

Projects Committee Meeting
Wednesday, December 29, 2021 7:30 AM
Lower Platte North NRD Office
P.O. Box 126
Wahoo, NE 68066

1. UNFINISHED BUSINESS

None.

2. SWCP

A. SWCP Application Approvals

None.

B. SWCP Payments

C. 21-B-
3

D.

E. DWAYNE
LANC

F. \$
12,500.00

G. TOT,
WASCB,
TO

H. SWCP Cancellations

None.

I. Wahoo Creek Cost Share Approvals

None.

3. WATERSHEDS

A. Shell Creek

1. Shell Creek Environmental Enhancement Plan Implementation

Work continues on the Shell Creek South Channel Improvement/Benching Project which should be completed by March 2022. Bill Bos continues to line up landowner conservation practices and septic system upgrades.

JEO continues to work on the Shell Creek Watershed Water Quality Plan with NDEE. Attached is their December 23, 2021, \$1,713 invoice and progress report. After this payment, \$1,142 will remain under contract.

a. Shell Creek Grant Funding Update

We plan to use our remaining EPA 319 grant funding toward the Shell Creek South Channel Improvement/benching project and other landowner projects. It is planned that LPNNRD and SCWIG will continue to work together with NDEE to line up future project funding for the next five-year period.

B. Wahoo Creek Watershed

1. Wahoo Creek Dam Site Planning Update & FYRA Invoices

LPNNRD and NRCS have posted the 30 day public review period for the Wahoo Creek Watershed Plan. After comments are considered, we anticipate NRCS approval of the plan, hopefully in early 2022. The Wahoo Plan-EA invoice

for work completed through 12/17/2021 totaling \$2,385, is attached (After this payment, \$6,057.75 will remain under contract). During this invoice period, FYRA coordinated with NRCS on the agency and public review process and sent out the review notification to agencies. To date, they have received only one agency letter with minimal comments.

NRCS has placed the final draft of the Wahoo Creek Watershed Plan on their website for public review as shown below:
<https://www.nrcs.usda.gov/wps/portal/nrcs/detail/ne/technical/engineering/?cid=nrcseprd1492259>

2. Olsson Design Update and Invoice

Olsson continues to work on Geo-technical activities at Wahoo Creek dam sites 55, 77, 82,84, 85 & 86 and their recent \$7,941.87 invoice is attached along with a budget breakdown of work accomplished.

Attached is Andrew Phillips analysis of our contract with Olsson for services on the Wahoo Creek flood reduction dams. Since we placed Olsson "on hold" for 2 ½ - 3 years to complete most of this work (waiting for NRCS to approve the watershed plan). As indicated, the delay has increased costs, but this is offset by the removal of Dam Site 83. This topic will be discussed at the December 29th Projects Committee and Andrew will attend the February 3rd Projects Committee for further discussion. Also attached is our original contract approved November 14, 2018.

3. Wahoo Creek Watershed Water Quality Plan Phase II

We have finished using available grant funding for Wahoo Creek Projects and are working with NDEE for needed funding over the next five years. At the last Board Meeting, we approved our 2021 Lands for Conservation payments. NDEE is providing an additional \$25,000 of EPA 319 funding to help cover those expenses.

JEO continues to work on the Wahoo Creek Watershed Water Quality Plan with NDEE. Attached is their December 23, 2021, \$2,077.50 invoice and progress report. After this payment, \$1,385 will remain under contract.

4. JOINT WATER MANAGEMENT ADVISORY BOARD

JEO conducted a meeting on December 27 (agenda attached) to update partners on progress on the Rawhide Creek Watershed Assessment (with NRCS-WFPO funding assistance) and on their analysis of the Elkhorn Township Drainage Improvement east of Fremont (with FEMA funding assistance). JEO reported that they are working on hydrology/ hydraulics for the Rawhide watershed assessment. For the Elkhorn Township Drainage Improvement, JEO is assessing possible project scenarios that could have a positive cost/benefit ratio for potential FEMA assistance. For reference of what was discussed at the meeting, the following link is to the preliminary H&H information that was shared yesterday as well as another copy of the agenda. <https://arcg.is/1yjDDm1>

A. Platte River Cameras/Gauges

USGS is placing cameras and two additional water gauges along designated Platte River sites. The USGS link to view the cameras <https://apps.usgs.gov/hivis/>. Thus far it looks like just three cameras are operating, Hwy 64, 77 and 15. The camera on Hwy 79 is

not yet functioning. Work is also underway to also establish a camera on private property near the Loup and Platte river confluence.

