

# Memorandum

To: Projects, Programs, and Operations Subcommittee

From: Terry Schumacher, Land & Water Programs Coordinator

Date: July 29, 2024

RE: Amendment No. 1 with JEO Consulting Group for the Davis Creek Watershed WFPO Project

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In October 2021, the Board of Directors approved the selection of JEO Consulting Group for professional services necessary to complete the Preliminary Investigation Feasibility Report (PIFR) for the Davis Creek WFPO Project in Burt and Washington County.

The next phase of the professional services required for the project is the preparation and implementation of the Watershed Work Plan. JEO and District staff have discussed and prepared a professional services agreement for amendment No. 1 of the project.

JEO Consulting Group proposes to provide professional services in contract Amendment No. 1 for a total not to exceed amount of \$803,980.00; see attached Exhibit K for further details on task descriptions and the fee breakdown. This would bring the total contract, including Amendment No. 1, to \$832,510.00.

The Natural Resources Conservation Service (NRCS) and the District have a proposed grant agreement which outlines that NRCS shall pay 100% of the costs for the Watershed Work Plan.

**Staff recommends that the Subcommittee recommend to the Board that the General Manager be authorized to execute the proposed Amendment No. 1 with JEO Consulting Group for the Davis Creek Watershed WFPO Project in an amount not to exceed \$803,980.00 bringing the total contract not to exceed amount to \$832,510.00, subject to changes deemed necessary by the General Manager and approval as to form by District Legal Counsel.**



This is **EXHIBIT K**, consisting of [ 2 ] pages, referred to in and part of the **Agreement between Owner and Engineer for Professional Services** dated [ October 28, 2021 ].

**AMENDMENT TO OWNER-ENGINEER AGREEMENT  
Amendment No. 01**

**The Effective Date of this Amendment is: 08-09-2024.**

Background Data

Effective Date of Owner-Engineer Agreement: October 28, 2021

Owner: Papio-Missouri River Natural Resources District

Engineer: JEO Consulting Group

Project: Davis Creek WFPO Watershed Plan

Nature of Amendment: [Check those that are applicable and delete those that are inapplicable.]

- Additional Services to be performed by Engineer
- Modifications to services of Engineer
- Modifications to responsibilities of Owner
- Modifications of payment to Engineer
- Modifications to time(s) for rendering services
- Modifications to other terms and conditions of the Agreement

Description of Modifications:

***See attached scope of services for the Davis Creek WFPO Watershed Plan – Environmental Assessment (Plan-EA) using Watershed Flood Prevention and Operations (WFPO) funding from the Natural Resources Conservation Service (NRCS).***

Agreement Summary:

Original agreement amount:	\$28,530.00
Net change for prior amendments:	\$0.00
This amendment amount:	\$803,980.00
Adjusted Agreement amount:	\$832,510.00

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***MODIFIED VERSION of***

**Exhibit K – Amendment to Owner-Engineer Agreement.**

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Change in time for services (days or date, as applicable): 18 Months

The foregoing Agreement Summary is for reference only and does not alter the terms of the Agreement, including those set forth in Exhibit C.

Owner and Engineer hereby agree to modify the above-referenced Agreement as set forth in this Amendment. All provisions of the Agreement not modified by this, or previous Amendments remain in effect.

OWNER:

ENGINEER:

Papio-Missouri River Natural Resources District

JEO Consulting Group

By: \_\_\_\_\_

By: \_\_\_\_\_

Name: John Winkler

Name: Michael W. Placke

Title: General Manager

Title: Sr. Project Manager

Date Signed:

Date Signed:

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***MODIFIED VERSION of***

**Exhibit K – Amendment to Owner-Engineer Agreement.**

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**Exhibit A: Scope of Work**  
**PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT**  
**Davis Creek WFPO Watershed Plan – Environmental Assessment**  
**Project Number: R210643.00**

