Culverts/ Deepen Drainage Ditches	2.1			X			X								
Comprehensive City Disaster/Emergency Response Plan	1.1, 4.1	X												X	X
Community Wildfire Prevention Plan	2.2							X							
Continuity Planning	4.1,4.2														X
Crop Insurance	1.1, 2.1						X								
Dam Failure Exercises	4.1, 4.2	X													
Dam Maintenance/ Improvements	2.1	X													
Drainage Study/Stormwater Master Plan	2.2						X								X
Drought Response Regulations/ Protocols	2.2, 2.3	X					X								
Electrical System Looped Distribution/ Redundancies	2.1						X								X
Emergency Action Plan	4.1, 4.2						X								

Section Five | Mitigation Strategy

Actions	Goal	South Platte NRD	Region 21 EMA	Cheyenne County	Village of Dalton	Village of Gurley	Village of Lodgepole	Village of Potter	City of Sidney	Deuel County	Village of Big Springs	City of Chappell	Kimball County	Village of Bushnell	City of Kimball
Emergency Communication	3.1, 4.3	X	X						X						
Emergency Management Exercise	4.1, 4.2, 5.2		X				X								X
Emergency Operations	4.1		X						X						X
Emergency Water Supply	1.1, 2.1, 5.2														
Evacuation Plan	2.2, 4.2	X													
Facility Flood Proofing	1.1, 2.1, 5.2														X
Fire Prevention Program	3.1, 4.1							X							
Firewise Community	2.2, 2.3							X							
First Aid Training	1.1, 5.1						X		X						
Flood Study	2.2						X								
Floodplain Management	1.1, 2.1, 2.3	X					X	X		X					
Floodplain Regulations Update	2.1, 2.3							X		X					
Flood Prone Property Acquisition	1.1, 2.1	X													
Groundwater/Irrigation/Water Conservation Management Plan and Practices	2.2							X							
Hail Insurance	1.1, 2.1														X
Hazardous Fuels Reduction	2.3														
HAZMAT Training/Awareness	1.1, 3.1		X												
Impact Resistant Roof Coverings	2.1, 2.2														X

Actions	Goal	South Platte NRD	Region 21 EMA	Cheyenne County	Village of Dalton	Village of Gurley	Village of Lodgepole	Village of Potter	City of Sidney	Deuel County	Village of Big Springs	City of Chappell	Kimball County	Village of Bushnell	City of Kimball
Improve/Bury Electrical Lines	2.1								X						X
Improve/Bury Water Distribution Lines	2.1														X
Improve Warning Systems	1.1, 5.1, 5.2														
Infrastructure Hardening	2.1														X
Land Use Regulations	2.3												X		X
Lightning Rods/Static Detectors	1.1, 2.1, 5.2														X
Mutual Aid	4.1														X
New Municipal Well	1.1						X								
Participate in the CRS	2.2, 5.1						X								X
Participate in the NFIP	2.2, 5.1												X		
Public Awareness/Education	1.1,3.1, 3.2, 5.2	X	X	X	X		X	X	X	X	X	X	X	X	X
Purchase Snowplow	1.1,2.1, 4.3, 5.2			X	X										
Remove Hazardous Trees	1.1, 2.1, 5.2	X					X	X	X						X
Short Term Residency Shelters	2.1, 4.2		X												
Stabilize/Anchor Fuel Tanks	2.1							X							
Storm Shelters / Safe Rooms	1.1		X		X		X	X		X				X	
Stormwater Management Committee	2.2,2.3, 5.1, 5.2														
Stormwater System and Drainage Improvements	2.1	X					X	X		X				X	X
Tree City USA	2.1						X								X

Section Five | Mitigation Strategy

Actions	Goal	South Platte NRD	Region 21 EMA	Cheyenne County	Village of Dalton	Village of Gurley	Village of Lodgepole	Village of Potter	City of Sidney	Deuel County	Village of Big Springs	City of Chappell	Kimball County	Village of Bushnell	City of Kimball
Tree Planting	2.1, 5.2								X						
Vehicular Barriers	2.1						X								
Water Conservation Awareness	1.1, 5.2												X		
Weather Radios	3.1, 4.3		X			X	X				X				X
Well Head Protection Plan	2.1, 2.2										X				
Windbreak Improvements	1.1, 2.1, 5.2	X													

Table 95: Mitigation and Strategic Actions Selected by Each Jurisdiction (2 of 2)

Actions	Goal	Bushnell Fire District	Dix Fire District	Kimball Municipal Airport	Kimball Public Schools	Leyton Public Schools	Lodgepole Fire District	Potter Fire District	Sidney Fire District	Sidney Public Schools
Alert/Warning Sirens	1.1, 4.3, 5.2						X			
Backup and Emergency Generators	1.1			X	X			X	X	X
Backup Municipal Records	1.1					X				
Civil Service Improvements	1.1, 2.1		X	X				X	X	
Electrical System Looped Distribution/ Redundancies	2.1				X					
Emergency Communication	3.1, 4.3					X				
Emergency Water Supply	1.1, 2.1, 5.2	X								
Firewise Community	2.2, 2.3							X		
Hazardous Fuels Reduction	2.3							X		
HAZMAT Training/Awareness	1.1, 3.1	X								
Impact Resistant Roof Coverings	2.1, 2.2									X
Improve Warning Systems	1.1, 5.1, 5.2				X					
Infrastructure Hardening	2.1					X				
Land Use Regulations	2.3									
Lightning Rods/Static Detectors	1.1, 2.1, 5.2						X			
Purchase Snowplow	1.1, 2.1, 4.3, 5.2					X				X
Storm Shelters / Safe Rooms	1.1			X	X	X				
Tree Planting	2.1, 5.2									
Vehicular Barriers	2.1				X	X				

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Section Six: Plan Implementation and Maintenance

Monitoring, Evaluating, and Updating the Plan

Each participating jurisdiction in the South Platte NRD HMP is responsible for monitoring (annually at a minimum), evaluating, and updating the plan during its five-year lifespan. Hazard mitigation and strategic projects will be prioritized by each participant's governing body with support and suggestions from the public and business owners. Unless otherwise specified by each participant's local planning team, the governing body will be responsible for implementing the recommended projects. The responsible party for the various implementation actions will report on the status of all projects and include which implementation processes worked well, any difficulties encountered, how coordination efforts are proceeding, and which strategies could be revised.

As projects or mitigation and strategic actions are implemented, a detailed timeline of how that project was completed should be written and attached to the plan in a format selected by the governing body. Information that will be included will address project timelines, agencies involved, area(s) benefited, total cost (if complete), etc. At the discretion of each governing body, local planning team members, and other identified relevant stakeholders should review the original draft of the mitigation plan and recommend applicable changes.

Plan review and updates will occur annually, with a complete update occurring every five years at a minimum. At the discretion of each governing body, updates may be incorporated more frequently, especially in the event of a major hazard or as additional mitigation needs are identified. Local planning team members should engage with the public, other elected officials, and multiple departments as they review and update the plan. The persons overseeing the evaluation process 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:

- 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?

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.

- 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?

Worksheets in *Appendix C* may also be used to assist with plan review and updates.

In addition, the governing body will be responsible for ensuring that the HMP's goals are incorporated into applicable revisions of other planning mechanisms per jurisdiction. These plans may include: Comprehensive Plans, Capital Improvement Plans, Zoning Ordinances, Floodplain Ordinances, Building Codes, and/or Watershed Management Plans. Future updates of this HMP will review and update discussions of plan integration per community as appropriate.

Continued Public Involvement

To ensure continued plan support and input from the public and business owners, public involvement should remain a top priority for each participating jurisdiction. Notices for public meetings involving discussion of an action on mitigation updates should be published and posted in the following locations:

- Public spaces around the jurisdiction
- City/Village Hall
- Websites
- Social media
- Local radio stations
- Local newspapers
- Regionally distributed newsletters

Any amendments to the HMP as determined through public involvement or community actions must be submitted to NEMA for inclusion in the final HMP.

Integrating Other Capabilities

There are a number of state and federal agencies with capabilities that can be leveraged during HMP updates or mitigation and strategic action implementation. A description of some regional resources is provided below.

Nebraska Emergency Management Agency

NEMA is an agency that is a part of the Military Department in the State of Nebraska. NEMA is responsible for the state emergency management oversight, which is usually divided into four phases: preparedness, response, recovery, and mitigation.

NEMA is responsible for developing the state hazard mitigation plan, which serves as a comprehensive set of guidelines for hazard mitigation across the state. The state hazard mitigation officer and other mitigation staff members play an active role in assisting in the development local hazard mitigation plans. Representatives from the state hazard mitigation program serve as technical guides to local planning teams and regularly participate in local mitigation planning meetings. The state hazard mitigation staff also oversees the hazard mitigation assistance programs: HMGP and BRIC; and works with the Governor's taskforce to prioritize projects requesting funding assistance through the HMGP, FMA, and BRIC.

The main objective in NEMA's preparedness process is to develop plans and procedures to help facilitate any response that may need to occur during a hazard event. NEMA assists communities in the development of county or city/village planning documents; assists with the development of exercises for existing plans and procedures; conducts trainings for community officials, assist emergency management related groups (Citizen Emergency Response Teams, Citizen Corps, Medical Reserve Corps, Fire Corps, and other interest groups); and provide technical resources and expertise throughout the state.

NEMA's role during a response is to assist communities in responding to hazard events *when the need for assistance exceeds the local capabilities and resources*. This includes facilitating and tracking grants, coordinating local needs, providing state and federal level assistance through activation of Emergency Operation Centers, Mass Critical Shelters, Emergency Alert Systems and providing technical, logistical, and administrative resources and expertise before, during, and after incidents. The main purpose of the recovery phase is to perform actions that allow the return of normal living, or better conditions. The secondary role of the recovery phase is grant administration and tracking, project monitoring, damage assessment, collaborating with communities on effective recovery options and opportunities, serving as liaison between federal level entities and local representatives, and serving as a technical resource throughout the recovery process. For more information regarding the plans and NEMA's responsibilities as well as their ongoing projects, please go to <http://www.nema.nebraska.gov/>.

Nebraska Department of Natural Resources

The NeDNR is committed to providing Nebraska's citizens and leaders with the data and analyses they need to make appropriate natural resource decisions for the benefit of all Nebraskans both now and in the future. This state agency is responsible in the area of surface water, groundwater, floodplain management, dam safety, natural resource planning, integrated water management, storage of natural resources and related data, and administration of state funds.

NeDNR plays a significant role in protecting and conserving water resources through the oversight of surface and groundwater status and integrated water management. The NeDNR is also responsible for a non-structural program of floodplain management, coordination and assistance with the National Flood Insurance Program as well as the FMA grant program, reviewing and approving engineering plans for new dams, rehabilitating old dams, and high hazard dam emergency preparedness plans. NeDNR was active throughout the hazard planning process and provided extensive resources and technical support for hazard risk and vulnerability analysis such as flood and dam failure. NeDNR also works with communities in many capacities including assisting in flood mapping needs and the completion of Benefit Cost Analysis. For more information regarding NeDNR's responsibilities as well as their ongoing projects, please go to <http://dnr.nebraska.gov/>.

Silver Jackets Program

The Silver Jackets program is also worth mentioning for their extensive role in providing a formal and consistent strategy for an interagency approach to planning and implementing measures to reduce the risks associated with flooding and other natural hazards. It brings together multiple state, federal, and sometimes tribal and local agencies to learn from one another and apply their knowledge to reduce risk. Both NEMA and NeDNR play an active role on the Nebraska Silver Jackets team. At this time the Silver Jackets do not have any projects taking place in the South Platte NRD planning area.

Nebraska Forest Service

The agency's mission statement is "To enrich the lives of all Nebraskans by protecting, restoring and utilizing Nebraska's tree and forest resources". The state agency provides resources, information, and facilitates research to promote healthy forests.

The NFS achieves these goals through a variety of programs. The Rural Forestry Assistance program aids landowners in need of forest management help. Some of these services include assistance and advice on forest and woodlot management, windbreak establishment and management, reforestation, and other forestry related issues. The forest health program is responsible for maintaining a list of the most prominent pest problems in Nebraska along with the trees affected, control recommendations, and timing. The wildland fire protection program is responsible for protecting wildlands from fire. The state does not have a fire suppression force within the forest service like other states. They rely on local firefighters to handle the suppression of these fires. The agency does provide air support and equipment to the local firefighters if the assistance is needed. The agency also assists Nebraska's communities to be ready for wildfire by helping them prepare Community Wildfire Protection Plans. CWPPs gather local resources to enhance wildfire mitigation and preparedness. The plans identify steps for communities to take to help reduce the risk of damage from wildfires. For more information regarding the NFS's responsibilities as well as their ongoing projects, please go to <http://nfs.unl.edu/>.

Unforeseen Opportunities

If new, innovative mitigation strategies 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. South Platte NRD, as the plan sponsor, provides an opportunity for jurisdictions to compile proposed amendments annually and send them to NEMA, and subsequently to FEMA, for a plan amendment. Such amendments should include all applicable information for each proposed action, 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 Hazard Mitigation Into the Local Comprehensive Plan*¹¹⁸ guidance, as well as FEMA's *2015 Plan Integration*¹¹⁹ guide, each jurisdiction engaged in a plan integration discussion. This discussion was facilitated by a Plan Integration Worksheet, created by the Hazard Mitigation Planning Team. This document offered an easy way for participants to notify the Hazard Mitigation Planning Team of existing planning mechanisms, and if they interface with the HMP.

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 participant's *Community Profile*. For jurisdictions that lack existing planning mechanisms, especially smaller villages, the HMP may be used as a guide for future activity and development in the jurisdiction.

118 Federal Emergency Management Agency. July 2020. "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>

119 Federal Emergency Management Agency. July 2015. "Plan Integration: Linking Local Planning Efforts." https://www.fema.gov/sites/default/files/2020-06/fema-plan-integration_7-1-2015.pdf

Section Seven: Community Profiles

Purpose of Community Profiles

Community Profiles contain information specific to jurisdictions participating in the South Platte NRD planning effort. Community Profiles were developed with the intention of highlighting each jurisdiction's unique characteristics that affect its risk to hazards. Community Profiles may serve as a reference of identified vulnerabilities and mitigation and strategic 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 the plan. Community Profiles include the following elements:

- Local Planning Team
- Location and Geography
- Transportation
- Demographics
- Employment and Economics
- Housing
- Future Development Trends
- Structural Inventory and Valuation
- Community Lifelines
- Governance
- Capability Assessment
- Plan Maintenance
- Plan Integration
- Historical Occurrences
- Hazard Prioritization
- Mitigation Strategy

In addition, maps specific to each jurisdiction are included, such as jurisdiction identified critical facilities, flood-prone areas, and a future land use map (when available).

The hazard prioritization information, as provided by individual participants, varies due in large part to the extent of the geographical area, the jurisdiction's designated representatives (who were responsible for completing meeting worksheets), identification of hazards, and occurrence and risk of each hazard type.

The overall risk assessment for the identified hazard types represents the presence and vulnerability to each hazard type throughout the entire planning area. A discussion of certain hazards selected for each Community Profile was prioritized by the local planning team based on the identification of hazards of greatest concern, hazard history, and the jurisdiction's capabilities. The hazards not examined in depth for each community profile can be found in *Section Four: Risk Assessment*.

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District Profile

South Platte Natural Resources District

**South Platte NRD
Hazard Mitigation Plan 2022**

Local Planning Team

Table NRD.1: South Platte NRD Local Planning Team

Name	Title	Jurisdiction
Ryan Reisdorff	Assistant Manager	South Platte NRD
Galen Wittrock	General Manager	South Platte NRD
Travis Glanz	Water Resources Specialist	South Platte NRD

Location and Geography

The South Platte Natural Resources District (SPNRD or NRD) is located in the southern panhandle of Nebraska, and includes three counties: Cheyenne, Deuel and Kimball Counties. The total area of the NRD is 2,589 square miles. Major waterways in the area include Lodgepole Creek and the South Platte River. The NRD is primarily made up of shrub land and herbaceous/grassland land types.

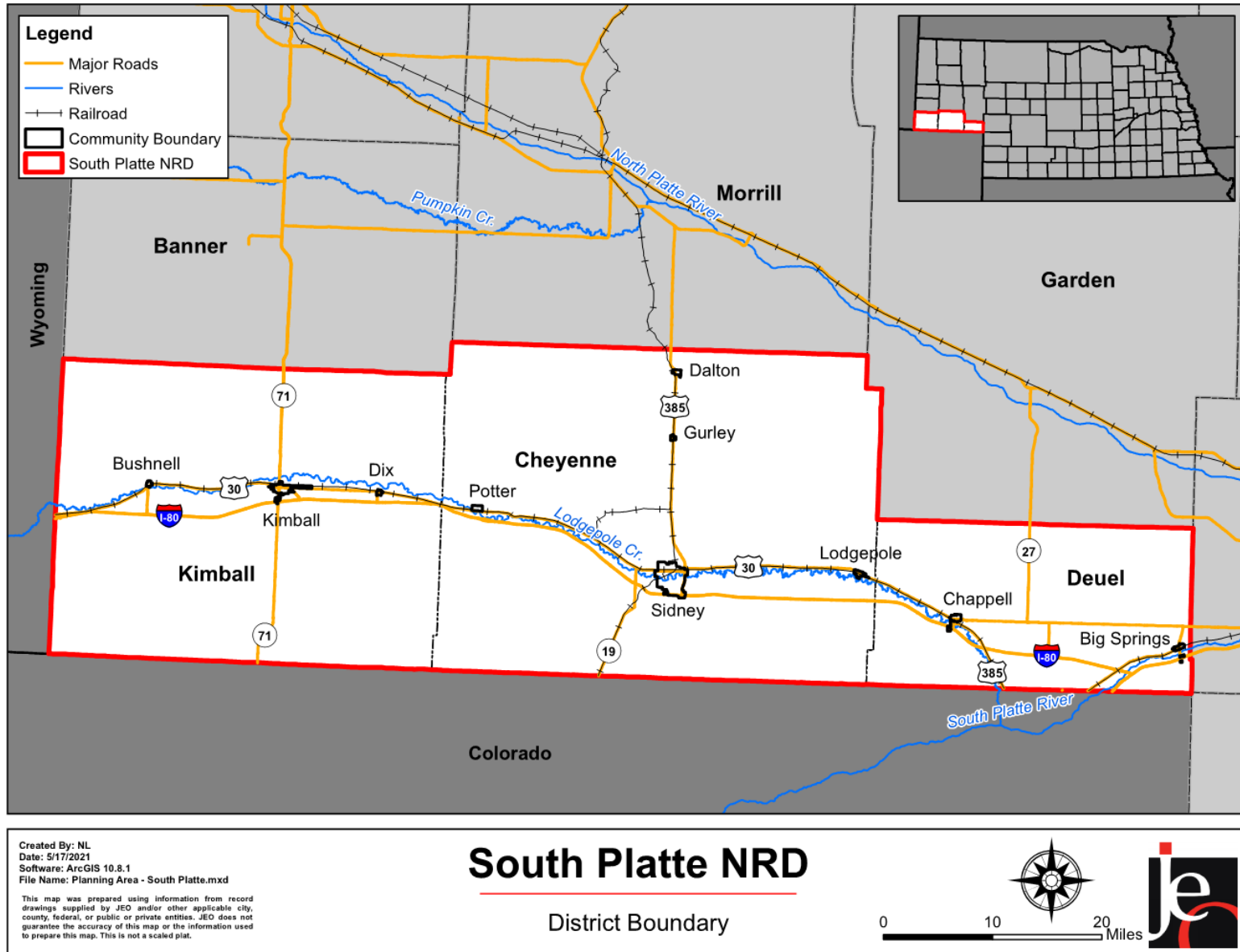
The South Platte NRD is responsible for monitoring water levels, checking the quality of ground water, and maintaining recreational areas throughout the district. The NRD works to consistently update the public on new recreational opportunities, and educational outreach workshops the NRD regularly hosts.

Transportation

The South Platte NRD includes Interstate 80, which is Nebraska's largest travel corridor. In addition to I-80, the NRD also has multiple highways connecting with the county seats of Cheyenne, Deuel and Kimball Counties.

According to the NRD, major roadways are the biggest concerns, Interstate 80, Highway 30, Highway 71, Highway 385, Highway 19, Highway 27 and Highway 138. Many chemicals, primarily agricultural-related, are regularly transported using the highway systems. The NRD does not know what chemicals are being transported using these roadways. The local planning team noted that there was a train derailment in 2015 near Brownson, which is now an unincorporated area within Cheyenne County. Some critical facilities are located along a transportation route and experience a higher level of vulnerability due to the proximity to major transportation routes. The local planning team identified that municipal wells in Kimball, Dix, Sidney, Gurley, Dalton, Lodgepole, and Chappell are located along transportation routes.

Figure NRD.1: South Platte NRD



Demographics

It is estimated that SPNRD serves a population of about 15,068 people throughout the district. However, the NRD does not collect the demographic information of the district's population, nor does the U.S. Census Bureau recognize it as a distinct unit. As a result, there is no population data generated specifically for the NRD. For information regarding population data, please refer to a specific jurisdiction's community profile or to Section Three: Demographics and Asset Inventory.¹

Table NRD.2 South Platte NRD Estimated Population

County	2010 Population	2019 Population	Percent Change
Cheyenne	9,998	9,604	-3.9%
Deuel	1,941	1,831	-5.7%
Kimball	3,821	3,633	-4.9%
Total	15,760	15,068	-4.4%

Source: U.S. Census Bureau²

Future Development Trends

Changes in the past five years include the sale of Cabela's Inc. to Bass Pro Shops. This resulted in the corporate office in Sidney being drastically scaled back. Many of the new home developments that were planned in Sidney, Nebraska have been delayed or cancelled altogether. The housing market in Sidney and the surrounding areas was poor during the last few years. However, more recently the housing market in Sidney has picked back up, and most of the people are thought to be from out-of-state moving into the area.

Clean Harbors, a hazardous waste incinerator, located south of Kimball is expanding to double its capacity by 2023 or 2024. This expansion will create approximately 100 new jobs in Kimball County, plus will require several people to come to town, at least temporarily, for construction of the expansion.

Additionally, the U.S. Air Force is going to updating the Minute Man Missile Silos in the area. Several contractors will be in the area over the next couple of years completing the upgrades. The majority of these contractors will probably be based in Kimball, Nebraska.

Structural Inventory and Valuation

Please refer to the individual community profiles for information regarding parcel improvements, valuation, and discussion for specific jurisdictions across the planning area.

¹ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <https://data.census.gov>.

² United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <https://data.census.gov>.

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

Chemical sites are located throughout the NRD. Complete lists of chemical storage sites in each jurisdiction may be found in their community profile.

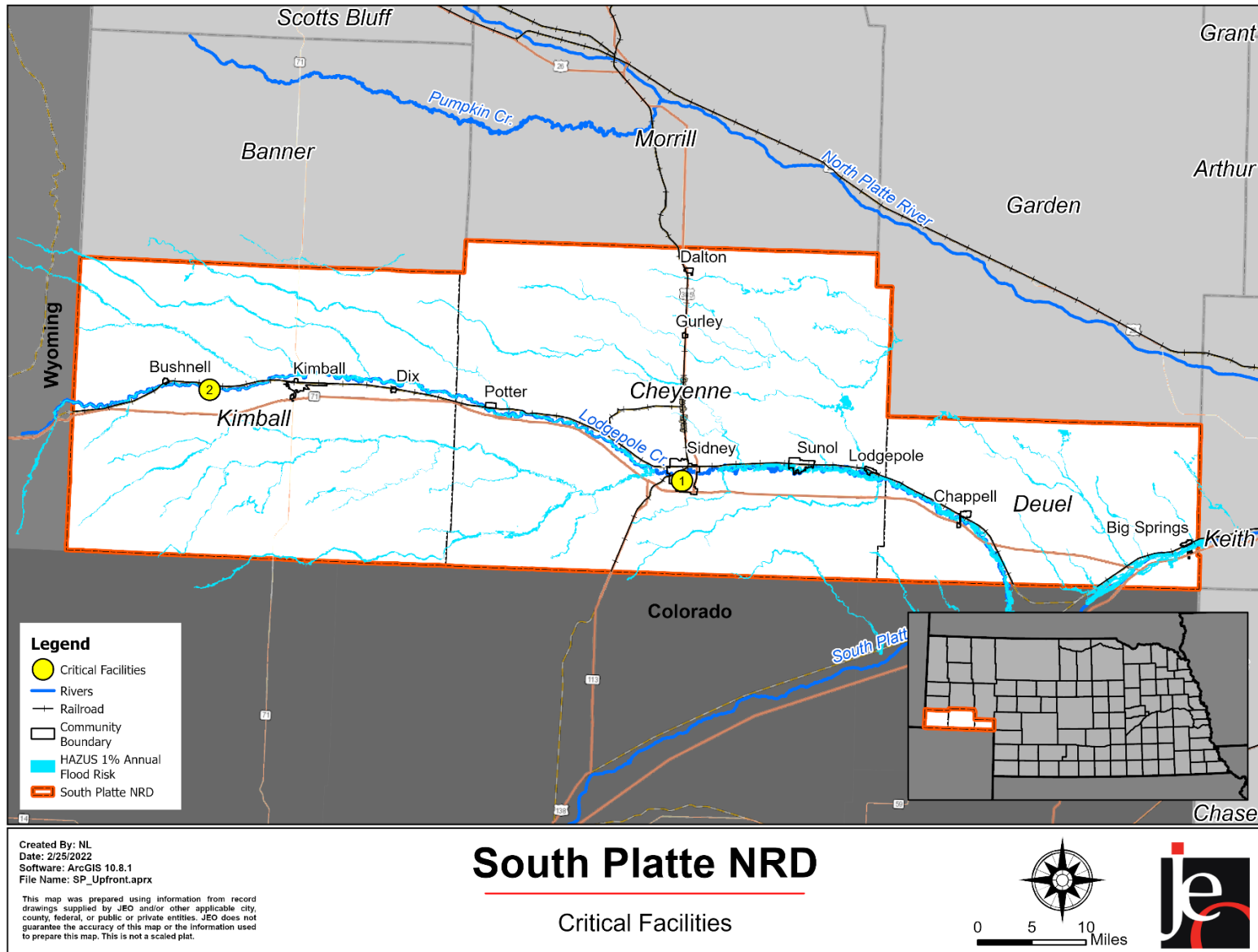
Critical Facilities

The local planning team identified critical facilities that are vital for disaster response, public shelter, and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during the original planning process and updated by the local planning team as a part of this plan update. The following table and figure provide a summary of the critical facilities for the jurisdiction.

Table NRD.3: Critical Facilities

CF #	Name	Shelter (Y/N)	Generator (Y/N)	Floodplain (Y/N)
1	South Platte NRD Offices	N	N	N
2	Oliver Reservoir	N	N	Y

Figure NRD.2: Critical Facilities



Governance

The South Platte NRD is governed locally by a board of seven elected directors and entrusted with a broad range of responsibilities to protect and enhance the district's natural resources. The NRD serves both incorporated and unincorporated areas within their jurisdiction and have the capability to assist villages, cities, and counties financially and administratively with mitigation and strategic actions, most commonly flood control and drainage improvements. The positions of Board Chair, Vice Chair, Secretary, and Treasurer are elected annually from the board of directors.

- General Manager
- Assistant Manager
- Water Resources Coordinator
- Natural Resources Conservationist
- Water Resources Specialist
- Information and Education Coordinator
- Water Resources Technician
- Administrative Manager/Bookkeeper
- District Secretary
- Kimball Field Office Secretary, NRCS
- Sidney Field Office Secretary, NRCS
- Oliver Reservoir Seasonal Workers (2)

Subcommittees

- Executive
- Natural Resources Projects and Programs
- District Operations

Capabilities

The capability assessment consisted of a review of existing policies, regulations, plans, and programs with hazard mitigation capabilities. The following paragraphs and table summarize the NRD's overall capability to implement mitigation projects.

The NRD has the authority to levy taxes to fund projects and programs that fulfill its statutory obligations. In addition, the NRD seeks out partnerships and alternative funding opportunities (e.g., grants) to accomplish NRD goals and implement mitigation strategies. 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.

The NRD has applied for the following grants over the last five years:

- USDA – Regional Conservation Partnership Program – East Sidney Watershed
- Environmental Trust Fund – East Sidney Watershed
- EPA 319 – East Sidney Watershed
- Pre-Disaster Mitigation – this project

SECTION SEVEN: SOUTH PLATTE NRD DISTRICT PROFILE

- Water Sustainability Grant – Expanding Hydrogeological Framework and WWUMM Update
- USBR WaterSMART Drought Response Program – partnered grant
- Environmental Trust Fund – Integrated Water Management Action Initiative – partner grant

Awarded grants including the following:

- Pre-Disaster Mitigation
- Water Sustainability Grant – Expanding Hydrogeological Framework and WWUMM Update
- USBR WaterSMART Drought Response Program – partnered grant
- Environmental Trust Fund – Integrated Water Management Action Initiative – partner grant

According to the local planning team, current district funds are limited to maintain current and ongoing projects. However, the planning team noted that the NRD is always open to taking on new projects depending on what the project is, the cost, how critical the new project is, etc.

Major projects that the NRD will be funding on in the next one to two years include:

- Paying off the Revolving Loan Fund (a partnership with the City of Sidney) for the East Sidney Watershed.
- Working on IMP projects through the Integrated Water Management Action Initiative – these projects include excess flows for retiming the river and recharging the aquifer, potential irrigated acre buy-outs (decertification), or other water saving projects
- Working on the Upper Platte Basin and our local SPNRD Drought Plans – these projects are partially funded through the WaterSMART grant.

District funds have decreased over the last few years. Real estate evaluations have dropped while the district has maintained our tax levy. Also, several larger projects have been completed including acre decertifications, rehabbing the excess flow recharge pits, and updates to the Basin-Wide Plan and local IMP. Completing these projects has allowed the district to not raise taxes while the amount of funds has decreased.

Table NRD.5: Overall Capability

Overall Capability	Limited/Moderate/High
Financial resources needed to implement mitigation projects	Moderate
Staff/expertise to implement projects	Moderate/High
Community support to implement projects	High
Time to devote to hazard mitigation	Moderate

Plan Maintenance

Hazard Mitigation Plans should be living documents and updated regularly to reflect changes in hazard events, priorities, and mitigation and strategic actions. These updates are encouraged to occur after every major disaster event, alongside community planning documents (e.g., annual budgets and Capital Improvement Plans), during the fall before the HMA grant cycle begins, and/or prior to other funding opportunity cycles begin including CDBG, Water Sustainability Fund, Revolving State Fund, or other identified funding mechanisms.

The local planning team is responsible for reviewing and updating this profile as changes occur or after a major event. The local planning team will include the General Manager and Assistant Manager and the plan will be reviewed bi-annually. The public will be included in the review and revision process via press release and board meetings.

Plan Integration

The SPNRD has multiple plans that are consistent with the goals and objectives of the hazard mitigation plan. Each applicable planning mechanism is listed below.

Basin-Wide Plan for Joint Integrated Water Resources Management of Overappropriated Portions of the Platte River Basin, Nebraska (2019)

This plan encompasses portions of the Central Platte NRD, Tri-Basin NRD, Twin Platte NRD, South Platte NRD, and North Platte NRD. The purpose is to meet the requirements for portions of the Upper Platte River Basin that have been designated as overappropriated and achieve the goals and objectives described in *Neb. Rev. Stat. 46-715(2)*. Goals include (1) sustaining a fully appropriated condition while maintaining economic viability and welfare, (2) Prevent flow reductions that would cause non-compliance with any interstate compact or agreement, (3) Partner with municipalities and industries to maximize conservation, (4) identify disputes between groundwater users and surface water appropriators and implement solutions, and (5) keep the plan current and keep stakeholders informed. Also identified are actions that need to be taken to meet those goals.

Groundwater Management Plan (2002)

A groundwater management plan outlines groundwater supply, use, and management within the NRD. The plan includes hydrogeologic characteristics of the NRD, a water quality inventory, land use and contamination source inventory, water use and demand, critical areas for protection, groundwater goals and objectives, groundwater programs and practices, and groundwater management areas implementation.

Integrated Management Plan (2019)

The district's second increment Integrated Management Plan focuses on ground water issues - specifically water availability across the district. The IMP goals and objectives are consistent with those of the Basin-Wide Plan but are specific to the NRD's obligation toward that plan.

Long Range Implementation Plan (2000)

The Long Range Implementation Plan gives a general timeline for completion and will indicate the funding necessary to carry out the goals and objectives of the NRD's Master Plan. It includes a summary of planned activities and an assessment of current and projected needs. The NRD Board of Directors and staff will review this plan on an annual basis and make any modifications that are deemed necessary.

Master Plan (2013)

The NRD's Master Plan outlines the goals and objectives for the NRD. It also outlines current activities that are being done to meet these goals and objectives. SPNRD updates the Master Plan every ten years with the next update scheduled for 2023. The NRD will evaluate projects in the hazard mitigation plan for inclusion in the Master Plan.

Oliver Dam Emergency Actions Plan (2021)

An Emergency Action Plan (EAP) was developed for Oliver Dam in 2021. The purpose of the EAP is to reduce the risk of human life loss and injury and minimize property damage during an unusual or emergency event at Oliver Reservoir Dam. The plan includes event detection, notification and communication, expected actions, responsibilities, and dam inundation areas.

Hazard Prioritization

For additional discussion regarding area-wide hazards, please see *Section Four: Risk Assessment*. The hazards discussed in detail below were selected by the local planning team from the regional hazard list as the relevant hazards for the jurisdiction. The selected hazards were prioritized by the local planning team based on historical hazard occurrences, potential impacts, and the district's capabilities.

Dam Failure

According to the USACE National Inventory of Dams, there are 49 dams in the NRD. Of these dams, seven have been classified as high hazard dams. A "high hazard" designation is not an evaluation of the condition of a dam. Instead, it signifies the high number of individuals that live downstream from it.

The NRD planning team indicated that Oliver Reservoir is the biggest concern for the area. The NRD manages the dam and is responsible for its safety. The dam was rated as "Satisfactory" by the USACE in June 2020. While not as large of a concern, the NRD is also concerned about the Bushnell West dam, northwest of Bushnell. According to the USACE, the Bushnell West Dam was last assessed in June 2018 and was rated as "Satisfactory". The NRD's biggest concerns as it relates to dam failure include loss of life, loss of critical structures, and loss of transportation routes. In order to prepare for a potential overtopping or failure, the NRD has worked to develop an Emergency Action Plan for the Oliver Reservoir.

Table NRD.6 lists the high hazard dams located in South Platte NRD, according to the Nebraska Department of Natural Resources. Figure NRD.3 shows a map of all dams within the NRD. They can also be viewed on the NeDNR Dam Inventory map (<https://dnr.nebraska.gov/dam-safety>). The local planning team noted that they are most concerned about flooding impacts to the communities in the case of a dam failure. Specifically, property and structural damages, loss of life, and any damage to infrastructure (roadways, utilities, etc.) are the NRD's top concerns.

