



LOWER PLATTE SOUTH natural resources district

3125 Portia Street | P.O. Box 83581 • Lincoln, Nebraska 68501-3581

P: 402.476.2729 • F: 402.476.6454 | www.lpsnrd.org

Memorandum

Date: May 2, 2024
To: Urban Subcommittee
From: Mark Lindemann, District Engineer
Subject: Urban Subcommittee Meeting Minutes – May 2024

The Urban Subcommittee met on Thursday, May 2nd, at the NRD Office, at 5:30 pm. Subcommittee members participating included John Yoakum- committee chair, Deborah Eagan, Luke Peterson, Larry Ruth, and Anthony Schutz. Others participating included NRD staff Mike Sousek, Drew Ratkovec, Craig Matulka, and Mark Lindemann. Mike Barret with the City of Weeping Water, Travis Figard with E&A Consulting Group, Inc., Tim Zach and Jared Nelson from the City of Lincoln Watershed , and Mike Sotak and Connor Kelley from Houston Engineering were also in attendance. Director Yoakum called the meeting to order at 5:35pm. There were two (2) items the Subcommittee took action on, and one report. A quorum was present for the meeting.

A. Consideration of a Community Assistance Program Application for Weeping Water Creek Bank Stabilization & Realignment Project from the City of Weeping Water [ACTION] – Matulka explained that the City of Weeping Water has submitted a Community Assistance Program (CAP) application for the design phase of stabilizing and realigning Weeping Water Creek. Please refer to Matulka’s memo dated April 26, 2024. Weeping Water Creek flows west to east through the town and along the City Park. The location of the project is located at the western edge of the City Park and there are concerns of the existing stream path and erosion impacting park property. E&A Consulting Group, Inc. has provided a proposal for survey, design, and permitting services and to prepare plans and specifications for construction at a total cost of \$72,250. Weeping Water has submitted an application for a cost share of 50% for the design phase of the project, not to exceed \$36,125. Mike Barret, mayor of Weeping Water and Travis Figard, of E&A were present to answer Directors’ questions on the details of the channel realignment and cost. Figard explained that the current channel path has moved to the north over time, impacting an existing tributary and encroaching park property. In addition to redirecting channel flow to its original location, the design will include stabilizing and armoring impacted banks and repairing existing grade stabilization structures of the north tributary. Lindemann noted that E&A’s fee was reasonable and comparable to other projects done for the NRD.

It was moved by Eagan, and seconded by Ruth, and unanimously approved by the Subcommittee to recommend that the Board of Directors approve the Community Assistance Program application request for the Weeping Water Creek Bank Stabilization and channel realignment project at a cost share amount of 50% of the total eligible design costs, not to exceed \$36,125.00.

B. Consideration of the Annual Workplan for the Stormwater Interlocal Agreement with the City of Lincoln [ACTION] – Lindemann described how the City of Lincoln and NRD have an Interlocal Agreement on Stormwater Management in place that is updated each year prior to finalizing the Urban Budget/ LRIP. The agreement lists the activities the two agencies work together on and who is the lead for each activity. Lindemann stated that much of the agreement is the same as past years. Lindemann and Tim Zach and Jared Nelson, with the City of Lincoln Watershed, provided details of the new or updated activities in more detail. Items discussed included 1) Watershed Master Plan capital improvement projects on Haines Branch (HB-1 & 2) and Middle Creek (MC-5) where the NRD and City split costs 50/50 (\$1.8M), 2) three projects on Southeast Upper Salt Creek where the City is the lead and will pay all the costs (\$500,000), and 3) the Deadmans Run Flood Reduction Project (\$3.165M each). Directors, staff, and representatives from the City of Lincoln discussed that the purpose of the work plan is to annually prioritize and budget tasks and projects that meet stormwater management goals of both parties. Lindemann noted that the City and NRD coordinate and meet regularly and are able to effectively prioritize tasks and projects for each work plan year. There was an appreciation of the cooperation between the two entities and ability to accomplish their goals. The budgeted items in this work plan will be included in the upcoming Urban Budget/ LRIP meeting next week.

It was moved by Eagan and seconded by Peterson, and unanimously approved by the Subcommittee to recommend that the Board of Directors approve the Fiscal Year 2024 – 2025 Work Plan for the Interlocal Agreement on Stormwater Management with the City of Lincoln.

REPORT:

Deadmans Run Flood Reduction Project

The report on the Deadmans Run Flood Reduction Project provided an update on Houston Engineering’s Value Engineering (VE) work, approved by the Board February 2024. The scope of the VE proposal was to look at alternatives to reduce project costs. Total project costs of the current USACE-designed project have increased from \$25 million to over \$55 million. Mike Sotak and Connor Kelley, with Houston Engineering, were in attendance to provide a summary of results. Multiple alternatives were analyzed, with seven feasible alternatives that were looked into at great detail that met or exceeded the project goals. The seven alternatives range from approximately \$21 million to \$29 million to design and construct, with more information to be provided at a later date. Directors asked questions on how uncertainty from changes in future climate models and development were addressed. Sotak explained the main goals were to design for an appropriate level of risk, remove residents from the floodplain, and look for optimization to reduce costs. All seven alternatives meet these goals and provide flexibility and resiliency for changes within the project area and upstream. The City and NRD are continuing to evaluate the alternatives and will be seeking input from other stakeholders.

Meeting adjourned at 6:35 pm.

cc: Dave Landis
Corey Wasserburger



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Memorandum

Date: May 1, 2024
To: Urban Subcommittee
From: Mark Lindemann, District Engineer
Subject: Urban Subcommittee Background Information – May 2024

The Urban Subcommittee will be meeting on Thursday, May 2, 2024, at the NRD Office, at 5:30 pm to review, discuss and take action on several items. The following summarizes the items to take action on at the meeting. Please find the attached background information on these items; the red letters shown on the upper right of the attachments help denote which item below they relate to.