On the USGS site map, zoom in on Nebraska and click on one of the bubbles, then you can experiment with the site location. Hwy 15 and 77 also have the added water elevation gauges.

5. EROSION AND SEDIMENT RULES AND REGULATIONS

6. OTHER

A. Morse Bluff Dike Breach Assistance Request

As reported earlier, the 2019 flooding left an approximate 1,100-foot breach in a private (Morse Bluff) dike that runs about two miles west from the HW 79 bridge in Saunders County (photo attached). This dike was once maintained by the Morse Bluff Dike and Drainage District, but that district dissolved in the late 1980's. After the 2019 floods, affected landowners evidently approached Saunders County for public sponsorship and repair assistance, but had no success. Several property owners attended the Projects Committee meeting to request LPNNRD guidance. Staff will work with Saunders County to begin discussions on how we might work together to assist the landowner in this area.

7. ADJOURNMENT

The Projects Committee adjourned at 8:25 a.m.



Invoice

December 23, 2021

Project No: R210166.00

Invoice No: 129874

Invoice Amount: 1,713.00

Lower Platte North NRD
511 Commercial Park Road
PO Box 126
Wahoo, NE 68066

Project Manager Adam Rupe

Project R210166.00 Lower Platte North NRD: Shell Creek Watershed Plan Update

Professional Services through December 17, 2021

- Progress Report attached

| | Contract Amount | Percent Complete | Billed-to-Date | Previous Billing | Current Billing |
|---------------------------------------|------------------------|-------------------------|-----------------------|-------------------------|------------------------|
| Lump Sum Phase(s) | | | | | |
| Task 1: Evaluate Water Quality Data | \$4,540.00 | 100 % | \$4,540.00 | \$4,540.00 | 0.00 |
| Task 2: Quantify Pollutant Loads | \$13,240.00 | 100 % | \$13,240.00 | \$13,240.00 | 0.00 |
| Task 3: Quantify Pollutant Reductions | \$11,420.00 | 90 % | \$10,278.00 | \$8,565.00 | \$1,713.00 |
| Task 4: Project Management | \$2,430.00 | 100 % | \$2,430.00 | \$2,430.00 | 0.00 |
| Total | \$31,630.00 | | \$30,488.00 | \$28,775.00 | \$1,713.00 |

Total Amount Due Upon Receipt : \$1,713.00

Email invoice to : tmountford@lpnrd.org and jbreunig@lpnrd.org



Monthly Progress Report Shell Creek Watershed WQMP Update Lower Platte North NRD

JEO Project #: 210166.00
Through: November 22, 2021



1. **Work completed during current period**
 - Ongoing coordination with LPNNRD and NDEE.
 - Internal project management.
 - Complete final drafts of all project deliverables for LPNNRD and NDEE review
 - GIS and other technical data
 - Water quality analysis report
 - Pollutant load and reduction report
 - BMP calculator
2. **Planned accomplishments for next period**
 - Complete final edits following LPNNRD and NDEE review.
 - Project closeout.
3. **Project schedule**
 - Anticipated project close out by the end of January 2022.
4. **Information needed from project partners**
 - None at this time
5. **Next Meeting Date and Time**
 - None at this time
6. **Other Notes**
 - Project team will continue to monitor COVID-19 health directives and recommendations, as they may relate to any meetings

Please contact Adam Rupe at 402.322.0377 or at arupe@jeo.com for any questions or concerns regarding this progress report



FYRA Engineering, LLC
12702 Westport Parkway, Suite 300
Omaha, NE 68138
402-502-7131

Lower Platte North NRD
Tom Mountford
511 Commercial Park Road
Wahoo, NE 68066

Invoice number: 022-072
Date: 12/27/2021
Project: 022-17-02 WAHOO CREEK WATERSHED
PLAN/EA