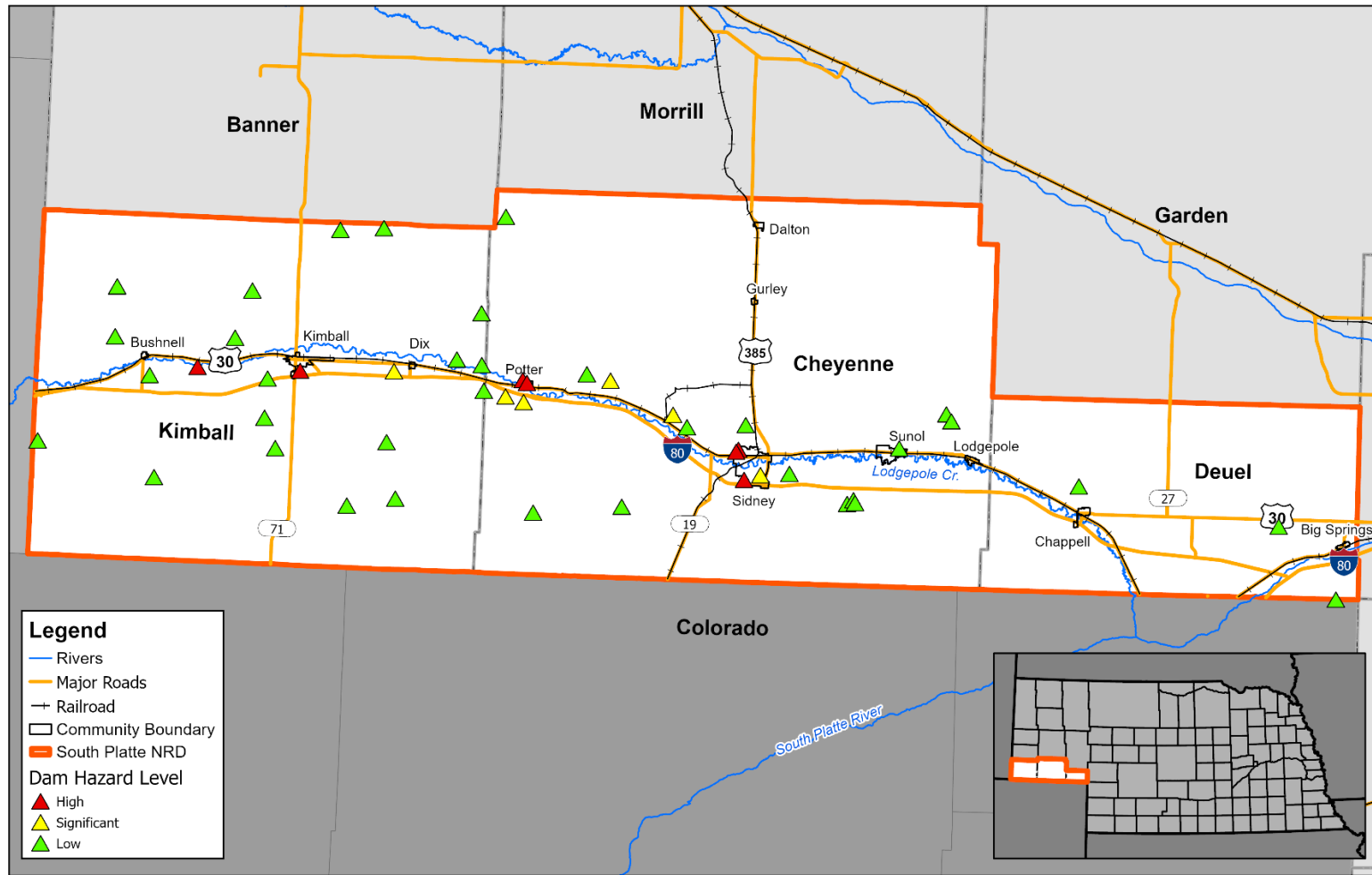
Table NRD.6: High Hazard Dams in South Platte NRD

Dam Name	NID ID	Location	Condition	Inspection Date
Heimer Dam	NE00601	Potter	Fair	8/11/2020
Potter Dam	NE02293	Potter	Satisfactory	8/11/2020
Sidney East Dam	NE01146	Sidney	Satisfactory	8/11/2020
Sidney West Dam	NE01147	Sidney	Satisfactory	8/11/2020
Verde Lane Dam	NE00607	Sidney	Satisfactory	8/11/2020
Janicek Dam	NE00750	Kimball	Fair	8/11/2020
Oliver Dam	NE00749	West of Kimball	Satisfactory	6/10/2020

Source: USACE, 2021³

³ United States Army Corps of Engineers. February 2021. "National Inventory of Dams." <https://nid.sec.usace.army.mil/ords/f?p=105:19:15077170345077::NO::>

Figure NRD.3: Dams within South Platte NRD



Legend

- Rivers
- Major Roads
- + Railroad
- Community Boundary
- ▭ South Platte NRD

Dam Hazard Level

- ▲ High
- ▲ Significant
- ▲ Low

Created By: NL
 Date: 2/9/2022
 Software: ArcGIS Pro 2.8
 File Name: SP_Upfront.aprx

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Dam Locations

South Platte NRD HMP Update 2022

Drought

The local planning team indicated that drought is a top concern for the NRD. Extreme drought last occurred in the region in 2012/2013, according to the NCEI. Significant drought, however, was reported in 2020/2021. The South Platte NRD is largely responsible for the ground water management which occurs in the region and the NRD is very aware of the fact that drought can be detrimental to a local economy. The planning team indicated that excessive irrigation/municipal pumping may result in the water table declining and force the wells to pump air. From past experiences in 2002 and 2012, the NRD saw a variety of impacts as a result of drought, including low aquifer levels, emergency watering procedures, and road degradation. Locally, drought may be defined as any time crop yields suffer as a result of insufficient natural moisture, typically two to three inches below normal precipitation yields. The local planning team noted that the water supply may be sufficient or insufficient depending on where you live within the NRD. The Brule aquifer (within the Lodgepole Creek Valley) is not very resilient in the face of drought and may dewater earlier than other aquifers. The Ogallala aquifer is located outside the valley, in the uplands of the table area. The Ogallala is highly resilient to drought and will be able to handle a drought better than other aquifers.

To monitor water levels closely, most municipalities within the NRD measure their wells monthly. During times of drought, most measure their wells weekly. All communities in the NRD have residential water meters, except Gurley and Potter. Additionally, many communities in the NRD have drought response plans. In 2018 the Village of Dix replaced a municipal well that was no longer producing properly. Some irrigation wells have also been replaced in recent years.

According to the planning team, the district currently has a moratorium on new wells and irrigated acres and has an allocation on all irrigated acres within the district. Other non-regulatory items the NRD does include the taking of excess flows of the South Platte River through the Western Canal when they are available, permanently decertifying over 2,000 irrigated acres, and helping to cost share on water saving irrigation equipment such as moisture probes/sensors.

Flooding

According to the local planning team, there have been four major flooding events in recent history including storms in 1997, 1999, 2010, and 2014. In 2010, flooding occurred between Sidney and Lodgepole, which washed out county roads, overtopped Highway 30, and washed-out railroad tracks in Lodgepole. This 2010 event also washed out a number of dams.

In 2014, flooding also occurred upstream of Oliver Reservoir, which filled the lake from its lowest level in history to full overnight. The dam held, but the reservoir would have been strained if the reservoir were full when it started raining. Moving forward, the NRD is most concerned about areas surrounding dams, areas along the South Platte River, and the eastern side of the City of Sidney.

In the last five years, a coupe mitigation projects have taken place. The East Sidney Watershed was constructed in a partnership with the City of Sidney and SPNRD. This drainage improvement project redirects runoff water coming from the I-80 business area of Sidney directly into Lodgepole Creek – eliminating when it used to flow through residential neighborhoods. The design of the improvement includes a bio-swale that allows for the slow release of runoff, rather than a rapid inundation. This not only helps protect the City of Sidney but other residents downstream on Lodgepole Creek as well.

The second project was the conduit that runs through Oliver Reservoir's primary spillway was repaired. The old concrete had degraded over time and needed to be repaired with a slip liner.

SECTION SEVEN: SOUTH PLATTE NRD DISTRICT PROFILE

During this project additional rip rap was installed around the primary spillway's "morning glory" to prevent erosion.

NeDNR is currently working on remapping of the floodplain in both Deuel and Cheyenne Counties. Kimball County wants to have the mapping done as soon as possible.

Tornadoes

According to the NCEI, there were six tornadoes in Sidney from 1996 to April 2021. No damages or injuries were reported from these events. Primary concerns for tornadoes include potential damage to the District Office in Sidney and how the NRD would be able to function if a tornado destroyed the office, vehicles, equipment, etc. Another concern is for the safety of those using the recreation facilities at Oliver Reservoir. The NRD would like to install a warning siren at the site to provide advance warning. There are currently no safe rooms, storm shelters, or weather radios available at NRD sites.

Mitigation Strategy

Continued Mitigation and Strategic Actions

Mitigation Action	Alert/Warning Siren at Oliver Reservoir
DESCRIPTION	Install a tornado siren at the Oliver Reservoir recreation area. This objective will be completed after a hardened structure is built to protect campers from a high wind event.
HAZARD(S)	Tornadoes, High Winds
ESTIMATED COST	\$25,000
FUNDING	General Fund
TIMELINE	5-10 years
PRIORITY	Low
LEAD AGENCY	South Platte NRD
STATUS	The NRD worked with Region 21 to write a grant for a new siren, but the grant was not awarded at the time.

Mitigation Action	Dam Failure Exercises
DESCRIPTION	Conduct table-top exercises to determine the response scenarios in the event of dam failure.
HAZARD(S)	Dam Failure
ESTIMATED COST	\$5,000
FUNDING	General Fund
TIMELINE	5+ years
PRIORITY	High
LEAD AGENCY	South Platte NRD, Region 21 EMA
STATUS	A tabletop exercise was completed in the spring of 2021 in Kimball County to address a dam failure at Oliver Reservoir. A second exercise is planned for Cheyenne County in the winter of 2022. The exercises are run through the local LEOP groups.

Mitigation Action	Dam Upkeep/Repairs
DESCRIPTION	Work to update principal spillway at Oliver Reservoir
HAZARD(S)	Dam Failure, Flooding
ESTIMATED COST	\$50,000 -\$55,000
FUNDING	General Fund
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	South Platte NRD Assistant Manager
STATUS	Completed the liner through the conduit and added additional rip rap around the primary spillway. Ongoing – rip rap will always need to be monitored. DNR is also indicating that we may need to redo the spilling basin in the future. The concrete on the spilling basin is old and cracked.

SECTION SEVEN: SOUTH PLATTE NRD DISTRICT PROFILE

Mitigation Action	Develop Dam Failure Emergency Action and Evacuation Plans
DESCRIPTION	Work with officials to develop emergency action and evacuation plans if a dam were to fail.
HAZARD(S)	Dam Failure
ESTIMATED COST	\$15,000
FUNDING	SPNRD
TIMELINE	Ongoing
PRIORITY	High
LEAD AGENCY	South Platte NRD
STATUS	The tabletop exercise in Kimball County was completed in spring 2021 and the Cheyenne County exercise is planned for winter 2021. Additionally, the Level 3 test in the EAP was completed, which is basically a practice run for notification of dam failure. These exercises will be completed again in the future.

Mitigation Action	East Sidney Watershed Project: Joint East Sidney Watershed Authority
DESCRIPTION	The NRD intends to partner with the City of Sidney to limit flooding within the city.
HAZARD(S)	Flooding
ESTIMATED COST	\$1,000,000+
FUNDING	General Fund, City of Sidney
TIMELINE	1-2 years
PRIORITY	Medium
LEAD AGENCY	South Platte NRD
STATUS	All construction work is complete; however, the NRD is still dealing with issues like getting grass established and placing additional rip rap in places where erosion has occurred. Additionally, after the grass is established, a barbed wire fence will need to be moved as it currently cuts off the constructed channel and the dam. In the future, the cattle will be allowed in the channel but not on the dam.

MITIGATION ACTION	Emergency Communication
DESCRIPTION	Establish an action plan to improve communication between agencies to better assist residents and businesses during and following emergencies; establish inter-operable communications.
HAZARD(S)	All Hazards
ESTIMATED COST	\$1,000+, Staff Time
FUNDING	General Fund
TIMELINE	5+ years
PRIORITY	High
LEAD AGENCY	South Platte NRD, Region 21 EMA, Kimball County Sheriff
STATUS	The NRD is still working on getting all agencies better prepared if there ever would be a dam breach at Oliver Reservoir. The big steps accomplished this year are the tabletop exercises and the EAP level 3 test described under the dam failure sections.

SECTION SEVEN: SOUTH PLATTE NRD DISTRICT PROFILE

Mitigation Action	Expand Water Storage Capacity, Emergency Water Supplies, Dry Hydrants
DESCRIPTION	The South Platte NRD intends to consider expanding water storage by using retention and aquifer and recharge projects; the NRD also works to limit water consumption by metering wells, provide soil moisture sensors, and facilitate cost-share programs for local ag producers.
HAZARD(S)	Drought
ESTIMATED COST	\$250,000
FUNDING	General Fund
TIMELINE	Ongoing
PRIORITY	High
LEAD AGENCY	South Platte NRD
STATUS	Excess flows are diverted out of the South Platte River when available. Cost share is provided, when available, for meter maintenance, meter replacement, soil moisture sensors, etc. The NRD will begin working on a drought contingency plan in the winter of 2022.

Mitigation Action	Flood-Prone Property Acquisition
DESCRIPTION	Voluntary acquisition and demolition of properties prone to flooding will reduce the general threat of flooding for communities. Additionally, this can provide insurance benefits to those communities within the National Flood Insurance Program. Repetitive loss structures are typically the highest priority. The NRD does not have any repetitive loss properties. However, this is still an objective, should conditions change
HAZARD(S)	Flooding
ESTIMATED COST	Varies
FUNDING	General Fund
TIMELINE	5+ years
PRIORITY	Low
LEAD AGENCY	South Platte NRD
STATUS	Not yet started

SECTION SEVEN: SOUTH PLATTE NRD DISTRICT PROFILE

Mitigation Action	Hazardous Tree Removal Program
DESCRIPTION	Identify and remove hazardous limbs and/or trees: the NRD encourages the removal of older, diseased trees, and the planting of new trees; about four communities per year participate in the program
HAZARD(S)	High Winds, Severe Thunderstorms, Severe Winter Storms, Tornadoes
ESTIMATED COST	\$30,000
FUNDING	General Fund
TIMELINE	Ongoing
PRIORITY	Medium
LEAD AGENCY	South Platte NRD
STATUS	<p>The community forestry program is a very active program in the district. Homeowners can receive cost share to remove dead, dying, or diseased trees and plant new trees. The program has recently been modified so an individual homeowner can apply by themselves.</p> <p>Additionally NRD removes dead trees or dead limbs each year at the Oliver Reservoir campground. This program helps keep the area safer for recreational use.</p>

Mitigation Action	Public Awareness and Education
DESCRIPTION	The NRD works hard to improve public awareness and education for the NRD's objectives, including forestry and range management, water supply, use and conservation of surface and groundwater.
HAZARD(S)	All Hazards
ESTIMATED COST	\$500+
FUNDING	General Fund
TIMELINE	Ongoing
PRIORITY	High
LEAD AGENCY	South Platte NRD
STATUS	The NRD continually updates the public about the current activities at the SPNRD. The website was recently updated to make it easier for the public to find out about what we do. Also the NRD's social media presence has been slowly growing over the past few years.

SECTION SEVEN: SOUTH PLATTE NRD DISTRICT PROFILE

Mitigation Action	Stormwater System and Drainage Improvements
DESCRIPTION	These improvements can serve to convey runoff more effectively within cities and towns, preventing interior localized flooding. May also reduce the risk of illness/ disease by eliminating standing water.
HAZARD(S)	Flooding
ESTIMATED COST	\$10,000-\$100,000+
FUNDING	General Fund
TIMELINE	5+ years
PRIORITY	High
LEAD AGENCY	South Platte NRD
STATUS	<p>The East Sidney Watershed project has been constructed, but it is not completely finished, as described in the East Sidney Watershed Project above.</p> <p>The NRD is always willing to work with other jurisdictions on future projects that have not yet been identified. Chappell and Lodgepole have expressed concerns with cleaning out dead trees and debris in Lodgepole Creek so that it doesn't dam the creek up and make flooding events worse – but no projects have come about yet. Kimball is also wanting to complete their flood mapping, as issues could arise in the City of Kimball with similar concerns near Lodgepole Creek.</p>

Mitigation Action	Windbreaks/ Living Snow Fence
DESCRIPTION	Installation of windbreaks to increase water capacity in soil, and to prevent drifting on common roadways.
HAZARD(S)	Drought, High Winds, Severe Winter Storms
ESTIMATED COST	\$30,000
FUNDING	General Fund
TIMELINE	Ongoing
PRIORITY	Medium
LEAD AGENCY	South Platte NRD
STATUS	This program is open and available for landowners in the district. No new living snow fences have been installed along major roadways in the last five years.

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District Profile

Region 21 Emergency Management Agency

**South Platte NRD
Hazard Mitigation Plan 2022**

Local Planning Team

Table R21.1: Region 21 Local Planning Team

Name	Title	Jurisdiction
Ron Leal	Director	Region 21 Emergency Management Agency
Kay Anderson	Deputy Director	Region 21 Emergency Management Agency

Location and Geography

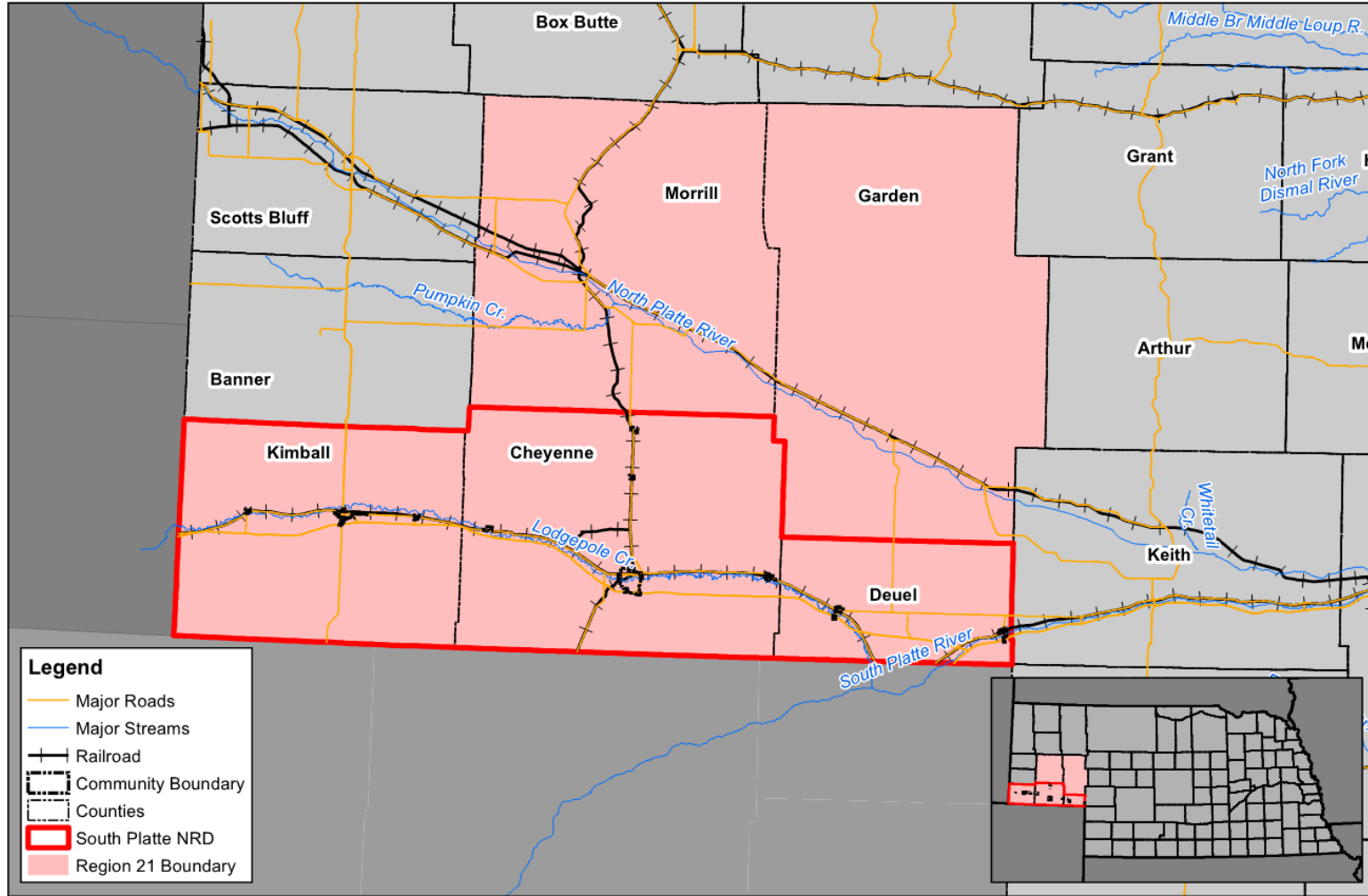
The Region 21 Emergency Management Agency (EMA) is located in the panhandle of Nebraska and covers Cheyenne, Deuel, Garden, Kimball, and Morrill counties. The total area of Region 21 is 5,750 square miles. Major waterways within the region include the North Platte River, running through the center of the emergency management district, from northwest to southeast. Region 21 is primarily made up of shrub land and herbaceous/grassland land types.

Transportation

Major highways in Region 21 include Interstate 80, U.S. Highway 26, U.S. Highway 385, and Nebraska Highway 92. According to the Nebraska Department of Transportation, the average daily traffic count for Interstate 80 (at Sidney) is 7,345 vehicles, 4,560 of which are heavy commercial vehicles. The traffic count near the junction of U.S Highway 26 and 385 (north of Bridgeport) is 5,000 vehicles per day, 500 of which are heavy commercial vehicles. The traffic count for the junction of U.S. Highway 26 and Nebraska Highway 92 (at Bayard) is 2,895, with 465 trucks per day.⁴ A BNSF railway goes north-south through Cheyenne and Morrill counties and two Union Pacific railways go east-west through the region. I-80, Highway 30 and Highway 385 are the transportation routes of most concern. Diesel spills from truck accidents are the most common types of spills.

⁴ Nebraska Department of Transportation. 2018. "Interactive Statewide Traffic Counts Map." [map]. <https://gis.ne.gov/portal/apps/webappviewer/index.html?id=bb00781d6653474d945d51f49e1e7c34>.

Figure R21.1: Region 21 Emergency Management District



Legend

- Major Roads
- Major Streams
- Railroad
- Community Boundary
- Counties
- South Platte NRD
- Region 21 Boundary

Created By: NL
 Date: 6/7/2021
 Software: ArcGIS 10.8.1
 File Name: Planning Area - Region 21.mxd

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Region 21 Emergency Management

District Boundary



0 10 20 Miles



Demographics

It is estimated that Region 21 serves a population of 21,712 people over five counties. However, the EMA does not collect the demographic information of their population, nor does the U.S. Census Bureau recognize Region 21 as a distinct unit. As a result, there is no population data generated specifically for the Region. For information regarding population data, please refer to a specific jurisdiction's community profile or to Section Three: Demographics and Asset Inventory.⁵

Table R21.2 Region 21 Estimated Population

County	2010 Population	2019 Population	Percent Change
Deuel	1,941	1,831	-5.7%
Cheyenne	9,998	9,604	-3.9%
Garden	2,057	1,864	-9.4%
Kimball	3,821	3,633	-4.9%
Morrill	5,042	4,781	-5.2%
Total	22,859	21,713	-5.0%

Source: U.S. Census Bureau⁶

Future Development Trends

Over the past five years, there have been no changes within Region 21 Emergency Management; however, in Cheyenne County the Cabela's is being sold. There are no planned changes over the next five years at this time.

Structural Inventory and Valuation

Please refer to the individual community profiles for information regarding parcel improvements, valuation, and discussion for specific jurisdictions across the planning area.

Community Lifelines

Hazardous Materials – Chemical Storage Fixed Sites

Chemical sites are located throughout the Region. Complete lists of chemical storage sites in each jurisdiction may be found in their community profile.

Critical Facilities

The local planning team identified critical facilities that are vital for disaster response, public shelter, and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during the original planning process and updated by the local planning team as a part of this plan update. The following table and figure provide a summary of the critical facilities for the jurisdiction.

⁵ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <https://data.census.gov>.

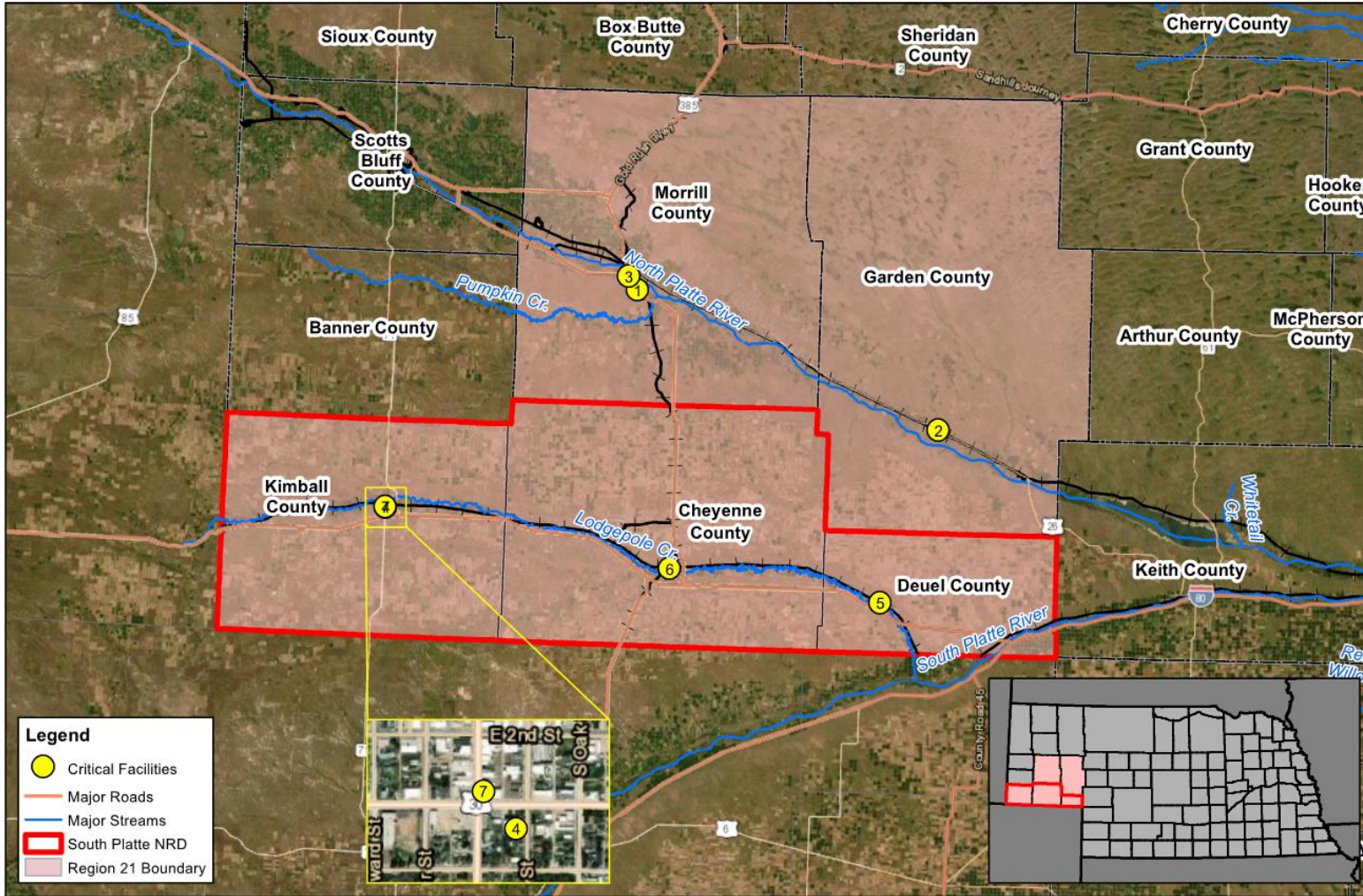
⁶ United States Census Bureau. "2019 Census Bureau American Community Survey: S0101: Age and Sex." [database file]. <https://data.census.gov>.

SECTION SEVEN: REGION 21 EMA DISTRICT PROFILE

Table R21.3: Critical Facilities

CF #	Name	Shelter (Y/N)	Generator (Y/N)	Floodplain (Y/N)
1	Bridgeport Ethanol	N	N	N
2	Garden County Courthouse	N	Y	N
3	Morrill County Courthouse	N	N	N
4	Kimball County Courthouse	N	Y	N
5	Deuel County Courthouse	N	Y	N
6	Cheyenne County Courthouse	N	Y	N
7	Kimball County Transportation Building	Y	Y	N

Figure R21.2: Critical Facilities



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 Date: 6/29/2021
 Software: ArcGIS 10.8.1
 File Name: CF - Region 21.mxd

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Region 21 Emergency Management

Critical Facilities



0 10 20 Miles



Governance

Region 21 EMA is governed by a five-member Board of Directors. The EMA serves both incorporated and unincorporated areas within the district and has the capability to assist communities and counties financially and administratively with mitigation and strategic actions (most commonly flood control and drainage improvements). The following positions may help implement mitigation projects:

- Director
- Deputy Director

Capability Assessment

The capability assessment consisted of a Capability Assessment Survey completed by the jurisdiction and a review of local existing policies, regulations, plans, and the programs. The survey is used to gather information regarding the jurisdiction's planning and regulatory capability; administrative and technical capability; fiscal capability; and educational and outreach capability.

Table R21.4: Capability Assessment

Survey Components/Subcomponents		Yes/No
Planning & Regulatory Capability	Comprehensive Plan	No
	Capital Improvements Plan	No
	Economic Development Plan	No
	Emergency Operational Plan	Yes
	Floodplain Management Plan	No
	Storm Water Management Plan	No
	Zoning Ordinance	No
	Subdivision Regulation/Ordinance	No
	Floodplain Ordinance	No
	Building Codes	No
	National Flood Insurance Program	No
	Community Rating System	No
Other (if any)		
Administrative & Technical Capability	Planning Commission	No
	Floodplain Administration	No
	GIS Capabilities	No
	Chief Building Official	No
	Civil Engineering	No
	Local Staff Who Can Assess Community's Vulnerability to Hazards	No
	Grant Manager	No
	Mutual Aid Agreement	No
	Other (if any)	
Fiscal Capability	Capital Improvement Plan/ 1 & 6 Year plan	No
	Applied for grants in the past	Yes

Survey Components/Subcomponents		Yes/No
	Awarded a grant in the past	Yes
	Authority to Levy Taxes for Specific Purposes such as Mitigation Projects	No
	Gas/Electric Service Fees	No
	Storm Water Service Fees	No
	Water/Sewer 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. Ex. CERT Teams, Red Cross, 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	Yes
	Firewise Communities Certification	No
	Tree City USA	N/A
	Other (if any)	No

Table R21.5: Overall Capability

Overall Capability	Limited/Moderate/High
Financial resources needed to implement mitigation projects	Limited
Staff/expertise to implement projects	High
Community support to implement projects	Moderate
Time to devote to hazard mitigation	Moderate

Plan Integration

Region 21 Emergency Management Agency has multiple 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. The emergency management agency will seek out and evaluate any opportunities to integrate the results of the current hazard mitigation plan into other planning mechanisms and updates.

Community Wildfire Protection Plans - Western Sandhills (2019), Wildcat Hills (2021)

Region 21 EMA resides in two Community Wildfire Protection Plan (CWPP) regions. Garden and Deuel counties are part of the Western Sandhills CWPP region, and Morrill, Cheyenne, and Kimball counties are part of the Wildcat Hills CWPP region. The Western Sandhills CWPP was first developed in October 2019, while the Wildcat Hills CWPP was updated in July 2021. 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. These documents are updated every five years.

Local Emergency Operations Plan – Cheyenne County (2018), Deuel County (2017), Kimball County (2017)

Region 21 EMA updated the Cheyenne County Local Emergency Operations Plan (LEOP) in 2018, the Deuel County LEOP in 2017, and the Kimball County LEOP in 2017. These LEOPs establish standardized policies, plans, guidelines, and procedures for emergency resources and governmental entities to respond and recover when a disaster event occurs. They contain 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. These plans are updated every five years.

Historical Occurrences

For the complete discussion on historical occurrences, please refer to *Section 4: Risk Assessment*.

Hazard Prioritization

For additional discussion regarding area-wide hazards, please see *Section Four: Risk Assessment*. The hazards discussed in detail below were selected by the local planning team from the regional hazard list as the relevant hazards for the jurisdiction. The selected hazards were prioritized by the local planning team based on historical hazard occurrences, potential impacts, and the district's capabilities.

Flooding

The local planning team indicated that the most recent impacts were during May and June of 2015, when many County Roads were washed out. The entire emergency management region experienced highway damages, and minor flooding was experienced in Bridgeport and Lewellen. The counties within the region were not heavily impacted by the 2019 March flooding event. According to the local planning team, Bridgeport is the biggest concern for the region, because many residences and a sewage lagoon are at risk of flooding damages. Another additional concern is the historic bridge near Lewellen. The bridge is consistently the catalyst of flooding events, largely due to ice jams occurring at the bridge. To prevent lasting impacts as a result of flooding, the emergency manager monitors water levels during high precipitation events. Further, the emergency management region also keeps 800 1-ton sandbags on hand at all times, and 5,000 small sandbags to prevent floodwaters from reaching certain areas of the community. In the past, to prevent flooding at Lewellen, individuals had to cut the dirt road, to relieve tension near the Lewellen Bridge, allowing water to pass both under and around the bridge. To prevent

lasting impacts in the future, the local planning team intends to emphasize preparedness and monitoring, to improve lead-time for any flooding events.

Hazardous Materials - Transportation

No significant events have occurred, save a few minor diesel spills. The primary concerns of the emergency management region are transported chemicals from both truck traffic and railroad transportation. For truck traffic, Highway 385 is a particular concern for the local planning team because so many trucks utilize this highway. Another area of concern includes Bridgeport Ethanol, an ethanol producer just outside of Bridgeport, NE. To limit lasting impacts due to chemical spills, local firefighters are trained in a hazmat awareness capacity of chemical spills, in addition, some firefighters have taken "Firefighter 1" classes, which contain some limited chemical spill response techniques. In the case of a significant chemical spill, the Hazardous Materials Team out of Scottsbluff would respond. Moving forward, the emergency management region intends to offer hazardous material training every two years to all firefighters.

Severe Thunderstorms/Hail

While the area experiences a severe thunderstorm event annually, the local planning team recalled 2010, 2013, and 2015 as especially difficult years for severe thunderstorms. Thunderstorm components of greatest concern for the region include flooding, hail, and lightning strikes. Jurisdictions across the Region 21 district have experienced damages as a result of severe thunderstorms, specifically related to hail on crops. Once hail reaches quarter size, individuals in the community become very concerned about impacts to crops. Region 21 has a number of vulnerable populations which would require additional support in a thunderstorm event, including the hospital and nursing homes in Bridgeport and Oshkosh. To prevent lasting impacts as a result of severe thunderstorms, the emergency management region intends to emphasize backup generators and notification systems to improve awareness of hazard events. Recently, Region 21 Emergency Management provided weather radios to each office in the Morrill County Courthouse to encourage awareness of hazard events, the emergency manager intends to outfit the Morrill County courthouse next with more weather radios. The emergency management region was also able to provide a backup generator to the Bridgeport Sheriff's office, to prevent any sort of prolonged power outages.

Severe Winter Storms

Based on the characteristics of the region, the local planning team is most concerned about rural residents, especially those who may lose access to power or safe transportation. The entire planning area experiences one or more winter storms annually, but significant years included the winter of 2011/2012, which included short term road closures. Presently, little is done for mitigation techniques of severe winter storms to prevent lasting impacts. Current snow removal resources are sufficient for most events. According to the local planning team, it takes about 10" of snow to exhaust local resources. In cases where local resources are completely exhausted, additional assistance is available from the Nebraska Department of Transportation, Scottsbluff Public Works, and Bridgeport may be able to help clear unincorporated areas in the region. The southern half of Region 21 Emergency Management is occupied by the South Platte NRD, which works to utilize living snow fences whenever possible.

Tornadoes/ High Winds

While the entire planning area is equally prone to a tornado or high wind event, each jurisdiction has unique characteristics which make them uniquely vulnerable to such events. In 2017, the City Bayard was damaged from a tornado. Based on land use, the vast majority of the emergency management region is dedicated to agriculture, meaning that the risk for injury/loss of life is relatively low, compared to other more urban areas. The local planning team estimates that about

50 percent of homeowners have basements to seek refuge in a tornado or high wind event. Region 21 has a number of highly vulnerable populations which the local planning team would be concerned about should they experience a tornado or high winds, specifically nursing homes and hospitals. To improve awareness of tornado and high wind events, Region 21 was able to help Broadwater get a new outdoor warning siren. The EMA encourages the testing of tornado sirens once a month at trailer parks, schools, and parks.

Mitigation Strategy

Continued Mitigation and Strategic Actions

Mitigation Action	Alert/Warning Sirens
DESCRIPTION	Perform an evaluation of existing alert sirens in order to determine sirens which should be replaced or upgraded. Install new sirens where lacking and remote activation.
HAZARD(S)	All Hazards
ESTIMATED COST	\$5,000+ per siren, Staff Time
FUNDING	General Fund, local match from communities pursuing projects
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Individual Jurisdictions, Region 21 Emergency Management
STATUS	In progress. Broadwater, Gurley, and Bushnell have been upgraded with new outdoor sirens.

Mitigation Action	Backup Generator
DESCRIPTION	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)	All Hazards
ESTIMATED COST	\$3,500+ depending on site requirements
FUNDING	General Fund
TIMELINE	5+ years
PRIORITY	High
LEAD AGENCY	Region 21 Emergency Management, Fire Departments
STATUS	This project has not yet started due to lack of funds.

Mitigation Action	Community Education – Hazardous Materials
DESCRIPTION	Develop an education program to inform residents of risks related to chemical releases; could include direct outreach to residents living in the immediate vicinity of chemical storage sites
HAZARD(S)	Hazardous Materials - Fixed Sites, Hazardous Materials - Transport.
ESTIMATED COST	\$3,000+
FUNDING	General Fund
TIMELINE	5+ years
PRIORITY	High
LEAD AGENCY	Region 21 Emergency Management
STATUS	The district is currently working with NEMA to start a hazardous materials vulnerability study in the Panhandle.

SECTION SEVEN: REGION 21 EMA DISTRICT PROFILE

Mitigation Action	Comprehensive City Disaster/Emergency Response Plan
DESCRIPTION	Develop a Comprehensive City/Village Disaster and Emergency Response Plan
HAZARD(S)	All Hazards
ESTIMATED COST	\$5,000+, Staff Time
FUNDING	General Fund
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Region 21 Emergency Management
STATUS	This project is currently in progress.

Mitigation Action	Continuity Planning
DESCRIPTION	Develop continuity plans for critical community services; encourage businesses to do the same
HAZARD(S)	All Hazards
ESTIMATED COST	\$5,000+, Staff Time
FUNDING	General Fund
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Region 21 Emergency Management
STATUS	This project is currently in progress and is an ongoing action.

Mitigation Action	Emergency Communication
DESCRIPTION	Establish an action plan to improve communication between agencies to better assist residents and businesses during and following emergencies; establish inner-operable communications.
HAZARD(S)	All Hazards
ESTIMATED COST	\$1,000+, Staff Time
FUNDING	General Fund
TIMELINE	5+ years
PRIORITY	High
LEAD AGENCY	Region 21 Emergency Management
STATUS	The district currently uses a Facebook page to notify the public of emergencies and disaster events. An action plan has not been completed.

Mitigation Action	Emergency Exercise: Hazardous Spill
DESCRIPTION	Perform and emergency exercise to prepare for potential explosions or hazardous spills; ensure that nearby businesses and residents have appropriate plans in place
HAZARD(S)	Hazardous Materials - Fixed Sites, Hazardous Materials - Transport.
ESTIMATED COST	\$5,000+
FUNDING	General Fund
TIMELINE	5+ years
PRIORITY	High
LEAD AGENCY	Region 21 Emergency Management
STATUS	The district regularly works with local volunteer fire departments and city/village officials to prepare them for a hazardous spill event. This is an ongoing action.