A. Consideration of a Community Assistance Program Application for Weeping Water Creek Bank Stabilization & Realignment Project from the City of Weeping Water [ACTION] – Weeping Water Creek flows west to east through the town of Weeping Water. The City of Weeping Water has observed bank erosion and stream migration along Weeping Water Creek near the City Park and has retained E&A Consulting Group, Inc. to provide design and permitting services for a stream bank stabilization and channel realignment project for Weeping Water Creek. Please refer to Craig Matulka’s memo dated April 26, 2024, for additional information. The proposed project is located near the west side of the City Park. Weeping Water has submitted a Community Assistance Program (CAP) application that proposes a 50% cost-share for E&A’s design services totaling \$72,250. If approved by the Board, the NRD’s total assistance to Weeping Water would not exceed \$36,125. See attached CAP application request and E&A’s proposal for more information. Below is a summary of project facts:

- Work Type: Engineering Only
- Budget: Included in FY 25 Budget
- Cost: \$72,250
- Funding: Weeping Water \$36,125 NRD \$36,125
- Start: Beginning of June 2024
- Completion: November 2024
- Delays: Delays possible in permitting review
- Permits: 404, Floodplain
- Payers, Players, & Partners: NRD, City of Weeping Water, E&A Consulting Group, Inc.
- Deliverables- Construction Plans, specifications, and cost opinion for construction

The Subcommittee will consider a motion to recommend that the Board of Directors approve the Community Assistance Program application request for the Weeping Water Creek Bank Stabilization and channel realignment project at a cost share amount of 50% of the total eligible design costs, not to exceed \$36,125.00.

B. Consideration of the Annual Workplan for the Stormwater Interlocal Agreement with the City of Lincoln [ACTION] The City of Lincoln and NRD have an interlocal agreement that lists activities the two agencies cooperate together on. Each year the City and NRD update the Work Plan to describe activities for the upcoming year. Many of the activities are similar to past work plans, with updates provided in the attached Workplan for the following:

- Design and construction for Haines Branch Stream Stability Projects #1 & #2. Total for engineering and construction and observation costs estimated at \$450,000 each. [#7]
- Design and construction for Middle Creek Stream Stability Project #5. Total for engineering and construction and observation costs estimated at \$450,000 each. [#7]
- Design and construction for Southeast Upper Salt Creek Stream Stability Project #3. Total for engineering and construction and observation costs estimated at \$200,000 (City). [#7]
- Design and construction for Southeast Upper Salt Creek Stream Stability Projects #4 & #5. Total for engineering and construction and observation costs estimated at \$300,000 (City). [#7]
- Updated costs for Dead Man’s Run Section 205 Flood Reduction Project and Local Project. This project is led by the U.S. Army Corps of Engineers (USACE) with the NRD as the principal local sponsor. The project is an approximately \$29.2M federal project with \$10M funded by USACE and remaining split 50/50 by the City and NRD. There is also a “Local Project” for engineering, construction of bridges, utility relocations, and ROW acquisition estimated at \$10M with additional costs anticipated for utility relocations and ROW. Work from the local project is eligible for a \$5.8M grant from the Water Sustainability Fund, with the remaining costs split by the City and NRD 50/50. Total project expenditures for the project for FY24-25 is estimated at \$3.165M each. [#7.1]
- For “Other Projects,” item #8 of the work plan, the 56th and Morton project will consist of developing plans, construction, and observation for additional stream stability and bank repairs at an estimated cost of \$250,00 each. The City is the lead for the 56th and Morton project.
- Added to Item #10, “Salt Creek Floodplain Resiliency”, the City and NRD will select a consultant to perform a cost/benefit analysis of non-structural and structural measures to reduce the risks of flooding in the Salt Creek watershed. The City is the lead agency and is funding the project with a BRIC grant with City and NRD contributing \$50,000 each.

The City of Lincoln plans to bring the Annual Workplan for the Stormwater Interlocal Agreement to City Council in June.

The Subcommittee will consider a motion to recommend that the Board of Directors approve the Fiscal Year 2024 – 2025 Work Plan for the Interlocal Agreement on Stormwater Management with the City of Lincoln.

REPORT:

Deadmans Run Flood Reduction Project

Based on the current design by the U.S. Army Corps of Engineers (USACE) and the City/NRD's local project to replace three bridges, total project costs has increased from \$25 million to over \$55 million. In February 2024, the Board approved Houston's Value Engineering (VE) proposal to look at alternatives to reduce project costs. Houston's work resulted in seven alternatives to reduce cost ranging from approximately \$21 million to \$29 million. These preliminary estimates include engineering, permitting, and construction observation and a 30% contingency. The City and NRD are reviewing the cost alternatives for consideration of a project.

The main components of the design alternatives proposes: 1) the construction of detention basins on NRD property upstream of 56th and Holdrege and on UNL's east campus near 48th Street, and 2) and minor channel widening above the ordinary high water level. For the lowest cost alternative (Alternative G), no work is necessary at the BNSF/ OL&B railroad bridges. All design alternatives allow for future projects at the railroad and other bridge locations, the expansion of existing detention basins, as well as future flood mitigation projects upstream, providing resiliency for the watershed. The same project goals of removing residents and businesses from the Deadmans Run floodplain (potentially more than the original project) and reducing flood risk are provided by all design alternatives.

A map of project alternative "G" and a cost estimate breakdown is attached. Mike Sotak from Houston Engineering Inc. will be present at subcommittee to provide additional detail and answer questions.