For Services Through December 17, 2021

| ADDITIONAL SERVICES WATERSHED PLAN EA | | | |
|--|-------|----------|-------------------|
| | Hours | Rate | Billed |
| Project Scientist | | | |
| Jessie Winter | 3.50 | \$110.00 | \$385.00 |
| Senior Environmental Engineer | | | |
| Janel Kaufman | 12.50 | \$160.00 | \$2,000.00 |
| Phase subtotal | | | \$2,385.00 |

| | |
|----------------------|-------------------|
| Invoice total | \$2,385.00 |
|----------------------|-------------------|

Make all checks payable to:
FYRA Engineering, LLC
12702 Westport Parkway, Suite 300
Omaha, NE 68138



INVOICE SUMMARY

| Description | Contracted Fee | Previously Billed | This Invoice | Total To Date | % Complete |
|---|----------------|-------------------|--------------|---------------|------------|
| Coord Meetings w/LPNNRD | \$5,724.00 | \$16,175.49 | \$0.00 | \$16,175.49 | 282.59 |
| Coord Meetings w/NRCS | \$8,904.00 | \$11,366.25 | \$0.00 | \$11,366.25 | 127.65 |
| Project Meetings | \$49,372.00 | \$23,605.04 | \$0.00 | \$23,605.04 | 47.81 |
| Monthly Invoicing/Schedule | \$7,875.00 | \$13,550.50 | \$0.00 | \$13,550.50 | 172.07 |
| Project Scoping | \$7,170.00 | \$7,068.75 | \$0.00 | \$7,068.75 | 98.59 |
| Plan Review | \$6,740.00 | \$24,541.09 | \$0.00 | \$24,541.09 | 364.11 |
| Develop, Write & Summarize Plan | \$60,100.00 | \$83,011.48 | \$0.00 | \$83,011.48 | 138.12 |
| Maintain Admin Record | \$3,560.00 | \$914.25 | \$0.00 | \$914.25 | 25.68 |
| Develop and Describe Purpose & Need | \$2,320.00 | \$1,820.00 | \$0.00 | \$1,820.00 | 78.45 |
| 19239.2Formulate, Describe & Compare Alternatives | \$27,270.00 | \$19,239.25 | \$0.00 | \$19,239.25 | 70.55 |
| Collect & Analyze Social/Demographic Data | \$1,435.00 | \$1,562.50 | \$0.00 | \$1,562.50 | 108.89 |
| Historic & Cultural Resources | \$675.00 | \$9,869.00 | \$0.00 | \$9,869.00 | 1,462.07 |
| Prime & Unique Farmland | \$675.00 | \$2,404.75 | \$0.00 | \$2,404.75 | 356.26 |
| Identify Wetlands & Other Water Bodies | \$117,145.00 | \$102,862.36 | \$0.00 | \$102,862.36 | 87.81 |
| Collect Soils Data | \$810.00 | \$0.00 | \$0.00 | \$0.00 | 0.00 |
| Identify and Anlyze Soil Erosion | \$810.00 | \$1,952.75 | \$0.00 | \$1,952.75 | 241.08 |
| Collect & Analyze Floodplain Data | \$3,900.00 | \$6,521.00 | \$0.00 | \$6,521.00 | 167.21 |
| Collect & Analyze Data on Critical Areas | \$6,300.00 | \$3,071.00 | \$0.00 | \$3,071.00 | 48.75 |
| Identify Land Use and Crop Inventory | \$810.00 | \$1,125.00 | \$0.00 | \$1,125.00 | 138.89 |
| T&E Species & Migratory Birds | \$11,500.00 | \$12,192.50 | \$0.00 | \$12,192.50 | 106.02 |
| Consumptive Use Data | \$1,840.00 | \$1,366.50 | \$0.00 | \$1,366.50 | 74.27 |
| Effects on Public Health & Safety | \$4,440.00 | \$1,936.00 | \$0.00 | \$1,936.00 | 43.60 |
| Effects to Homes/Bus/Ag | \$4,440.00 | \$4,124.75 | \$0.00 | \$4,124.75 | 92.90 |
| Cummulative Impacts | \$11,080.00 | \$2,821.25 | \$0.00 | \$2,821.25 | 25.46 |
| Federal, State & Local Permits | \$1,790.00 | \$1,775.00 | \$0.00 | \$1,775.00 | 99.16 |
| 38Relationship/Conflicts w/Other Plans | \$4,460.00 | \$3,822.50 | \$0.00 | \$3,822.50 | 85.71 |
| Interagency & Public Involvement | \$2,940.00 | \$5,197.02 | \$0.00 | \$5,197.02 | 176.77 |
| Risk & Uncertainty | \$4,880.00 | \$4,292.00 | \$0.00 | \$4,292.00 | 87.95 |
| Preferred Alternatives Discussion | \$11,840.00 | \$14,006.00 | \$0.00 | \$14,006.00 | 118.29 |
| Mitigation Features | \$6,760.00 | \$4,486.00 | \$0.00 | \$4,486.00 | 66.36 |
| Hydrologic Investigation | \$26,460.00 | \$33,403.25 | \$0.00 | \$33,403.25 | 126.24 |
| Economic Data & Discussion | \$14,640.00 | \$51,211.00 | \$0.00 | \$51,211.00 | 349.80 |
| Installation & Financing | \$2,600.00 | \$775.00 | \$0.00 | \$775.00 | 29.81 |
| Operations, Maintenance & Replacment | \$3,240.00 | \$740.00 | \$0.00 | \$740.00 | 22.84 |
| Project Maps | \$24,850.00 | \$28,438.25 | \$0.00 | \$28,438.25 | 114.44 |
| Utility Investigations | \$5,200.00 | \$1,940.00 | \$0.00 | \$1,940.00 | 37.31 |
| Recreation Site 77 Planning | \$7,350.00 | \$0.00 | \$0.00 | \$0.00 | 0.00 |
| Interagency Scoping Mtg | \$10,720.00 | \$6,396.50 | \$0.00 | \$6,396.50 | 59.67 |