Mitigation Action	Emergency Management Exercise
DESCRIPTION	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)	Flooding
ESTIMATED COST	\$5,000+
FUNDING	General Fund
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Region 21 Emergency Management
STATUS	In Progress. Firefighters are trained to a hazmat awareness capacity.

Mitigation Action	Emergency Operations Center
DESCRIPTION	Identify and establish and Emergency Operations Center
HAZARD(S)	All Hazards
ESTIMATED COST	\$0-\$10,000
FUNDING	General Fund
TIMELINE	5+ years
PRIORITY	High
LEAD AGENCY	Region 21 Emergency Management
STATUS	An Emergency Operations Center has not yet been established.

SECTION SEVEN: REGION 21 EMA DISTRICT PROFILE

Mitigation Action	Public Awareness and Education
DESCRIPTION	Outreach projects, distribution of maps and environmental education increase public awareness of natural hazards and how people can protect themselves; other examples include educating citizens on water conservation methods, evacuation plans, etc.; purchase equipment such as overhead projectors and laptops to facilitate presentation of information
HAZARD(S)	All Hazards
ESTIMATED COST	\$3,000+
FUNDING	General Fund
TIMELINE	5+ years
PRIORITY	High
LEAD AGENCY	Region 21 EMA, Cheyenne County LEPC
STATUS	This project is still in the planning process.

Mitigation Action	Safe Rooms
DESCRIPTION	Assess, design and construct fully supplied safe rooms in highly vulnerable urban and rural areas such as mobile home parks, campgrounds, schools, and other such areas throughout the planning area; assess the adequacy of current public buildings to be used as safe rooms; construct safe rooms in areas of greatest need, either as new construction or retrofitting; Region 21 is interested in installing safe rooms in new schools and companies, in addition to improving existing buildings.
HAZARD(S)	Tornadoes and High Winds
ESTIMATED COST	\$200-\$300/sq ft stand alone, \$150-\$200 addition/retrofit
FUNDING	General Fund
TIMELINE	5+ years
PRIORITY	High
LEAD AGENCY	Region 21 Emergency Management
STATUS	This project has not yet started due to lack of funds.

Mitigation Action	Short Term Residency Shelters
DESCRIPTION	Identify and designate short term shelters for rural residents: these structures would not serve as FEMA approved safe rooms; the building could also be used for short-term sheltering during a high heat event for those without A/C; the building is not intended to be used for long term recovery such as long-term displacement from floods, fires, etc.
HAZARD(S)	All Hazards
ESTIMATED COST	Staff Time
FUNDING	General Fund
TIMELINE	5+ years
PRIORITY	High
LEAD AGENCY	Region 21 Emergency Management
STATUS	The district is working with the Red Cross to identify short term shelters. The district recently renewed a five-year MOU with the Red Cross for all five counties in Region 21.

Mitigation Action	Weather Radios
DESCRIPTION	Conduct an inventory of weather radios at schools and other critical facilities; provide new radios as needed
HAZARD(S)	All Hazards
ESTIMATED COST	\$50 per unit
FUNDING	General Fund
TIMELINE	5+ years
PRIORITY	High
LEAD AGENCY	Region 21 Emergency Management
STATUS	This is an ongoing activity for Region 21.

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District Profile

Bushnell Fire District

**South Platte NRD
Hazard Mitigation Plan 2022**

Local Planning Team

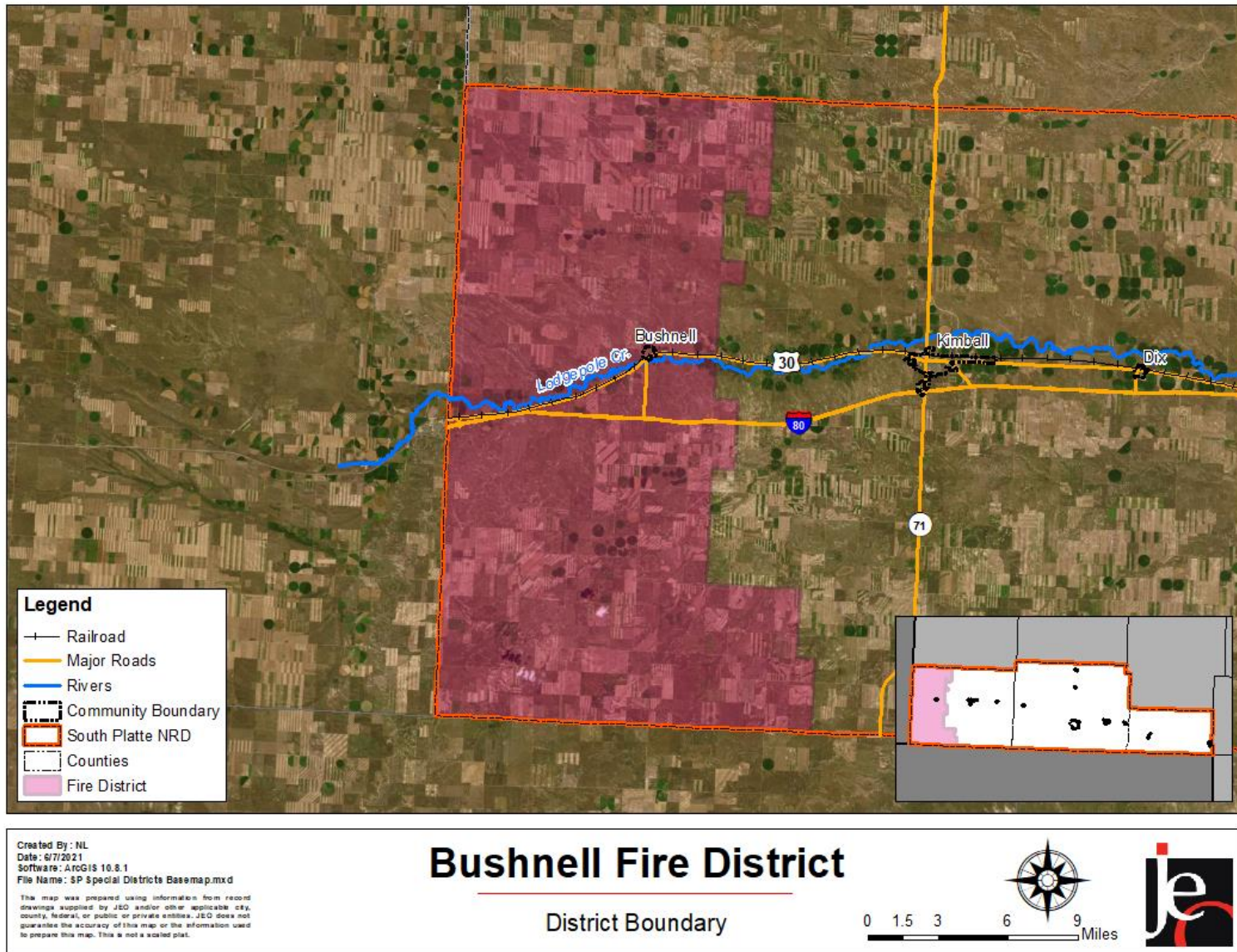
Table BFD.1: Bushnell Local Planning Team

Name	Title	Jurisdiction
Klent Schnell	Fire Chief	Bushnell Fire District

Location and Geography

The Bushnell Fire District covers the western portion of Kimball County, including the Village of Bushnell. There are approximately 205,000 acres of land in the fire district, which is made up primarily of native rangeland and CRP land. The majority of fires are grassland/wildland fires.

Figure BFD.1: Bushnell Fire District Boundary



Demographics

The district serves approximately 200 people, according to the local planning team. Please see the Village of Bushnell and Kimball County profiles for regional demographic information.

Future Development Trends

In the past few years, fire district has added an additional building to house equipment and has continued to upgrade PPE, communications equipment, and training techniques. The district would like to obtain a backup generator for the fire hall in the next five years.

Staffing

The Bushnell Fire District is supervised by a fire chief and an 18-member fire board who will oversee the implement of hazard mitigation projects.

Capabilities

Due to the unique structure of fire districts, the typical capability assessment table was not used. The following table summarizes the district’s overall capabilities. The Bushnell Fire District will continue to utilize existing relationships with local, county, state, and federal agencies in the implementation of mitigation projects.

In the last five years, the district has applied for grants from the Nebraska Forest Service and NEMA. The grant from Nebraska Forest Service was awarded. According to the planning team, district funds are mostly limited to maintaining current facilities and any new capital projects must be planned out five to seven years in advance. Over the last five years, the operating budget has remained about the same.

Table BFD.2: Overall Capability

Overall Capability	Limited/Moderate/High
Financial Resources Needed to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Community Support to Implement Projects	Moderate
Time to Devote to Hazard Mitigation	Limited

Plan Integration

The Bushnell Fire District has standard operating guidelines (SOGs). The SOGs outline the district’s response to a variety of different calls that could be received. The district is also a part of the Wildcat Hills Region Community Wildfire Protection Plan, which was updated in July 2021. 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. Bushnell Fire District follows the Kimball County Local Emergency Operations Plan (2017). Annex F of the LEOP covers fire services by listing the county fire departments, mutual aid partners, and equipment lists

Plan Maintenance

Hazard Mitigation Plans should be living documents and updated regularly to reflect changes in hazard events, priorities, and mitigation and strategic actions. These updates are encouraged to occur after every major disaster event, alongside community planning documents (i.e. annual budgets and Capital Improvement Plans), during the fall before the HMA grant cycle begins, and/or prior to other funding opportunity cycles begin including CDBG, Water Sustainability Fund, Revolving State Fund, or other identified funding mechanisms.

The local planning team is responsible for reviewing and updating this community profile as changes occur or after a major event. The local planning team will include the Fire Chief and the Bushnell Johnson Rural Fire Board. The plan will be reviewed bi-annually. The public will be included in the review and revision process via social media and Panhandle Alert.

Community Lifelines

Transportation

Major transportation corridors in the district include Interstate 80 and US Highway 30. Union Pacific has one rail line that runs east to west through the center of the district. Transportation routes of most concern to the district include Interstate 80, Highway 30, and the railroad. The railroad transports numerous oils, gases, and liquids and some hazardous materials are transported along Interstate 80. No chemical spills have occurred in the area recently, according to the local planning team. The team did express concern for evacuation of the Village of Bushnell, should the need arise. The village houses the largest concentration of people in the district and many residents are older in age. This information is important to hazard mitigation plans insofar as it suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents.

Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are 18 chemical storage sites in the district which house hazardous materials. The planning team indicated that the fire district emphasizes hazardous materials awareness as it does not have the resources or manpower to have a chemical spill response team. A team from Scottsbluff or North Platte would be called in to handle a major spill. Roads and facilities at risk from a spill include Interstate 80, Highway 30, and the railroad.

Fire district equipment includes one fire engine, four type VI wildland fire rigs, two tenders, and one equipment trailer that contains a rescue tripod system, grain rescue system, spill containment rope, extra PPE, foam, and ladders. The district holds two events a year on public education and awareness. The planning team indicated that the fire hall is always open to anyone that wants to see the equipment on hand.

Table BFD.3: Chemical Storage Fixed Sites

Facility Name	Address
Spiker 1	Road 9
Echo 07 Launch Facility	County Rd 6
Echo 06 Launch Facility	County Rd 17
Kilo 09 Launch Facility	County Rd 20
Echo 03 Launch Facility	County Rd 26

SECTION SEVEN: BUSHNELL FIRE DISTRICT PROFILE

Delta 10 Launch Facility	County Rd 7
Delta 11 Launch Facility	County Rd 17
Delta 07 Launch Facility	County Rd 17
Delta 08 Launch Facility	County Rd 40
Delta 09 Launch Facility	County Rd 17
Forsling Lease	Unlisted
Haussener 1 Lease	County Roads W & 245
Echo 01 MAF	County Rd 16
Echo 02 Launch Facility	County Rd 13
Echo 04 Launch Facility	County Rd 17
Echo 05 Launch Facility	County Rd 25
Caradori 31-25	Road 48
Nelson 42-35	Jct Roads 46 & 13

Source: Nebraska Department of Environment and Energy⁷

Critical Facilities

Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and essential for returning the jurisdiction’s functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during the original planning process and updated by the local planning team as a part of this plan update.

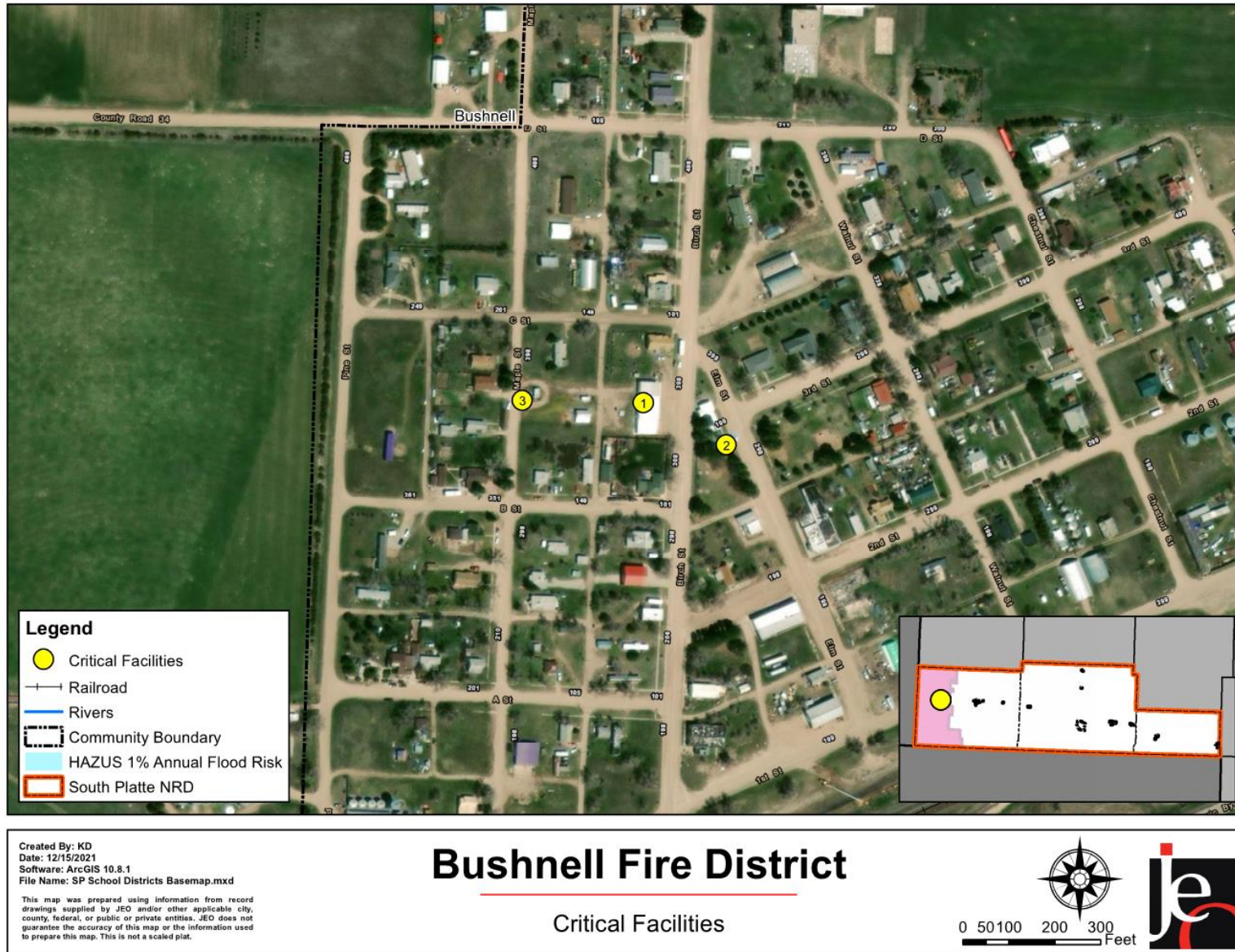
The following table and figure provide a summary of the critical facilities for the jurisdiction.

Table BFD.4: Bushnell Fire Critical Facilities

CF #	Name	Shelter (Y/N)	Generator (Y/N)	Floodplain (Y/N)
1	Bushnell Fire Department	N	N	N
2	Water Tower and Well #1	N	Y	N
3	Well #2	N	N	N

⁷ Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed January 2021.

Figure BFD.2: Bushnell Fire District Critical Facilities



Hazard Prioritization

For additional discussion regarding area wide hazards, please see *Section Four: Risk Assessment*. A full list of historical hazard occurrences can be found in the Kimball County jurisdictional profile. The hazards discussed in detail below were selected by the local planning team from the regional hazard list as the relevant hazards for the jurisdiction. The selected hazards were prioritized by the local planning team based on historical hazard occurrences, potential impacts, and the district's capabilities.

Drought

Drought is very common across the whole planning area. Because the fire district and much of the planning area is an agricultural-based economy, drought plays an important role. According to the NCEI, extreme drought last occurred in the region in 2012/2013. Significant drought, however, was reported in 2020/2021. To monitor for drought, the fire district regularly checks the National Drought Monitor website and discusses weather-related events at monthly meetings. Particular concerns for the district include a possible increase in wildfires, increased demand on resources, and possible increase in mutual aid situations.

The planning team noted that the water supply in the Village of Bushnell is sufficient, but supply is always lacking when fighting fires outside the village. The district relies heavily on mutual aid fire districts to supply water during such firefighting operations.

Grass/Wildfire

According to the Nebraska Forest Service, the Bushnell Fire District responded to 53 fires between 2000 and 2020. These fires burned a total of 3,466 acres and resulted in two injuries. The local planning team expressed concern for not having a sufficient and reliable water supply during wildfires, as well as the ability to evacuate people if needed. Another concern is for high wind events that can drive fire to the size that state and federal assets are needed.

The planning team indicated that the district has responded by mutual aid to five large wildfires in Scotts Bluff and Banner Counties during the last two years. These fires were very demanding on equipment and personnel. When responding to mutual aid calls, the district notifies surrounding department that they may need to help cover for them. The biggest impact from wildfires, the planning team noted, is the length of time that reimbursement from state and federal agencies takes.

Hazardous Materials – Transportation

Transportation routes of most concern to the district include Interstate 80, Highway 30, and the railroad. The railroad transports numerous oils, gases, and liquids; and some hazardous materials are transported along Interstate 80. No chemical spills have occurred in the area recently, according to the local planning team. The Bushnell Fire Department is trained for HAZMAT awareness only (not for response). In the event of a large spill, the NSP HAZMAT Response Team would respond, as would Region 21 Emergency Management. The Village of Bushnell and Oliver Reservoir are located along the Union Pacific Railroad and so do have increased vulnerability to transportation-related chemical spills.

Mitigation Strategy

New Mitigation and Strategic Actions

MITIGATION ACTION	Annual HAZMAT Training
DESCRIPTION	Provide the fire department with annual HAZMAT training opportunities.
HAZARD(S)	Hazardous Materials – Transportation
ESTIMATED COST	\$5,000
FUNDING	Bushnell Johnson Rural Fire Board General Fund
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Bushnell Johnson Rural Fire Board
STATUS	Not yet started

MITIGATION ACTION	Rural Well Upgrades
DESCRIPTION	Equip rural irrigation wells to allow fire tenders to refill during rural wildfires
HAZARD(S)	Grass/Wildfire, Drought
ESTIMATED COST	\$10,000-\$15,000 per generator
FUNDING	Bushnell Johnson Rural Fire Board General Fund
TIMELINE	1 year
PRIORITY	High
LEAD AGENCY	Bushnell Johnson Rural Fire Board and Bushnell Fire Department
STATUS	Not yet started

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District Profile

Dix Fire District

**South Platte NRD
Hazard Mitigation Plan 2022**

Local Planning Team

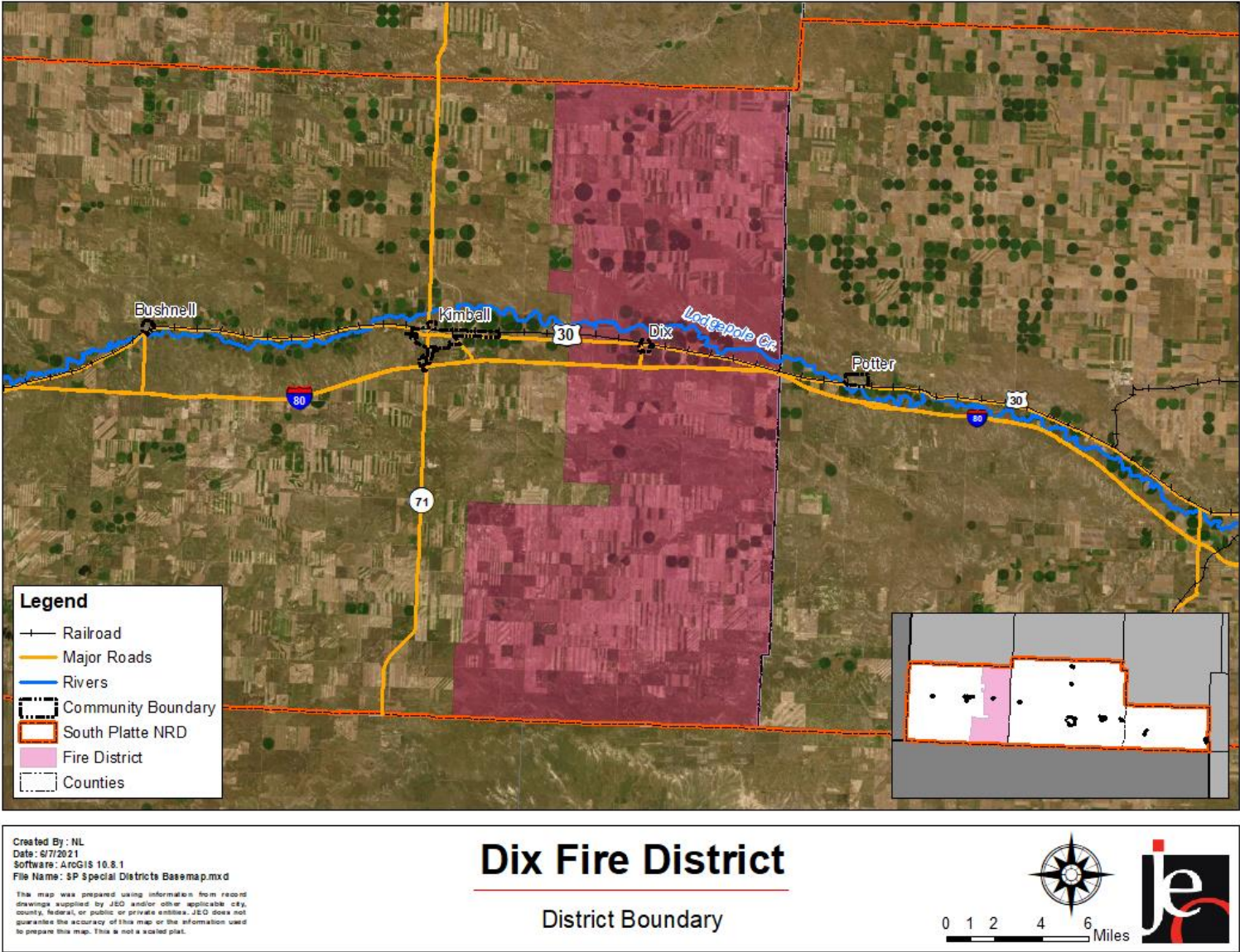
Table DxD.1: Dix Fire District Local Planning Team

Name	Title	Jurisdiction
Walter Kielian	Fire Chief	Dix Fire District

Location and Geography

The Dix Fire District covers the eastern portion of Kimball County, including the Village of Dix. The district is made up of approximately 2,544 acres. Areas most at risk to fire include Conservation Reserve Program (CRP) land, transportation corridors, and Timber Express, west of the Village of Dix.

Figure DXD.1: Dix Fire District Boundary



Demographics

See the Village of Dix and Kimball County profiles for regional demographic information. Dix Fire District serves approximately 525 people.

Future Development Trends

The planning team indicated that the fire hall is too small to fit all the fire trucks and a larger one may be needed in the future.

Staffing

The Dix Fire District is supervised by a fire chief and a five-member fire board who will oversee the implement of hazard mitigation projects.

Capabilities

Due to the unique structure of fire districts, the typical capability assessment table was not used. The following table summarizes the district’s overall capabilities. The Dix Fire District will continue to utilize existing relationships with local, county, state, and federal agencies in the implementation of mitigation projects.

The planning team indicated that funds are limited to maintaining current facilities and systems. In the last five years, the district has not applied for any grants. The planning team indicated that the district is trying to budget for a fire station expansion in the near future. District funds have remained about the same in recent years.

Table DXD.2: Overall Capability

Overall Capability	Limited/Moderate/High
Financial Resources Needed to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Community Support to Implement Projects	Limited
Time to Devote to Hazard Mitigation	Limited - Moderate

Plan Integration

The Dix Fire District has standard operating guidelines (SOGs). The SOGs outline the district’s response to a variety of different calls that could be received. The district is also a part of the Wildcat Hills Region Community Wildfire Protection Plan, which was updated in July 2021. 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. Dix Fire District follows the Kimball County Local Emergency Operations Plan (2017). Annex F of the LEOP covers fire services by listing the county fire departments, mutual aid partners, and equipment lists

Plan Maintenance

Hazard Mitigation Plans should be living documents and updated regularly to reflect changes in hazard events, priorities, and mitigation and strategic actions. These updates are encouraged to occur after every major disaster event, alongside community planning documents (e.g., annual budgets and Capital Improvement Plans), during the fall before the HMA grant cycle begins, and/or prior to other funding opportunity cycles begin including CDBG, Water Sustainability Fund, Revolving State Fund, or other identified funding mechanisms.

The local planning team is responsible for reviewing and updating this community profile as changes occur or after a major event. The local planning team will include the Fire Chief and the Dix Rural Fire Board. The plan will be reviewed bi-annually. The public will be included in the review and revision process via board meetings.

Community Lifelines

Transportation

Major transportation corridors in the district include Interstate 80 and US Highway 30. Union Pacific has one rail line that runs east to west through the northern portion of the district. Transportation routes of most concern include I-80, Hwy 30, and the UP railroad. Hazardous materials are regularly transported along local routes; some of these include anhydrous ammonia and nuclear waste. This information is important to hazard mitigation plans insofar as it suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents.

Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are 19 chemical storage sites in the district which house hazardous materials. The planning team expressed concern about Timber Express, a site outside of the village that makes telephone poles. Treated materials and shavings are transported to and from the site and there is a big pile of treated materials between the highway and the railroad. The site contains heavy fuels and is downwind of the railway. Another site of concern is White Wood, northwest of the village. Fire district equipment includes three engines, one tender, one command/rescue truck.

Table DXD.3: Chemical Storage Fixed Sites

FACILITY NAME	ADDRESS
Kilo 02 Launch Facility	Road 26
Kilo 03 Launch Facility	Road 69
Kilo 04 Launch Facility	Road 69
Kilo 05 Launch Facility	Road 59
R & R Service	300 Miller St
Kilo 01 MAF	Road 59
Kilo 11 Launch Facility	County Rd 59
Harry Phillips Lease	Road 59
Houtby Lease	County Rd 55
Schmid 3	Road 65
Kenton Unit	Roads 28 & 59

SECTION SEVEN: DIX FIRE DISTRICT PROFILE

Boice 1 Battery	Road 55
South Houtby Waterflood Unit	County Rd 28
Millard Lease	County Rd 14
State of Nebraska C Lease	County Rd 69
Foxtrot 01 MAF	County Rd 59
Foxtrot 06 Launch Facility	County Rd 40
Foxtrot 08 Launch Facility	5949 Road 42 N
South Kenton Waterflood Unit	County Rd 28

Source: Nebraska Department of Environment and Energy⁸

Dix Fire personnel are trained at the HAZMAT awareness level and not at operations level for hazardous materials spills. The planning team indicated that this is insufficient and that ideally most should attain Technician level. Public outreach and education efforts include Fire Prevention Week at the local elementary school.

Critical Facilities

Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and essential for returning the jurisdiction’s functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during the original planning process and updated by the local planning team as a part of this plan update.

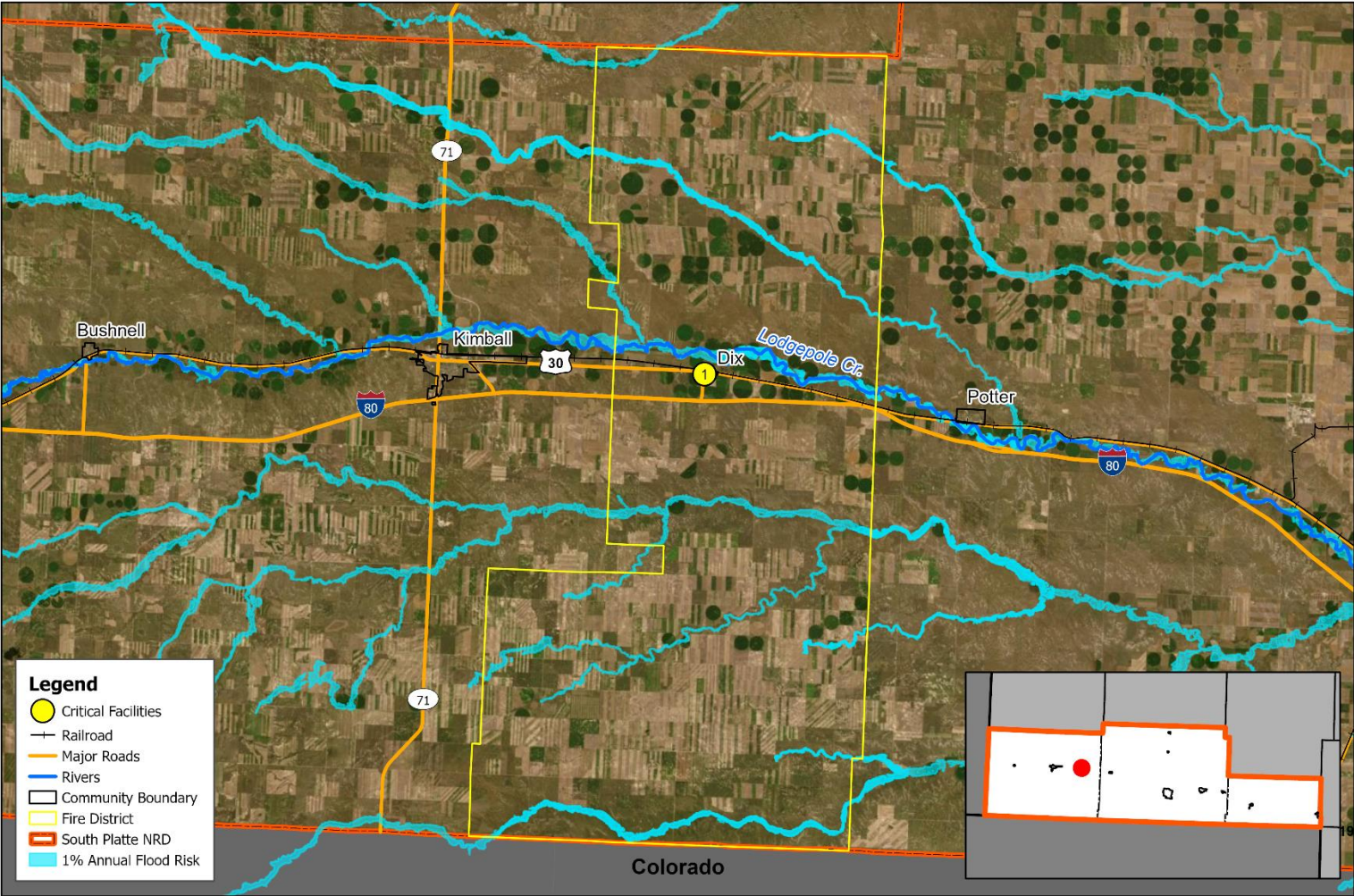
The following table and figure provide a summary of the critical facilities for the jurisdiction.

Table DXD.4: Dix Fire District Critical Facilities

CF #	Name	Shelter (Y/N)	Generator (Y/N)
1	Dix Fire Department	Y	N

⁸ Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed January 2021.

Figure DXD.2: Dix Fire District Critical Facilities



Created By: NL
Date: 3/4/2022
Software: ArcGIS Pro 2.8
File Name: SP_Upfront.aprx

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Dix Fire District

Critical Facilities

0 3 5 Miles

Hazard Prioritization

For additional discussion regarding area wide hazards, please see *Section Four: Risk Assessment*. A full list of historical hazard occurrences can be found in the Kimball County jurisdictional profile. The hazards discussed in detail below were selected by the local planning team from the regional hazard list as the relevant hazards for the jurisdiction. The selected hazards were prioritized by the local planning team based on historical hazard occurrences, potential impacts, and the district's capabilities.

Grass/Wildfire

According to the Nebraska Forest Service, the Dix Fire District responded to 50 fires between 2000 and 2020. These fires burned a total of 2,544 acres and resulted in no injuries or fatalities. The local planning team expressed concern about the large number of acres of CRP, as well as no-till cropping practices which leave a considerable amount of fuel to sustain a large wildfire. Recent fires have reduced available pastureland and destroyed small amounts of crops and hay. No structures were lost in these recent fires, according to the planning team.

Hazardous Materials – Fixed Sites

The planning team expressed concern about Timber Express, a site outside of the village that makes telephone poles. Treated materials and shavings are transported to and from the site and there is a big pile of treated materials between the highway and the railroad. The site contains heavy fuels and is downwind of the railway. Another site of concern is White Wood, northwest of the village. The planning team noted that most fixed site chemical storage facilities in our district are rural and fairly isolated, so impacts to the general population would be minimal.

Hazardous Materials – Transportation

Transportation routes of most concern include I-80, Highway 30, and the Union Pacific Railroad. Hazardous materials are regularly transported along local routes; some of these include anhydrous ammonia and nuclear waste. No chemical spills have occurred in the area recently, according to the local planning team. Dix Fire Department personnel are trained for HAZMAT awareness only (not for response). In the event of a large spill, the Dix Fire Department would be the first to respond, followed by neighboring departments, the Incident Commander, and a HAZMAT response team from Scottsbluff for North Platte.

The Potter-Dix Elementary School is located close to the three most likely HAZMAT transportation routes through the community and would therefore be more vulnerable to this hazard. To mitigate risk, the school has been developing an emergency response plan, of which the Dix and Potter Fire Departments have been involved with. The school administration or the Incident Commander would make the decision to shelter in place or evacuate, based on available information.

Mitigation Strategy

New Mitigation and Strategic Actions

MITIGATION ACTION	Fire Station Expansion
DESCRIPTION	Expand fire station to provide room for all current apparatus and provide space for administration and training functions.
HAZARD(S)	All Hazards
ESTIMATED COST	\$750,000 - \$1.2M
FUNDING	District Funds, Local Bond
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Dix Fire District
STATUS	Not yet started

MITIGATION ACTION	Update SCBA Equipment
DESCRIPTION	Update current SCBA equipment
HAZARD(S)	Grass/Wildfire
ESTIMATED COST	\$20,000
FUNDING	District Funds
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Dix Fire District
STATUS	Not yet started

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Airport Profile

Kimball Municipal Airport

**South Platte NRD
Hazard Mitigation Plan 2022**

Local Planning Team

Table KMA.1: Airport Local Planning Team

Name	Title	Jurisdiction
Ryan McElroy	Chairman	Kimball Municipal Airport
Don Muench	Board Member	Kimball Municipal Airport
Bobbie Duncan	Board Member	Kimball Municipal Airport
John Fergenson	Board Member	Kimball Municipal Airport

Location and Geography

The Kimball Airport is located approximately two miles south of the City of Kimball.

Climate

As an airport just outside of Kimball, Nebraska, the plan will utilize the City of Kimball as the location for all the climate data. For Kimball, the normal high temperature for the month of July is 85.6 degrees Fahrenheit and the normal low temperature for the month of January is 14.3 degrees Fahrenheit. On average, Kimball gets 16.9 inches of rain and 29.8 inches of snowfall per year. The following table compares these climate indicators with those of the entire state.

Table KMA.2: Climate Data for Kimball

	Kimball	State of Nebraska
July Normal High Temp¹	85.6 °F	88.0°F
January Normal Low Temp¹	14.3 °F	12.0°F
Annual Normal Precipitation²	16.9 inches	30.3 inches
Annual Normal Snowfall²	29.8 inches	25.9 inches

Source: NCEI 1981-2010 Climate Normals⁹, High Plains Regional Climate Center, 1981-2010¹⁰
Precipitation includes all rain and melted snow and ice.