Enclosures;

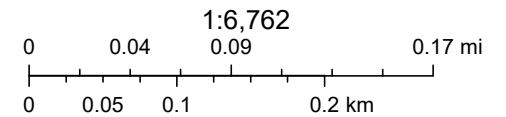
cc: Dave Landis
Corey Wasserburger

Weeping Water Community Assistance Program Project

A



4/23/2024



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Memorandum

Date: April 26, 2024
To: Urban Subcommittee
From: Craig Matulka- Stormwater/Watershed Specialist
Subject: Weeping Water Bank Stabilization Project in Weeping Water, NE Request

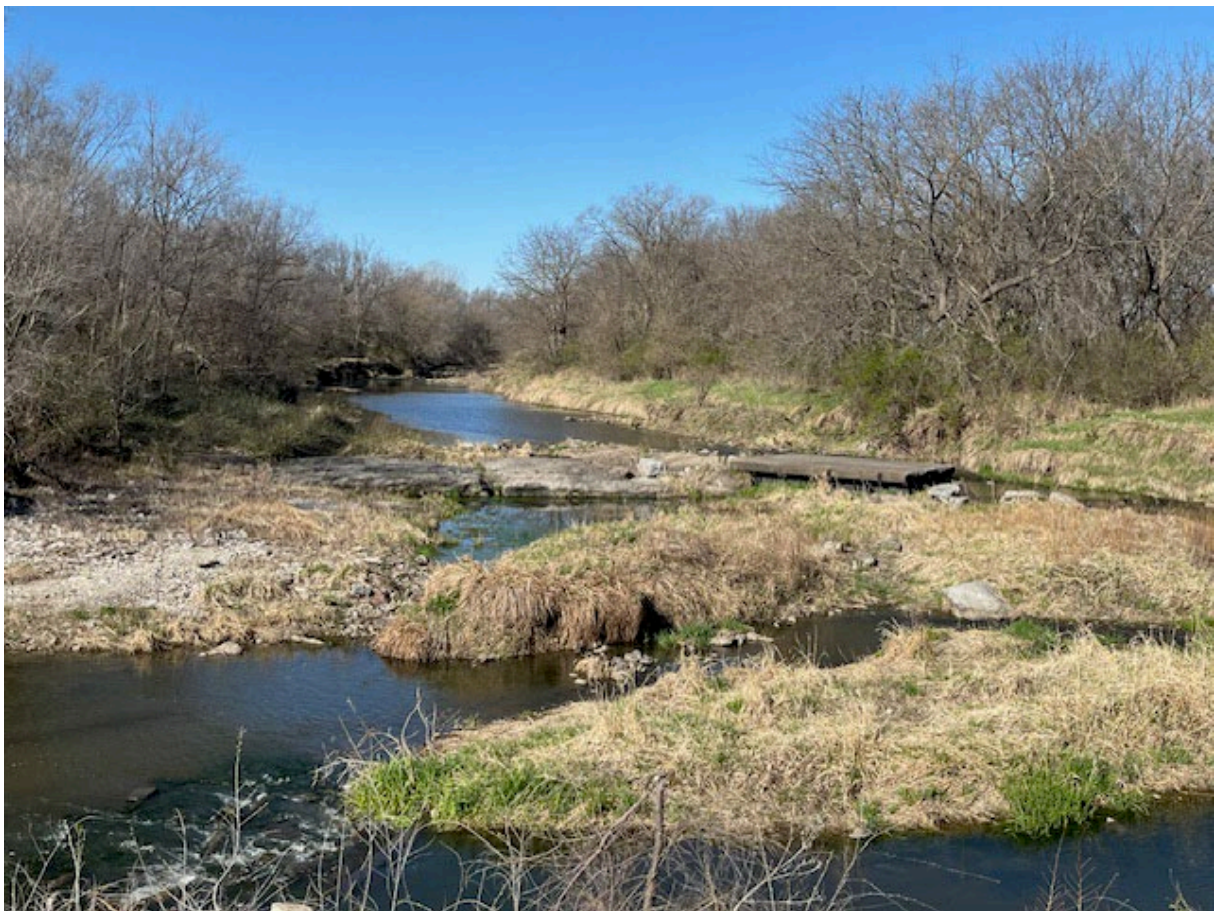
The City of Weeping Water, NE has submitted a request for cost-share assistance through the Community Assistance Program from The Lower Platte South Natural Resources District. The overall scope of the project consists of realignment of the Weeping Water Creek channel to its original location and developing bank stabilization practices to protect from erosion forces and ensure its continued flow in the original channel. This request for assistance is for the Design phase of the project, with design performed by E & A Consulting Group in Lincoln, NE.

Currently, Weeping Water Creek west of the City Park is experiencing continual bank erosion and channel migration North of the stream centerline. E & A Consulting will design construction plans to realign the creek to its original channel and design a Grade Control structure or berm to redirect the flow back to the channel centerline and over an existing rock structure.

E & A Consulting will provide project management coordination and communications with the Client and LPSNRD staff. A survey of the location will be done to determine existing conditions of the channel, design topography, property boundaries and utility locations. Permitting will include floodplain and Waters of the United States (404 permit) will need to be obtained, with the type of permit being determined by the wetland study and the Stream Condition Assessment Procedure (NeSCAP). Bidding services will also be provided by E & A in this Design phase.

The total cost of the Design Phase from E & A Consulting Group for job #M2024.092.001 is \$72,250.00, for the previously mentioned services. The City of Weeping Water, NE is requesting reimbursement from the LPSNRD for 50% of this Design phase, which is \$36,125.00.

The Subcommittee will consider a motion to recommend that the Board of Directors approve the Community Assistance Program application request for the Weeping Water Creek Bank Stabilization and channel realignment project at a cost share amount of 50% of the total eligible design costs, not to exceed \$36,125.00.