**PROJECT OVERVIEW**

Reducing sedimentation and stabilizing incising streams is a priority for the Papio-Missouri River Natural Resources District (P-MRNRD) within the Davis Creek Watershed, which includes Hill Creek and New York Creek. Reducing erosion will also reduce operation and maintenance costs for the downstream Washington/Burt County Drainage District who is subject to frequent removal of sediment within their infrastructure. The P-MRNRD wishes to establish the Davis Creek WFPO Watershed Plan – Environmental Assessment (Plan-EA) using Watershed Flood Prevention and Operations (WFPO) funding from the Natural Resources Conservation Service (NRCS). It is assumed that the environmental document produced will be an environmental assessment (EA), and that only one project purpose (watershed protection) will be included in the purpose and need of the Watershed Plan – Environmental Assessment (Plan-EA). JEO Consulting Group, Inc. (JEO) was selected by P-MRNRD to provide professional services to assist in developing the Plan-EA.

The following scope of work was developed to comply with the following polices and guidance:

- NRCS Title 390, National Watershed Program Manual (NWPM) – as amended June 2024
- Principles, Requirements, and Guidelines (PR&G) for Water and Land Related Resources Implementation Studies
- National Environmental Policy Act (NEPA)

For the purposes of estimating a project fee, it was assumed that a maximum of 15 grade stabilization sites will be evaluated as a potential alternative. However, because the full breadth of scoping issues and potential alternatives are unknown at the start of the planning process, it is possible that additional types of assessments, field work, or other unique needs may be required. Following the identification of alternatives in Step 5, JEO will work with P-MRNRD and NRCS to evaluate this scope of work to ensure it is inclusive of the work needed to fully evaluate each alternative.

Should data inadequacies be discovered, or documents or assumptions detailed in this scope change, JEO will present any possible impacts to the cost or schedule to P-MRNRD prior to executing additional services.

**TASK SUMMARY**

The tasks to complete this project have been organized as follows:

- Step 1: Identify Problems, Opportunities, and Concerns
- Step 2: Determine Objectives
- Step 3: Inventory Resources
- Step 4: Analyze Resource Data
- Step 5: Formulate Alternatives
- Step 6: Evaluate Alternatives
- Step 7: Make Decisions

## **STEP 1: IDENTIFY PROBLEMS, OPPORTUNITIES, AND CONCERNS**

### **1.1: Plan of Work**

The JEO project manager (PM) will be responsible for developing and monitoring a comprehensive work plan based on this scope of work. The PM will also be responsible for maintaining the project schedule, budget, and work quality. JEO will ensure all deliverables are professionally produced and receive proper quality assurance and quality control (QA/QC) from the QA/QC Manager.

JEO will provide a progress report with each monthly invoice. It is anticipated that project management activities will extend approximately one month later than the final approval date of the Plan-EA to allow for project closeout activities, such as printing and distribution of final deliverables. JEO will identify and document any findings or requests that are not within the current scope of services and will discuss these items with P-MRNRD prior to commencing work on such tasks.

#### **Project Management Meetings:**

- One kick-off meeting between JEO, P-MRNRD, and NRCS (virtual).
- Monthly progress meetings between JEO and P-MRNRD staff (virtual, unless otherwise coordinated with other on-site activities or meetings)

### **1.2: Public Participation Plan**

JEO will work with the P-MRNRD and NRCS to develop a Public Participation Plan (PPP), not to exceed five pages, that outlines project stakeholders, anticipated methods of engagement, and the goal(s) of engagement. It will also include notation of public hearings required by others, if necessary. Implementation of the PPP will be documented and will become a part of the required reviewable record.

JEO will host and maintain a project webpage for the duration of the project. Anticipated content includes but is not limited to project background and overview, project area map, project updates, public meeting materials (including direction on when/how to provide public comment), and project contact information. As the project nears completion, JEO will work to transition website content to a P-MRNRD-hosted project webpage.