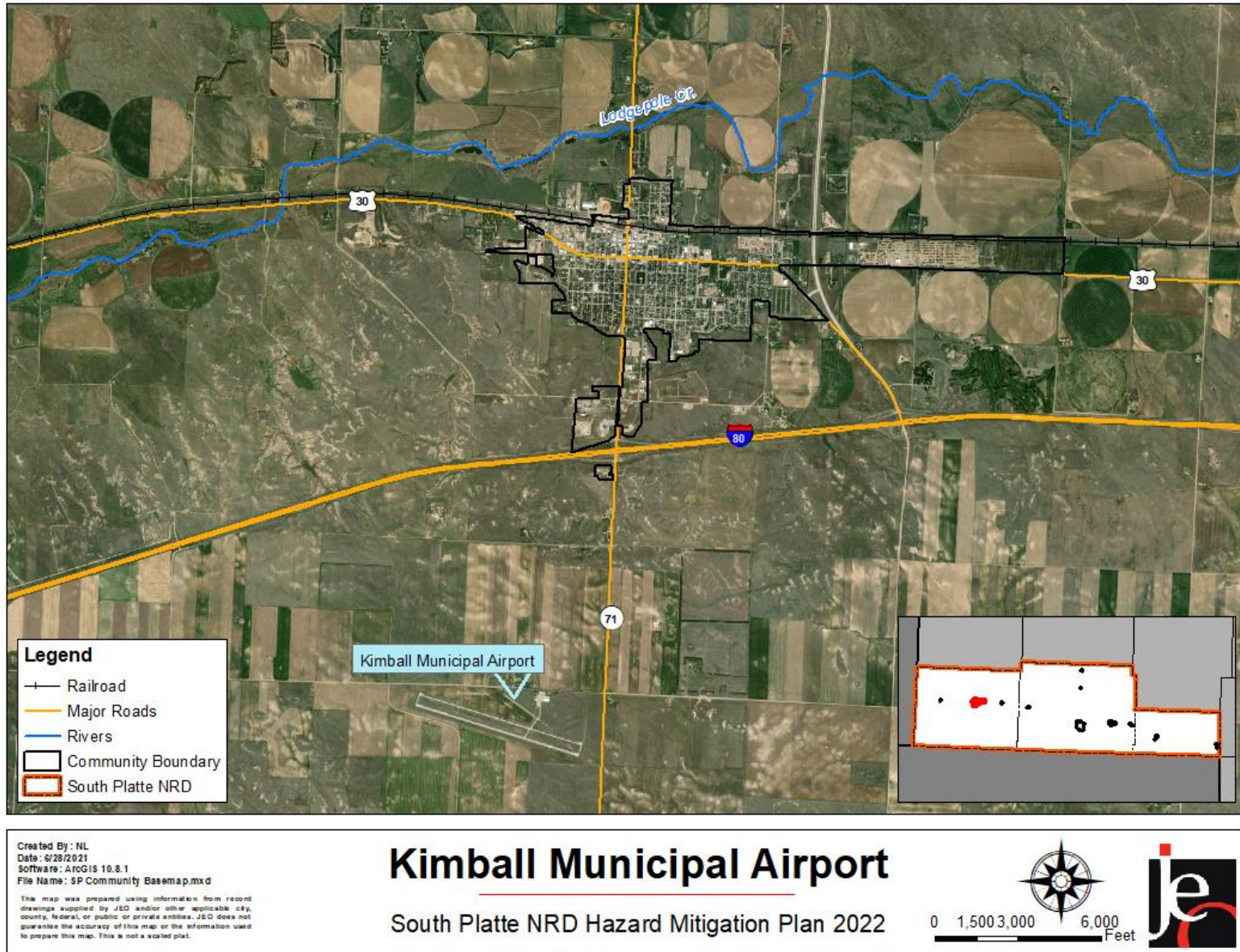
Transportation

According to the NDOT's 2014 Statewide Traffic Flow Map, US Highway 71 runs through Kimball, running north/south, and accommodates approximately 2,020 vehicles per day, 445 of which are heavy commercial vehicles. The Union Pacific Railroad runs east/west south of Kimball, just north of the community. Transportation information is important for hazard mitigation plans because it suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents.

⁹ National Centers for Environmental Information. "1981-2010 U.S. Climate Normals." Accessed December 2020. <https://www.ncdc.noaa.gov/cdo-web/datatools>.

¹⁰ High Plains Regional Climate Center. "Monthly Climate Normals 1981-2010 – Kimball, NE." Accessed December 2020. <http://climod.unl.edu/>.

Figure KMA.1: Kimball Municipal Airport



Demographics

The U.S. Census Bureau does not maintain demographic data for the Kimball Airport, nor does anyone live on airport property land. As a result, no demographic information may be shown. For demographic data for the City of Kimball, please refer to Kimball's *Participant Section*.

Future Development Trends

In the last five years, the airport added new runway lights. A new runway is planned for the airport in 2022.

Community Lifelines

Critical Facilities

The local planning team identified critical facilities that are vital for disaster response, public shelter, and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during the original planning process and updated by the local planning team as a part of this plan update. The following table and figure provide a summary of the critical facilities for the jurisdiction.

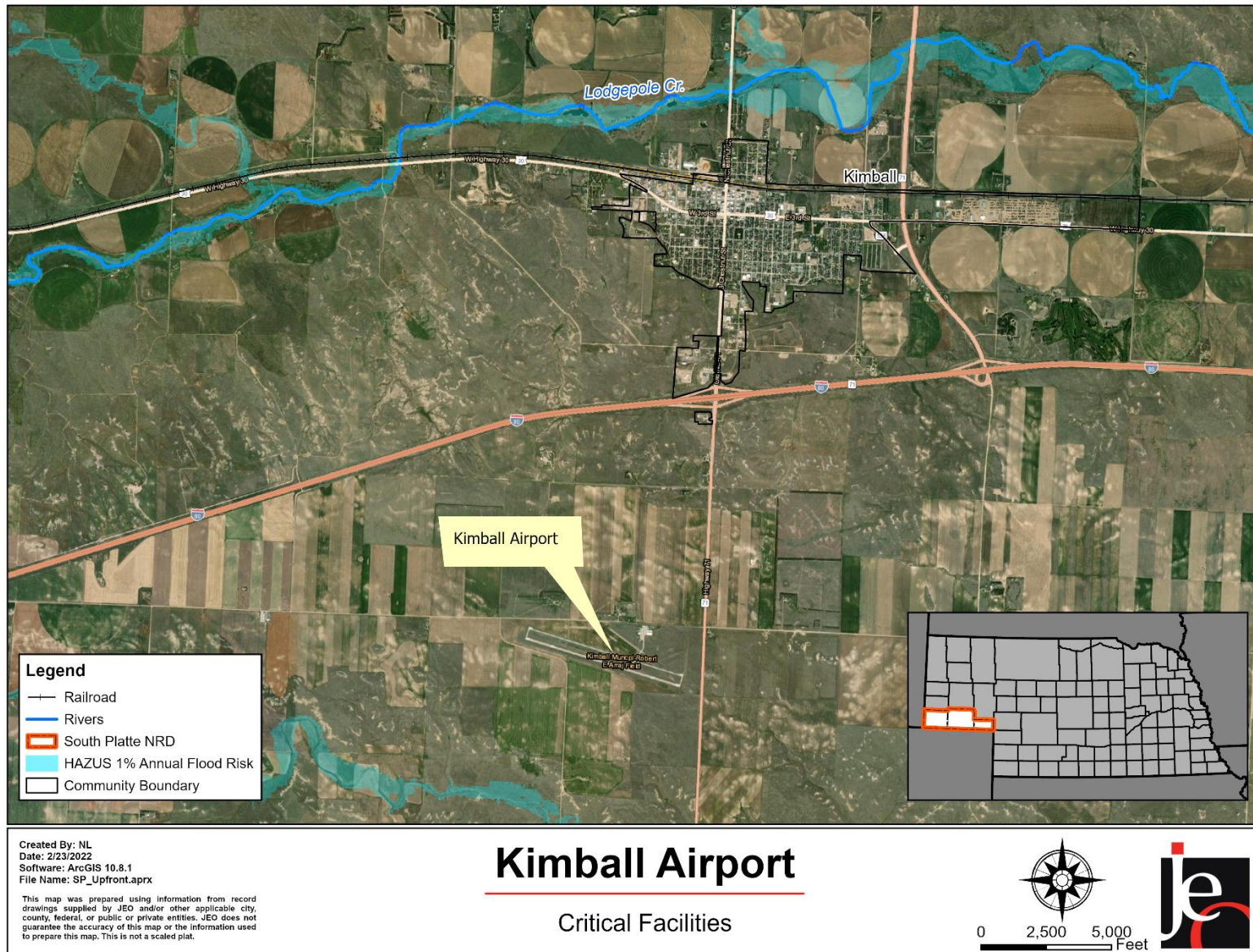
Table KMA.3: Critical Facilities

CF #	Name	Shelter (Y/N)	Generator (Y/N)	Floodplain (Y/N)
1	Kimball Municipal Airport	N	N	N

Governance

The airport's officials may be supporting actors in implementing any mitigation and strategic actions identified within this process. The airport has five Board Members, which includes one Board Chair.

Figure KMA.2: Critical Facilities



Capability Assessment

Due to the unique structure of the airport, the typical capability assessment table was not used. The following table summarizes the district's overall capabilities. The Kimball Municipal Airport will continue to utilize existing relationships with local, county, state, and federal agencies to aid in the implementation of mitigation projects.

Table KMA.5: Capability Assessment

Overall Capability	Limited/Moderate/High
Financial resources needed to implement mitigation projects	Limited
Staff/expertise to implement projects	Limited
Community support to implement projects	Moderate
Time to devote to hazard mitigation	Limited

Plan Integration

The airport collaborates with the City of Kimball and Kimball County on planning efforts.

Plan Maintenance

Hazard Mitigation Plans should be living documents and updated regularly to reflect changes in hazard events, priorities, and mitigation and strategic actions. These updates are encouraged to occur after every major disaster event, alongside community planning documents (i.e. annual budgets and Capital Improvement Plans), during the fall before the HMA grant cycle begins, and/or prior to other funding opportunity cycles begin including CDBG, Water Sustainability Fund, Revolving State Fund, or other identified funding mechanisms.

The local planning team is responsible for reviewing and updating this profile as changes occur or after a major event. The local planning team will include the Chair and the Board. The plan will be reviewed bi-annually.

Historical Occurrences

See the City of Kimball community profile for historical hazard events. The following table provides a summary of hazards that have affected or have the potential to affect the Kimball Municipal Airport. The airport was evaluated for previous hazard occurrence and the probability of future hazard events on each of the 16 hazards profiled in this plan. The evaluation process was based on data collected; previous impacts or the potential for impacts to infrastructure, critical facilities, people, and the economy; and the proximity to certain hazards such as dams and levees.

Table KMA.6: Kimball Municipal Airport Hazard Matrix

Hazard	Kimball Municipal Airport
Animal and Plant Disease	
Dam Failure	X
Drought	X

SECTION SEVEN: KIMBALL MUNICIPAL AIRPORT PROFILE

Hazard	Kimball Municipal Airport
Earthquakes	X
Extreme Heat	X
Flooding	X
Grass/Wildfire	X
Hail	X
Hazardous Materials – Fixed Sites	X
Hazardous Materials – Transportation	X
High Winds	X
Levee Failure	
Severe Thunderstorms	X
Severe Winter Storms	X
Terrorism and Civil Disorder	X
Tornadoes	X

Hazard Prioritization

For additional discussion regarding area-wide hazards, please see *Section Four: Risk Assessment*. The hazards discussed in detail below were selected by the local planning team from the regional hazard list as the relevant hazards for the jurisdiction. The selected hazards were prioritized by the local planning team based on historical hazard occurrences, potential impacts, and the community's capabilities.

Hail

As the owner of five buildings on the property, the airport board ranked hail as a hazard of top concern. The City of Kimball owns each hanger and has insurance on these structures. According to the local planning team, the community experiences a hail event every 5-7 years. The planning team noted that most hail events are approximately pea-sized hail. For pilot's safety, visibility is a top concern, and the FAA has a weather control channel for pilots to understand conditions.

Hazardous Materials – Transportation

The airport is a provider for takeoff/landing facilities for many crop dusters, which makes the airport vulnerable to a chemical spill event. Crop dusting season lasts from mid spring until July. The airport also has a fuel island which has gasoline, also presenting an additional vulnerability for the airport. While the airport has only experienced minor spills in the past, the airport does have inflatable catches for a chemical spill, which may contain any spill. Additionally, to encourage awareness, the airport has posted placards on fuel tanks and pumps. To mitigate risk, the airport works to ensure sprayers and pilots keep a clean environment.

In the case of a significant chemical spill, the Scottsbluff Hazardous Materials team would likely be the first responders.

High Winds

Airports are uniquely vulnerable to high wind events. The local planning team noted that high winds may prohibit safe landings about twice a year at Kimball. The airport has worked to improve notifications of high wind events to keep pilots safe and aware of any potential danger. The airport has an automated radio transmitter which transmits current conditions to pilots. This information includes temperature, visibility, and date/time information. Past impacts from high winds include torn flags and a broken door.

In terms of protection, it is the responsibility of the individual to shelter-in-place, the airport does not presently have any protected areas for high wind events. There are tie downs for planes and some open hangar space, if needed. The airport tries to keep a hangar spot open for travelers.

Tornadoes

Airports are uniquely vulnerable to tornado events. Presently, the airport does not have any sort of protected areas from high wind events. Courtesy cars are available if people need transportation to Kimball for shelter. The airport is interested in pursuing funding for a tornado safe room, to mitigate this vulnerability.

Mitigation Strategy

Continued Mitigation and Strategic Actions

Mitigation Action	Additional Hangers
DESCRIPTION	The airport authority is interested obtaining additional hangers to protect aircrafts from inclement weather.
HAZARD(S)	All Hazards
ESTIMATED COST	\$10,000-\$40,000
FUNDING	General Fund
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Kimball Municipal Airport Board
STATUS	This project has been delayed due to runway issues.

Mitigation Action	Backup Generator
DESCRIPTION	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)	High Winds, Severe Thunderstorms, Severe Winter Storms, Tornadoes
ESTIMATED COST	\$15,000-\$30,000
FUNDING	General Fund
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Kimball Municipal Airport Board
STATUS	This project has been delayed due to runway issues.

Mitigation Action	Storm Shelters / Safe Rooms
DESCRIPTION	Assess, design, and construct fully supplied safe rooms in areas of greatest need, either as new construction or retrofitting.
HAZARD(S)	Tornadoes, High Winds
ESTIMATED COST	\$200-\$300/sq. ft. stand alone, \$150-\$200/sq. ft. addition/retrofit
FUNDING	General Fund
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Kimball Municipal Airport Board
STATUS	This project has been delayed due to runway issues.

Removed Mitigation and Strategic Actions

Mitigation Action	Civil Service Improvements
DESCRIPTION	Presently, the Kimball Municipal Airport subcontracts out its snow removal strategies; the airport authority may be interested in obtaining a snowplow or blade specifically for use at the airport.
HAZARD(S)	Severe Winter Storms
REASON FOR REMOVAL	This is no longer a priority for the airport due to a lack of staff.

Mitigation Action	Portable Containment Barriers
DESCRIPTION	To prevent the spread of spilled chemicals, the airport authority is interested in investing in containment barriers for crop duster chemicals
HAZARD(S)	Hazardous Materials - Transportation
REASON FOR REMOVAL	The crop dusters are responsible for their own containment.

Mitigation Action	Public Awareness and Education
DESCRIPTION	The Kimball Airport Authority provides Notice to Airmen (NOTAM) messages during times of inclement weather, these messages are distributed via radio and online resources
HAZARD(S)	All Hazards
REASON FOR REMOVAL	The FAA has implemented a web-based notification system to make it easy to create NOTAMs.

District Profile

Kimball Public School District

**South Platte Natural Resources District
Hazard Mitigation Plan 2022**

Local Planning Team

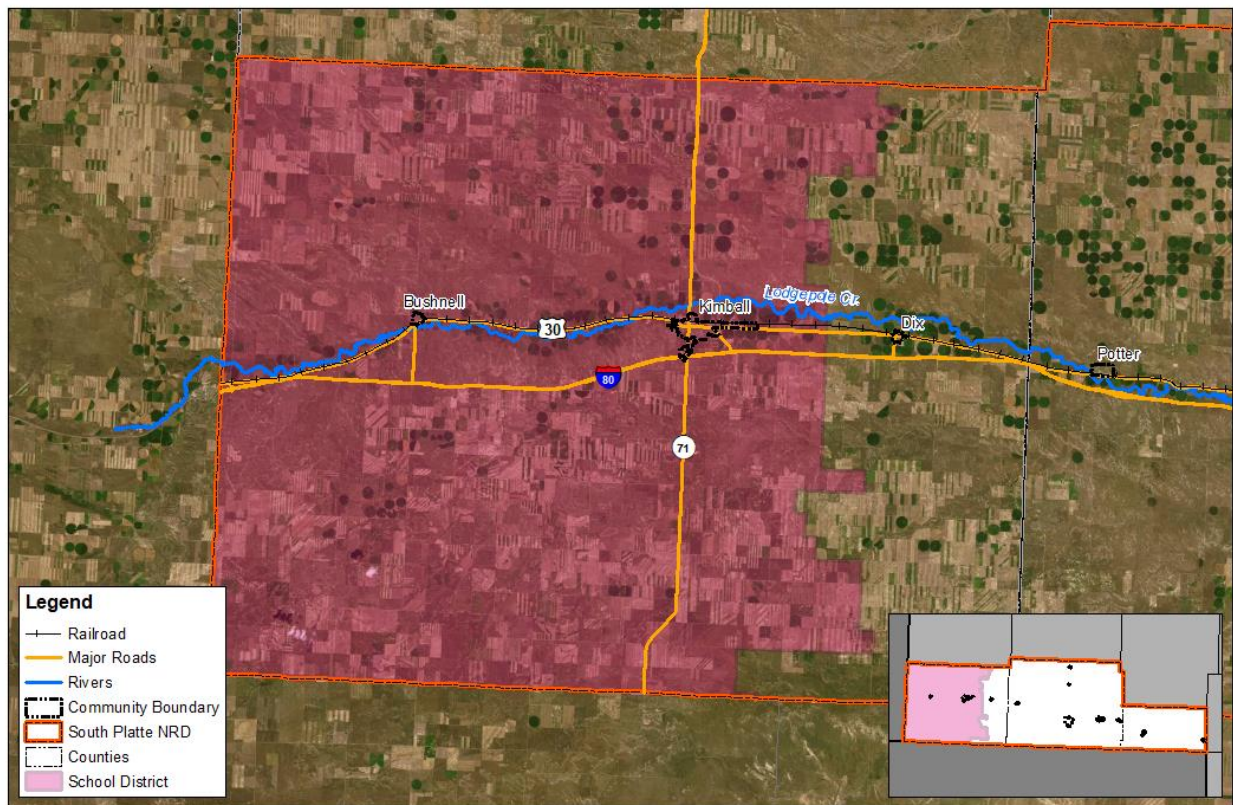
Table KPS.1: Kimball Schools Local Planning Team

Name	Title	Jurisdiction
Trevor Anderson	Superintendent	Kimball Public Schools
Travis Terrill	Technology Director	Kimball Public Schools
Gregg Fossand	Building & Grounds Director	Kimball Public Schools

Location and Services

Kimball Public Schools is a school district located in Kimball County, in the southwest corner in the panhandle of Nebraska. Its offices are located at 901 South Nadine Street, Kimball, Nebraska, 69145, and 1000 East 6th Street, Kimball, NE 69145. The district’s mission, as expressed on its website, states “Educating every student for a lifetime of success.” The district is comprised of two schools: Kimball Junior/Senior High School and Mary Lynch Elementary School. Students are allowed to opt-in to the school district, which currently include students from Pine Bluffs, Banner County, and Potter-Dix. Both English and Spanish are spoken in the district.

Figure KPS.1: Kimball School District Boundary



Created By: NL
 Date: 6/7/2021
 Software: ArcGIS 10.8.1
 File Name: SP School Districts Basemap.mxd

Kimball Public Schools
 District Boundary

This map was prepared using information from record drawings supplied by JEO and/or other applicable city, county, federal, 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 plot.

0 2 4 8 Miles

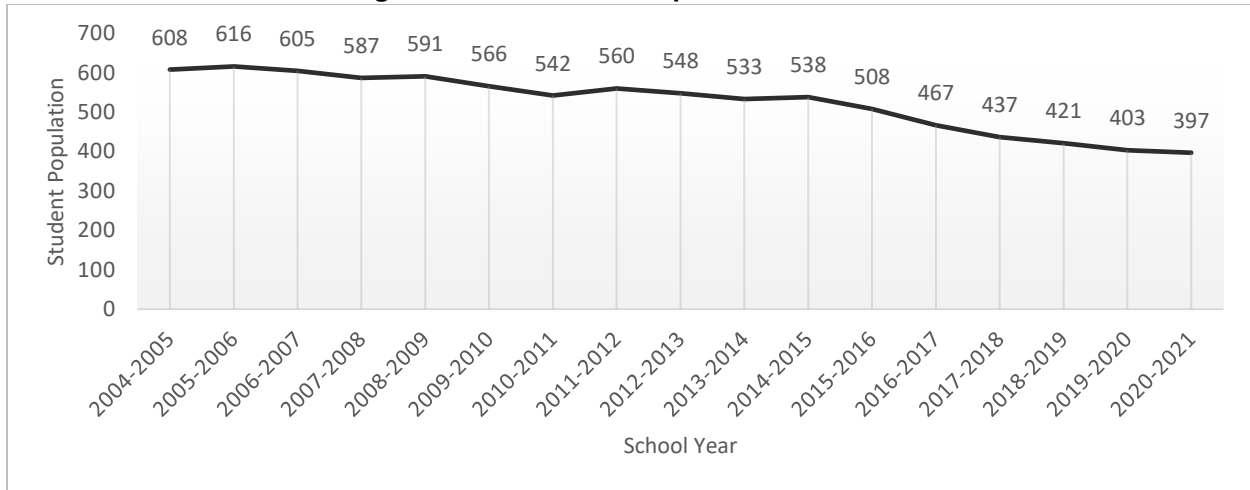
Transportation

Rural transportation routes are of the most concern to the local planning team due to conditions of the roads in the event of rain or snow. In the past year, an accident occurred involving a school vehicle and wildlife. Wildlife on the roadway is a common occurrence, according to the planning team. The district owns nine buses, with around 90 students being bused to and from school.

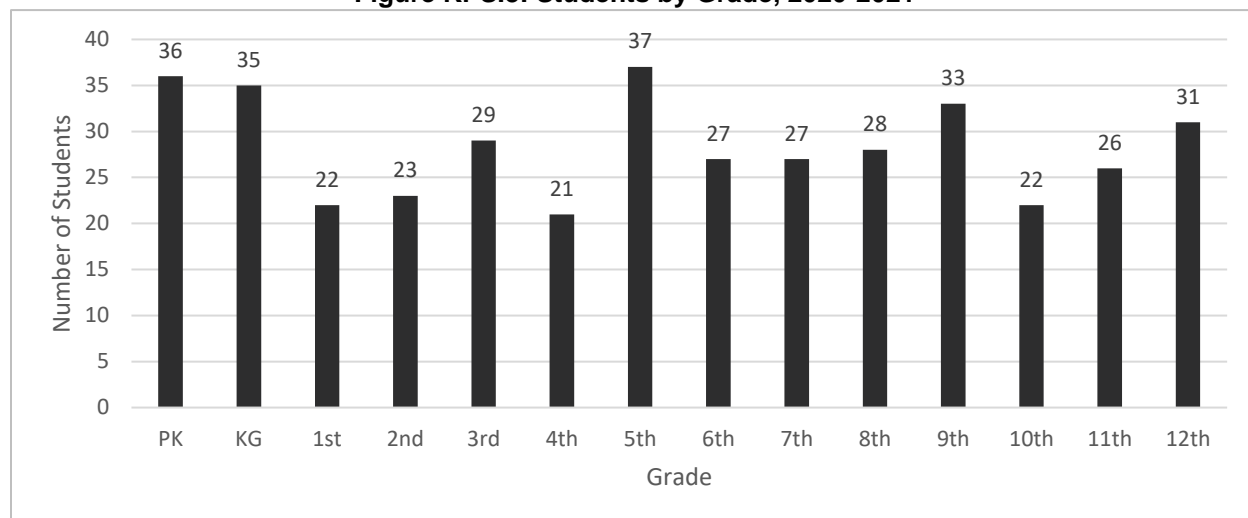
Demographics

The following figure displays the historical student population trend starting with the 2004-05 school year and ending with the 2020-21 year. The figure indicates that the student population has generally declined in recent years. There are approximately 397 students enrolled in Kimball Public School District. The planning team anticipates an increase in student population over the next five years due to multiple projects coming to the area and the prospect of new jobs being created. The district employs approximately 85 teachers and staff.

Figure KPS.2: Student Population 2004-2021



Source: Nebraska Department of Education

Figure KPS.3: Students by Grade, 2020-2021

Source: Nebraska Department of Education

The figure above indicates that the largest number of students are in 5th grade, followed by Pre-kindergarten and Kindergarten. The lowest population of students are in 1st, 4th, and 10th grade. According to the Nebraska Department of Education (NDE), 48.88% of students receive either free or reduced priced meals at school in the 2019-20 year. This is higher than the state average of 45.60%. Additionally, 19.28% of students are in the Special Education Program. These students may be more vulnerable during a hazardous event than the rest of the student population.

Table KPS.2: Student Statistics, 2019-2020

	District	State of Nebraska
Free/Reduced Priced Meals	48.88%	45.60%
Special Education Students	19.28%	15.56%
English Language Learners (ESL)	*	7.43%
School Mobility Rate	18.46%	8.36%

*Data is not available with fewer than 10 students.

Source: Nebraska Department of Education

Future Development Trends

Over the past five years, enrollment has declined in the district. Staff has also declined during that time. The planning team attributes this to a decrease in the overall population of the school district. In recent years the district has acquired new school vehicles and updated some technology equipment. As noted above, it is anticipated that enrollment will increase in the next five years due to new developments and projects coming to the area.

The district is in the preliminary process of evaluation its facilities and anticipates either renovating facilities or completing a new construction project. The scope of the project will encompass all district facilities.

Community Lifelines

Transportation

The district's major transportation corridors include US Highway 30, State Highway 71, and Interstate 80. The Union Pacific Rail Line runs west/east through the north portion of the City of Kimball. This information is important to hazard mitigation plans insofar as it suggests possible evacuation corridors in the district, as well as areas more at risk to transportation incidents.

Hazardous Materials – Chemical Storage Fixed Sites

Chemical storage facilities of concern include buildings that store fertilizer, anhydrous ammonia, and crude oil. However, none of these locations are directly located near to district facilities. According to the planning team, no chemical spills have occurred that impacted the district. In the event of a spill, a custodian or teacher would be the first to respond. The fire department would then be next to respond.

Table KPS.3: Chemical Storage Fixed Sites

Facility Name	Address
Swanson 11X-21	Rd 14
Giesecking 41X-9	County Road 45
Maxted 1	County Road 37
Frenchman Valley Farmers Co-op	201 E Front St
Kimball Energy Oil	103 S Howard St
Wolf-Mobil	County Road 54
Frenchman Valley Farmers Co-op	1101 S Highway 71
Castronics LLC	4386 E Highway 30
Hagstrom Commingled Tank Batt	County Road 30
Woolsey	Highway 71
Trevethan 1-17	Rd 14
NDOT Kimball Yard	3979 Road 32
Clean Harbors Env Services Inc	2247 S Highway 71
Kimball Energy Propane Storage	Jct W 1st St & Hwy 30
Kilo 06 Launch Facility	County Road 12
Kilo 10 Launch Facility	County Rd 28
Kilo 08 Launch Facility	Highway 71
Kilo 07 Launch Facility	County Rd 10
Delta 01 MAF	County Rd 27
WAPA Kimball Substation	County Road 22
State of Nebraska 1 Lease	Unlisted
Chaney East Unit	County Road 23
Terrestrial 1-32 Tank Battery	Unlisted
State of Nebraska 36-2 & 3	Highway 30 E
Owasco Unit Tank Battery	Highway 30 E
Flying Eagle 1,2,3 Battery	Unlisted
Campbell 2-20 Tank Battery	Unlisted
Gross C-1,2,3 Lease	Unlisted
Wykert Tank Battery	Unlisted
Grubb 2-1A	Rd 37
Bourlier Unit	County Road 14
Giesecking 1	County Road 45

SECTION SEVEN: KIMBALL PUBLIC SCHOOL DISTRICT PROFILE

Facility Name	Address
Bernice Zweiner Lease	Highway 71 S
State of Nebraska 27-21 Lease	Road 210
Evertson 1	Jct Roads 39 & 30
Prairie State Lease 01	County Road 14
South Torgeson Units 6 & 7	Roads 22 & 37
Foxtrot 09 Launch Facility	County Rd 49
Foxtrot 10 Launch Facility	County Rd 49
Delta 04 Launch Facility	County Rd 52
Delta 05 Launch Facility	County Road 42
Delta 06 Launch Facility	County Rd 29
Forsling 3	Road E
Frederick 1 Lease	Road E
Kimball Energy Station	312 S Chestnut St
Endura Products Corp	2891 W Highway 30
TIGT Kimball Jct Compressor	County Rd 12
Sloss Unit 99	County Road 43
Heidemann Farms 1-13 Lease	16 Road E
Sue Ann Wilson 15-34 Lease	Road 20
WJD Ranch 42-22	County Rd 27 W
Haase 24-10	Unlisted
Art Pirnie 6-3	Road 20
Jessen 34-15	County Road 50
Jessen 23-15	County Road 50
Reader 21-11	County Road 54
Kimball Batch Plant	1098 W Highway 30
Elite Oil Field Services LLC	107 S Cedar St
Tallgrass Pony Exprss Pipeline	3381 Road 28 S
Kunau 1 Tank Battery	Lindbergh Rd
Elite Oil Field Services LLC	501 W 2nd St
Cauley 44-29	Rd 46
Cederburg 35-15 1R	Road 20

Source: Nebraska Department of Environment and Energy¹¹

Critical Facilities

Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and essential for returning the jurisdiction’s functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during the original planning process and updated by the local planning team as a part of this plan update.

The school district operates two facilities. School facilities are listed below, along with information indicating the school’s address, number of students and staff, if the facility is used as a shelter during emergencies, if the facility is located in the floodplain, and the presence of a backup power generator.

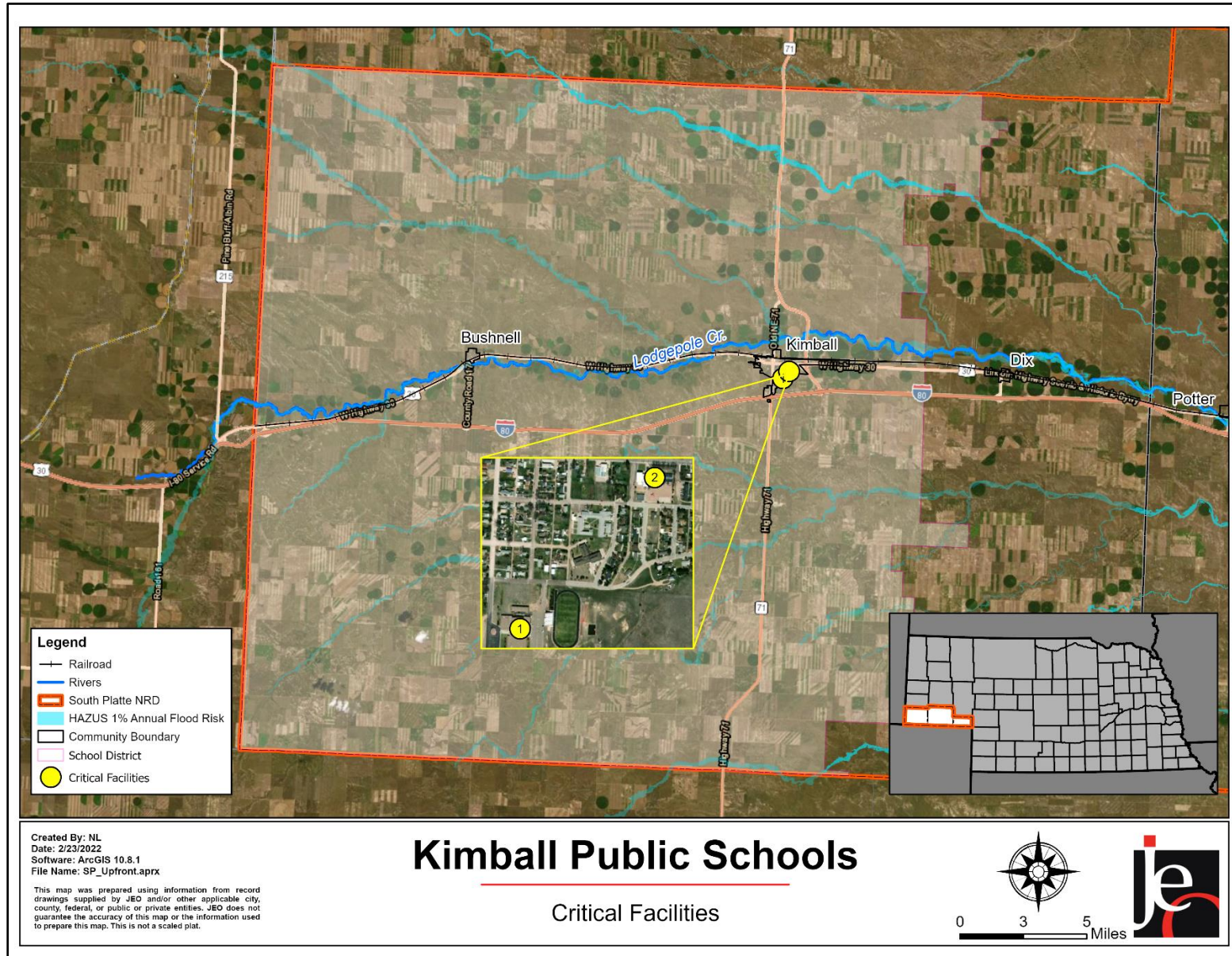
¹¹ Nebraska Department of Environment and Energy. “Search Tier II Data.” January 2021.

The following table and figure provide a summary of the critical facilities for the district.

Table KPS.4: Kimball Schools Critical Facilities

CF #	Name	# of Students	# of Staff	Shelter (Y/N)	Generator (Y/N)
1	Kimball Jr/Sr High School	170	40	Y	N
2	Mary Lynch Elementary School	230	40	Y	N

Figure KPS.4: Kimball Schools Critical Facilities



School Drills and Staffing

Safety drills are conducted monthly throughout the school year. These include bus safety/evacuation, tornado, fire, building evacuation, lockdown, hold, secure, and shelter. Staff are trained in emergency procedures prior to the start of each school year. Families are informed about emergency procedures at the district through the school website and a parent meeting held annually. Emergency events are communicated to parents through the district-wide notification system that sends an alert to phones as well as a text and phone call. Presently, alerts are only sent in English.

Historical Occurrences

See the City of Kimball community profile for historical hazard events.

Hazard Prioritization

For additional discussion regarding area wide hazards, please see *Section Four: Risk Assessment*. The hazards discussed in detail below were selected by the local planning team from the regional hazard list as the relevant hazards for the jurisdiction. The selected hazards were prioritized by the local planning team based on historical hazard occurrences, potential impacts, and the district's capabilities.

Hail

The local planning team identified hail as a top concern for Kimball Schools. The school district is most concerned about damages to vehicles and personal injury related to hail. In the past, hail damage to the roof resulted in the need for a roof replacement.

In terms of response, the school has the capability to shelter in place during a hail event or call students indoors during a severe thunderstorm to prevent bodily harm.

Severe Thunderstorm

The local planning team identified severe thunderstorms as a top concern for Kimball Schools. According to the local planning team, the area experiences approximately 12 severe thunderstorms per year. The school's biggest concern related to severe thunderstorms is potential damage to facilities, vehicles, and infrastructure. There is also concern for potential student and staff injury. For notification, the school utilizes the Kimball County Sherriff's notification system, which provides details to the public regarding impending severe weather.

The school has suffered significant losses as a result of severe thunderstorms in the past. In 2015, high winds combined with rain resulted in water getting into the school's HVAC system. Water traveled down the air ducts and ruined many of the school's IT resources. The school has had waterproofing issues with their roofing as well, especially the gym roof. The school made two insurance claims relating to severe thunderstorms in 2015, totaling \$300,000. Communications have been updated in recent years to improve the ability to send out notifications. The planning team noted that the district does not have backup generators but would benefit from one at Kimball Junior/Senior High School and Mary Lynch Elementary School. Most power lines going to school facilities are buried underground.

Severe Winter Storms

Severe winter storms were identified as a hazard of top concern for the school district. The district is forced to cancel school between two and six days per year as a result of severe winter storms. The planning team's biggest concern as it relates to severe winter storm is commuting, especially since many high schoolers can drive at 14, if they live in a rural area. Presently, the school enacts "mud/snow routes" during times of inclement weather, which keeps buses on hard surfaces, and off dangerous roadways. Under these conditions, parents are responsible for bringing their kids to predesignated locations, where buses will take them the rest of the way.

When closing school, the superintendent uses a variety of sources to make an informed decision. The superintendent has a good relationship with the National Weather Service in Cheyenne, WY, which improves prediction capabilities. The superintendent also calls neighboring jurisdictions to learn about local conditions and what other superintendents will do.

Extremely cold and snow in February and March 2021 caused power outages and road closures throughout the school district and resulted in school closure for four days during that time. Gutter damage from winter storms resulted in multiple insurance claims and both gutter guards and snow guards have been installed to prevent future damage. Kimball Public Schools has also invested in an "all call" system to alert parents of school cancellations. According to the local planning team, this system alerts 88-90% of all people.

Tornadoes

The local planning team identified tornadoes as a top concern for Kimball Schools. While the school district has not suffered any damages directly, tornadoes are a common hazard for the planning area as a whole. The local planning team added that tornadoes occur in the planning area approximately twice a year. The school district is most concerned about a tornado any time while students are commuting to or from school, including the open lunch hour, when students have permission to leave campus for lunch. In addition to the concern of injury or bodily harm, the school district is also concerned about vulnerability to the safety of their data.

To protect students from tornado events, the school has pre-designated shelter areas which are hardened for protection, such as interior classrooms or restrooms. The school does not have a FEMA-certified Safe Room. Both the elementary school and the high school have weather radios located in their offices. The planning team indicated that a safe room would be considered if the district moves forward with a construction/renovation project.