CITY OF WEEPING WATER
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ROGER JOHNSON
CITY ATTORNEY

MICHAEL BARRETT
MAYOR

LINDA SHEEHAN
CITY CLERK

April 25, 2024

Mr. Mike Sousek
Lower Platte South NRD
3125 Portia Street
Lincoln, NE 68521

Weeping Water Bank Stabilization Project – Design 50% Cost Share

Dear Mr. Sousek,

The City of Weeping Water is requesting funding through the Community Assistance Program. The requested funding is for a 50% cost share for the design of the Weeping Water Creek Bank Stabilization project. Weeping Water Creek is experiencing substantial bank erosion just west of the City park area as well as a migration of the creek flow path to the north away from the natural creek centerline. This is causing additional bank erosion in the area which has the potential to begin to impact the park area itself.

E & A Consulting Group, Inc. (E&A) has provided the City of Weeping Water a proposal to complete this design. The full design contract with E&A would be for \$72,250 which includes taking the project through bidding but does not include any construction activities. E&A is proposing to design bank stabilization measures for the north bank, realign the creek flow path back to the natural centerline, and stabilize the surrounding area as well. This project will allow the City of Weeping Water to continue to develop the park area without concern of the creek migrating to the north and east into existing park areas. The attached E&A proposal details out the components of the design project.

The City of Weeping Water is requesting 50% cost split for the design which would be \$36,125 from the Lower Platte South NRD (LPSNRD) as part of the Community Assistance Program. E&A and a representative from the City of Weeping Water will be attending the LPSNRD Urban Subcommittee Meeting in May to answer questions and provide additional information if requested. We appreciate the LPSNRD considering our cost share request through the Community Assistance Program.

Sincerely,

Michael Barrett, Mayor

cc: File, Travis Figard (E&A)



April 23, 2024

City of Weeping Water
Attn: Mr. Mike Barrett
P.O. Box 82
Bennington, NE 68007

RE: Proposal for Professional Services
Weeping Water Bank Stabilization Project in Weeping Water, NE
E&A Job #M2024.092.001

Dear Mr. Barrett,

Thank you for providing E & A Consulting Group, Inc. (E&A) the opportunity to provide a proposal for professional services. This scope of the Weeping Water Channel Stabilization project consists of developing bank stabilization and channel realignment plans for Weeping Water Creek west of the City park area. For this proposal, we understand our scope of services to include the following:

TASK 1: PROJECT MANAGEMENT

E&A will provide coordination and communication with the Client, including project updates, meeting minutes, preliminary cost estimates and schedule updates throughout the design process.

E&A will coordinate with the Lower Platte South NRD (LPSNRD) on their Community Assistance Program (CAP). LPSNRD's CAP was established to assist communities with the cost for both design and construction of eligible projects. The CAP can provide up to 50% cost sharing on a project if approved by the LPSNRD Board of Directors. E&A will attend LPSNRD board meetings as needed to discuss this project as part of their review process for approval.

TASK 2: SURVEY SERVICES

E&A will complete a topographical survey of the project area to establish existing conditions and provide topography for use in the design. Property boundaries in the area will also be obtained for use during design.

E&A will prepare a site plan showing the information obtained during the field survey. The utility locations and sizes will be determined by surveying the flagged 'One Call' locations of the visible features and using record information from the utility owners.

TASK 3: ENVIRONMENTAL SERVICES

E&A will research available reference materials to identify potential wetland areas on the identified parcel. E&A will then conduct an on-site wetland and WOTUS delineation in accordance with the 1987 Corps Wetlands Delineation Manual and the *Midwest Regional Supplement* to identify wetlands and other WOTUS as defined by the USACE. It is recommended that the delineation is conducted prior to the start of design and before final design in order to accommodate avoidance and minimization efforts.

The “desktop” survey includes research of topographic maps, Natural Resource Conservation (NRCS) Soil data, US Fish and Wildlife Service (USFWS) National Wetland Inventory Maps (NWI), USFWS and Nebraska Game and Parks Commission (NGPC) Threatened and Endangered (T&E) Species occurrence maps, and aerial photography, both recent and historic. Additional research may include immediate and adjacent property owner’s interviews.

An on-site wetland and WOTUS delineation will be conducted during the growing season per the regulations set forth in the 1987 US Army Corp of Engineers Wetland Delineation Manual and the *Midwest Regional Supplement*. On-site wetland delineations include an overall site assessment of hydrology, vegetation, and soils. A certified wetland delineator will canvas the entire project site identifying areas of concern. These areas will then be investigated further through select data points to document the presence of dominant hydrophytic vegetation, hydric soils, and wetland hydrology. If all three criteria are observed from the data point location the area is considered a wetland unless atypical conditions are observed. Additional areas included in the wetland delineation would include jurisdictional waters such as lakes, ponds, rivers and streams (i.e. WOTUS).

Wetlands and water features will be surveyed by a Trimble DA2 handheld geographic positioning system (GPS) unit. E&A will export surveyed GPS data into a computer-automated drafting (CAD) format to generate the requisite maps for inclusion into the Wetland and WOTUS Delineation Report.

Once complete, this report can be utilized for determining impacts to jurisdictional wetlands and WOTUS, to obtain concurrence of findings, to request a Preliminary or Approved Jurisdictional Determination, to obtain a 404 Permit authorizing the discharge of dredged or filled material into a jurisdictional wetland or WOTUS, or to comply with the Nebraska Department of Environmental and Energy (NDEE) Title 117 requirements. If impacts to wetlands or WOTUS are identified on the site, E&A can assist with the 404 permitting process.