INVOICE SUMMARY

| Description | Contracted Fee | Previously Billed | This Invoice | Total To Date | % Complete |
|--|---------------------|---------------------|-------------------|---------------------|--------------|
| Agency Coord | \$7,680.00 | \$6,181.00 | \$0.00 | \$6,181.00 | 80.48 |
| Breach Analysis | \$26,343.00 | \$36,054.50 | \$0.00 | \$36,054.50 | 136.87 |
| Hydraulics/Structure Sizing | \$19,244.00 | \$30,321.25 | \$0.00 | \$30,321.25 | 157.56 |
| Develop Land Rights & Structure Costs | \$29,784.00 | \$29,048.25 | \$0.00 | \$29,048.25 | 97.53 |
| Land Rights Assessment | \$4,534.00 | \$1,496.25 | \$0.00 | \$1,496.25 | 33.00 |
| Site Survey | \$14,779.00 | \$5,080.00 | \$0.00 | \$5,080.00 | 34.37 |
| Additional Services Watershed Plan EA | \$48,000.00 | \$12,859.27 | \$2,385.00 | \$15,244.27 | 31.76 |
| Additional Services-Economic-Project Management | \$8,329.00 | \$5,570.00 | \$0.00 | \$5,570.00 | 66.87 |
| Additional Services-Economics-Flood Damage Reduction Economics | \$64,690.00 | \$66,770.50 | \$0.00 | \$66,770.50 | 103.22 |
| Additional Services-Economics-Revised Plan Economics | \$22,450.00 | \$10,187.75 | \$0.00 | \$10,187.75 | 45.38 |
| Site 83 Removal | \$22,305.00 | \$19,167.50 | \$0.00 | \$19,167.50 | 85.93 |
| Total | \$740,763.00 | \$732,320.25 | \$2,385.00 | \$734,705.25 | 99.18 |

Aging Summary

| Invoice Number | Invoice Date | Outstanding | Current | Over 30 | Over 60 | Over 90 | Over 120 |
|----------------|--------------|-------------|----------|---------|---------|---------|----------|
| 022-072 | 12/27/2021 | 2,385.00 | 2,385.00 | | | | |
| | Total | 2,385.00 | 2,385.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Invoice

601 P St Suite 200
 PO Box 84608
 Lincoln, NE 68501-4608
 Tel 402.474.6311, Fax 402.474.5063

December 13, 2021
 Invoice No: 406334

Tom Mountford
 Assistant Manager
 Lower Platte North NRD
 PO Box 126
 Wahoo, NE 68066-0126

| | |
|----------------------|-------------------|
| Invoice Total | \$7,941.87 |
|----------------------|-------------------|