Terrorism

When presented with a list of hazards from the State of Nebraska HMP, the local planning team identified terrorism as a top concern for Kimball Public Schools. While the school has not experienced any acts of terrorism in the past, the school is increasingly concerned about how commonplace these events have become. According to the local planning team, some individuals within the schools may feel as if "that doesn't happen here," or "Kimball is too small for that." Both schools need additional security, but the high school does have higher attendance, perhaps more greatly necessitating security.

To mitigate against lasting impacts as a result of terrorism, the school intends to improve awareness of terrorism events. The school superintendent wishes to re-key locks frequently and encourages visitors to wear badges or nametags.

Administration

The school district has a superintendent, two principals, and supportive staff. The school board has a cabinet and is also made up of a six-member school board. The district also has a number of additional departments and staff that may be available to implement hazard mitigation initiatives.

The Kimball County Cabinet includes the resources listed below:

- Superintendent
- Elementary Principal/Director of Special Services
- Secondary Principal
- Business Manager
- Technology Director
- Director of Transportation/Building & Grounds
- Activities Director
- Food Service Director

Capabilities

The capability assessment consisted of a review of local existing policies, regulations, plans, and programs with hazard mitigation capabilities. The following tables summarize the jurisdiction's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects.

Table KPS.5: Capability Assessment

Survey Components		Yes/No
Planning Capability	Capital Improvements Plan/Long-Term Budget	Yes
	Continuity of Operations Plan	Yes
	Disaster Response Plan	Yes
	Other (if any)	
Administrative & Technical Capability	GIS Capabilities	Yes
	Civil Engineering	No
	Staff who can assess jurisdictional vulnerability to hazards	No
	Grant Manager	No
	Mutual Aid Agreements	No
Other (if any)		
Fiscal Capability	Applied for grants in the past	Yes
	Awarded grants in the past	Yes
	Authority to levy taxes or bonds for specific mitigation projects	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds in place	No

SECTION SEVEN: KIMBALL PUBLIC SCHOOL DISTRICT PROFILE

	Flood Insurance	No
	Other (if any)	
Education and Outreach	Local school groups or non-profit organizations focused on environmental protection, emergency preparedness, access, and functional needs populations, etc. (Ex. Parent groups, hazard mitigation boards, etc.)	No
	Ongoing public education or information program (Ex. Responsible water use, fire safety, household preparedness, environmental education, etc.)	No
	StormReady Certification	No
	Other (if any)	
Drills	Fire	5/yr
	Tornado	2/yr
	Intruder	3/yr
	Bus Evacuation	2/yr
	School Evacuation	1/yr
	Other (if any)	

Table KPS.6: Overall Capability

Overall Capability	Limited/Moderate/High
Financial Resources Needed to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Community Support to Implement Projects	Moderate
Time to Devote to Hazard Mitigation	Moderate

Plan Integration

Grants and Funding

District funds are currently limited to maintaining facilities and systems. Funds have decreased over recent years due to decreased property valuations in the area. The district did not apply for any grants in the last five years.

Crisis Response Plan

The school district utilizes a Crisis Response Plan (2022) to react to hazardous events. The Crisis Response Plan assigns specific responsibilities to individuals, provides clear assignment of responsibility during an emergency, addresses shelter in place protocols, identifies scenarios that require evacuation, and identifies opportunities for mitigation following an event. The plan is updated annually prior to the start of the school year.

Emergency Operations Plan

The district also has an Emergency Operations Plan (2021) which addresses actions to take for tornadoes, fire, flooding, blizzard, and other severe weather hazards.

Plan Maintenance

Hazard Mitigation Plans should be living documents and updated regularly to reflect changes in hazard events, priorities, and mitigation and strategic actions. These updates are encouraged to occur after every major disaster event, alongside community planning documents (i.e. annual budgets and Capital Improvement Plans), during the fall before the HMA grant cycle begins, and/or prior to other funding opportunity cycles begin including CDBG, Water Sustainability Fund, Revolving State Fund, or other identified funding mechanisms.

The local planning team is responsible for reviewing and updating this community profile as changes occur or after a major event. The local planning team will include the Safety and Security Committee. The local planning team will review the plan no less than bi-annually and will include the public in the review and revision process via website updates and the alert system.

Mitigation Strategy

New Mitigation and Strategic Actions

MITIGATION ACTION	Update Fire Detection and Alert System
DESCRIPTION	Update facilities with a new fire detection and alert system
HAZARD(S)	Urban Fire, Grass/Wildfire
ESTIMATED COST	\$20,000-\$30,000
FUNDING	Depreciation Fund
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Building and Grounds
STATUS	A new fire panel has been installed at the Junior/Senior High School and new smoke detectors will be added in the near future.

Completed Mitigation and Strategic Actions

MITIGATION ACTION	Facility Monitoring
DESCRIPTION	Install security cameras in/around critical facilities and key infrastructure
HAZARD(S)	Terrorism and Civil Disorder
STATUS	Security cameras were installed in identified locations.

MITIGATION ACTION	Facility Security
DESCRIPTION	Install locks on entries to critical areas for all critical facilities
HAZARD(S)	Terrorism and Civil Disorder
STATUS	New locks were installed on entries to all critical facilities.

MITIGATION ACTION	Impact Resistant Roof Covering
DESCRIPTION	Use roofing materials that are resistant to hail impacts for new buildings; retrofit existing building with hail resistant roofing
HAZARD(S)	Hail
STATUS	Roofing was upgraded in summer 2021.

SECTION SEVEN: KIMBALL PUBLIC SCHOOL DISTRICT PROFILE

MITIGATION ACTION	Surge Protectors
DESCRIPTION	Purchase and install surge protectors on sensitive equipment in critical facilities
HAZARD(S)	Severe Thunderstorms
STATUS	Surge protectors were installed on sensitive equipment at critical facilities.

Continued Mitigation and Strategic Actions

MITIGATION ACTION	Backup Generators
DESCRIPTION	Provide a portable backup generator to redundant power supplies, municipal wells, lift stations, and other critical facilities and shelters
HAZARD(S)	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
ESTIMATED COST	\$15,000-\$30,000
FUNDING	General Fund
TIMELINE	5+ years
PRIORITY	Low - this is a priority, yet it is presently cost-prohibitive
LEAD AGENCY	School Superintendent's Office
STATUS	Currently cost-prohibitive

MITIGATION ACTION	Electrical System Looped Distribution/Redundancies
DESCRIPTION	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)	All Hazards
ESTIMATED COST	\$50,000+
FUNDING	Special Building Fund
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Building and Grounds
STATUS	Not started

MITIGATION ACTION	Install Vehicular Barriers
DESCRIPTION	Install vehicular barriers to protect critical facilities and key infrastructure where possible
HAZARD(S)	Terrorism and Civil Disorder
ESTIMATED COST	\$500 per concrete barrier; \$20 per linear foot of chain linked fence
FUNDING	Special Building Fund
TIMELINE	2-5 years
PRIORITY	Low
LEAD AGENCY	Building and Grounds
STATUS	Not started

SECTION SEVEN: KIMBALL PUBLIC SCHOOL DISTRICT PROFILE

MITIGATION ACTION	Safe Rooms
DESCRIPTION	Assess, design and construct fully supplied safe rooms in highly vulnerable urban and rural areas such as mobile home parks, campgrounds, schools, and other such areas throughout the planning area; assess the adequacy of current public buildings to be used as safe rooms; construct safe rooms in areas of greatest need, either as new construction or retrofitting
HAZARD(S)	High Winds, Tornadoes
ESTIMATED COST	\$200-\$300/sq ft stand alone, \$150-\$200 addition/retrofit
FUNDING	Varies
TIMELINE	5+ years
PRIORITY	Low
LEAD AGENCY	Building and Grounds
STATUS	Not started

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District Profile

Leyton Public School District

**South Platte Natural Resources District
Hazard Mitigation Plan 2022**

Local Planning Team

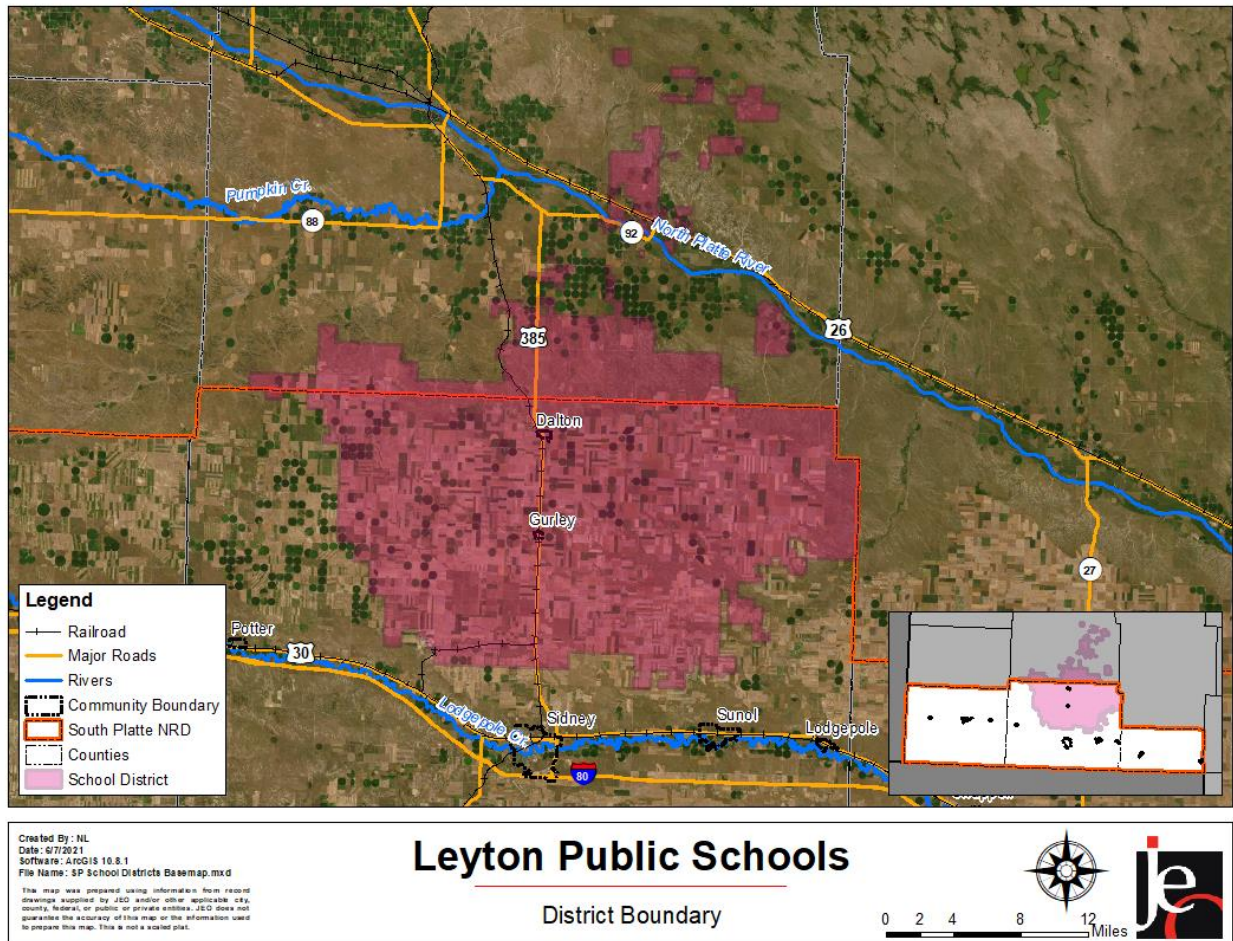
Table LPS.1: Leyton Schools Local Planning Team

Name	Title	Jurisdiction
Christopher Geary	Superintendent	Leyton Public Schools

Location and Services

Leyton Public Schools is a rural school district located in Cheyenne County, in the southern corner of the panhandle in Nebraska. Its offices are located at 504 Main Street, Dalton, Nebraska, 69131, and 521 Rose Street, Gurley, NE 69141. The district’s mission, as expressed on its website, strives “to cultivate lifelong learners as they successfully transition into our diverse world.” The district is comprised of two schools: Leyton High School and Leyton Elementary/Junior High School. Students from surrounding communities can opt-in to the school district. These include Bridgeport, Sidney, and Chappell.

Figure LPS.1: Leyton School District Boundary



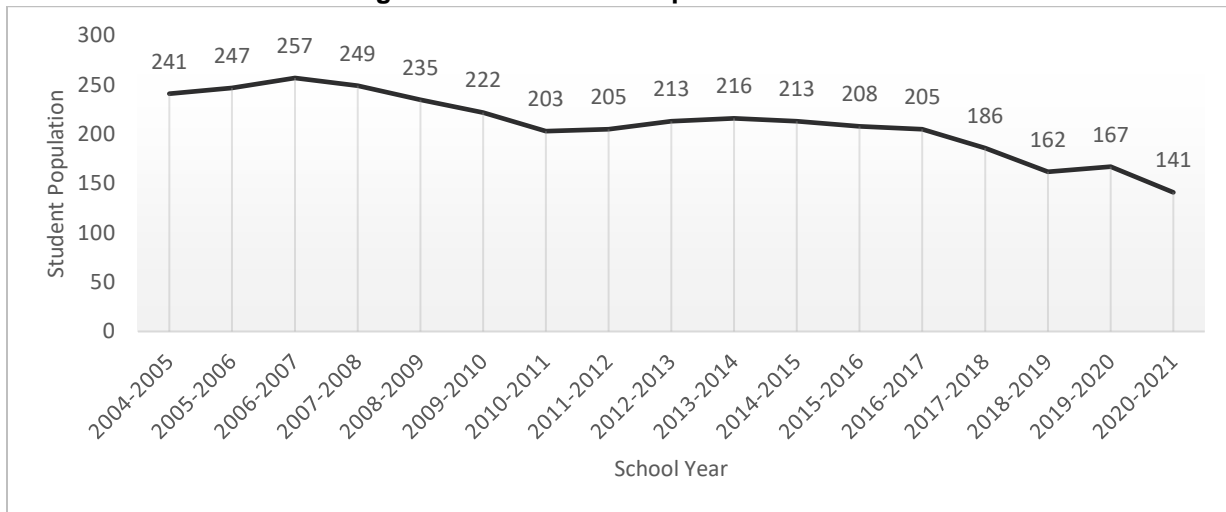
Transportation

The transportation route of most concern is Highway 30. The planning team noted that car accidents have impacted busing students. Railroad crossing closures or blockages can also impact student transportation. The school has four bus routes, serving approximately 100 students.

Demographics

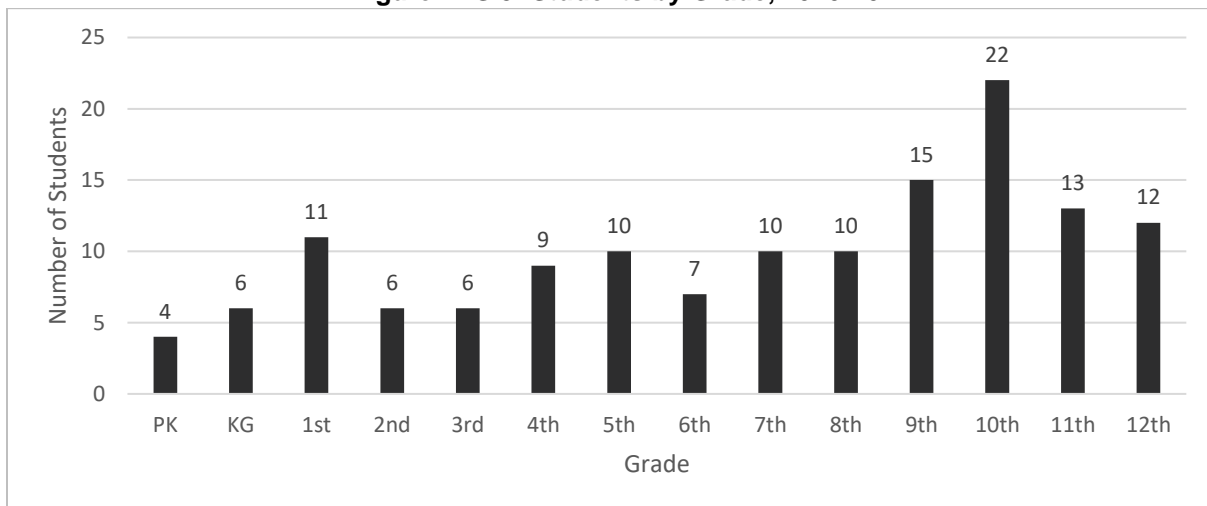
The following figure displays the historical student population trend starting with the 2004-05 school year and ending with the 2020-21 year. The figure indicates that the student population has generally declined in recent years. There are approximately 141 students enrolled in Leyton Public School District. The planning team expects a gradual decline in enrollment over the next five years. The district employs 25 teachers and 35 support staff.

Figure LPS.2: Student Population 2004-2021



Source: Nebraska Department of Education

Figure LPS.3: Students by Grade, 2020-2021



Source: Nebraska Department of Education

The figure above indicates that the largest number of students are in 10th grade, followed by 9th grade and 1st grade. The lowest population of students are in Pre-kindergarten. According to the Nebraska Department of Education (NDE), 36.53% of students receive either free or reduced priced meals at school in the 2019-20 year. This is lower than the state average of 45.60%. Additionally, 14.63% of students are in the Special Education Program. These students may be more vulnerable during a hazardous event than the rest of the student population.

Table LPS.2: Student Statistics, 2019-2020

	District	State of Nebraska
Free/Reduced Priced Meals	36.53%	45.60%
Special Education Students	14.63%	15.56%
English Language Learners (ESL)	*	7.43%
School Mobility Rate	7.32%	8.36%

*Data is not available with fewer than 10 students.

Source: Nebraska Department of Education

Future Development Trends

The district recently installed a new all-weather track and renovated the science room. There are no current plans for new construction or renovation.

Community Lifelines

Transportation

The district's major transportation corridors include US Highway. The Burlington Northern Santa Fe Rail Line runs north/south through the Village of Gurley and the Village of Dalton. This information is important to hazard mitigation plans insofar as it suggests possible evacuation corridors in the district, as well as areas more at risk to transportation incidents.

Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are 25 chemical storage sites in district that contain hazardous chemicals. However, none of the facilities are located near a school according to the local planning team. In the event of a spill, local fire departments would be the first to respond.

Table LPS.3: Chemical Storage Fixed Sites

Facility Name	Address
Egging Company	12145 Road 38
Frenchman Valley Farmers Co-op	602 Broad St
AT&T Microwave Tower 1340	10974 Road 58
Hotel 10 Launch Facility	Road 56
Hotel 08 Launch Facility	County Rd 36
Graff 6 & 7	Road 60
Reimers Well	Jct Roads 54 & 107
Knievel 5	Jct Roads 121 & 42
Reimers Unit	Road 50
Golf 11 Launch Facility	County Rd 50
Golf 03 Launch Facility	County Rd 50

SECTION SEVEN: LEYTON PUBLIC SCHOOL DISTRICT PROFILE

Golf 02 Launch Facility	County Rd 42
Golf 04 Launch Facility	County Rd 42
Hotel 11 Launch Facility	County Rd 56
Hotel 09 Launch Facility	Road 46
Hotel 01 MAF	12770 Road 46
Hotel 03 Launch Facility	County Rd 73
Hotel 05 Launch Facility	County Rd 38
Hotel 02 Launch Facility	County Rd 52
Panhandle Co-op Assn	4857 Road 107
Jormar Unit	Road 109
Ammo Federal Crude Oil Battery	Roads 105 & 32
R L Stevens Lease	Jct Roads 119 & 42
Stueve Lease	Rd 42
NDOT Dalton Reload Yard	5808 Highway 385

Source: Nebraska Department of Environment and Energy¹²

Critical Facilities

Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and essential for returning the jurisdiction’s functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during the original planning process and updated by the local planning team as a part of this plan update.

The school district operates three facilities. School facilities are listed below, along with information indicating the school’s address, number of students and staff, if the facility is used as a shelter during emergencies, if the facility is located in the floodplain, and the presence of a backup power generator.

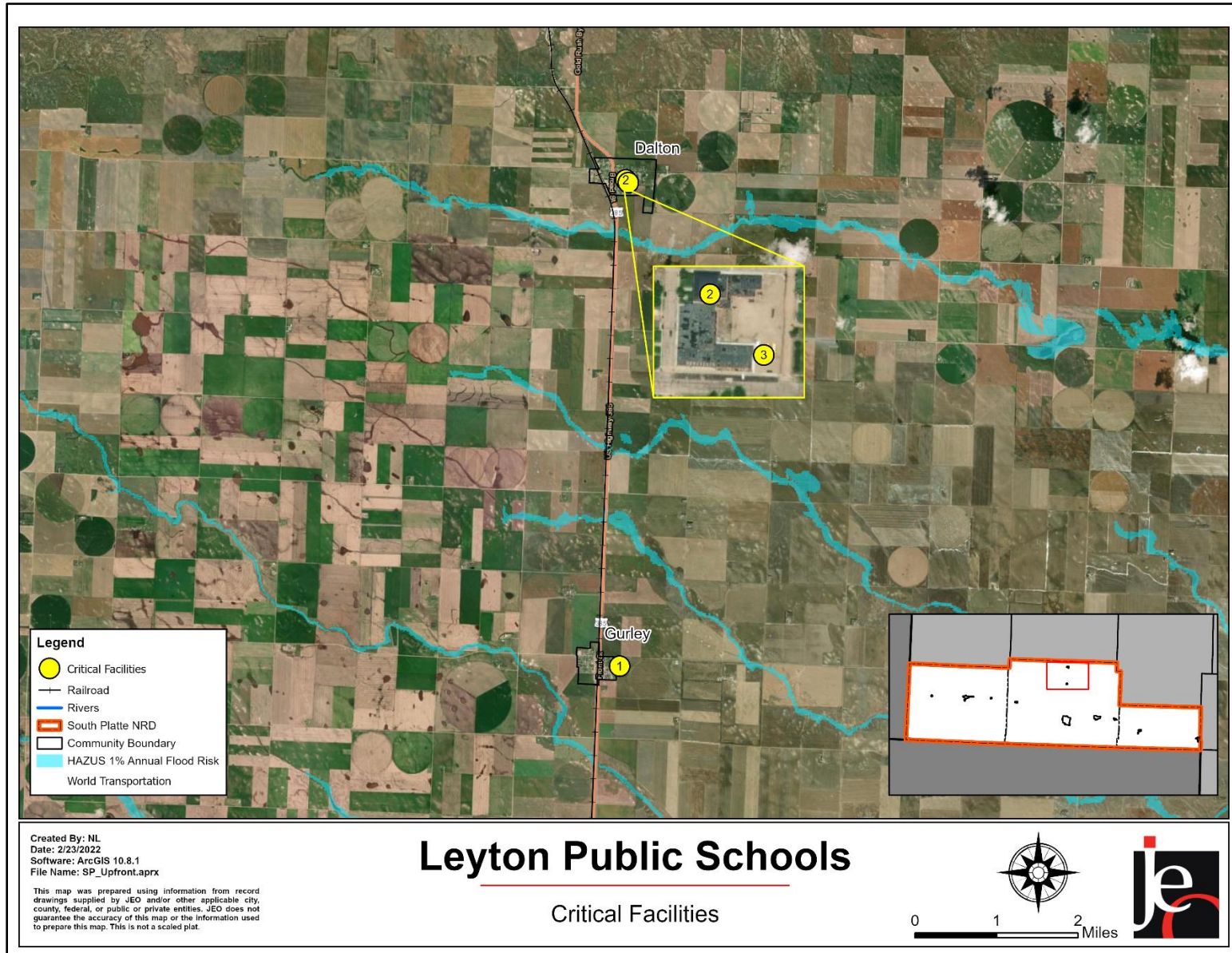
The following table and figure provide a summary of the critical facilities for the district.

Table LPS.4: Leyton Schools Critical Facilities

CF #	Name	# of Students	# of Staff	Shelter (Y/N)	Generator (Y/N)
1	Gurley Elementary School	78	15	N	N
2	Dalton High School	66	12	N	N
3	Dalton Bus Barn	0	0	N	N

¹² Nebraska Department of Environment and Energy. “Search Tier II Data.” January 2021.

Figure LPS.4: Leyton Schools Critical Facilities



School Drills and Staffing

Safety drills are conducted throughout the year with fire drills occurring monthly, tornado drills once a semester, and SRP drills once a semester. District staff is trained about emergency procedures through staff meetings and review of the All Hazards Safety Plan. Families are educated about emergency procedures through newsletters. Emergency events are communicated to parents and staff through the districts “All Call” notification system.

Historical Occurrences

See the Village of Dalton and Village of Gurley community profiles for historical hazard events.

Hazard Prioritization

For additional discussion regarding area wide hazards, please see *Section Four: Risk Assessment*. The hazards discussed in detail below were selected by the local planning team from the regional hazard list as the relevant hazards for the jurisdiction. The selected hazards were prioritized by the local planning team based on historical hazard occurrences, potential impacts, and the district’s capabilities.

Extreme Heat

Extreme heat is largely a non-structural hazard, and the school district is most concerned about bodily harm to students. The school district has had some experience with students having heat-related injuries. Going forward, LPS is concerned about the fact that they start school so early, students are being released to have practice during the hottest part of the day.

To prevent future losses as a result of extreme heat, the school district has purchased air conditioning for the first time during the 2015/2016 school year. Additionally, the school has created a Heat Plan on how to conduct outside activities if temperatures are deemed too dangerous for student activities. Ample water is provided to student athletes, as are ample breaks. The school district has hired a school nurse in recent years, which can aid in response if a student were to experience a heat-related injury. A “school response team” has also been created which may respond if additional resources are required.

Hazardous Materials - Transportation

According to the local planning team, LPS has not experienced any previous damages. Because the school district is located within agricultural lands, and chemicals are often transported along major transportation corridors. According to the local planning team, a fertilizer plant does exist two miles east of the elementary schools, which is unlikely to affect the schools, solely based on proximity. However, many farmers are responsible for transporting the chemicals they use, and may travel very close to school facilities, as both schools are located along Highway 385 and a Burlington-Northern Santa Fe line. Further, the schools are largely surrounded by agricultural land; this can be a concern when farmers are spraying/crop dusting.

Leyton Public Schools does have a Crisis Response Plan, which includes emergency protocol for a chemical spill. The plan includes procedures for a chemical spill both within the building, and events which occur outside the building. The schools are most concerned about a chemical spill event during late winter, early spring, and late summer.

Severe Thunderstorm

The school district has suffered damage as a result of severe thunderstorms in the past, hailstorms affected a roof between 2012 and 2014. During the summer of 2016, the school replaced their roof, due to hail damages. The main concern for the hazard is property damage and the potential for injury to students. To improve awareness of a thunderstorm event, the school has purchased weather radios, utilize emergency management’s CodeRed system, and listen to local radio stations. They have also trimmed trees of concern to prevent them from falling during severe thunderstorms.

Severe Winter Storms

The school district’s top concern for a severe winter storm includes transportation for students and staff. The school has suffered damages as a result of severe winter storms in the past; in 2016, the elementary school’s roof flooded, and heavy snow resulted in the roof caving in. Transportation to and from the schools are the school district’s biggest concern as it relates to severe winter storms.

For detection of a severe winter storm event, the superintendent works closely with school board members, surrounding principals, and contacts the National Weather Service to access the best information possible. After making a decision, the superintendent will send out a message on the all-call system to which the school subscribes.

Tornadoes

The school district has had experiences with tornadoes, but that did not impact the school district directly. The school district’s biggest concern as it relates to tornadoes includes bodily injury, death and damage to school property. The schools are highly concerned about younger students, who may be especially scared of inclement weather.

The schools do have areas for students to seek refuge in case of a tornado event. At the high school, students seek refuge in interior hallways and restrooms, while elementary school students are able to utilize the school basement for shelter.

To limit lasting impacts as a result of tornadoes, the school district has formed strong relationships with the local fire department, which will alert the school in cases of inclement weather. The school also has purchased weather radios to alert school administrators of any issues.

Administration

The school district has a superintendent, one principal, and supportive staff. The school board is made up of a six-member panel. The district also has several additional departments and staff that may be available to implement hazard mitigation initiatives.

Capabilities

The capability assessment consisted of a review of local existing policies, regulations, plans, and programs with hazard mitigation capabilities. The following tables summarize the jurisdiction’s planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects.

Table LPS.5: Capability Assessment

Survey Components		Yes/No
Planning Capability	Capital Improvements Plan/Long-Term Budget	Yes
	Continuity of Operations Plan	No
	Disaster Response Plan	No
	Other (if any)	
Administrative & Technical Capability	GIS Capabilities	No
	Civil Engineering	No
	Staff who can assess jurisdictional vulnerability to hazards	No
	Grant Manager	No
	Mutual Aid Agreements	No
	Other (if any)	
Fiscal Capability	Applied for grants in the past	No
	Awarded grants in the past	No
	Authority to levy taxes or bonds for specific mitigation projects	No
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds in place	No
	Flood Insurance	No
	Other (if any)	
Education and Outreach	Local school groups or non-profit organizations focused on environmental protection, emergency preparedness, access, and functional needs populations, etc. (Ex. Parent groups, hazard mitigation boards, etc.)	No
	Ongoing public education or information program (Ex. Responsible water use, fire safety, household preparedness, environmental education, etc.)	No
	StormReady Certification	No
	Other (if any)	
Drills	Fire	10/yr
	Tornado	2/yr
	Intruder	4/yr
	Bus Evacuation	2/yr
	School Evacuation	1/yr
	Other (if any)	

Table LPS.6: Overall Capability

Overall Capability	Limited/Moderate/High
Financial Resources Needed to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Limited
Community Support to Implement Projects	Limited
Time to Devote to Hazard Mitigation	Limited

Plan Integration

Grants and Funding

District funds are currently limited to maintaining current facilities and systems, according to the local planning team. Funds have remained fairly stable in recent years. The district has not applied for any grants in the last five years.

Crisis Response Plan

The school district utilizes a Crisis Response Plan (2021) to react to hazardous events. The Crisis Response Plan discusses natural hazards and assigns specific to individuals, provides clear assignment of responsibility during an emergency, addresses shelter in place protocols, and identifies the following: scenarios that require evacuation, critical evacuation routes, and sheltering locations. The plan is reviewed and updated annually.

Plan Maintenance

Hazard Mitigation Plans should be living documents and updated regularly to reflect changes in hazard events, priorities, and mitigation and strategic actions. These updates are encouraged to occur after every major disaster event, alongside community planning documents (i.e., annual budgets and Capital Improvement Plans), during the fall before the HMA grant cycle begins, and/or prior to other funding opportunity cycles begin including CDBG, Water Sustainability Fund, Revolving State Fund, or other identified funding mechanisms.

The local planning team is responsible for reviewing and updating this community profile as changes occur or after a major event. The local planning team will include the Superintendent. The local planning team will review the plan no less than annually and will include the public in the review and revision process via the school newsletter.

Mitigation Strategy

Completed Mitigation and Strategic Actions

MITIGATION ACTION	Acquire Identification Resource
DESCRIPTION	Provide the opportunity to purchase and have available the most current Emergency Response Guidebook: this guidebook outlines emergency protocol and visually identifies hazardous materials labels. This would aid in the identification of which chemicals were being transported, to further informed action on the part of the observer and responders
HAZARD(S)	Hazardous Materials - Transportation
STATUS	This project has been completed.

MITIGATION ACTION	Surge Protectors
DESCRIPTION	Purchase and install surge protectors on sensitive equipment in critical facilities
HAZARD(S)	Tornadoes, Severe Winter Storms, Severe Thunderstorms
STATUS	Surge protectors have been installed.

MITIGATION ACTION	Weather Radios
DESCRIPTION	Conduct an inventory of weather radios at schools and other critical facilities; provide new radios as needed
HAZARD(S)	All Hazards
STATUS	Weather radios have been obtained for the school.

Continued Mitigation and Strategic Actions

MITIGATION ACTION	Backup District Records
DESCRIPTION	Develop protocol for backup of critical district records
HAZARD(S)	All Hazards
ESTIMATED COST	\$100+, Staff Time
FUNDING	District General Fund
TIMELINE	1 year
PRIORITY	High
LEAD AGENCY	Information Technology Office
STATUS	Hard drives are currently being used.

SECTION SEVEN: LEYTON PUBLIC SCHOOL DISTRICT PROFILE

MITIGATION ACTION	Develop Event Cancellation/Notification Procedures
DESCRIPTION	Develop event cancellation notification procedures during extreme heat events
HAZARD(S)	Extreme Heat
ESTIMATED COST	\$0
FUNDING	None
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Administration
STATUS	The All Call System is functional and currently being used.

MITIGATION ACTION	Infrastructure Hardening
DESCRIPTION	Harden critical facilities to withstand high winds, hail, heavy snow, by: hardening roofs, hail resistant barriers to HVAC systems, shatter-proofing windows, building tie-downs and anchors, and other architectural designs that reduce damage
HAZARD(S)	All Hazards
ESTIMATED COST	Varies by Structure
FUNDING	Building Fund
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Maintenance
STATUS	When depreciable items are replaced, they are replaced with hail resistant products

MITIGATION ACTION	Install Vehicular Barriers
DESCRIPTION	Install vehicular barriers to protect critical facilities and key infrastructure where possible
HAZARD(S)	Chemical Transportation, Terrorism and Civil Disorder
ESTIMATED COST	\$500 per concrete barrier; \$20 per linear foot of chain linked fence
FUNDING	Budget
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Building and Grounds
STATUS	Playground perimeter fence has been installed at the elementary school.

SECTION SEVEN: LEYTON PUBLIC SCHOOL DISTRICT PROFILE

MITIGATION ACTION	Rescue/Snow Removal
DESCRIPTION	Improve capabilities to rescue those stranded in blizzards and increase the capacity to which snow can be removed from roadways after an event
HAZARD(S)	Severe Winter Storms
ESTIMATED COST	Snow Blower: \$800+; Truck mounted plow: \$2,000+; ATV Plow: \$1,500+
FUNDING	General Fund
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Building and Grounds
STATUS	Need replacement for plow truck and/or an ATV with snowplow.

MITIGATION ACTION	Safe Rooms
DESCRIPTION	Design and construct storm shelters and safe rooms in highly vulnerable areas such as mobile home parks, campgrounds, schools and other areas
HAZARD(S)	Tornadoes
ESTIMATED COST	\$200-\$250 per sq ft
FUNDING	Building Funds
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Maintenance
STATUS	Currently being considered by the Building Committee

MITIGATION ACTION	Static Detectors
DESCRIPTION	Static detectors are designed to detect lightning strikes and can predict the distance to the lightning strike and whether a storm is approaching or moving away from the detector: deploying a static detector at outdoor events can warn of approaching, fast moving storms and associated lightning thus helping officials to respond appropriately
HAZARD(S)	Severe Thunderstorms
ESTIMATED COST	\$250+
FUNDING	Athletic Fund
TIMELINE	1 Year
PRIORITY	Medium
LEAD AGENCY	Administration
STATUS	In the planning stages

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District Profile

Lodgepole Fire District

**South Platte NRD
Hazard Mitigation Plan 2022**

Local Planning Team

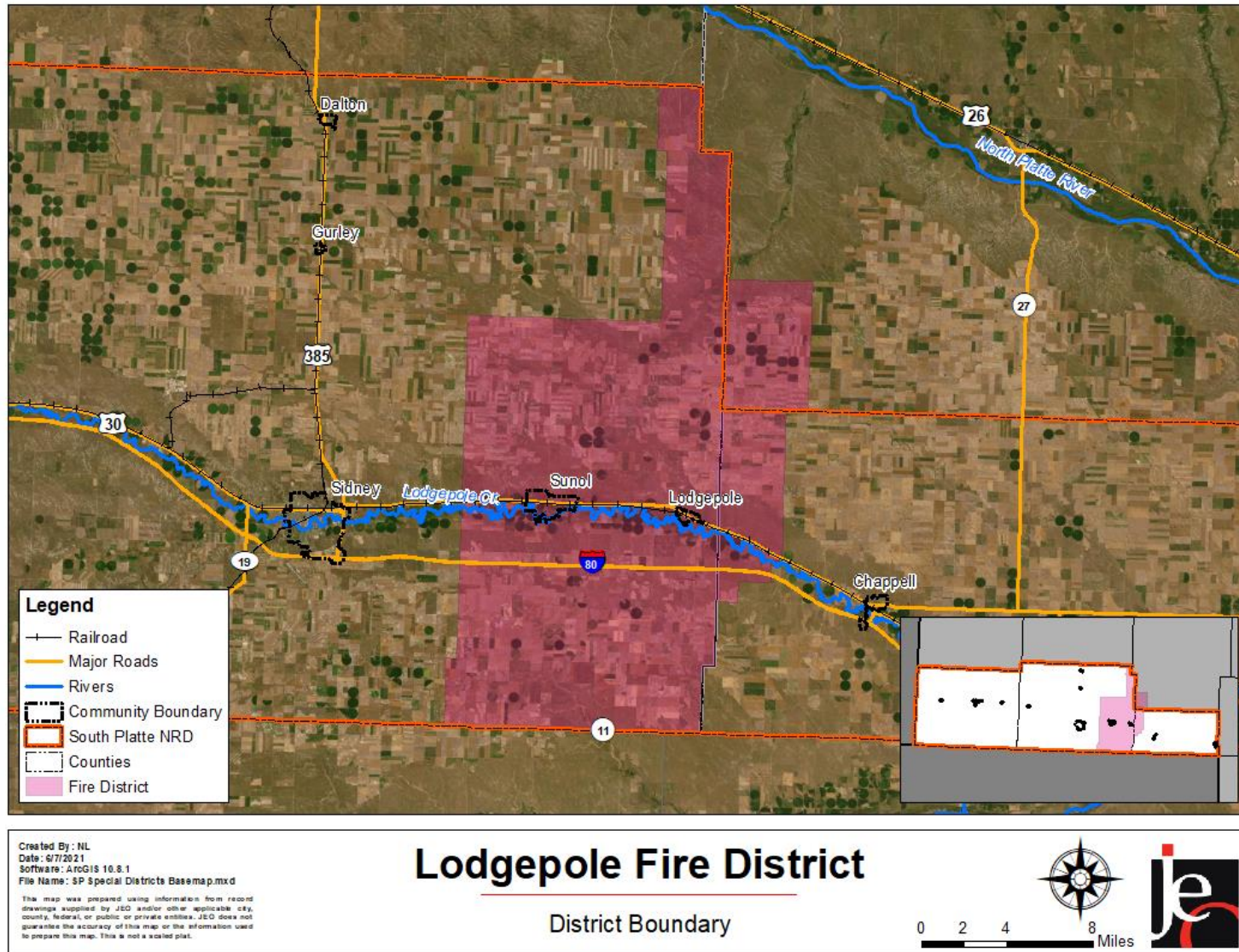
Table LFD.1: Lodgepole Fire Local Planning Team

Name	Title	Jurisdiction
Wade Dickinson	Fire Chief	Lodgepole Fire District

Location and Geography

The Lodgepole Fire District covers the southeastern corner of Cheyenne County, including the Village of Lodgepole. There are approximately 196,800 acres of land in the fire district. Areas most at risk to fire include the northeast region and south-central region of the fire district.