404 Permitting

Based on the findings of the delineation along with potentially unavoidable impacts to jurisdictional wetlands and WOTUS to meet project needs, regulatory permitting may be required. The USACE has set thresholds for impacts such as road crossings, piping tributaries, relocating tributaries, and filling or draining wetlands or other water bodies. Commercial projects can be processed under a Nationwide Permit (NWP) provided that

permanent impacts will not exceed 0.5 acres of jurisdictional wetlands. When cumulative project impacts exceed these thresholds a state Water Quality Certification (WQC) and an Individual Permit (IP) with the USACE are required before dredge or filling project activities within jurisdictional wetlands and/or WOTUS can be completed. Based on the amount of time and resources required to complete the WQC and IP process, it is highly recommended that the project be designed to stay within NWP thresholds, if possible.

Stream Assessment

Based on the potential for stream impacts for this project, E&A will conduct a Stream Assessment in conformance with the Nebraska Stream Condition Assessment Procedure (NeSCAP). The stream assessment will consist of an on-site analysis of stream conditions, such as its Hydraulic Conveyance and Sediment Dynamics, In- Stream Habitat/Available Cover, Floodplain Interaction-Connectivity, Riparian Condition & Vegetation Composition, Riparian Continuity & Width, and Riparian Land Use. This analysis, accompanied by review of historical aerial imagery, will allow E&A to determine the impacts of the proposed improvements, both positive and negative, compared to pre- construction stream conditions.

Significant Information:

E&A has based the scope of work and associated budget for this task on the following information:

- Per the USACE, wetland delineations must be conducted during the growing season in any given year (generally between May and October);
- This scope of services is limited to the physical delineation of the site boundaries, the quantifying report, nationwide permit application preparation, and NeSCAP stream assessment;
- Previous wetland delineation analysis is outside of the scope;
- Two 1-hour meetings with the USACE permitting personnel, the client, or other parties involved in the project are included in the proposal fee. Any additional meetings will be considered as an additional cost and billed hourly.

The cost for the wetland and WOTUS delineation will be invoiced as a lump sum fee. Fees are based on only the services discussed in this proposal.

E&A will submit the Wetland and WOTUS Delineation Report 4 weeks following the completion of the wetland and WOTUS field delineation. E&A anticipates conducting the wetland and WOTUS field delineation and NeSCAP stream assessment in mid- to late- June 2024. If this proposed schedule does not meet your project requirements, we would be happy to discuss alternate schedules.

It should be noted that project review, concurrence, jurisdictional determinations, and issuance of permits by the USACE are largely based on the USACE's workload and responsiveness at the time of the Wetland and WOTUS Delineation Report submittal. The aspect of the project schedule, once in review by the USACE, is beyond the control of

E&A. However, E&A has a working relationship with the USACE and E&A will commit to being responsive to questions during the review period.

TASK 4: BANK STABILIZATION/CHANNEL REALIGNMENT

The existing Weeping Water Creek west of the City Park is experiencing bank erosion and migration of the creek centerline. E&A will develop construction plans for the stabilization of the existing banks and realignment of the creek back into the center of the creek. A grade control structure or berm will be designed to redirect flow back to the center of the bank and over an existing rock structure. Bank stabilization will be designed along a few other tributaries in the area that are also experiencing erosion. At this time no geotechnical analysis is anticipated to be completed. If during preliminary design it is determined a geotechnical analysis will be required, E&A will provide an additional scope and fee to the City of Weeping Water for review and approval prior to any geotechnical work being completed.

The project is located within a regulatory FEMA floodplain and floodway. E&A will perform the required modeling to obtain a no-rise certification for the project as part of the Floodplain Development Permit Process. If a no-rise certification is not attainable, E&A will discuss other alternatives with the City of Weeping Water to still complete the project. Potentially a Conditional Letter of Map Revision (CLOMR) and Letter of Map Revision (LOMR) with FEMA will be required but E&A will discuss this with the City of Weeping Water prior to doing anything associated with a CLOMR/LOMR as that will include an additional fee.

E&A will obtain other necessary permits as part of the design process as well.

TASK 5: BIDDING SERVICES

E&A provide the following bidding services:

- E&A will coordinate the issuance of notices to bidders and the production and distribution of the construction bidding documents.
- E&A will coordinate answering any questions raised by bidders during the bidding process and issue addenda as needed.
- E&A will attend the bid opening and review all properly received bids. Inconsistencies or irregularities found in the bids will be reported to the Client. E&A will prepare a tabulation of bids and distribute as requested to the bidders. E&A will evaluate the bids and make a written recommendation to the Client for awarding the construction contract.

FEE SUMMARY

Task	Description	Type	Fee
1	Project Management	Lump Sum	\$6,500
2	Survey Services	Lump Sum	\$6,100
3	Environmental Services	Lump Sum	\$9,750
4	Bank Stabilization/Channel Realignment	Lump Sum	\$46,900
5	Bidding Services	Lump Sum	\$3,000
Total (Budgetary)			\$72,250

This proposal for professional services is good for forty-five (45) days.

FISCAL YEAR 2024-2025 Work Plan
For the Interlocal Agreement on Stormwater Management
May 2024

1) NPDES Administration: The City of Lincoln (City) and the Lower Platte South Natural Resources District (NRD) will continue to explore enhancements to provide comprehensive, effective and consistent review, inspection, implementation and enforcement of National Pollutant Discharge Elimination System (NPDES) items, especially related to erosion and sediment control and Post Construction standards (i.e., water quality Best Management Practices). City is the lead agency.

- Cost share from the NRD is \$30,000

- Cost share from the City for current Erosion and Sediment Control staff is \$150,000

2) Regional Storage Facilities: The City and NRD will explore alternatives to study significant flood reduction projects where feasible with the cooperation of landowners and developers and to cooperate where practical and feasible with other entities to design and construct storage facilities. Once a funding mechanism is developed and facilities are built the NRD may operate and maintain the facilities in cooperation with City.