Olsson Project # A18-34230 Lower Platte North NRD Wahoo Creek Watershed & 7 Dam Sites
 Phase II

Professional services rendered Novmeber 28, 2021 through December 4, 2021 for work completed in accordance with agreement.

| | | | | |
|------------------------------|-----|--------------------------|-------------------------|-------------------|
| Phase | 110 | Geotechnical Engineering | | |
| Labor | | | | |
| | | Hours | Amount | |
| Team Leader | | 19.00 | 2,677.10 | |
| Project Professional | | 27.25 | 3,354.48 | |
| Assistant Professional | | 9.50 | 873.62 | |
| Totals | | 55.75 | 6,905.20 | |
| Total Labor | | | | 6,905.20 |
| Reimbursable Expenses | | | | |
| Personal Vehicle Mileage | | | 151.20 | |
| Total Reimbursables | | | 151.20 | 151.20 |
| Billing Limits | | | | |
| | | Current | Prior | To-Date |
| Total Billings | | 7,056.40 | 1,384.88 | 8,441.28 |
| Limit | | | | 21,840.00 |
| Balance Remaining | | | | 13,398.72 |
| | | | Total this Phase | \$7,056.40 |

| | | | | |
|------------------------|-----|----------------|---------------|----------------|
| Phase | 120 | Dam Design | | |
| Labor | | | | |
| | | Hours | Amount | |
| Assistant Professional | | 4.00 | 507.24 | |
| Totals | | 4.00 | 507.24 | |
| Total Labor | | | | 507.24 |
| Billing Limits | | | | |
| | | Current | Prior | To-Date |
| Total Billings | | 507.24 | 1,217.72 | 1,724.96 |
| Limit | | | | 21,840.00 |
| Balance Remaining | | | | 20,115.04 |

INVOICE PAYMENT IS REQUESTED WITHIN 30 DAYS

Total this Phase \$507.24

Phase 130 Permitting

Labor

| | Hours | Amount |
|------------------------|-------|---------------|
| Assistant Professional | 3.75 | 378.23 |
| Totals | 3.75 | 378.23 |
| Total Labor | | 378.23 |

Billing Limits

| | Current | Prior | To-Date | |
|-------------------|---------|--------|-------------------------|-----------------|
| Total Billings | 378.23 | 576.98 | 955.21 | |
| Limit | | | 21,840.00 | |
| Balance Remaining | | | 20,884.79 | |
| | | | Total this Phase | \$378.23 |

AMOUNT DUE THIS INVOICE \$7,941.87

Outstanding Invoices

| Number | Date | Balance |
|--------------|-----------|-----------------|
| 405707 | 12/1/2021 | 4,081.34 |
| Total | | 4,081.34 |

Email invoice to tmountford@lpnrd.org

Authorized By: Andrew Phillips



Invoice

December 23, 2021

Project No: R170124.00

Invoice No: 129873

Invoice Amount: 2,077.50

Lower Platte North NRD
511 Commercial Park Road
PO Box 126
Wahoo, NE 68066

Project Manager Adam Rupe

Project R170124.00 Lower Platte North NRD Wahoo Creek WQMP Update

Professional Services through December 17, 2021

- Progress Report attached

| | Contract Amount | Percent Complete | Billed-to-Date | Previous Billing | Current Billing |
|--|--------------------|------------------|--------------------|--------------------|-------------------|
| Lump Sum Phase(s) | | | | | |
| Task 1: Evaluate Water Quality Data | \$4,540.00 | 100 % | \$4,540.00 | \$4,540.00 | 0.00 |
| Task 2: Quantify Pollutant Loads | \$13,240.00 | 100 % | \$13,240.00 | \$13,240.00 | 0.00 |
| Task 3: Quantify Pollutant Reductions | \$11,420.00 | 90 % | \$10,278.00 | \$8,565.00 | \$1,713.00 |
| Task 4: Project Management | \$2,430.00 | 90 % | \$2,187.00 | \$1,822.50 | \$364.50 |
| Total | \$31,630.00 | | \$30,245.00 | \$28,167.50 | \$2,077.50 |
| Total Amount Due Upon Receipt : | | | | | \$2,077.50 |