Figure LFD.1: Lodgepole Fire District Boundary



Demographics

See the Village of Lodgepole and Cheyenne County profiles for regional demographic information.

Future Development Trends

The fire district has recently upgraded a tanker and grass rig and will be upgrading another grass rig in the coming year.

Staffing

The Lodgepole Fire District is supervised by a fire chief and a five-member fire board who will oversee the implement of hazard mitigation projects.

Capabilities

Due to the unique structure of fire districts, the typical capability assessment table was not used. The following table summarizes the district’s overall capabilities. The Lodgepole Fire District will continue to utilize existing relationships with local, county, state, and federal agencies in the implementation of mitigation projects.

In the last five years, the district was awarded grants from the Buckley Trust and Virginia Smith. According to the planning team, district funds are limited to maintaining current equipment facilities. Over the last five years, district funds have increased due to increased tax levies.

Table LFD.2: Overall Capability

Overall Capability	Limited/Moderate/High
Financial Resources Needed to Implement Mitigation Projects	Moderate
Staff/Expertise to Implement Projects	Moderate
Community Support to Implement Projects	Moderate
Time to Devote to Hazard Mitigation	Moderate

Plan Maintenance

Hazard Mitigation Plans should be living documents and updated regularly to reflect changes in hazard events, priorities, and mitigation and strategic actions. These updates are encouraged to occur after every major disaster event, alongside community planning documents (e.g., annual budgets and Capital Improvement Plans), during the fall before the HMA grant cycle begins, and/or prior to other funding opportunity cycles begin including CDBG, Water Sustainability Fund, Revolving State Fund, or other identified funding mechanisms.

The local planning team is responsible for reviewing and updating this community profile as changes occur or after a major event. The local planning team will include the Fire Chief and the Lodgepole Rural Fire Board. The plan will be reviewed bi-annually. The public will be included in the review and revision process via board meetings.

Plan Integration

The Lodgepole Fire District has standard operating guidelines (SOGs). The SOGs outline the district's response to a variety of different calls that could be received. The district is also a part of the Wildcat Hills Region Community Wildfire Protection Plan, which was updated in July 2021. 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. Lodgepole Fire District follows the Cheyenne County Local Emergency Operations Plan (2018). Annex F of the LEOP covers fire services by listing the county fire departments, mutual aid partners, and equipment lists.

Community Lifelines

Transportation

Major transportation corridors in the district include Interstate 80 and US Highway 30. Union Pacific has one rail line that runs east to west through the district. The planning team indicated that hazardous materials are transported along all three routes and that the most recent spill was on the Union Pacific Railroad. This information is important to hazard mitigation plans insofar as it suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents.

Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are four chemical storage sites in the district which house hazardous materials. The district performs HAZMAT awareness training on a regular basis. Equipment for the district includes tankers, utility trucks, and rescue trucks.

Table LFD.3: Chemical Storage Fixed Sites

Facility Name	Address
India 05 Launch Facility	Road 8
Hotel 06 Launch Facility	Road 139
Hotel 04 Launch Facility	County Rd 34
NDOT Lodgepole Yard	Link 17F

Source: Nebraska Department of Environment and Energy¹³

¹³ Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed January 2021.

Critical Facilities

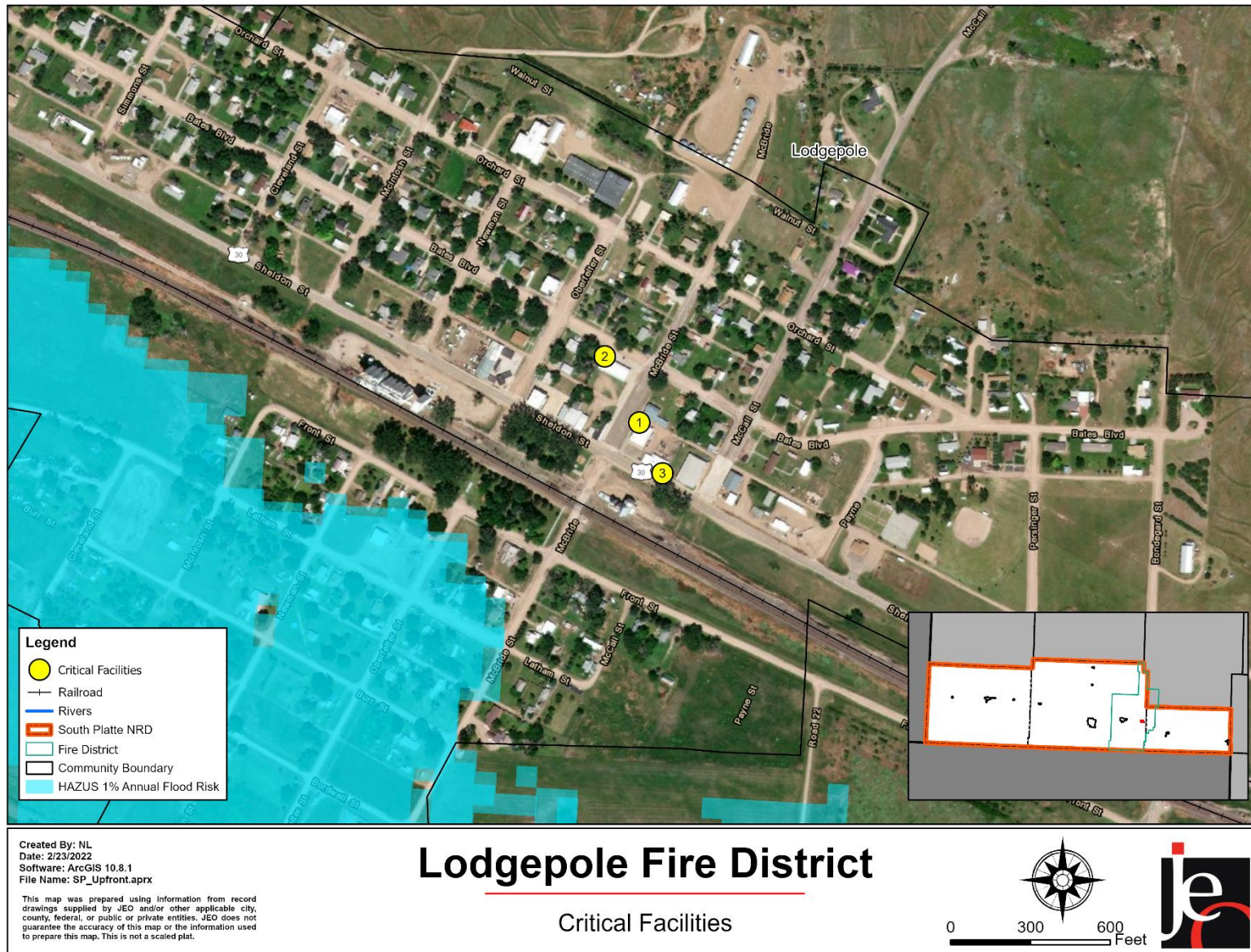
Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and essential for returning the jurisdiction’s functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during the original planning process and updated by the local planning team as a part of this plan update.

The following table and figure provide a summary of the critical facilities for the jurisdiction.

Table LFD.4: Lodgepole Fire Critical Facilities

CF #	Name	Shelter (Y/N)	Generator (Y/N)
1	Lodgepole Fire Department	N	N
2	Community Hall	N	N
3	Lodgepole Village Office	N	N

Figure LFD.2: Lodgepole Fire Critical Facilities



Hazard Prioritization

For additional discussion regarding area wide hazards, please see *Section Four: Risk Assessment*. A full list of historical hazard occurrences can be found in the Cheyenne County jurisdictional profile. The hazards discussed in detail below were selected by the local planning team from the regional hazard list as the relevant hazards for the jurisdiction. The selected hazards were prioritized by the local planning team based on historical hazard occurrences, potential impacts, and the district's capabilities.

Flooding

Lodgepole has three NFIP policies in-force for \$420,000 as of August 2021. According to NeDNR as of November 2021, there is one repetitive flood loss property in Lodgepole. The body of water of most concern for Lodgepole is Lodgepole Creek, which runs along the south side of the village. The water table is also a significant issue in Lodgepole as basements will flood in times of high precipitation and soil saturation. The planning team indicated that the south side of the village is most prone to flooding, particularly the area south of the Union Pacific rail line. One flood in this area required residents to evacuate and a shelter was set up after a 10-inch rain event.

According to the NCEI, there have been seven flood events in Lodgepole from 1996 to April 2021. These events have resulted in \$50,000 in property damage, but no injuries or fatalities occurring. A significant flood in July 2010 resulted in flooded basements, closed roadways, and police cars being swept away. The highway link connecting the community to I-80 also closed, forcing residents to detour through Chappell, adding an extra ten miles to their trip. Both the Red Cross and FEMA assisted with the flood response, as did regional emergency management.

Grass/Wildfire

According to the Nebraska Forest Service, Lodgepole Fire Department responded to eleven fires within the district from 2000 to 2020, with an average magnitude of 17.1 acres. The local planning team indicated that there was also a grass fire in March of 2020 that the fire department responded to. One fire burned from Lodgepole to Chappell and threatened the edge of the village and a rural building. Another significant fire burned south of the village. The most common cause was from the railroad. No injuries or fatalities resulted from any of these events.

The fire department has large tankers to bring water outside the communities, these are sufficient resources for local events. The district plans to continue maintaining and upgrading equipment as needed and maintaining mutual aid relationships.

Hazardous Materials – Transportation

In the event of a transportation-related hazardous material spill, the fire district would notify the State HAZMAT team. Private contractors may also be notified. Lodgepole Fire is trained to the awareness HAZMAT level but will assist in any way possible should such an event occur.

High Winds

While the Village of Lodgepole has not had direct impacts from a tornado event, high winds are very common in this region, and have been known to cause power outages. The NCEI reports that 67 high wind events have occurred throughout Cheyenne County from 1996 to April 2021, resulting in \$25,500 in property damage. Concerns for this hazard include causing or fanning a fire, as well as possible structure damage and loss of life. According to the Lodgepole village

planning team, Lodgepole experiences approximately five to six power outages per year because of high wind events.

Tornadoes

According to the NCEI, one tornado occurred in or near the Village of Lodgepole between 1996 and April 2021. The EF1 tornado caused \$10,000 in property damage to a steel building but did not cause any other significant impacts. During that same period, 26 tornadoes have occurred throughout Cheyenne County. The fire district is concerned about loss of life and damage to property. Storm spotting is performed by the fire department.

Mitigation Strategy

New Mitigation and Strategic Actions

MITIGATION ACTION	Alert Siren
DESCRIPTION	Perform an evaluation of existing alert sirens in order to determine sirens which should be replaced or the placement of new sirens.
HAZARD(S)	Tornadoes, High Winds, Severe Winter Storms, Severe Thunderstorms
ESTIMATED COST	\$3,000
FUNDING	Fire District General Fund, HMA
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Lodgepole Fire Department
STATUS	Not started

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District Profile

Potter Fire District

**South Platte NRD
Hazard Mitigation Plan 2022**

Local Planning Team

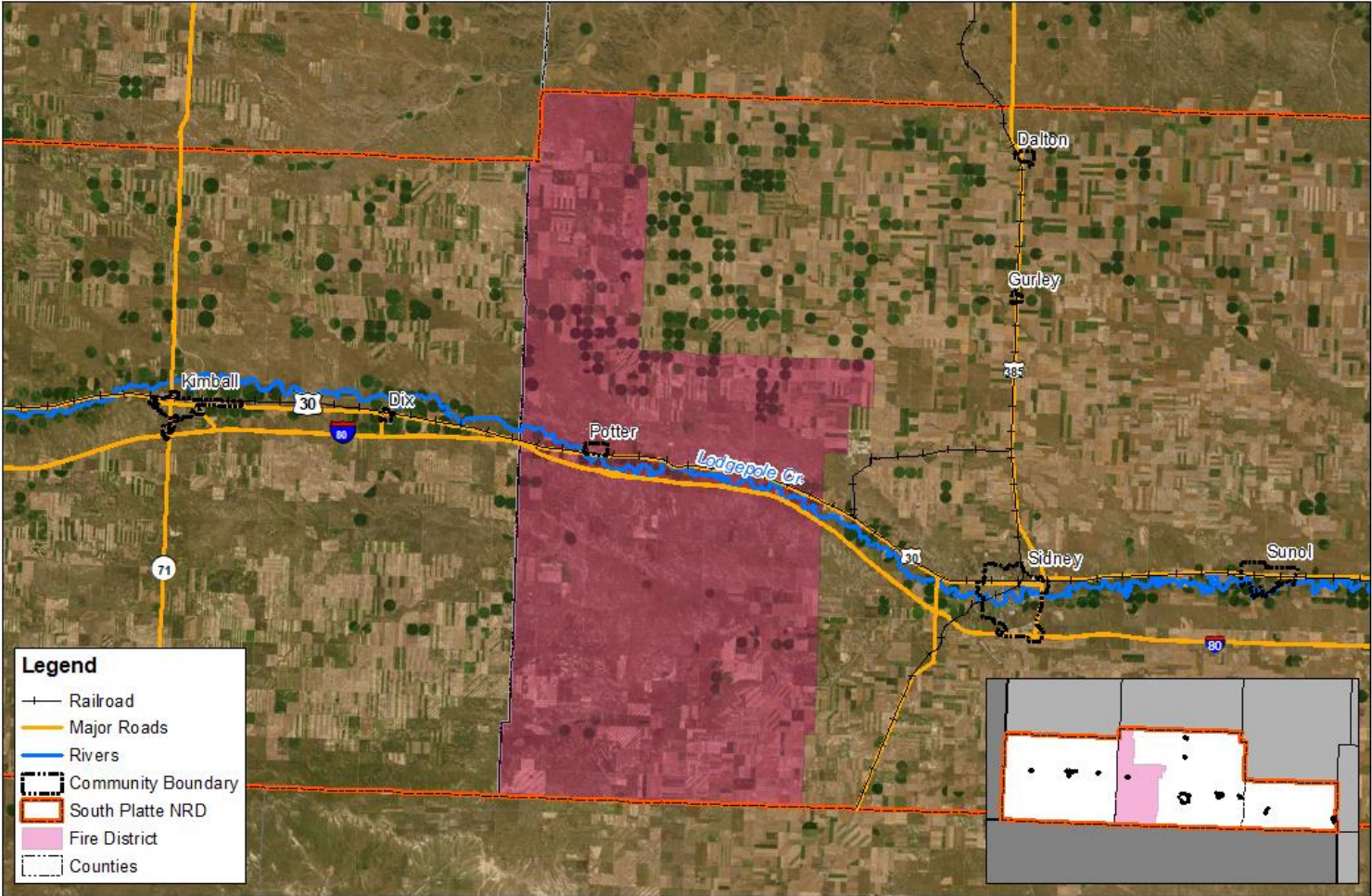
Table PFD.1: Potter Fire District Local Planning Team

Name	Title	Jurisdiction
Mark Onstott	Chief	Potter Vol Fire/Rescue Department
Scott Kasten	Assistant Chief	Potter Vol Fire/Rescue Department
Jerry Gasseling	Assistant Chief	Potter Vol Fire/Rescue Department
Melissa Gorsuch	Village Clerk/Treasurer	Village of Potter

Location and Geography

The Potter Volunteer Fire District (PVFD) covers the western portion of Cheyenne County, including the Village of Potter. There are approximately 191,540 acres within the district. Potter Fire is primarily concern with the village outer limits as natural growth has occurred right up to many homes. There is also a concern about the industrial complex in the northeastern section of the district which have Belle Pole and Adams industries.

Figure PFD.1: Potter Fire District Boundary



Created By : NL
 Date : 6/7/2021
 Software : ArcGIS 10.8.1
 File Name : SP Special Districts Basemap.mxd

Potter Fire District

District Boundary

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Demographics

Potter Fire District serves approximately 675 people. Please see the Village of Potter and Cheyenne County profiles for regional demographic information.

Future Development Trends

The fire district has acquired new equipment over the last five years, including a Stuart Stevens 6x6 1250 gallons multipurpose fire truck with foam, Heavy Rescue Truck, 4x4 Ambulance with electric cot & new stair chair (updated to be IV certified), 8x8 2800 gallons Hemit with foam, updated SCBA, wildland hose and accessories, wildland helmets, extractor (washing machine), and rescue ropes and safety harnesses. New equipment and buildings planned for the next five years include a new air compressor for SCBA, K12 saw, new bunker gear, wildland fire shelters, new pumper truck (engine), new life pack, fire hall expansion (two new bays to get all trucks in one location), and a backup generator.

The planning team noted that all equipment decisions are based on the safety for its fire personnel, safety of the citizens, and protection of property. The team would like the expansion of the fire hall to help with a shelter or alternate EOC, if necessary, but would also need a backup generator for this to be considered. The Village of Potter is in the process of adding a backup generator to the main water well to ensure water is available if any disruption occurs to the natural gas supply.

Staffing

The Potter Fire District is supervised by a fire chief and a five-member fire board who will oversee the implement of hazard mitigation projects. Other offices are listed below.

- Fire Chief
- Assistant Chief (2)
- Captain (2)
- Rescue Captain
- Lieutenant (2)
- PIO

Capabilities

Due to the unique structure of fire districts, the typical capability assessment table was not used. The following table summarizes the district's overall capabilities. The Potter Fire District will continue to utilize existing relationships with local, county, state, and federal agencies in the implementation of mitigation projects.

The planning team indicated that funds are limited to maintaining current facilities and systems. Other fundraising and grants are needed to keep the district moving forward for the safety of its personnel, the community, citizens, and for protecting property. In 2021, the fire district was awarded a Volunteer Fire Assistance Grant through the Nebraska Forest Service, which was used to update gear that was at end of life, per NFPA. District funds have remained relatively the same in recent years.

Table PFD.2: Overall Capability

Overall Capability	Limited/Moderate/High
Financial Resources Needed to Implement Mitigation Projects	Limited
Staff/Expertise to Implement Projects	Moderate
Community Support to Implement Projects	Moderate
Time to Devote to Hazard Mitigation	Moderate

Plan Integration

The Potter Fire District has a Response Plan and standard operating guidelines, which were updated in 2020 and 2019, respectively. These documents outline the district's planned response to a variety of different calls that could be received. The district is also a part of the Wildcat Hills Region Community Wildfire Protection Plan, which was updated in July 2021. 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. Potter Fire District follows the Cheyenne County Local Emergency Operations Plan (2018). Annex F of the LEOP covers fire services by listing the county fire departments, mutual aid partners, and equipment lists. Potter Fire also joined the Tri-State Mutual Aid Agreement in 2021. An Emergency Action Plan is currently in place for Oliver Dam.

Plan Maintenance

Hazard Mitigation Plans should be living documents and updated regularly to reflect changes in hazard events, priorities, and mitigation and strategic actions. These updates are encouraged to occur after every major disaster event, alongside community planning documents (e.g., annual budgets and Capital Improvement Plans), during the fall before the HMA grant cycle begins, and/or prior to other funding opportunity cycles begin including CDBG, Water Sustainability Fund, Revolving State Fund, or other identified funding mechanisms.

The local planning team is responsible for reviewing and updating this profile as changes occur or after a major event. The local planning team will include the Fire Chief, Assistant Chiefs, Rural Fire Protection Board, Village of Potter Clerk and Board. The plan will be reviewed annually. The public will be included in the review and revision process at monthly fire department meetings, fire board meetings, village board meetings, and through Facebook.

Community Lifelines

Transportation

Major transportation corridors in the district include Interstate 80 and US Highway 30. Union Pacific has two rail lines that runs east/west through the central part of the district. This information is important to hazard mitigation plans insofar as it suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents.

Hazardous materials are regularly transported along local routes; however, the fire district is not made aware of all chemicals due to the carriers keeping them right below the reporting minimum. The planning team did note that several agricultural chemicals, propane, fuel, radiological hazards, other hazardous material are transported to the Clean Harbors disposal site, near Kimball, NE. Many of these dangerous chemicals must be transported through Potter in order to

SECTION SEVEN: POTTER FIRE DISTRICT PROFILE

make it to Kimball. The local planning team noted that Love Canal Superfund waste was recently sent to Clean Harbors to be disposed of, as well as waste associated with the Ebola crisis. Potter's residents are also potentially concerned about the industrial annex at the Brownson rail switching yard and heavy industrial tank cleaning.

According to the planning team, Potter has experienced minor train derailments a few years previous, but no spills had resulted from those incidents. Additionally, the planning team noted that often hazardous materials train cars will be transported at night, on locomotive with flatbeds. Most contents being transported are unknown.

Potter-Dix schools are close to the Union Pacific tracks and Highway 30, as well as grain elevators, occupied mobile homes, M&S Drilling, Pins & Needles, and county maintenance yard which are located directly on the railroad. These facilities may experience a higher level of vulnerability due to being located so close to these major transportation corridors. Depending on the severity of the spill, chemical and wind direction these areas along with the entire Village of Potter will be difficult. The PVFD fire hall is located near the UPRR.

Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are 20 chemical storage sites in the district which house hazardous materials. Warren Air Force Base oversees approximately 16 Minute Man Silos within the fire district, with several others in surrounding fire districts. The other areas of concern are Clean Harbors site in Kimball, NE, Adams Industries, and Belle Pole located in the northeast side of the fire district.

Table PFD.3: Chemical Storage Fixed Sites

Facility Name	Address
Frenchman Valley Farmers Co-op	3040 Link 17B
Juliet 10 Launch Facility	Road 77
Foxtrot 05 Launch Facility	Road 83
Nelson Lease	Road 73
Nelson D Lease	Road 69
State of Nebraska 1 Lease	Unlisted
Willis D Lease	Roads 56 & 85
BWAB Inc Olsen 1 & 3 Lease	Unlisted
Golf 10 Launch Facility	County Rd 40
Mills Lease	County Rd 69
Engstrom A Lease	Unlisted
Foxtrot 04 Launch Facility	County Rd 46
Foxtrot 03 Launch Facility	County Rd 75
Foxtrot 07 Launch Facility	Road 77
Golf 09 Launch Facility	County Rd 26
Wilson B-1X	Road 73
Egging 2 Crude Oil Battery	US Highway 30
NDOT Potter Yard	Link 17B
Slama 2 Lease	Road 81
Slama Lease	Road 81

Source: Nebraska Department of Environment and Energy¹⁴

Concerns related to fixed site chemical storage sites include potential injuries and fatalities, contamination of the aquifer, and fire or evacuation protocols that exceed the capabilities of local fire departments. Roads and facilities at risk from a spill event include I-80, Highway 30, and the Union Pacific railroad.

Potter Fire personnel (and all other local fire departments in the area) are trained at the awareness level and not at operations level for hazardous materials spills. There are operational teams located in Scottsbluff, NE, North Platte, NE, and Cheyenne, WY. These locations are all over one hour away. EM1 located in Sidney, NE and Alan Michaels (State Fire Marshal) in Chappell, NE are also resources that would be notified and involve if there is an incident.

Table PFD.4: Potter Fire District Equipment

Units	Make/Model	Description
1	Stuart Stevens 6x6	Tender/Tactical Type II (1250 gallons w/ foam)
1	Kaiser 6x6	Tactical Type IV (1000 gallons w/ foam)
1	Chevy ¾ Ton	Type VI (250 gallons)
1	Oshkosh 8x8	Truck, Fire/Support Water Tender S1 (2800 gal w/ foam)
1	Chevy	Truck, Fire, Engine Type II (750 gallons)
1	Freightliner	Truck, Fire, Engine Type I (1000 gallons w/ foam injector)
1	Oshkosh	Truck, Fire, Pumper (Airport Crash Truck, 750 gallons w/ foam)
1	International	Truck, Fire, Support Water Tender S1 (4000 gallons)

¹⁴ Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed January 2021.

SECTION SEVEN: POTTER FIRE DISTRICT PROFILE

Units	Make/Model	Description
1	GMC	Truck, Fire, Support Water Tender S3 (1800 gallons)
1	Chevy Tahoe	Truck, Pickup (Command)
1	Ford N Series	Truck, Fire, Heavy Rescue
1	Ford F550	Ambulance (BLS)

Critical Facilities

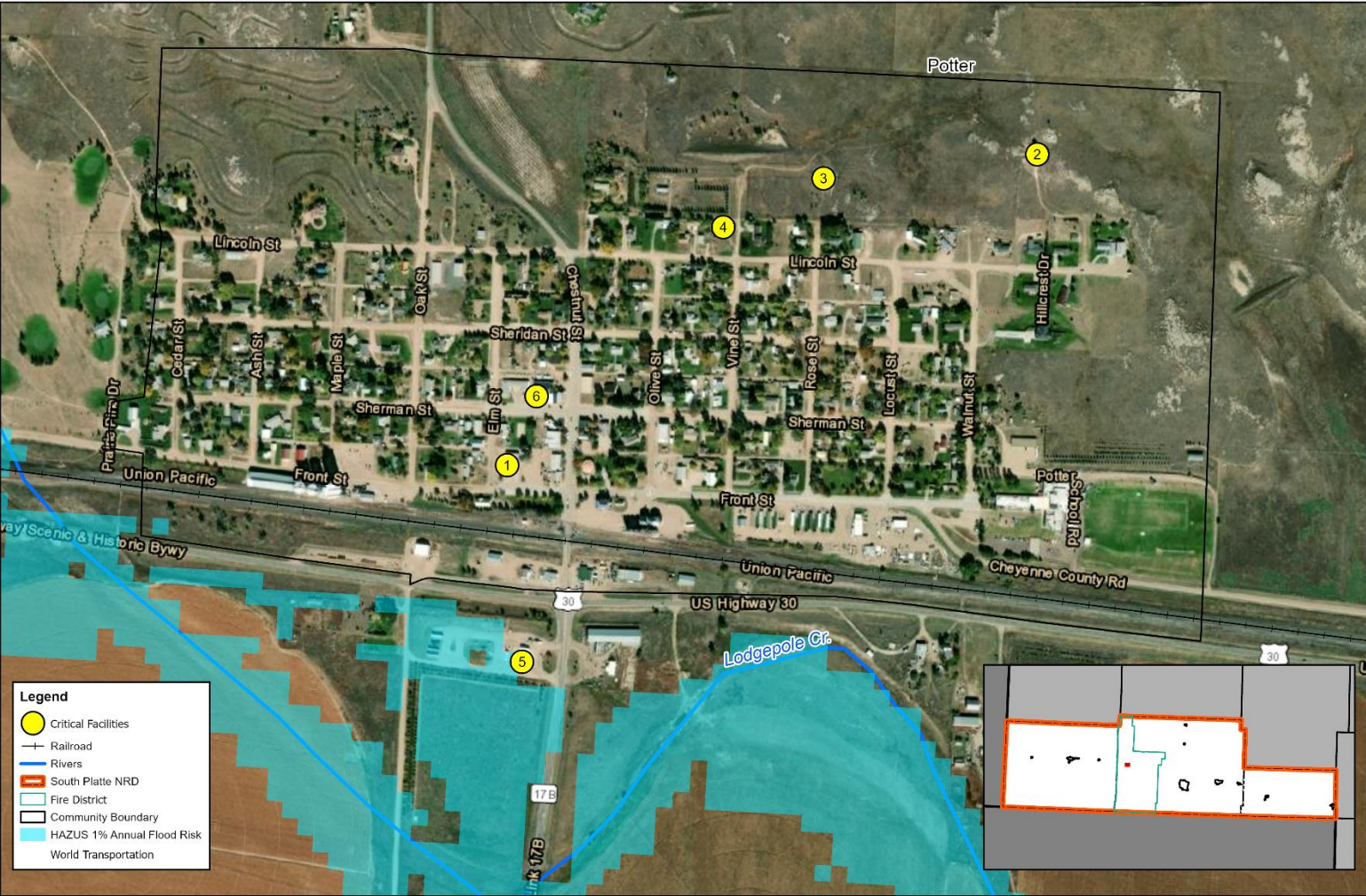
Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and essential for returning the jurisdiction’s functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during the original planning process and updated by the local planning team as a part of this plan update.

The following table and figure provide a summary of the critical facilities for the jurisdiction.

Table PFD.5: Potter Fire District Critical Facilities

CF #	Name	Shelter (Y/N)	Generator (Y/N)
1	Potter Fire Department	N	N
2	Water Tower	N	N
3	Well House - Upper	N	N
4	Well House - Lower	N	N
5	FVC Gas Station	N	N
6	Potter Village Office	N	N

Figure PFD.2: Fire District Critical Facilities



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 File Name: SP_Upfront.aprx

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Potter Fire District

Critical Facilities



0 300 600 Feet



Hazard Prioritization

For additional discussion regarding area wide hazards, please see *Section Four: Risk Assessment*. A full list of historical hazard occurrences can be found in the Cheyenne County jurisdictional profile. The hazards discussed in detail below were selected by the local planning team from the regional hazard list as the relevant hazards for the jurisdiction. The selected hazards were prioritized by the local planning team based on historical hazard occurrences, potential impacts, and the district’s capabilities.

Grass/Wildfire

On average the PVFD responds to between 40-50 wildland fires per year. The PVFD is also part of the Wildcat Hills (CWPP) and the newly formed Tri-State Mutual Aid Agreement. These agreements strengthen the fire departments’ and communities’ protection by allowing them to assist each other more frequently. The PVFD also responds to an average of 5-10 mutual aid wildland fires per year.

The local planning team described some of the large wildfires in the region over the past two years, as shown in Table PFD.6. These fires include the Buffalo Creek Fire, which burned 2,600 acres and damaged Wildlife Management Areas; the Hackberry Fire, which burned 6,000 acres and damaged critical land for bighorn sheep, other wildland, and pasture ground for cattle; the Vista Trend Fire, which burned 2,000 acres; the Post Fire, which burned 6,500 acres on forest service land; the Hubbard Gap Fire, which burned 4,500 acres and damaged critical land for bighorn sheep, other wildland, and pasture ground for cattle; and the Cheyenne County - US Highway 30, which was a complex of nine fires over an 11 mile stretch of the Union Pacific Railroad. This complex burned nearly 1000 acres of cattle pasture ground, many stubble fields (wheat/corn) and threatened a two-story home and threatened other rural homes. Several miles of fence line had to be repaired or replaced as a result of this fire. The cause of the fire was due to railroad operations.

Table PFD.6: Recent Wildfires in the Region

Wildfire	Location	Date	Acres Burned
Buffalo Creek Fire	Wildcat Hills	Summer 2021	2,600
Hackberry Fire	Wildcat Hills	Summer 2021	6,000
Vista Trend Fire	Wildcat Hills	September 2021	2,000
Post Fire	Near Crawford, NE	September 2021	6,500
Hubbard Gap Fire	Wildcat Hills	Summer 2020	4,500
Cheyenne County - US Hwy 30 Fires	UPRR Corridor	November 2020	1,000

The PVFD is concerned with these wildland fires causing injuries/fatalities, blocked transportation routes (I-80, US Highway 30, UPRR, local county roads, etc.), crop damage, pastureland damage, potential impacts to vulnerable populations (the fire district is made up of a higher percentage of 64+ aged individual than the county or state), disruption of services (power, water, education, etc.).

PVFD has worked with the Village of Potter to mow a fire break along the northern side of the community, around the main water tower north of town and on the east side of the school. The

PVFD has worked with the village to cut fire line around the dump north of town to reduce the risk of fire spread during burns of old grass or trees. The Nebraska Forest Service Wildland Fire Protection Program provides services in wildfire suppression training, equipment, pre-suppression planning, wildfire prevention, and aerial fire suppression.

The PVFD would also like to start a program to help landowners conduct prescribed burns to help mitigate some of the risk and help wildlife. The PVFD also conducts several trainings in house and sending individuals to outside training (Forest Service, Gering Engine Academy, etc.) to ensure the district's readiness.

Other projects needed in the future include working with local landowners both in the community and rural areas to ensure homeowners are clearing areas around homes or building to mitigate potential damage; working with UPRR to ensure right of ways are cleared of flammable items to mitigate risk from rail transportation; and working to become a FireWise Community USA participant through the Nebraska Forest Service and US Forest Service in order to educate homeowners, community leaders, planners, developers, and others in the effort to protect people, property, and natural resources from the risk of wildland fire. The Firewise Communities approach emphasizes community responsibility for planning in the design of a safe community as well as effective emergency response, and individual responsibility for safer home construction and design, landscaping, and maintenance.

Hazardous Materials - Transportation

According to the planning team, Potter has experienced minor train derailments a few years previous, but no spills had resulted from those incidents. Additionally, the planning team noted that often hazardous materials train cars will be transported at night, on locomotive with flatbeds. Most contents being transported are unknown. Potter-Dix schools are close to the Union Pacific tracks and Highway 30, as well as grain elevators which are located directly on the railroad. These facilities may experience a higher level of vulnerability due to being located so close to these major transportation corridors. The PVFD will be conducting training with UPRR in Spring of 2022 to coordinate efforts with their team.

Highway 30 and a major railway run directly through the south side of Potter which often carry agricultural chemicals and other hazardous chemicals. The local planning team noted that many chemicals are disposed of west of Potter, at the Clean Harbors site in Kimball, NE. The Potter Volunteer Fire Department recently (Dec 2021) toured the facility to ensure the team is aware of the critical areas of concern, fire suppression systems and layout of facility. Many of these dangerous chemicals must be transported through Potter in order to make it to Kimball. The local planning team noted that Love Canal Superfund waste was recently sent to Clean Harbors to be disposed of, as well as waste associated with the Ebola crisis. Potter's residents are also potentially concerned about the industrial annex at the Brownson rail switching yard and heavy industrial tank cleaning.

The PVFD is concerned with a potential hazardous transportation incident causing injuries/fatalities, blocked transportation routes (I-80, US Highway 30, UPRR, local county roads, etc.), potential impacts to vulnerable populations (the fire district is made up of a higher percentage of 64+ aged individuals than the county or state), and disruption of services such as power, water, education, etc. The PVFD recently went through training (Dec 2021) with the

SECTION SEVEN: POTTER FIRE DISTRICT PROFILE

Scottsbluff Fire Department and their Haz Mat trainer, as they will be one of the Haz Mat teams the department would work with in the event of a Haz Mat Incident.

The PVFD has recently been working with the Potter-Dix School District on an EOP which addresses these concerns, evacuation plans, etc. Projects currently planned for the district include performing an evaluation of existing alert sirens in order to determine sirens which should be replaced or upgraded and installing new sirens where they are lacking with remote activation (through CCCC).

Future needs for the district include exercises to prepare for potential explosions or hazardous spills and ensuring that nearby businesses and residents have appropriate plans in place for evacuations, reunification plan, shelter in place plan, etc.

High Winds

High winds have affected PVFD's ability to fight wildland/structure fires which both the Hubbard Gap and Cheyenne County - NE Highway 30 Wildfires were affected by high winds. High winds were to blame for two power poles and lines down on a county road north of Potter in July 2021. Concerns for this hazard include injuries, fatalities, wildland fires, structure fires, accidents due to downed power lines/poles or blown transformers, blocked transportation routes, crop damage, impacts on vulnerable populations, disruption of services.

The fire district would like to ensure it has the correct apparatus functioning correctly (checks are done 2 times per month) and conduct training with fire personnel (completed a training with High West Energy in July 2021).

Projects currently planned include continued work with partners, such as High West Energy and National Weather Service, to conduct trainings and keep open lines of communication.

A backup generator is needed at fire hall so it can be used as a shelter or EOC if necessary. The village needs to continue to identify and remove hazardous limbs and/or trees. Other needs for the district include assessing, designing, and constructing fully supplied safe rooms in highly vulnerable urban and rural areas such as mobile home parks, campgrounds, schools, and other such areas throughout the planning area; assess the adequacy of current public buildings to be used as safe rooms; construct safe rooms in areas of greatest need, either as new construction or retrofitting

Severe Thunderstorms/Hail

Potter is highly prone to hailstorms and experiences approximately 2 to 3 hail events per year. The local planning team noted that the summer of 1997 or 1998 was extremely damaging. This event stripped bark off trees, killed livestock, and accounted for millions of dollars in property damages. Potter also sustained significant damages during the summers of 2010-2013, these events were not as severe as the 1997/1998 event, but still accounted for substantial damage.

According to the NCEI, Potter has experienced 37 hail events since 1996. These events have had an average magnitude of 1.2-inch hailstones. Damages from these events have totaled over \$340,000 in damages to property.