3) Ordinance and Standards Updating: The City and the NRD will continue to examine the need to update the floodplain and stormwater standards and propose revisions as necessary.

4) Legislative Issues and Grant Writing: The City and NRD will work with other agencies, communities, citizens and legislators to coordinate on state legislative and funding issues related to floodplain and stormwater.

5) Floodplain and Stormwater Education: The City and NRD will jointly work on public education and involvement programs to educate city staff, contractors, developers, engineers, and the public regarding floodplains, stormwater and the Salt Creek Levee system. The City will continue to provide floodplain information at public events, to potential home buyers and on City websites. Floodplain information will also be provided at public meetings or open houses for projects involving the floodplain for both the City and NRD. Both the City and NRD will continue to provide erosion and sediment control and Post Construction standards information to developers, builders, engineers and contractors during builder training and safety workshops. Training to city staff will continue to be provided during inspections and training workshops. Information regarding erosion and sediment control, general stormwater items, stormwater quality and Post Construction standards will continue to be available to the general public on our websites. The NRD will continue to provide information to the public regarding Salt Creek Levee risk and awareness.

- The cost share from the NRD is \$5,000

- The cost share from the City is \$15,000 (City lead)

6) Water Quality Monitoring: The City will continue water quality monitoring and other stormwater monitoring as required. It is planned for the City to do both wet weather and dry weather monitoring for 2024, which is the first year of the NPDES permit cycle starting.

- The cost share is \$10,000 each (City lead)

7) Comprehensive Watershed Master Plan Implementation: The City and the NRD will contribute toward improvement projects listed in the Comprehensive Watershed Master Plan. These improvement projects are anticipated to include such projects as stream bed and bank stability measures, stormwater storage facilities, wetlands, floodplain preservation, engineering, easements and land acquisition as generally identified in and consistent with the goals in the Comprehensive Watershed Master approved by the City and NRD. The City and NRD will continue to develop a plan and schedule for design, right-of-way and implementation of projects.

Comprehensive Watershed Master Plan Implementation projects are anticipated to include some or all the projects and project areas listed below and may include additional or revised projects to be developed jointly by the City and NRD during the Work Plan period. City funds are from stormwater bond funds.

Note: The Deadman's Run Flood Reduction Project is a U.S. Army Corps of Engineers (USACE) lead project with NRD as the principal partner and is a Master Plan project separately included in item 7.1.

- Haines Branch Stream Stability Projects #1 and #2 near S. Folsom St. (NRD Lead). \$450,000 each.

- Middle Creek Stream Stability Project #5 near SW 56th St. (NRD Lead). \$450,000 each.

- Southeast Upper Salt Creek Stream Stability Project #3 near S. 27th St. (City Lead). \$200,000 City.

- Southeast Upper Salt Creek Stream Stability Projects #4, & #5 near S. 40th St. (City Lead). \$300,000 City.

- Beal Slough stream stability project 70th to Pine Lake at Gapp Park. Construction completion Fall 2024 (NRD lead), \$25,000 each.

- Other Master Plan projects as identified before or during this interlocal agreement, with the lead agency decided on a case-by-case basis, \$50,000 each

7.1) Deadman's Run:

- Deadman's Run Flood Reduction Project is a USACE lead with NRD as the principal partner. This project involves an approximate \$29.2M federal project with \$10M funded by the USACE, and a local project for approximately \$10M, with additional anticipated costs for utility relocations and right-of-way. Projected expenditures for FY24-25 include the following with the City and NRD sharing equally:

- \$200,000 for the local cost share on the federal project (NRD lead)

- \$20,000 for hydrologic and hydraulic review and updates to USACE modeling for future floodplain re-mapping (NRD lead)

- \$38,000 for CLOMR (NRD lead)

- \$80,000 for engineering alternatives review (NRD lead)

- \$52,000 for UNL additional physical modeling of railroad flume (NRD lead)

- \$100,000 for railroad engineering review of proposed improvements (NRD coordinating with BNSF and RTSD)

- \$400,000 for utility relocation engineering (City Lead)
- \$1M for utility relocation construction (City Lead)
- \$390,000 for engineering design on 38th Street bridge (NRD coordinating with UNL)
- \$2.3M for construction on 38th Street bridge (NRD coordinating with UNL)
- \$1.75M for ROW appraisals and acquisitions (shared City/NRD responsibility)

Total for Deadman’s Run Flood Reduction project for this fiscal year is \$6.33M or \$3.165M each.

8) Other Projects: The City and the NRD will contribute toward improvement projects that are not included in an approved Comprehensive Watershed Master Plan. These projects could include stream stability, water quality, water quantity and/or floodplain projects. City funds are from stormwater bond funds.

- 56th and Morton (City lead): Design and construction of additional stream stability and bank repair measures, \$250,000 each
- Others as identified before or during this interlocal, with cost shares and lead agency decided on a case-by-case basis.

9) Watershed Master Planning: The City and the NRD have finalized work on the drainage Master Plan studies for all creeks draining through Lincoln.

- Upper Salt Creek Study (City lead), \$100,000 each

10) Salt Creek Floodplain Resiliency: The City and the NRD will continue to coordinate and consider opportunities to make the City more resilient to the risks of flooding along Salt Creek. This includes both nonstructural and structural measures for flood control and preservation.

- Conduct a cost/benefit analysis of implementing structural measures to address updated precipitation data (NOAA Atlas 14) and related updated flooding frequencies. Building Resilient Infrastructure and Communities (BRIC) from FEMA with local cost share currently estimated at \$50,000 each (City lead)
- Review updated modeling of stormwater runoff based on updated precipitation data (NOAA Atlas 14), as recommended in the City’s Climate Action Plan, and update Lincoln floodplain maps based on federal standards. Year one and two of updating floodplain maps as a part of FEMA’s Coordinating Technical Partnership (CTP) program (City lead): Cost is \$940,000, and is 100% FEMA funded.
- Evaluate other measures or practices that may improve Salt Creek Floodplain Resiliency, \$50,000 each.