Email invoice to : tmountford@lppnrd.org and jbreunig@lppnrd.org



Monthly Progress Report Wahoo Creek Watershed WQMP Update Lower Platte North NRD

JEO Project #: 170124.00
Through: December 20, 2021



1. **Work completed during current period**
 - Ongoing coordination with LPNNRD and NDEE.
 - Internal project management.
 - Complete final drafts of all project deliverables for LPNNRD and NDEE review
 - GIS and other technical data
 - Water quality analysis report
 - Pollutant load and reduction report
 - BMP calculator
2. **Planned accomplishments for next period**
 - Complete final edits following LPNNRD and NDEE review.
 - Project closeout.
3. **Project schedule**
 - Anticipated project close out by the end of January 2022.
4. **Information needed from project partners**
 - None at this time
5. **Next Meeting Date and Time**
 - None at this time
6. **Other Notes**
 - Project team will continue to monitor COVID-19 health directives and recommendations, as they may relate to any meetings

Please contact Adam Rupe at 402.322.0377 or at arupe@jeo.com for any questions or concerns regarding this progress report



Meeting Agenda

DATE AND TIME | December 27 @ 1:00 – 2:30

PROJECT | Dodge County – Elkhorn Township Drainage Improvement
JEO Project #181941.00

MEETING | H&H Findings Review

LOCATION | Dodge Co. EM Office

1. Dodge Co. Rawhide Creek WFPO Update – John Petersen
2. Review of Dodge County – Elkhorn Township Drainage Improvement (From HMGP Application)
 - a. “A project study will be completed to assess Fremont’s internal drainage needs and examine the out-letting drainage ditch system in the Elkhorn Township area east of Fremont. This project will assess the holistic situation and propose project alternatives to be pursued.”
 - i. Project focus area
 1. City storm sewer system is generally in two networks (North and South)
 - ii. Project goal – Improve stormwater conveyance out of Fremont safely and effectively to reduce potential for damages within Fremont and agricultural areas east of Fremont.
3. Project Status
 - i. Background data review
 1. Flood damage documentation from T. Smith
 2. Limited field survey for culverts/bridges etc.
 - ii. Existing Conditions Hydrology and Hydraulics
 1. Focus on “Fremont’s internal drainage needs and examine the out-letting drainage ditch system”
 2. Impact of Rawhide Creek
4. Goal of today’s meeting
 - i. **Review existing conditions modeling, known problem areas and identify area(s) to focus on conceptual project development, Benefit Cost Analysis (BCA) and eventual design and construction.**
5. Existing Conditions H&H Modeling
 - a. Fremont Storm sewer system is generally in two networks (North and South)
 - i. North system discharging into Rawhide Creek
 - ii. South system discharging into Sewer Ditch
 - b. 2-Dimensional analysis focusing on in-town system, 1-Dimensional analysis (HEC-RAS) focusing on ditch network east of town.
 - i. 2-D analysis is better at identifying potential for surface flooding (widespread and shallow)
 - ii. 1-D analysis is better for a widespread channel network where flows remain in the channel
 - c. Focus on smaller intensity but more frequent events (5 yr, 10 yr etc)
 - i. Flooding impacts still devastating for community
 - ii. Compounding benefits over project lifetime – positive impact on BCA
 - iii. Overlay with known problem areas
 - d. Problem areas identified by County and City
 - i. There is consistency with identified problem areas and model results
 - ii. Likely many additional problem areas that were not reported

- 6. Improvement Project Identification
 - a. Preferred Alternative should be impactful and implementable
 - i. Benefit vs. Cost
 - ii. Permitting/Regulatory implications
 - iii. Land acquisition implications
 - iv. Other utility implications

- 7. Next Steps
 - a. Conceptual Improvement Project(s)
 - i. Project description/narrative
 - ii. Project conceptual design
 - iii. Opinion of Construction Cost
 - iv. Preliminary BCA
 - v. Finalize Evaluation Phase May 2022
 - 1. Review alternatives
 - 2. Recommendation on preferred alternative and phasing plan
 - vi. Review meeting with NEMA/FEMA prior to proceeding with design
 - vii. Pending positive discussion with NEMA/FEMA – proceed with final design of improvements

Morse Bluff Levee

Approximately 1,000 - 1,100 foot breach.

Legend

Hwy 79

Platte River



1000 ft

Google Earth