The PVFD is concerned with severe thunderstorms / hail incidents causing injuries/fatalities, blocked / washed out transportation routes (I-80, US Highway 30, UPRR, local county roads, etc.), crop damage, livestock damage, potential impacts to vulnerable populations (the fire district is made up of a higher percentage of 64+ aged individual than the county or state), disruption of services (power, water, education, transportation, etc.).

To mitigate against lasting impacts as a result of hail damages, the village has invested in rubber roofing for village buildings, as well as insuring village-owned buildings. Further, the village has a tree board, responsible for trimming problem limbs before they fall during a severe hail, or other hazard event.

The district would like to purchase a backup generator for the PVFD to ensure easy exit of the department's apparatus from the fire hall and allow the fire hall to be used as an emergency shelter or emergency command center. Projects needed in the future include: conducting an inventory of weather radios at schools and other critical facilities and provide new radios as needed; and working with suppliers / businesses or receive a grant or donations of several units for critical facilities within the community.

Severe Winter Storms

The PVFD spends countless hours on transportation routes each year during winter storms for accidents in the district and helping other surrounding fire departments. The PVFD responds to an average of 30-40 incidents each year attributed to winter storms. One day during the Winter of 2020, the department spent eight hours on I-80 due to accidents involving two people running into snowplows and damaging guard rails, along with several other accidents. In 2019 over 100 vehicles were stuck on I-80 between two fire districts in Western Nebraska, with these individuals needing to be rescued and transported to area hotels or shelters. During storms the district has hundreds of miles of county roads which make it difficult to navigate.

The main concerns for this hazard are injuries/fatalities to the public and to fire department personnel. There is also concern for blocked transportation routes, impacts on vulnerable populations and disruption of services.

PVFD has put in place safety protocols during events, such as having responding apparatus traveling in pairs, utilizing certain vehicles to block the scene in an attempt to protect citizens involved in incidents, along with fire department personnel. The fire department has worked with the county and state to assist with clearing roads when there is an incident. PVFD and other departments have worked with NDOT to provide more personnel and equipment for traffic control to help slow the truck traffic down. PVFD and other departments have put in place a notification process for the county and NDOT when incidents do occur. The fire district recently purchased a new 4x4 Ambulance to help the medical team navigate roads in adverse conditions.

NDOT is planning on utilizing variable speed signs in attempt to slow down traffic particularly trucker traffic. The district identified a need to find a method to slow down traffic (truckers/18 wheelers) during incidents, so there is not a secondary incident involving innocent individuals/families or fire department personnel.

Mitigation Strategy

New Mitigation and Strategic Actions

MITIGATION ACTION	Backup Generator for Fire Hall
DESCRIPTION	Purchase and install a backup generator for the fire hall in case of a power outage. Fire Department could then also be used for a reunification center, EOC or emergency shelter.
HAZARD(S)	All Hazards
ESTIMATED COST	\$12,000 to \$15,000
FUNDING	General Fund, Bonds and/or Village Funds
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Potter Rural Fire Protection District #4 Board
STATUS	Not started

MITIGATION ACTION	Fire Hall Expansion
DESCRIPTION	Build two additional bays with concrete approach pad to house fire apparatus that is currently stored at offsite locations.
HAZARD(S)	All Hazards
ESTIMATED COST	\$300,000
FUNDING	General Fund, Bonds and/or Village Funds
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Potter Rural Fire Protection District #4 Board
STATUS	Not started

MITIGATION ACTION	Firewise Community
DESCRIPTION	Work with the Nebraska Forest Service and US Forest Service to become a Firewise Community USA participant. Develop a Community Wildfire Protection Plan. Train landowners about creating defensible space. Enact ordinances and building codes to increase defensible space, improve building materials to reduce structure ignitability, and increase access to structures by responders. Develop and implement brush and fuel thinning projects.
HAZARD(S)	Grass/Wildfire
ESTIMATED COST	Staff Time
FUNDING	Village General Fund, Fire District General Fund, or Bonds
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Potter Rural Fire Protection District #4 Board
STATUS	The Wildcat Hills Region Community Wildfire Protection Plan was updated in July 2021. Other projects and actives are yet to be completed.

SECTION SEVEN: POTTER FIRE DISTRICT PROFILE

MITIGATION ACTION	Hazardous Fuels Reduction
DESCRIPTION	Coordinate with Union Pacific Railroad to ensure rights of way are cleared of flammable materials.
HAZARD(S)	Grass/Wildfire
ESTIMATED COST	Staff Time
FUNDING	General Fund, Bonds and/or Village Funds
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Potter Rural Fire Protection District #4 Board
STATUS	Not started

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District Profile

Sidney Fire District

**South Platte NRD
Hazard Mitigation Plan 2022**

Local Planning Team

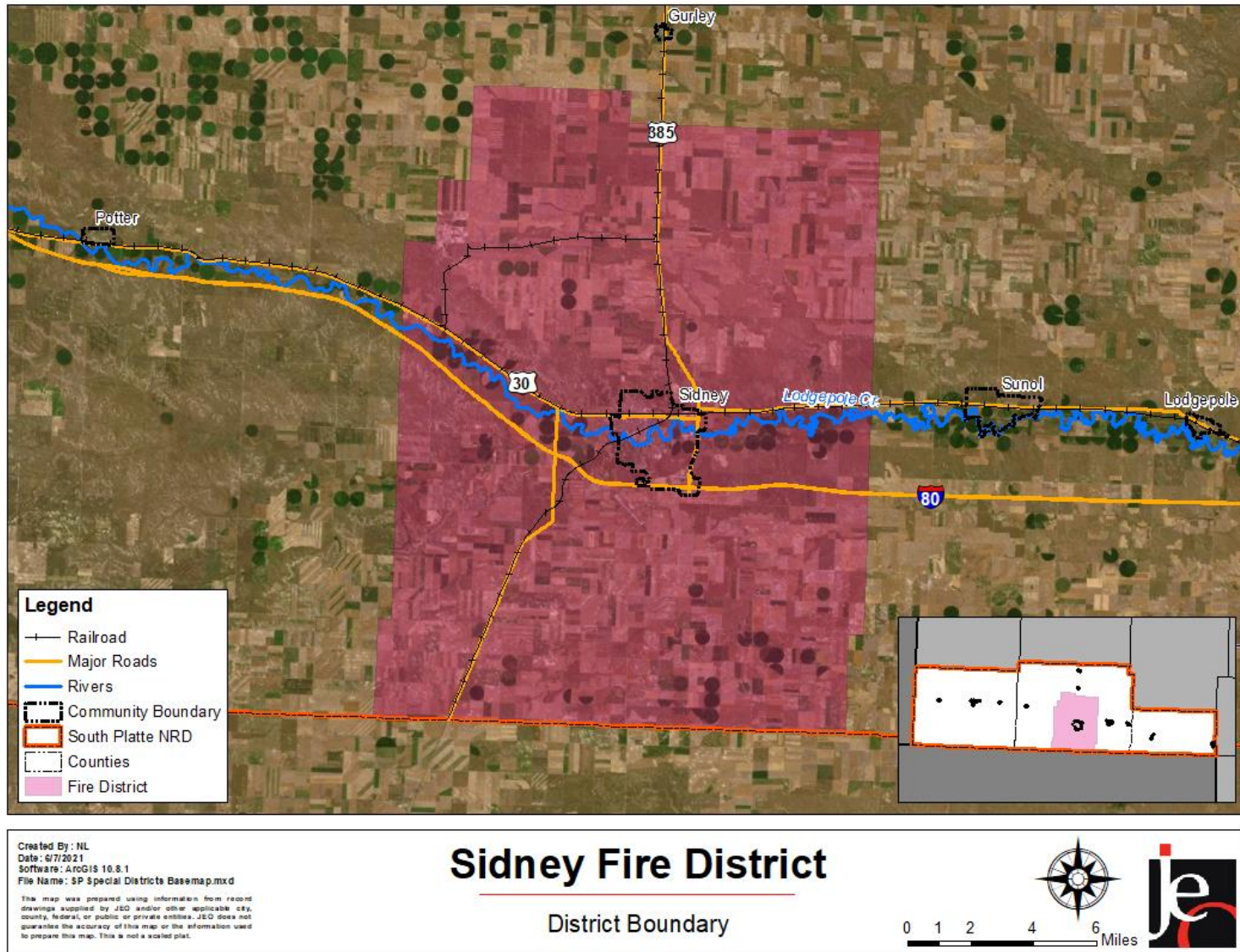
Table SFD.1: Sidney Fire District Local Planning Team

Name	Title	Jurisdiction
LaVerne Bown	Fire Chief	Sidney Fire District
Dana Reece	Assistant Chief	Sidney Fire District
Matt Butts	Assistant Chief	Sidney Fire District
Mike Butts	Captain	Sidney Fire District
Nick Sutton	Captain	Sidney Fire District
James Harmon	Lieutenant	Sidney Fire District
Dave Sanders	Lieutenant	Sidney Fire District

Location and Geography

The Sidney Fire District covers the south-central portion of Cheyenne County, including the City of Sidney. There are approximately 181,760 acres throughout the district. The local planning team indicated that areas most at risk for fire include cropland, CRP land, wheat stubble, and pastures.

Figure SFD.1: Sidney Fire District Boundary



Demographics

The district serves about 7,500 people. Please see the City of Sidney and Cheyenne County profiles for regional demographic information.

Future Development Trends

Since the last plan update, a new hospital building was built on the east edge of Sidney. The district will be replacing their fire engine and a new gas station will be opening.

Staffing

The Sidney Fire District is supervised by a fire chief and a five-member fire board who will oversee the implement of hazard mitigation projects.

Capabilities

Due to the unique structure of fire districts, the typical capability assessment table was not used. The following table summarizes the district’s overall capabilities. The Sidney Fire District will continue to utilize existing relationships with local, county, state, and federal agencies in the implementation of mitigation projects.

A large portion of district funds are currently dedicated to replacing the current structural engine. The department has a reserve fund which receives an annual contribution from the City of Sidney for capital expenditures. For the rural department, funds are dedicated to maintaining equipment and operating costs.

According to the planning team, rural funding has increased two to three percent a year in recent years. City funding has remained steady in the last few years.

Table SFD.2: Overall Capability

Overall Capability	Limited/Moderate/High
Financial Resources Needed to Implement Mitigation Projects	Moderate
Staff/Expertise to Implement Projects	Limited
Community Support to Implement Projects	Moderate
Time to Devote to Hazard Mitigation	Limited

Plan Integration

The Sidney Fire District has a Response Plan (2021) and standard operating guidelines (SOGs). These documents outline the district’s planned response to a variety of different calls that could be received. The district is also a part of the Wildcat Hills Region Community Wildfire Protection Plan, which was updated in July 2021. 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. Sidney Fire District follows the Cheyenne County Local Emergency Operations Plan (2018). Annex F of the LEOP covers fire services by listing the county fire departments, mutual aid partners, and equipment lists

Plan Maintenance

Hazard Mitigation Plans should be living documents and updated regularly to reflect changes in hazard events, priorities, and mitigation and strategic actions. These updates are encouraged to occur after every major disaster event, alongside community planning documents (i.e. annual budgets and Capital Improvement Plans), during the fall before the HMA grant cycle begins, and/or prior to other funding opportunity cycles begin including CDBG, Water Sustainability Fund, Revolving State Fund, or other identified funding mechanisms.

The local planning team is responsible for reviewing and updating this profile as changes occur or after a major event. The local planning team will include the Fire Chief, Assistant Chiefs, Captains, and Lieutenants. The plan will be reviewed bi-annually. The public will be included in the review and revision process via board meetings.

Community Lifelines

Transportation

Major transportation corridors in the district include Interstate 80, US Highway 385, and US Highway 30. Union Pacific, Sidney and Lowe, and Burlington Northern Santa Fe all have rail lines that run through the district.

Hazardous materials are regularly transported along Interstate 80 and Union Pacific railroad. Chemical spills have been mostly minimal in the area. One spill closed the on ramp to I-80 at Exit 59 for about twelve hours. In the event of a spill that requires evacuation, the City of Sidney would be most difficult to evacuate due to the concentrated population, the presence of a hospital, and long-term care facilities. This information is important to hazard mitigation plans insofar as it suggests possible evacuation corridors in the community, as well as areas more at risk to transportation incidents.

Hazardous Materials – Chemical Storage Fixed Sites

According to the Tier II System reports submitted to the Nebraska Department of Environment and Energy, there are 56 chemical storage sites in the district which house hazardous materials.

Table SFD.3: Chemical Storage Fixed Sites

Facility Name	Address
TIGT Huntsman Station 01	2835 Road 111
Sidney Ready-Mix	2535 Fort Sidney Rd
Frenchman Valley Farmers Co-op	Jct 9th & Forrest Sts
Sapp Bros Sidney Truck Stop	2914 Upland Pkwy
Titan Machinery Inc	525 Parkland Dr
Beyer TXO 1A	Road 103
Olson 3-1	Jct 17E & Road 18
NDOT Sidney Yard	2320 Illinois St
CenturyLink	1100 Jackson St
West Engelland Compressor Sta	Road 111
Frenchman Valley Farmers Co-op	303 E Illinois St
Frenchman Valley Farmers Co-op	1402 Illinois St
Progress Rail Services Corp	3224 Road 107
AT&T Microwave Tower 1350	1686 Road 131

SECTION SEVEN: SIDNEY FIRE DISTRICT PROFILE

Basin Electric Power Co-op	10515 Road 28
WAPA Virginia Smith Converter	2281 Road 111
WAPA Sidney Substation	2291 Road 111
Progress Rail Services Corp	10929 Road 32N
Bird Oil Field	Road 20 & 93
Diamond B Oil Inc Shop	Highway 30 & Fairgrounds Rd
Hruska 1 Lease	Jct Roads 103 & 32S
Krueger - Ladegard Lease	Road 99
Sorge Lease	Jct Roads 103 & 32 S
M Cruise 1 Lease	Road 30
Tremain Lease	Roads 32 & 130
Doran D Field	Highway 30
Cruise A	2829 Road 111
Johnson Field	Road 32
Sparks B & C	Road 107
State 4	Road 16
Armstrong 2 Lease	Road 101
Rudolph Lease 2 & 3	Road 16 & 93
Golf 05 Launch Facility	County Rd 41
Golf 06 Launch Facility	County Rd 26
India 11 Launch Facility	Road 119
India 10 Launch Facility	Road 115
Sparrow Field	Jct Roads 36 & 119
CHH Federal 01	Jct Roads 40 & 107
Golf 07 Launch Facility	Highway 19
India 01 MAF	County Rd 125
India 02 Launch Facility	County Rd 16
Sioux Federal 9 Lease	Jct Roads 103 & 42
Cabelas Inc	115 Cabela Dr
Pasque 1	Road 16
Pro Oil Bulk Plant	11574 US Highway 30
Cabelas Distribution Center	3200 Road 101
M & B Mather Lease	Jct Roads 113 & 28
Pahl Lease	Jct Roads 111 & 30
Rippe B Lease	Jct Roads 111 & 30
Sparks A Lease	Jct Roads 109 & 28
Mathewson 1-20	Road 89
ATC Sunol 88995	1686 Road 131
Sidney Sand & Gravel Plant	1839 Road 117
Bell Lumber & Pole Company	9965 Road 34
Adams Industries Inc	1655 Industrial Ave
Charter Communications NE0085	1830 10th Ave
*Love's Travel Stop	645 Chase Blvd.
*Beyer Solutions	10811 Lincoln Highway
*308 Ag	3281 Highway 385
*Renkoski Property Development LLC	301 Illinois St.

Source: Nebraska Department of Environment and Energy¹⁵

*Facilities not included in NDEE list of Tier II facilities.

¹⁵ Nebraska Department of Environment and Energy. "Search Tier II Data." Accessed January 2021.

Critical Facilities

Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and essential for returning the jurisdiction's functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during the original planning process and updated by the local planning team as a part of this plan update.

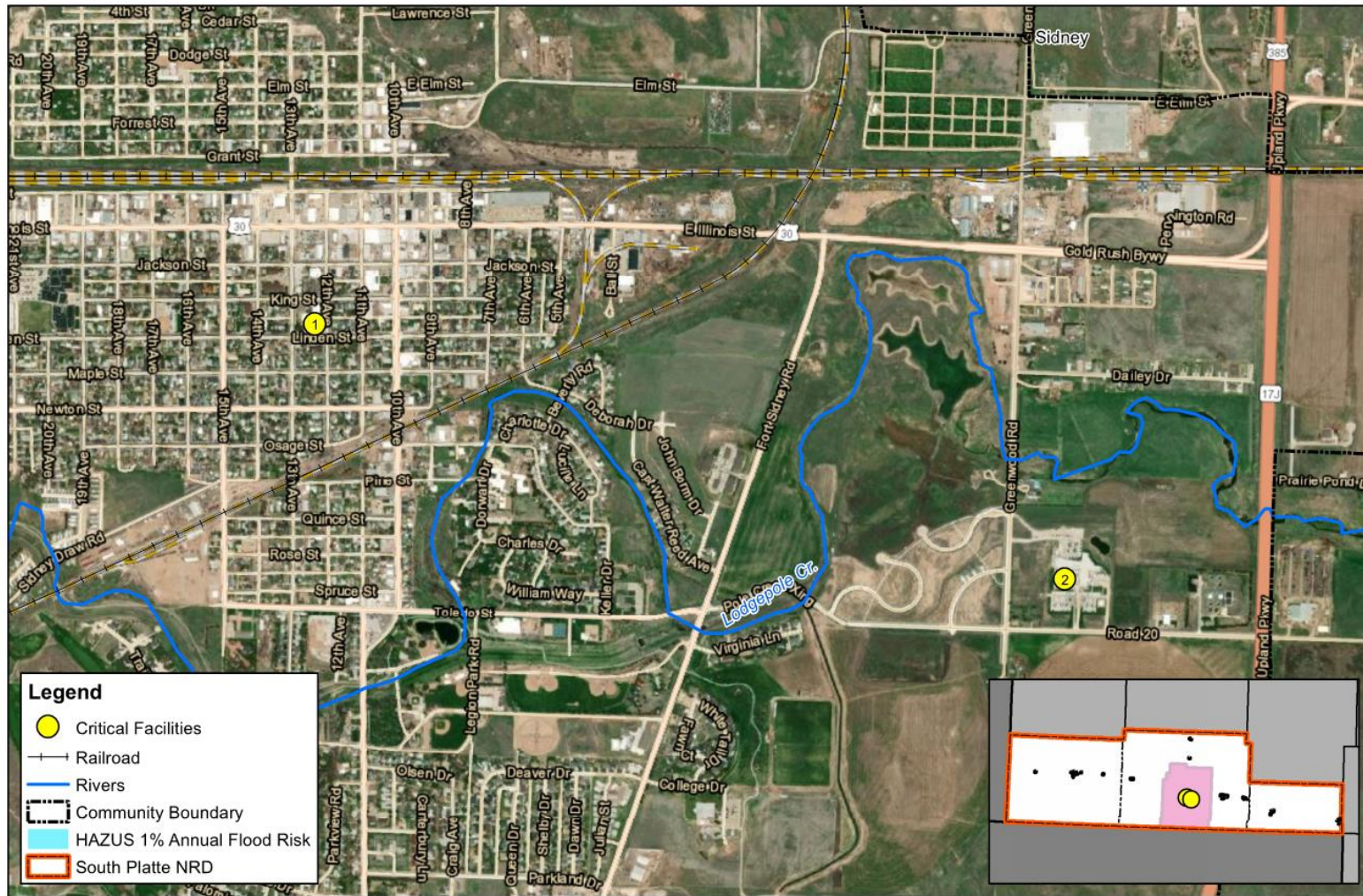
The following table and figure provide a summary of the critical facilities for the jurisdiction.

Table SFD.4: Sidney Fire Critical Facilities

CF #	Name	Shelter (Y/N)	Generator (Y/N)
1	Sidney Fire Department	N	N
2	Sidney Regional Medical Center	N	N

SECTION SEVEN: SIDNEY FIRE DISTRICT PROFILE

Figure SFD.2: Fire District Critical Facilities



Created By: KD
 Date: 12/15/2021
 Software: ArcGIS 10.8.1
 File Name: SP School Districts Basemap.mxd

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 plot.

Sidney Fire District

Critical Facilities



0 250 500 1,000 1,500 Feet

Hazard Prioritization

For additional discussion regarding area wide hazards, please see *Section Four: Risk Assessment*. A full list of historical hazard occurrences can be found in the Cheyenne County jurisdictional profile. The hazards discussed in detail below were selected by the local planning team from the regional hazard list as the relevant hazards for the jurisdiction. The selected hazards were prioritized by the local planning team based on historical hazard occurrences, potential impacts, and the district's capabilities.

Drought

Drought is very common across the whole planning area. Because the fire district and much of the planning area is an agricultural-based economy, drought plays an important role. According to the NCEI, extreme drought last occurred in the region in 2012/2013. Significant drought, however, was reported in 2020/2021.

To monitor for drought, the fire district regularly checks the weekly Drought Monitor released by the National Weather Service in Cheyenne, WY. Particular concerns for the district include the prevalence of wildland fires due to fuels becoming drier and more flammable. The planning team noted that the water supply is currently sufficient. To mitigate impacts to this hazard, the district has signed mutual aid agreements with neighboring fire departments.

Grass/Wildfire

According to the Nebraska Forest Service, the Sidney Fire District responded to 134 fires in the district between 2000 and 2020. These fires burned a total of 940 acres and resulted in no injuries or fatalities. The local planning team expressed concern for not having the funds to replace outdated equipment as well as a decrease in the number of responders. Another concern is for increased wind events and continued drought conditions.

To mitigate risk to this hazard, the district helped reform a mutual aid association to increase the number of resources available if a large incident were to occur. Additionally, the fire district refrains from issuing burn permits when conditions warrant.

Hazardous Materials – Fixed Sites

The U.S. Coast Guard National Response Center reports five fixed-site chemical spills in Sidney between 1990 to 2020. No evacuations, damages, injuries, or fatalities were reported to have occurred. The fire district's main concern is the health and safety of the public and the environment. Facilities at risk if a spill were to occur include Sidney Regional Medical Center, Highway 30, and Highway 385.

Resources available to respond in the event of a fixed-site chemical spill include the Nebraska Hazardous Incident Team and the local mutual aid Hazardous Materials Response Team. Local training includes annual HAZMAT awareness personnel training. District resources include fire engines, tankers, utility trucks, a rescue truck, and a HAZMAT decontamination trailer. Public outreach and education occurs regularly and includes fire prevention best practices. To mitigate risk to this hazard, the fire district ensures that annual HAZMAT training occurs, has established procedures for contacting state and mutual aid resources if needed, and worked on identifying which fixed sites are of most concern.

Hazardous Materials – Transportation

Significant transportation routes in the district include Interstate 80, Highway 30, Highway 385, and the BNSF and Union Pacific railroads. Numerous oils, gases, and liquids are transported on the railroads; and some hazardous materials are transported along Interstate 80. According to PHMSA, there were 18 transportation-related chemical spills in Sidney between 1971 and January 2021. These spills resulted in \$207,545 in damages, two injuries, and one serious evacuation.

In the event of a large spill, the Sidney Fire Department, Sidney Police Department, Regional West EMS, NDOT, and the Nebraska State Patrol would all respond. The planning team indicated that the fire district does not have the appropriate spill resources and training. Local training includes annual HAZMAT awareness (not response).

Vulnerable populations located near transportation routes include the Sidney Regional Medical Center as well as any residents who live along those routes. To mitigate risk to this hazard, the fire district ensures that annual HAZAMAT training occurs. Sidney Fire also coordinates with Region 21 EMA and Sidney Police Department on shelter locations.

Severe Thunderstorms

According to the NCEI, there were 60 thunderstorm events in Sidney from 1996 to April 2021 which resulted in \$37,000 in property damage. No injuries or fatalities were reported. The planning team indicated that no significant events have occurred locally in recent years. Primary concerns for this hazard include damaging winds, hail, lightning, and possible tornadoes. The planning team indicated that the fire hall/city hall are in need of a backup generator.

Severe Winter Storms

Sidney has been affected annually by severe winter storms. Significant storms in recent years include blizzards in 2018, 2019, and 2020. Impacts from these storms include stranded motorists on Interstate 80, reduced traffic on other arterials, and power outages in rural areas. According to the NCEI, there were 114 severe winter storm events throughout Cheyenne County from 1996 through April 2021. These resulted in \$500,500 in property damages and \$11,423,410 in crop damages.

Primary concerns for the local planning team include impassable roads and significant snow/blizzards delaying response time or stranding motorists. Snow removal resources are currently deemed as sufficient by the planning team.

Mitigation Strategy

New Mitigation and Strategic Actions

MITIGATION ACTION	Backup Generators
DESCRIPTION	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)	All hazards
ESTIMATED COST	\$150,000
FUNDING	General Fund
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Sidney Fire Department
STATUS	The fire hall/city hall is currently in need of a backup generator.

MITIGATION ACTION	New Tanker
DESCRIPTION	Purchase a new tanker to replace the current one that is past its useful life.
HAZARD(S)	Grass/Wildfire
ESTIMATED COST	\$300,000
FUNDING	Bonds
TIMELINE	5+ years
PRIORITY	High
LEAD AGENCY	Sidney Rural Fire District
STATUS	Not started

MITIGATION ACTION	New SCBA and Compressor
DESCRIPTION	Replace the current SCBA units and compressor
HAZARD(S)	Grass/Wildfire
ESTIMATED COST	\$250,000
FUNDING	General Fund, Donations
TIMELINE	2-5 years
PRIORITY	High
LEAD AGENCY	Sidney Fire Department
STATUS	Not started

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District Profile

Sidney Public School District

**South Platte Natural Resources District
Hazard Mitigation Plan 2022**

Local Planning Team

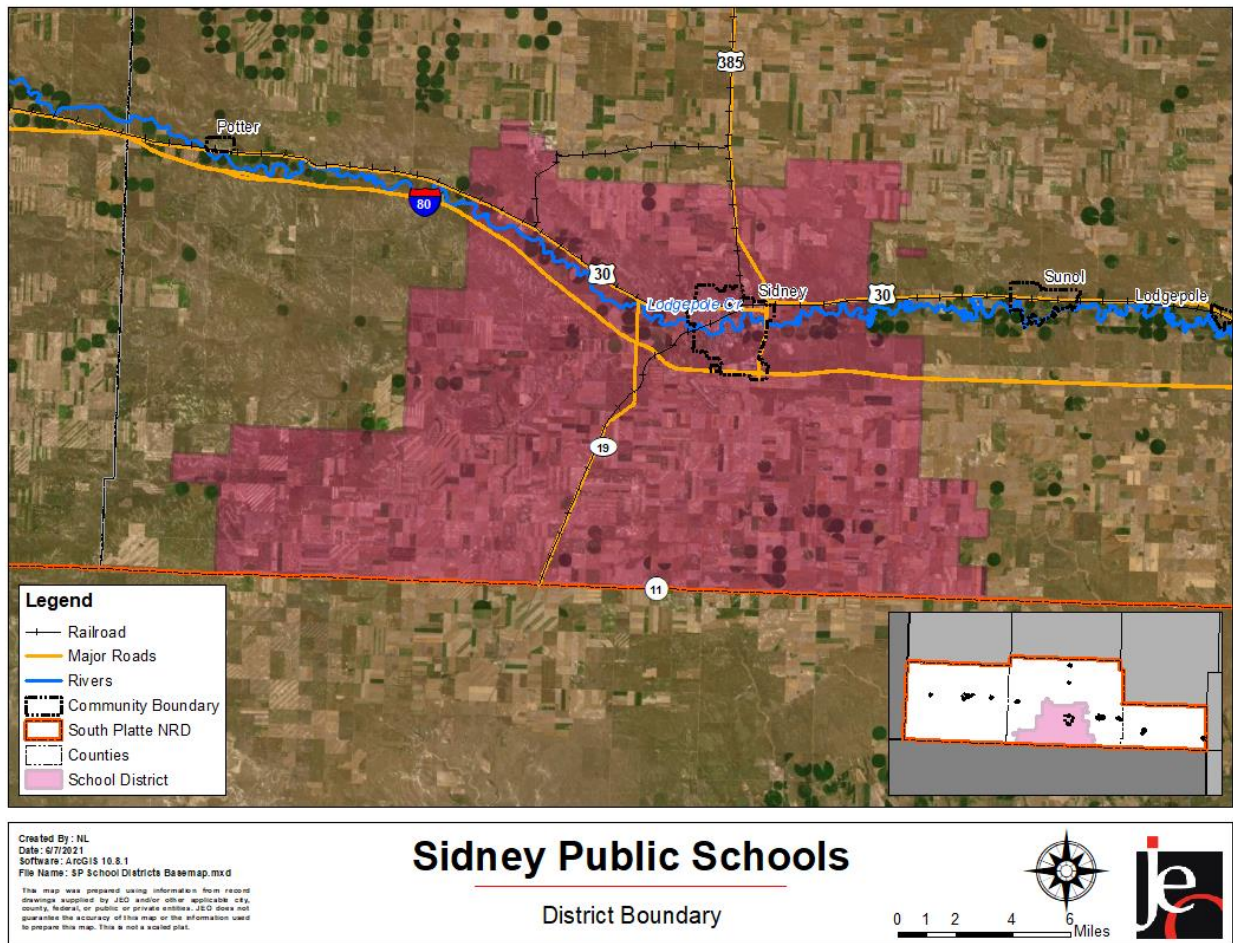
Table SPS.1: Sidney Schools Local Planning Team

Name	Title	Jurisdiction
Jay Ehler	Superintendent	Sidney Public Schools

Location and Services

Sidney Public Schools is a school district located in Cheyenne County, in the southern portion of the panhandle in Nebraska. Its main office is located at 1101 21st Avenue, Sidney, Nebraska, 69162. The district’s mission, as expressed on its website, strives “to empower students with the knowledge, skills, and attitudes to become productive citizens.” The district is comprised of six schools: Sidney High School, Sidney Middle School, Central Elementary School, North Ward Elementary School, South Ward Elementary School, and West Elementary School. Besides English, Spanish is also spoken by many within the district. Sidney Public Schools also provides opt-in services for students in the surrounding communities of Potter, Dalton, Lodgepole, Chappell, Peetz, and Gurley.

Figure SPS.1: Sidney School District Boundary



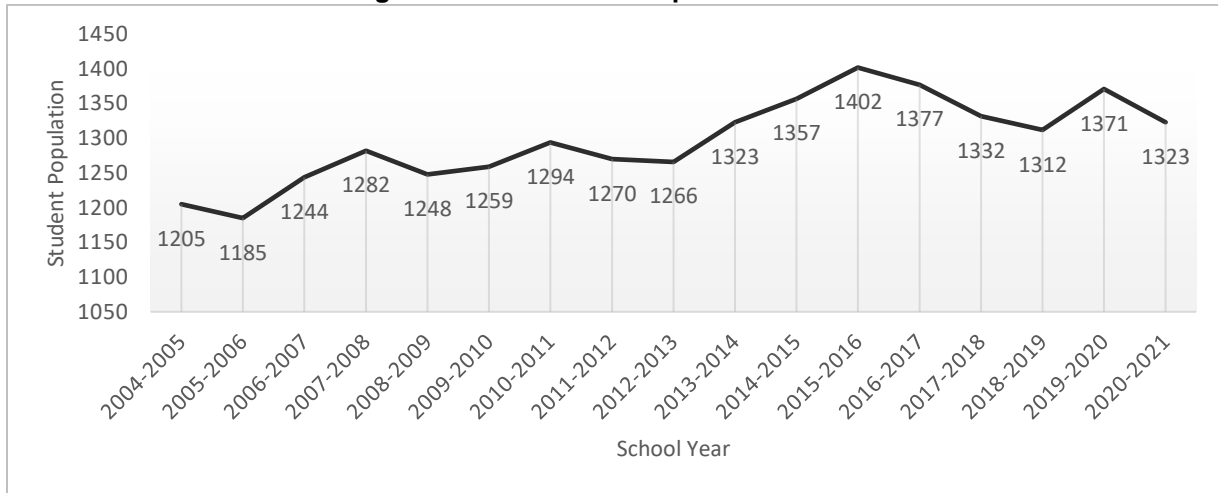
Transportation

The district planning team did not express too much concern with particular transportation routes but did indicate that county roads have experience some issues after snowstorms. Additionally, there have been no transportation accidents that impacted the school in recent years. The district has six buses and run three routes daily. Approximately 500 students are bussed daily.

Demographics

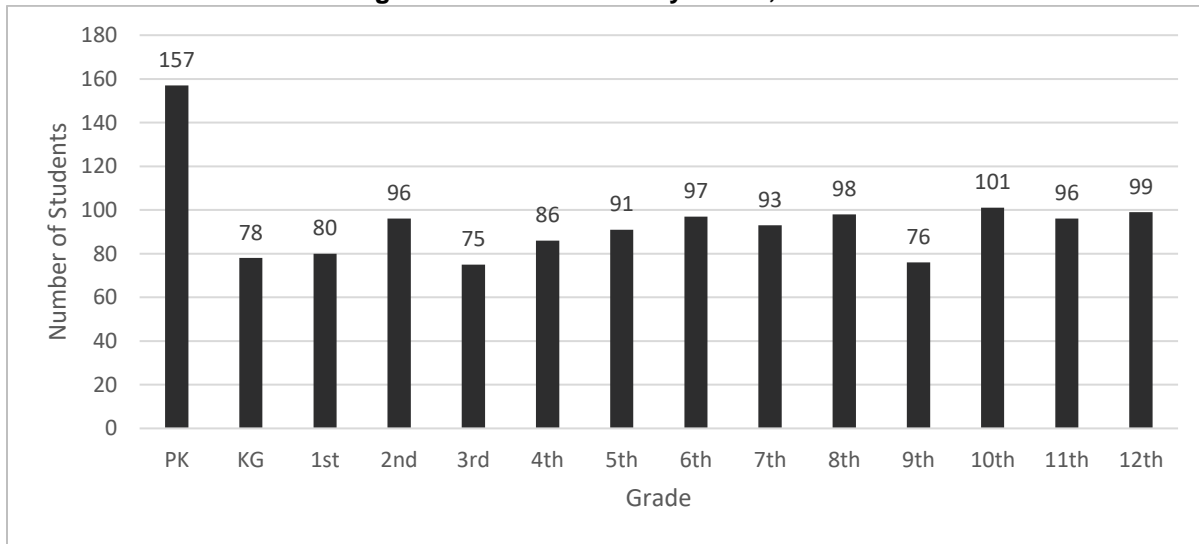
The following figure displays the historical student population trend starting with the 2004-05 school year and ending with the 2020-21 year. The figure indicates that the student population has declined in recent years. There are approximately 1,323 students enrolled in Sidney Public School District. Enrollment is expected to remain similar to what it is now over the next five years. The district employs teachers, with a total of about 175 staff members.

Figure SPS.2: Student Population 2004-2021



Source: Nebraska Department of Education

Figure SPS.3: Students by Grade, 2020-2021



Source: Nebraska Department of Education

The figure above indicates that the largest number of students are in pre-kindergarten, followed by 10th grade and 6th grade. The lowest population of students are in 3rd grade and 9th grade. According to the Nebraska Department of Education (NDE), 40.41% of students receive either free or reduced priced meals at school in the 2019-20 year. This is lower than the state average of 45.60%. Additionally, 11.42% of students are in the Special Education Program. These students may be more vulnerable during a hazardous event than the rest of the student population.

Table SPS.2: Student Statistics, 2019-2020

	District	State of Nebraska
Free/Reduced Priced Meals	40.41%	45.60%
Special Education Students	11.42%	15.56%
English Language Learners (ESL)	2.13%	7.43%
School Mobility Rate	13.64%	8.36%

Source: Nebraska Department of Education

Future Development Trends

There have not been any development changes over the past five years to district facilities. According to census data, the district's student population is generally decreasing. The planning team attributes this to the sale of Cabela's Inc. to Bass Pro Shops and the subsequent closure of most corporate offices. Enrollment decreased by 12% at the time but has since seen half of that number return. There are no current plans for development or renovation.

Community Lifelines

Transportation

The district's major transportation corridors include US Highway 30, Highway Link L17J, and Interstate 80. The Burlington Northern Santa Fe Rail Line runs north/south through the city and the Union Pacific Railroad runs west/east through the city. This information is important to hazard mitigation plans insofar as it suggests possible evacuation corridors in the district, as well as areas more at risk to transportation incidents.

Hazardous Materials – Chemical Storage Fixed Sites

In the event of a chemical spill impacting the school district, the Director of Operations and Maintenance Director would be the first to respond, with other agencies being on-call. No chemical fixed sites are located near schools and there are no current concerns for fixed site chemical spills, according to the planning team.