11) Floodplain/Floodprone Easements and Projects: The City and the NRD will consider purchase of easements or fee title on floodplain/floodprone areas and other structural and nonstructural measures for flood control and preservation.

- Any projects to be identified before or during this interlocal, with cost shares and the lead agency decided on a case-by-case basis

12) Flood Warning System: The NRD will cooperate with Lincoln and Lancaster County to operate and enhance the Salt Creek Flood Warning System.

- The cost share from the NRD is \$37,500 (lead agency)
- The cost share from the City is \$27,500

13) Watershed Best Management Practice Rehabilitation: The City and the NRD will continue to coordinate and provide services to rehabilitate public Best Management Practices and selected completed Master Plan Projects. Best Management Practices and selected completed Master Plan Projects for rehabilitation will be mutually coordinated between the City and NRD.

- Any projects to be identified before or during this interlocal, with cost shares and the lead agency decided on a case-by-case basis

14) Stormwater BMP Demonstration Projects: The City and the NRD will consider opportunities for demonstration projects of stormwater best management practices on a case-by-case basis with developers, non-profits, businesses or similar entities and Rainscaping with individual owners.

- Rainscaping Lincoln Sustainable Landscapes Cost Share Program, \$15,000 each (City lead)
- Any projects to be identified before or during this interlocal, with cost shares and the lead agency decided on a case-by-case basis

15) Watershed Master Plan Project Inspection, Operation & Maintenance: It is planned that the City and NRD will periodically inspect, operate, and maintain all completed Watershed Master Plan Projects, Best Management Practices and conservation easements. The City will provide funds to rehabilitate selected Best Management Practices and the NRD will provide funds and services to keep selected Best Management Practices maintained over the course of the fiscal year.

- Cost share is \$25,000 each

16) City of Lincoln Wetland Bank Annual Maintenance by the NRD: Additional responsibilities for maintenance activities will include mowing, noxious weed control, controlling woody vegetation, and maintaining stop logs will be included in an annual work plan (NRD Lead). Improvements to the wetland bank outlet structure (City Lead).

- Cost share from the NRD is \$ 6,000 (maintenance activities)
- Cost share from the City is \$40,000 (outlet structure)

17) Little Salt Creek Watershed WFPO Plan: The NRD is partnering with USDA/NRCS and will work jointly with the City to incorporate identified projects and components of the existing Little Salt Creek Master Plan and the Upper Little Salt Creek Saline Wetlands Plan and additional identified needs to create a Little Salt Creek Watershed Plan. This will allow for any of the projects in the plan to be eligible for federal USDA/NRCS Watershed & Flood Prevention Operations (WFPO) funding.

- Cost is \$430,000, and is 100% WFPO reimbursable (NRD lead)

18) Cost Summary: The total cost to the City and NRD according to this work plan in FY 2024-2025 is estimated to be \$11,021,000.

- The cost share from the NRD for 2024-25 is estimated to be \$5,148,500 and is subject to NRD Board approval of the proposed NRD FY 2024-25 Budget (NRD Fiscal year for FY2024-25 starts July 1, 2024)

- The cost share from the City for 2024-25 is estimated to be \$5,872,500 and is subject to the City approval of the general budget for FY2024-25. The City fiscal year for FY2024-25 starts September 1, 2024.

IN WITNESS WHEREOF, the District and the City have caused these presents to be executed by their duly authorized officials as of the date below indicated.

Executed by the City this _____ Day of _____ 2024
CITY OF LINCOLN, NEBRASKA

City Clerk

Mayor

STATE OF NEBRASKA)
) ss.
COUNTY OF LANCASTER)

The foregoing instrument was acknowledged before me this ____ day of _____, 2024, by _____, Mayor of the **City of Lincoln, Nebraska**, a municipal corporation, on behalf of the municipal corporation.

(Seal)

Notary Public

Executed by the NRD this _____ Day of _____ 2024
LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT

Paul Zillig, General Manager

STATE OF NEBRASKA)
) ss.
COUNTY OF LANCASTER)

The foregoing instrument was acknowledged before me this ____ day of _____ 2024, by Mike Sousek, General Manager of the **Lower Platte South Natural Resources District**.

(Seal)

Notary Public

FY 2024-2025 City/NRD Workplan - Final

		Workplan SPLITS:		
Workplan, \$	Workplan Description	City	NRD	
1	\$180,000	NDPES Administration	\$150,000	\$30,000
2	\$0	Regional Storage Facilities	\$0	\$0
3		Ordinance and Standards Updating	\$0	\$0
4	\$0	Legislative Issues and Grant Writing	\$0	\$0
5	\$20,000	Floodplain and Stormwater Education	\$15,000	\$5,000
6	\$20,000	Water Quality Monitoring	\$10,000	\$10,000
7		Master Plan Impentation:		
7.1	\$6,330,000	<i>Deadmans Run Flood Reduction Project:</i>		
7.1.1	\$200,000	for the local cost share on the federal project (NRD Lead)	\$100,000	\$100,000
7.1.2	\$20,000	for hydrologic and hydraulic review and updates for future floodplain re-mapping (NRD Lead)	\$10,000	\$10,000
7.1.3	\$38,000	CLOMR (NRD Lead)	\$19,000	\$19,000
7.1.4	\$80,000	Engineering alternatives review (NRD Lead)	\$40,000	\$40,000
7.1.5	\$52,000	UNL Phase 2 Flume modeling (NRD lead)	\$26,000	\$26,000
7.1.6	\$100,000	for railroad engineering review of proposed improvements (NRD coordinating with BNSF and RTSD)	\$50,000	\$50,000
7.1.7	\$400,000	Utility relocation engineering (City Lead)	\$200,000	\$200,000
7.1.8	\$1,000,000	Utility relocation construction (City Lead)	\$500,000	\$500,000
7.1.9	\$390,000	38th Street Bridge Engineering (NRD Lead)	\$195,000	\$195,000
7.1.10	\$2,300,000	38th Street Bridge Construction (NRD Lead)	\$1,150,000	\$1,150,000
7.1.10	\$1,750,000	for ROW appraisals and acquisitions (shared City/NRD responsibility)	\$875,000	\$875,000
7.2	\$900,000	Haines Branch Stream Stability Projects #1 & #2 (Engineering & construction)	\$450,000	\$450,000
7.3	\$900,000	Middle Creek Stream Stability Project #5 (Engineering & construction)	\$450,000	\$450,000
7.4	\$200,000	SE Upper Salt Creek Stream Stability Project #3.	\$200,000	\$0
7.5	\$300,000	SE Upper Salt Creek Stream Stability Projects #4 & #5.	\$300,000	\$0
7.6	\$50,000	Beal Slough Stream Stability Project 70th to Pine Lake at Gapp Park	\$25,000	\$25,000
7.7	\$100,000	Others as identified, informed with Unified MP results	\$50,000	\$50,000
8		Other Projects:		
8.1	\$500,000	56th and Morton	\$250,000	\$250,000
8.2	\$0	Other projects as identified, case-by-case basis	\$0	\$0
9		Watershed Master Planning		
9.1	\$200,000	Upper Salt Creek Study	\$100,000	\$100,000
10		Salt Creek Floodplain Resiliency:		
10.1	\$100,000	Cost/Benefit Analysis of structural measures (City Lead)	\$50,000	\$50,000
10.2	\$500,000	Review updated modeling (NOAA 14) & updating floodplain (City approved as CTP by FEMA for year 1 funding)	\$500,000	\$0
10.3	\$100,000	Evaluate additional measures for Salt Creek Floodplain Resiliency	\$50,000	\$50,000
11	\$0	Floodplain/Floodprone Easements and Projects	\$0	\$0
12	\$65,000	Flood Warning System	\$27,500	\$37,500
13		Watershed Best Management Practice Rehabilitation:		
13.1	\$0	Other projects, case-by-case basis	\$0	\$0
14		Stormwater BMP Demonstration Projects:		
14.1	\$30,000	Rainscaping Lincoln, Sustainable Landscapes Cost Share Program	\$15,000	\$15,000
14.2	\$0	Other projects, case-by-case basis	\$0	\$0
15	\$50,000	Watershed Master Plan Project Inspection, Operation & Maintenance	\$25,000	\$25,000
16		City of Lincoln Wetland Bank		
16.1	\$6,000	Wetland Bank Annual Maintenance by the NRD	\$0	\$6,000
16.2	\$40,000	Outlet structure improvements	\$40,000	\$0
17	\$430,000	Little Salt Creek Watershed Plan	\$0	\$430,000

Total (each): \$5,872,500 \$5,148,500

TOTAL: \$11,021,000



Model Assumptions and Parameters: West Tributary Flow not shown.
HEC-RAS version 6.4.1 was used

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Preliminary Cost Estimates



Alternative G

Alternative G					
Component	Item	Unit	Unit Cost	Quantity	Cost
General	Mobilization	LS	8%	1	\$ 1,028,119.46
	Erosion Control Matting	SY	\$ 4.00	33,000	\$ 132,000.00
	Seeding and Site Restoration	AC	\$ 4,000.00	19.4	\$ 77,560.00
	Strip, Stockpile, and Replace/Waste Topsoil	SY	\$ 7.00	93,848	\$ 656,933.20
	33rd Utility Relocations	LS	\$1,190,000.00	1	\$ 1,190,000.00
	Huntington SS Manholes Relocation and Syphon Remove and Replace	LS	\$ -	0	\$ -
	Handling of Water	LS	\$ 200,000.00	1	\$ 200,000.00
	Clearing and Grubbing	LS	\$ 250,000.00	1	\$ 250,000.00
	SWPPP	LS	\$ 500,000.00	1	\$ 500,000.00
	Property Rights	AC	\$ 50,000.00	19.4	\$ 969,500.00
WSP Box Culverts	RCBC 2 Cell 12'6"x16'6" 2 Cell 18'10"x16'6"- L = 50'	LS	\$1,380,000.00	0	\$ -
	Approach and Exit Aprons and Wingwalls and Grading	LS	\$ 550,000.00	0	\$ -
	Remove Spur bridge	LS	\$ 250,000.00	0	\$ -
	Spur track switching and retracking	LS	\$2,350,000.00	0	\$ -
	Remove replace water main & Armoring	LS	\$3,000,000.00	0	\$ -
Channel	Excavation - Channel	CY	\$ 16.00	95,000	\$ 1,520,000.00
	Riprap	TN	\$ 100.00	18,700	\$ 1,870,000.00
	Riprap Bedding	SY	\$ 115.00	19,400	\$ 2,231,000.00
Detention Basins	Detention Basin(s)	LS	\$3,254,500.00	1	\$ 3,254,500.00
Miscellaneous	Improve Capacity at Huntington Bridge	LS	\$1,000,000.00	0	\$ -
Totals	Subtotal				\$13,879,612.66
	Contingency @ 30%				\$ 4,163,883.80
	Construction Total				\$18,043,496.45
	Engineering, Permitting, and Construction Observation 15%				\$ 2,706,524.47
Total				\$20,750,020.92	

Notes: Year for cost basis is 2024 USD