Table SPS.3: Chemical Storage Fixed Sites

Facility Name	Address
TIGT Huntsman Station 01	2835 Road 111
Sidney Ready-Mix	2535 Fort Sidney Rd
Frenchman Valley Farmers Co-op	Jct 9th & Forrest Sts
Sapp Bros Sidney Truck Stop	2914 Upland Pkwy
Titan Machinery Inc	525 Parkland Dr
Beyer TXO 1A	Road 103
Olson 3-1	Jct 17E & Road 18
NDOT Sidney Yard	2320 Illinois St
CenturyLink	1100 Jackson St
West Engelland Compressor Sta	Road 111
Frenchman Valley Farmers Co-op	303 E Illinois St
Frenchman Valley Farmers Co-op	1402 Illinois St
Progress Rail Services Corp	3224 Road 107
AT&T Microwave Tower 1350	1686 Road 131
Basin Electric Power Co-op	10515 Road 28
WAPA Virginia Smith Converter	2281 Road 111
WAPA Sidney Substation	2291 Road 111
Progress Rail Services Corp	10929 Road 32N
Bird Oil Field	Unlisted
Diamond B Oil Inc Shop	Highway 30 & Fairgrounds Rd
Hruska 1 Lease	Jct Roads 103 & 32S
Krueger - Ladegard Lease	Road 99
Sorge Lease	Jct Roads 103 & 32 S
M Cruise 1 Lease	Road 30
Tremain Lease	Roads 32 & 130
Doran D Field	Highway 30
Cruise A	2829 Road 111
Johnson Field	Road 32
Sparks B & C	Road 107
State 4	Road 16
Armstrong 2 Lease	Road 101
Rudolph Lease 2 & 3	Unlisted
Golf 05 Launch Facility	County Rd 41
Golf 06 Launch Facility	County Rd 26
India 11 Launch Facility	Road 119
India 10 Launch Facility	Road 115
Sparrow Field	Jct Roads 36 & 119
CHH Federal 01	Jct Roads 40 & 107
Golf 07 Launch Facility	Highway 19
India 01 MAF	County Rd 125
India 02 Launch Facility	County Rd 16
Sioux Federal 9 Lease	Jct Roads 103 & 42
Cabelas Inc	115 Cabela Dr
Pasque 1	Road 16
Pro Oil Bulk Plant	11574 US Highway 30
Cabelas Distribution Center	3200 Road 101
M & B Mather Lease	Jct Roads 113 & 28

SECTION SEVEN: SIDNEY PUBLIC SCHOOL DISTRICT PROFILE

Facility Name	Address
Pahl Lease	Jct Roads 111 & 30
Rippe B Lease	Jct Roads 111 & 30
Sparks A Lease	Jct Roads 109 & 28
Mathewson 1-20	Road 89
ATC Sunol 88995	1686 Road 131
Sidney Sand & Gravel Plant	1839 Road 117
Bell Lumber & Pole Company	9965 Road 34
Adams Industries Inc	1655 Industrial Ave
Charter Communications NE0085	1830 10th Ave

Source: Nebraska Department of Environment and Energy¹⁶

Critical Facilities

Each participating jurisdiction identified critical facilities vital for disaster response, providing shelter to the public, and essential for returning the jurisdiction’s functions to normal during and after a disaster per the FEMA Community Lifelines guidance. Critical facilities were identified during the original planning process and updated by the local planning team as a part of this plan update.

The school district operates six facilities. School facilities are listed below, along with information indicating the school’s address, number of students and staff, if the facility is used as a shelter during emergencies, if the facility is located in the floodplain, and the presence of a backup power generator.

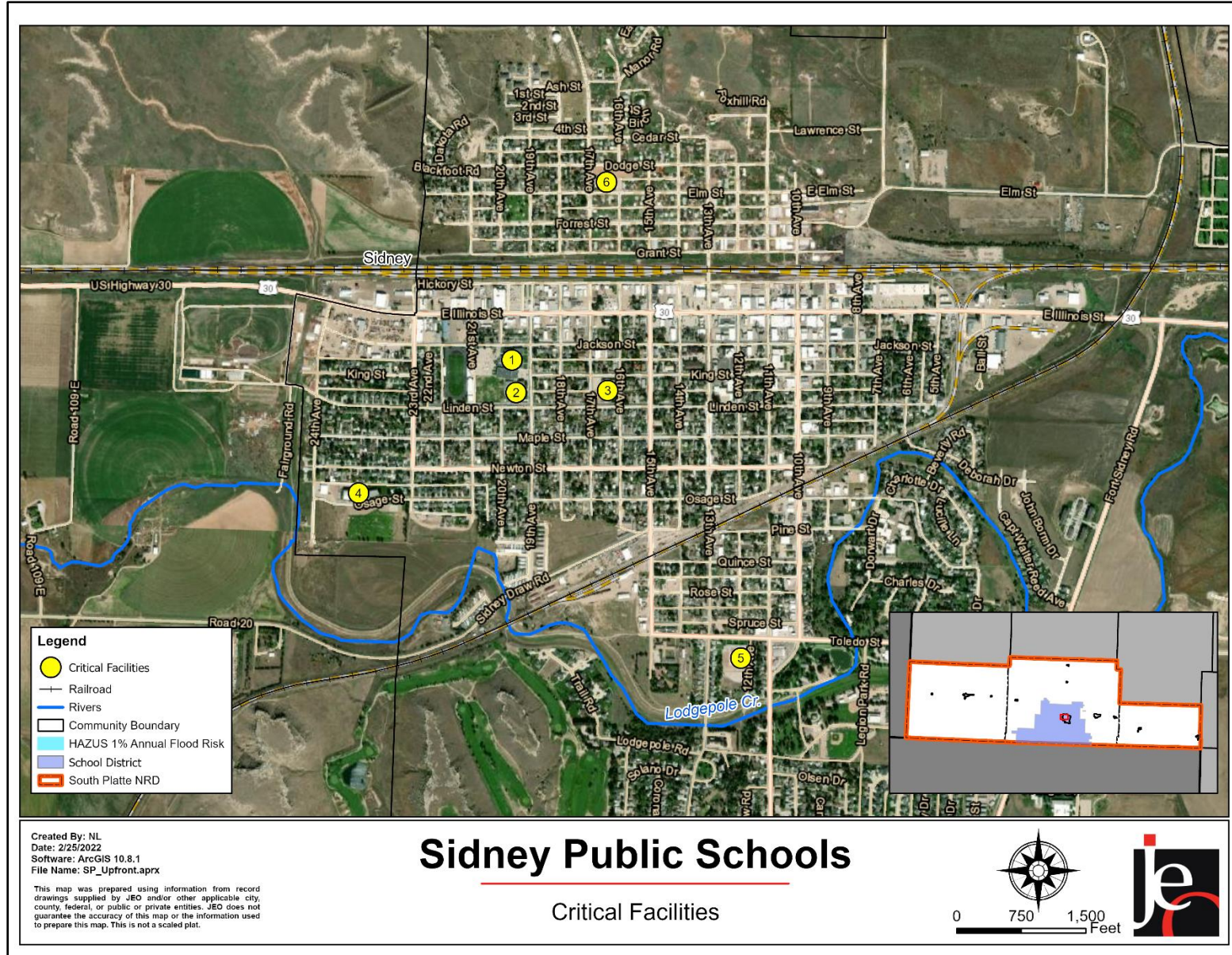
The following table and figure provide a summary of the critical facilities for the district.

Table SPS.4: Sidney Schools Critical Facilities

CF #	Name	# of Students	# of Staff	Shelter (Y/N)	Generator (Y/N)
1	Sidney High School	372	45	Y	N
2	Sidney Middle School	192	17	Y	N
3	Central Elementary School	139	18	Y	N
4	West Elementary School	192	16	Y	N
5	South Elementary School	173	17	Y	N
6	North Elementary School	173	19	Y	N

¹⁶ Nebraska Department of Environment and Energy. “Search Tier II Data.” January 2021.

Figure SPS.4: Sidney Schools Critical Facilities



School Drills and Staffing

Safety drills are conducted regularly in the district, with fire drills happening monthly, tornado drills semi-annually, and both bus evacuation and lockdown drills occurring twice a year. Staff is trained by the district safety committee, using safety videos from the district's insurance provider and other building trainings. Students and families are educated about emergency procedures primarily using email, social media, and the REMIND app.

Historical Occurrences

See the City of Sidney and Cheyenne County community profiles for historical hazard events.

Hazard Prioritization

For additional discussion regarding area wide hazards, please see *Section Four: Risk Assessment*. The hazards discussed in detail below were selected by the local planning team from the regional hazard list as the relevant hazards for the jurisdiction. The selected hazards were prioritized by the local planning team based on historical hazard occurrences, potential impacts, and the district's capabilities.

Hail

The school district is impacted by hail approximately five to seven times per year, with an average magnitude of marble sized hail. The school has suffered impacts from hail previously, including a number of broken windows in either 2008 or 2009. The protocol for a hail event includes keeping students indoors and shelter in place.

To mitigate against future lasting impacts from hail events, the school district has invested in higher quality roofing materials, placed covers on some HVAC appliances, insured its facilities, provided covering for some school vehicles, and installed heavy duty windows.

High Winds

The school district is impacted by high winds regularly. Most often, the impacts related to high winds include damaged tree branches, damage to roofs, and snow damage, which is compounded by high winds. The school district responds to high wind events on a case-by-case basis. Often, the administrators will ask coaches to get students indoors/out of practice by a given time. The district's biggest concerns related to high winds include structural damages, as well as safety from falling tree branches.

To mitigate against lasting impacts as a result of severe winter storms, the maintenance staff is responsible for removing dead trees and branches, so they do not fall unexpectedly during a high wind event. Improved roofing materials have also been installed.

Severe Thunderstorms

The school district experiences between eight and ten severe thunderstorms per year and has experienced damages as a result of severe thunderstorms in the past. Some of the impacts have included damage to servers (via electrical issues) and ponding on parking lots and playgrounds. For event detection, the school utilizes radar, television, cell phones and weather radios to be aware of any impending inclement weather. In terms of response, the school will keep students indoors in the case of a severe thunderstorm, as well as practice indoors for sports. The school district does have a portable backup generator in case of a power outage.

Severe Winter Storms

The school district is impacted by about five severe winter storms per year, on average. In Sidney, the local definition of a severe winter storm often includes between four and eight inches of snow accumulation, often coupled with high winds. On average, the school cancels school due to severe winter storms approximately three times per year. Related to severe winter storms, the school is primarily concerned about transportation issues. These concerns are exacerbated due to the fact that many high school drivers are new, inexperienced drivers, who are unfamiliar in driving under inclement conditions.

In the case of an impending severe winter storm, the superintendent consults the National Weather Service, as well as neighboring superintendents before making a decision on whether or not to cancel school. Once the superintendent has made a decision, he contacts the district's chief information officer, who updates social media, and contacts the local media. Additionally, the district subscribes to a voice memo system, with which the superintendent records a memo and may send it to parents who have opted-in to the system.

In terms of recovery, the streets department is responsible for clearing streets in Sidney, who do an excellent job, according to the planning team.

Tornadoes

While the school district has not been impacted by a tornado directly, tornadoes are relatively common in the planning area, the school district's biggest concerns related to tornadoes include bodily injury, loss of life and student safety. According to the Local Planning Team, the planning area experiences three to five tornadoes per year. In the case of a tornado event, the school typically detects inclement weather by using TV, radio, weather radios or cell phones. Then, once a tornado is detected in the area, students and faculty are instructed to follow the emergency plan, which includes sheltering in place, in hardened areas like interior hallways, locker rooms, and restrooms. Every building has its own emergency plan, which is practiced twice a year.

Administration

The school district has a superintendent, six principals, one assistant principal, and supportive staff. The school board is made up of a six-member panel. The district also has a number of additional departments and staff that may be available to implement hazard mitigation initiatives.

Capabilities

The capability assessment consisted of a review of local existing policies, regulations, plans, and programs with hazard mitigation capabilities. The following tables summarize the jurisdiction's planning and regulatory capability; administrative and technical capability; fiscal capability; educational and outreach capability; and overall capability to implement mitigation projects.

Table SPS.5: Capability Assessment

Survey Components		Yes/No
Planning Capability	Capital Improvements Plan/Long-Term Budget	Yes
	Continuity of Operations Plan	Yes
	Disaster Response Plan	Yes
	Other (if any)	
Administrative & Technical Capability	GIS Capabilities	No
	Civil Engineering	No
	Staff who can assess jurisdictional vulnerability to hazards	No
	Grant Manager	Yes
	Mutual Aid Agreements	Yes
	Other (if any)	
Fiscal Capability	Applied for grants in the past	Yes
	Awarded grants in the past	Yes
	Authority to levy taxes or bonds for specific mitigation projects	Yes
	Development Impact Fees	No
	General Obligation Revenue or Special Tax Bonds in place	No
	Flood Insurance	No
	Other (if any)	
Education and Outreach	Local school groups or non-profit organizations focused on environmental protection, emergency preparedness, access, and functional needs populations, etc. (Ex. Parent groups, hazard mitigation boards, etc.)	Yes
	Ongoing public education or information program (Ex. Responsible water use, fire safety, household preparedness, environmental education, etc.)	Yes
	StormReady Certification	No
	Other (if any)	
Drills	Fire	Monthly
	Tornado	Semi-Annually
	Intruder	Semi-Annually
	Bus Evacuation	Annually
	School Evacuation	Annually
	Other (if any)	Yes

Table SPS.6: Overall Capability

Overall Capability	Limited/Moderate/High
Financial Resources Needed to Implement Mitigation Projects	Moderate
Staff/Expertise to Implement Projects	Moderate
Community Support to Implement Projects	Moderate
Time to Devote to Hazard Mitigation	Limited

Plan Integration

Grants and Funding

District funds are mostly dedicated to maintaining current facilities. The district was awarded a grant in recent years from Elementary and Secondary School Emergency Relief (ESSER). The ESSER funds will help improve HVAC systems, which include improvements to air quality, and safety equipment and procedures. District funds have seen a slight decrease in recent years.

Response and Strategic Plans

The school district utilizes a Crisis Response Plan to react to hazardous events. The Crisis Response Plan discusses natural hazards and assigns specific responsibilities to individuals, provides clear assignment of responsibility during an emergency, addresses shelter in place protocols, and identifies the following: scenarios that require evacuation, critical evacuation routes, sheltering locations, and opportunities for mitigation following an event. The plan is updated as needed and the district has annual meetings to discuss safety and crisis response. The district also has a Safety Procedures Plan, which is updated annually, and a Strategic Plan (2022), which has goals and objectives regarding school safety and security.

Plan Maintenance

Hazard Mitigation Plans should be living documents and updated regularly to reflect changes in hazard events, priorities, and mitigation and strategic actions. These updates are encouraged to occur after every major disaster event, alongside community planning documents (i.e. annual budgets and Capital Improvement Plans), during the fall before the HMA grant cycle begins, and/or prior to other funding opportunity cycles begin including CDBG, Water Sustainability Fund, Revolving State Fund, or other identified funding mechanisms.

The local planning team is responsible for reviewing and updating this community profile as changes occur or after a major event. The local planning team will include the Director of Operations and Maintenance Director. The local planning team will review the plan no less than semi-annually and will include the public in the review and revision process through social media, board meetings, email, radio, and newspaper.

Mitigation Strategy

New Mitigation and Strategic Actions

MITIGATION ACTION	New Elementary Roof
DESCRIPTION	Install a new roof on the Elementary School
HAZARD(S)	Hail, High Winds, Severe Thunderstorms, Severe Winter Storms, Tornadoes
ESTIMATED COST	\$200,000
FUNDING	District General Fund
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Sidney Public Schools
STATUS	Not started

MITIGATION ACTION	Snow Removal Equipment
DESCRIPTION	Purchase snow removal equipment
HAZARD(S)	Severe Winter Storms
ESTIMATED COST	\$50,000
FUNDING	District General Fund
TIMELINE	5+ years
PRIORITY	Medium
LEAD AGENCY	Sidney Public Schools
STATUS	Not started

Continued Mitigation and Strategic Actions

MITIGATION ACTION	Backup Generators
DESCRIPTION	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)	All Hazards
ESTIMATED COST	\$5,000+
FUNDING	Board/District Taxing Authorities
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Maintenance Department
STATUS	The district has acquired one portable backup generator but would like to obtain another one.

MITIGATION ACTION	Improve Snow/Ice Removal Program/Snow Fence
DESCRIPTION	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, and removal of associated storm debris. This would include equipment that is needed and paving routes
HAZARD(S)	Severe Winter Storms
ESTIMATED COST	Staff Time
FUNDING	District General Fund
TIMELINE	2-5 years
PRIORITY	Medium
LEAD AGENCY	Maintenance Department
STATUS	Snow removal equipment has received some updates. Other improvements are still needed.

Removed Mitigation and Strategic Actions

MITIGATION ACTION	Static Detectors
DESCRIPTION	Static detectors are designed to detect lightning strikes and can predict the distance to the lightning strike and whether a storm is approaching or moving away from the detector. Deploying a static detector at outdoor events can warn of approaching, fast moving storms and associated lightning, thus helping officials to respond appropriately
HAZARD(S)	Severe Thunderstorms
REASON FOR REMOVAL	The district has other means of detecting storms and lightning.

**INTERLOCAL COOPERATIVE AGREEMENT
AMENDED JULY 2022**

This **AMENDED INTERLOCAL COOPERATIVE AGREEMENT** made and entered into by and between Banner County Public School District No. 04-0001 (hereinafter referred to as “Banner County”), Bayard Public School District No. 62-0021 (hereinafter referred to as “Bayard”), Bridgeport Public School District No. 62-0063 (hereinafter referred to as “Bridgeport”), Creek Valley Public School District No. 25-0025 (hereinafter referred to as “Creek Valley”), Gering Public School District No. 79-0016 (hereinafter referred to as “Gering”), Kimball Public School District No. 53-0001 (hereinafter referred to as “Kimball”), Minatare Public School District No. 79-0002 (hereinafter referred to as “Minatare”), Mitchell Public School District No. 79-0031 (hereinafter referred to as “Mitchell”), Morrill Public School District No. 79-0011 (hereinafter referred to as “Morrill”), and Sidney Public School District No. 17-0001 (hereinafter referred to as “Sidney”), collectively referred to in this Interlocal Cooperative Agreement as the “parties”.

RECITALS

WHEREAS, Banner County, Bayard, Bridgeport, Creek Valley, Gering, Kimball, Minatare, Mitchell, Morrill, and Sidney are desirous to enter into an Interlocal Cooperative Agreement, the purpose of which is to provide an alternative learning environment for students; and

WHEREAS, Banner County, Bayard, Bridgeport, Creek Valley, Gering, Kimball, Minatare, Mitchell, Morrill, and Sidney are determined that the establishment of this Interlocal Cooperative Agreement will best serve the students of each respective school district and further shall provide the means of improving and facilitating the quality of education for said students and further shall provide a means of sharing instructional assignments, programs, activities, and functions thereby eliminating duplications of cost of providing such services.

NOW, THEREFORE, IT IS AGREED by and between the parties as follows:

1. NAME

The name of the Interlocal Cooperative Agency hereby established shall be:
VALLEY ALTERNATIVE LEARNING TRANSITIONING SCHOOL (hereinafter referred to as “VALTS”)

2. PURPOSE

Banner County, Bayard, Bridgeport, Creek Valley, Gering, Kimball, Minatare, Mitchell, Morrill, and Sidney hereby agree pursuant to the terms of this Interlocal Cooperative Agreement that there is hereby established an Interlocal Cooperative Agreement pursuant to Sec. 13-804 R.R. S. 1943 et seq. hereby establishing a separate entity for the purpose of providing for the general education needs and providing educational

services as identified and required by member school districts and further providing for economy, efficiency and cost effectiveness in the cooperative delivery of education services.

Subject to approval by the Board of Education of VALTS, the allocation of educational slots for students attending VALTS shall be as follows:

Gering Public School District #16	=	15 slots
Mitchell Public School District # 31	=	7 slots
Sidney Public School District #1	=	7 slots
Bridgeport Public School District #63	=	3 slots
Bayard Public School District #21	=	2 slots
Creek Valley Public School District #25	=	2 slots
Kimball Public School District #1	=	2 slots
Minatare Public School District #2	=	2 slots
Morrill Public School District #11	=	3 slots
Banner County Public School District #1	=	1 slot

Additional slots for districts may be allowed if approved by VALTS/ESU #13 Administration. Member districts also have the option of transferring excess student slots. Any transfer must meet the following conditions:

1. Should a district assume such a slot, the cost of the slot will be the prevailing rate charged all member districts for that same year.
2. The district assuming the slot will pay for the slot on a quarterly basis.

3. GOALS

1. To provide alternative ways for students to achieve high school graduation resulting in increased graduation rates and preparation for life after high school.
2. To certify that, upon completion of a course, students will have reached or surpassed the district and/or state performance assessments which measure student progress.
3. To develop innovative student performance assessments which measure student progress.
4. To provide a caring, diversified learning environment where students will develop positive self-concepts, increase their self-esteem, and recognize and appreciate the correlation between education and success in the workplace.
5. To be accountable to the community and the home school district through quality student achievement.
6. To provide opportunities for community involvement.
7. To provide a safe and orderly school environment.

8. To provide an alternative, diversified environment where students can achieve success.

4. MISSION

The mission of VALTS is to empower students to meet the challenges of our changing world. Our setting will create engaging and empowering learning opportunities.

5. PHILOSOPHY

The philosophy is based upon the belief that students have a right to a free, appropriate education; and students, when offered the appropriate environment, can experience educational success. The traditional education model, effective as it may be for the majority of our students, does not provide the right environment for some students. VALTS will be student rather than department centered. Its curriculum will be built upon state and district mandated standards.

6. DURATION

This Interlocal Cooperative Agreement shall continue until terminated by the Parties as provided herein. This Agreement may be terminated by agreement of all Parties.

7. NOTICE OF PARTICIPATION

The district will be committing to participate in VALTS for two school years beyond the current school year. Each member district agrees it shall budget and pay an assessed amount per slot as determined and agreed to each year by the VALTS Board of Education. The VALTS Board of Education shall, on an annual basis, discuss procedures to address any shortfalls or excesses in the budget which may exist.

A district shall notify ESU #13 and the VALTS Board of Education of its intent to increase slots in the VALTS program for the upcoming year by February 1st of the current school year. If such notification is received by ESU #13 and the VALTS Board of Education after February 1st, then such change shall be subject to the approval of ESU #13 and the VALTS Board of Education as to if it will become effective for the upcoming year.

A district shall notify ESU #13 and the VALTS Board of Education of its intent to decrease slots in the VALTS program for the upcoming year by February 1st of the current school year. If such notification is received by ESU #13 and the VALTS Board of Education after February 1st, then such change shall not become effective for the upcoming year, but shall become effective for the following year.

If a party is completely withdrawing from the VALTS program, it must give notice before February 1st of the current school year, and such withdrawal shall become effective two years from the end of the school year notification is received. A party who has withdrawn shall have no right to accumulated assets of the Interlocal Cooperative Agency, nor shall the withdrawing party have a right to require the remaining parties to liquidate or

otherwise dispose of assets of the Interlocal Cooperative Agency.

8. GENERAL POWERS

Said Interlocal Cooperative Agency shall have all power authorized by the laws of the State of Nebraska including the power to acquire or dispose of real and personal property and shall constitute a separate public body corporate and politic of the state and shall have power: (a) to sue and be sued; (b) to make and execute contracts and other instruments necessary and convenient to exercise of its power; (c) and from time to time to make, amend and repeal bylaws, rules and regulations not inconsistent with the Interlocal Cooperative Act and the agreement providing for its creation, and to carry out and effectuate said powers and purposes.

9. GENERAL ORGANIZATION

This Interlocal Cooperative Agency shall be governed by a Board of Education which shall be comprised of three duly elected Board of Education members from the district that purchases the most slots, two duly elected Board of Education members from the district that purchases the second most slots, and two duly elected Board of Education members from the district that purchases the third most slots. In the event of a tie, the superintendents of the participating districts shall determine the appropriate district(s) to provide Board of Education members. Members of the Board shall receive no compensation for their services, but shall be reimbursed for the actual and necessary expenses incurred in the performance of their duties. The Board shall elect from its members a President and a Vice President. The Board will also elect a Secretary and appoint the ESU #13 Business Manager as the Treasurer. The Board may receive for a purpose for which is made available any school district, county, state, or federal funds made available to it or funds or property received from any source for operating expenses and for the purpose of matching any funds that may be made available to it on a matching basis by any state or federal agency. The Board shall further have the power to contract for services connected with the operation of this Interlocal Cooperative Agency as needs and interest demand and shall establish fees and charges for services including the power to establish tuition rates for course of instruction offered and shall have the power to exercise any other powers, duties and responsibilities necessary to carry out the purpose of the Interlocal Cooperative Agency authorized by the laws of the State of Nebraska.

10. PURCHASING PROCEDURES

The VALTS Board of Education recognizes the importance of a sound fiscal management program and expects VALTS to maintain an efficient and consistent procedure in purchasing materials and services for the school. All purchasing for VALTS will adhere to the ESU #13 approved purchase process and relevant Board policies.

11. TERMINATION-DISPOSAL OF ASSETS

Upon agreement of the participating parties (all parties other than a party who may have

withdrawn) to terminate this Interlocal Cooperative Agreement, the participating parties shall, upon payment of all debts, distribute remaining assets on pro rata; i.e.:

Gering Public School District #16	=	34%
Mitchell Public School District #31	=	16%
Sidney Public School District #1	=	16%
Bridgeport Public School District #63	=	6%
Bayard Public School District #21	=	5%
Creek Valley Public School District #25	=	5%
Kimball Public School District #1	=	5%
Minatare Public School District #2	=	5%
Morrill Public School District #11	=	6%
Banner County Public School District #1	=	2%
		<hr/>
		100%

This **AMENDED AGREEMENT** shall be effective upon its approval by the Board of Education of Banner County Public School District No. 04-0001, the Board of Education of Bayard Public School District No. 62-0021, the Board of Education of Bridgeport Public School District No. 62-0063, the Board of Education of Creek Valley Public School District No. 25-0025, of the Board of Education of Gering Public School District No. 79-0016, the Board of Education of Kimball Public School District No. 53-0001, the Board of Education of Minatare Public School District No. 79-0002, the Board of Education of Mitchell Public School District No. 79-0031, the Board of Education of Morrill Public School District No. 79-0011, and the Board of Education of Sidney Public School District No. 17-0001, and upon execution of such agreement by the Presidents of such school districts.

SIGNATURE PAGES TO FOLLOW

BANNER COUNTY PUBLIC SCHOOL
DISTRICT NO. 04-0001

Dated _____

By _____
President, Board of Education

ATTEST:

Secretary of the Board

ADDITIONAL SIGNATURE PAGES TO FOLLOW

Dated _____

By _____
President, Board of Education

ATTEST:

Secretary of the Board

ADDITIONAL SIGNATURE PAGES TO FOLLOW

Dated _____

By _____
President, Board of Education

ATTEST:

Secretary of the Board

ADDITIONAL SIGNATURE PAGES TO FOLLOW

CREEK VALLEY PUBLIC SCHOOL
DISTRICT NO. 25-0025

Dated _____

By _____
President, Board of Education

ATTEST:

Secretary of the Board

ADDITIONAL SIGNATURE PAGES TO FOLLOW

Dated _____

By _____
President, Board of Education

ATTEST:

Secretary of the Board

ADDITIONAL SIGNATURE PAGES TO FOLLOW

Dated _____

By _____
President, Board of Education

ATTEST:

Secretary of the Board

ADDITIONAL SIGNATURE PAGES TO FOLLOW

MINATARE PUBLIC SCHOOL
DISTRICT NO. 79-0002

Dated _____

By _____
President, Board of Education

ATTEST:

Secretary of the Board

ADDITIONAL SIGNATURE PAGES TO FOLLOW

Dated _____

By _____
President, Board of Education

ATTEST:

Secretary of the Board

ADDITIONAL SIGNATURE PAGES TO FOLLOW

Dated _____

By _____
President, Board of Education

ATTEST:

Secretary of the Board

ADDITIONAL SIGNATURE PAGES TO FOLLOW

SIDNEY PUBLIC SCHOOL
DISTRICT NO. 17-0001

Dated _____

By _____
President, Board of Education

ATTEST:

Secretary of the Board

PROPOSED

Kimball Public Schools

2022-2023 Fees Schedule

MEAL FEES

Breakfast	K-6	\$ 1.90
	7-12	\$ 2.15
	Reduced	\$.30
	Adult	\$ 2.60
Lunch	K-6	\$ 2.90
	7-12	\$ 3.15
	Reduced	\$.40
	Adult	\$ 4.25 3.75
Summer Breakfast	18 & under	FREE
	Adult	\$ 2.00
Summer Lunch	18 & under	FREE
	Adult	\$ 4.50
After School Program	K-12	FREE

ATHLETIC PASSES

Student (K-12) (Max of \$50.00 per Family)	\$ 20.00
One Adult	\$ 40.00
One Adult w/Children (Family Pass)	\$ 50.00
Two Adults	\$ 65.00
Two Adults w/Children (Family Pass)	\$ 75.00

Senior Adult Lifetime Passes are free to those 62 & over that request one.

Activity Admission Prices

High School - Adult	\$ 5.00
Student	\$ 4.00
Junior High - Adult	\$ 4.00
Student	\$ 3.00

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School Wellness Policy

A philosophy of Kimball Public Schools (“District”) is to provide curriculum, instruction, and experiences in a health-promoting school environment to instill habits of lifelong learning and health. Therefore, the Board adopts the following School Wellness Policy.

1. District Wellness Committee

Committee Role and Membership

The District will convene a representative District Wellness Committee (“DWC”) or work within an existing school health committee that meets at least annually to establish goals for and oversee school health and safety policies and programs, including development, implementation and periodic review and update of this District wellness policy.

The DWC membership will represent all school levels and include (to the extent possible), but not be limited to: parents and caregivers; students; representatives of the school nutrition program; physical education teachers; health education teachers; school health professionals or staff; mental health and social services staff; school administrators; school board members; and the general public. When possible, membership will also include Supplemental Nutrition Assistance Program Education coordinators. To the extent possible, the DWC will include representatives from each school building and reflect the diversity of the community.

Leadership

The Superintendent or designee(s) will convene the DWC and facilitate development of and updates to the wellness policy, and will ensure each school’s compliance with the policy.

Each school will designate a school wellness policy coordinator, who will ensure compliance with the policy.

2. Wellness Policy Implementation, Monitoring, Accountability and Community Engagement

Implementation Plan

The District will develop and maintain a plan for implementation to manage and coordinate the execution of this wellness policy. The plan delineates roles, responsibilities, actions and timelines specific to each school; and includes information about who will be responsible to make what change, by how much, where and when; as well as specific goals and objectives for nutrition standards for all foods and beverages available on the school campus, food and beverage marketing, nutrition promotion and education, physical activity, physical education and other school-based activities that promote student wellness. It is recommended that the school use the Healthy Schools Program online tools to complete a school-level assessment based on the Centers for Disease Control and Prevention’s School Health Index, create an action plan that fosters implementation and generate an annual progress report.

This wellness policy and the progress reports can be found at the District’s website.

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Recordkeeping

The District will retain records to document compliance with the requirements of the wellness policy at the Superintendent's office and/or on the District's computer network. Documentation maintained in this location will include but will not be limited to:

- The written wellness policy;
- Documentation demonstrating that the policy has been made available to the public;
- Documentation of efforts to review and update the Local Schools Wellness Policy; including an indication of who is involved in the update and methods the district uses to make stakeholders aware of their ability to participate on the DWC;
- Documentation to demonstrate compliance with the annual public notification requirements;
- The most recent assessment on the implementation of the local school wellness policy;
- Documentation demonstrating the most recent assessment on the implementation of the Local School Wellness Policy has been made available to the public.

Annual Notification of Policy

The District will actively inform families and the public each year of basic information about this policy, including its content, any updates to the policy and implementation status. The District will make this information available via the District website and/or district-wide communications. The District will provide as much information as possible about the school nutrition environment. This will include a summary of the District's events or activities related to wellness policy implementation. Annually, the District will also publicize the name and contact information of the District officials leading and coordinating the committee, as well as information on how the public can get involved with the school wellness committee.

Triennial Progress Assessments

At least once every three years, the District will evaluate compliance with the wellness policy to assess the implementation of the policy and include:

- The extent to which the District's schools are in compliance with the wellness policy;
- The extent to which the District's wellness policy compares to the Alliance for a Healthier Generation's model wellness policy; and
- A description of the progress made in attaining the goals of the District's wellness policy.

The position/person responsible for managing the triennial assessment and contact information is the Superintendent or the Superintendent's designee.

The DWC, in collaboration with individual schools, will monitor schools' compliance with this wellness policy.

The District will actively notify households/families of the availability of the triennial progress report.

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Revisions and Updating the Policy

The DWC will update or modify the wellness policy based on the results of the annual School Health Index and triennial assessments and/or as District priorities change; community needs change; wellness goals are met; new health science, information, and technology emerges; and new Federal or state guidance or standards are issued. The wellness policy will be assessed and updated as indicated at least every three years, following the triennial assessment.

Community Involvement, Outreach and Communications

The District is committed to being responsive to community input, which begins with awareness of the wellness policy. The District will actively communicate ways in which representatives of DWC and others can participate in the development, implementation and periodic review and update of the wellness policy through a variety of means appropriate for that district. The District will also inform parents of the improvements that have been made to school meals and compliance with school meal standards, availability of child nutrition programs and how to apply, and a description of and compliance with Smart Snacks in School nutrition standards. The District will use electronic mechanisms, such as email or displaying notices on the District's website, as well as non-electronic mechanisms, such as newsletters, presentations to parents, or sending information home to parents, to ensure that all families are actively notified of the content of, implementation of, and updates to the wellness policy, as well as how to get involved and support the policy. The District will ensure that communications are culturally and linguistically appropriate to the community, and accomplished through means similar to other ways that the District and individual schools are communicating important school information with parents.

The District will actively notify the public about the content of or any updates to the wellness policy annually, at a minimum. The District will also use these mechanisms to inform the community about the availability of the annual and triennial reports.

3. Nutrition

School Meals

All schools within the District that participate in USDA child nutrition programs, including the National School Lunch Program (NSLP), the School Breakfast Program (SBP), and any additional Federal child nutrition programs will meet the nutrition requirements of such programs.

Competitive Foods and Beverages

The foods and beverages sold and served outside of the school meal programs (e.g., "competitive" foods and beverages) will meet the USDA Smart Snacks in School nutrition standards, at a minimum. To support healthy food choices and improve student health and well-being, all foods and beverages outside the reimbursable school meal programs that are sold to students on the school campus during the school day will meet or exceed the USDA Smart Snacks nutrition standards or, if the state policy is stronger, will meet or exceed state nutrition standards. These standards will apply in all locations and through all services where foods and

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beverages are sold, which may include, but are not limited to, à la carte options in cafeterias, vending machines, school stores and snack or food carts.

Celebrations and Rewards

The District will strive to promote foods offered on the school campus that meet or exceed the USDA Smart Snacks in School nutrition standards or, if the state policy is stronger, meet or exceed state nutrition standards, for purposes including:

1. Celebrations and parties.
2. Classroom snacks brought by parents.
3. Rewards and incentives.

Fundraising

Foods and beverages that meet or exceed the USDA Smart Snacks in Schools nutrition standards may be sold through fundraisers on the school campus during the school day.

Nutrition Promotion

The District will promote healthy food and beverage choices for all students throughout the school campus, as well as encourage participation in school meal programs. This promotion will occur through:

Nutrition Education

The District will teach, model, encourage and support healthy eating by all students. Schools will provide nutrition education and engage in nutrition promotion is designed to provide students with the knowledge and skills necessary to promote and protect their health.

Food and Beverage Marketing in Schools

Any foods and beverages marketed or promoted to students on the school campus during the school day will meet or exceed the USDA Smart Snacks in School nutrition standards or, if stronger, state nutrition standards, such that only those foods that comply with or exceed those nutrition standards are permitted to be marketed or promoted to students.

Food and beverage marketing is defined as advertising and other promotions in schools. This term includes, but is not limited to the following:

- Brand names, trademarks, logos or tags, except when placed on a physically present food or beverage product or its container.
- Displays, such as on vending machine exteriors
- Corporate brand, logo, name or trademark on school equipment, such as marquees, message boards, scoreboards or backboards (Note: immediate replacement of these items are not required; however, districts will replace or update scoreboards or other durable equipment when existing contracts are up for renewal or to the extent that it is financially possible over time so that items are in compliance with the marketing policy.)
- Corporate brand, logo, name or trademark on cups used for beverage dispensing, menu boards, coolers, trash cans and other food service equipment; as well as on posters, book

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covers, pupil assignment books or school supplies displayed, distributed, offered or sold by the District.

- Advertisements in school publications or school mailings.
- Free product samples, taste tests or coupons of a product, or free samples displaying advertising of a product.

As the District/school nutrition services/Athletics Department/PTA/PTO reviews existing contracts and considers new contracts, equipment and product purchasing (and replacement) decisions should reflect the applicable marketing guidelines established by the District wellness policy.

4. Physical Activity

Children and adolescents should participate in at least 60 minutes of physical activity every day. A substantial percentage of students' physical activity can be provided through a comprehensive school physical activity program (CSPAP). A CSPAP reflects strong coordination and synergy across all of the components: quality physical education as the foundation; physical activity before, during and after school; staff involvement and family and community engagement and the District is committed to providing these opportunities. Schools will ensure that these varied physical activity opportunities are in addition to, and not as a substitute for, physical education.

5. Other Activities that Promote Student Wellness

The District will integrate wellness activities across the entire school setting, not just in the cafeteria, other food and beverage venues and physical activity facilities. The District will coordinate and integrate other initiatives related to physical activity, physical education, nutrition and other wellness components so all efforts are complementary, not duplicative, and work towards the same set of goals and objectives promoting student well-being, optimal development and strong educational outcomes.

Schools in the District are encouraged to coordinate content across curricular areas that promote student health, such as teaching nutrition concepts in mathematics, with consultation provided by either the school or the District's curriculum experts.

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Glossary

School Campus: areas that are owned or leased by the school and used at any time for school-related activities, including on the outside of the school building, school buses or other vehicles used to transport students, athletic fields and stadiums (e.g., on scoreboards, coolers, cups, and water bottles), or parking lots.

School Day: the time between midnight the night before to 30 minutes after the end of the instructional day.

Triennial – recurring every three years.

Legal Reference: **Healthy, Hunger-Free Kids Act of 2010, 42 U.S.C. section 1758b; 7 CFR sections 210.11 and 210.30; National School Lunch Program, 42 U.S.C sections 1751-1760, 1770; Regulations and Procedures for Accreditation of Schools, NDE Rule 10**

Adopted: June 12, 2006

Revised: July 10, 2017