### **1.3: Gather Data, Assess Issues, and Perform Field Reconnaissance**

JEO will gather and review available data provided by P-MRNRD, NRCS, and other agencies and to fully understand the current conditions and deficiencies related to watershed protection (reducing soil erosion, stream incision, and downstream sedimentation). Field reconnaissance, which includes site visits to existing structures, may be used to better understand resources and opportunities related to improving conditions within the watershed. This task will include establishing baseline conditions for the watershed, including existing conservation practices. Gathering data will include assembly of existing plans, reports, or GIS data.

### **1.4: NRCS Coordination**

JEO will work with P-MRNRD staff to deliver this project in accordance with NRCS requirements. This includes planning for, facilitating and documenting the necessary milestone meetings and assisting P-MRNRD in providing periodic reports to NRCS (assumed on a quarterly schedule.)

## EXHIBIT A: SCOPE OF WORK

### DAVIS CREEK WFPO WATERSHED PLAN – ENVIRONMENTAL ASSESSMENT

#### **Milestone Meetings:**

- Kick-off meeting including review of draft purpose and need (*Step 1*)
- Public and agency scoping meetings (*Step 2*)
- Post-discussion of scoping (after scoping meetings) (*Step 2*)
- Existing Conditions milestone meeting (30%) (*Step 4*)
- Alternatives Review milestone meeting (*Step 5*)
- Draft alternatives meeting (60%) (*Step 6*)
- Endangered Species Act (ESA) milestone discussion (*Step 6*) (*JEO attendance is not anticipated*)
- Clean Water Act review meeting (*Step 6*)
- Draft plan review (90%) meeting (*Step 7*)
- ESA Informal Conference (*Step 7*)
- Public and agency review meetings(*Step 7*)

It is anticipated that NRCS will contact the United States Army Corps of Engineers (USACE) and U.S. Fish and Wildlife Service about becoming formal cooperating agencies. No other cooperating agencies are anticipated. However, if additional cooperating agencies are added, additional meetings or other services may be required. In this case, JEO will work with NRCS and P-MRNRD to identify any impacts to the project fee or schedule.

Per NRCS requirements, State NRCS staff will initiate consultation, where warranted, for cultural resources and other special environmental concerns such as endangered species with the Nebraska Historical Preservation Offices (NeSHPO), tribal governments, and the US Fish and Wildlife Service (USFWS). JEO will send copies of scoping meeting invitational letters to NRCS at least six weeks in advance of each meeting. JEO will provide copies of site maps to NRCS and appropriate federal and state agencies for environmental review and notify NRCS of environmental clearance or any unresolved concerns.

#### **Step 1: Key Responsibilities/Assumptions**

- Project management will be provided for 24 months following notice to proceed.
- NRCS will initiate correspondence with the USACE and USFWS.
- P-MRNRD, NRCS, and cooperating agencies will provide input and timely reviews on all draft documents.
- P-MRNRD will assist with property access for all necessary site visits.
- Deliverables:
  - Monthly invoices and progress reports
  - Public Participation Plan
  - Meeting agenda, materials, and minutes for kick-off meeting

#### **STEP 2: DETERMINE OBJECTIVES**

##### **2.1: Document Sponsor Objectives, Establish Purpose and Need Statement and Scope of Plan**

JEO will work with the P-MRNRD and NRCS to document the project objectives, write a purpose and need statement, and develop a scope for the plan that meets applicable NRCS, PR&G, and NEPA requirements.

The purpose and need statement will be drafted and finalized with input from P-MRNRD, NRCS, and cooperating agencies which will then guide the planning and alternatives selection processes. The

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### DAVIS CREEK WFPO WATERSHED PLAN – ENVIRONMENTAL ASSESSMENT

purpose and need will become the primary driver for project site selection, screening, scoping, and all aspects of the planning process. While the purpose and need statement may slightly be modified as the project progresses, it is anticipated that it will not expand to more than just watershed protection, or change to an entirely new purpose. The scoping process will help to identify screening criteria used for evaluation of project alternatives based on problems, opportunities, objectives, and constraints.

JEO will prepare an initial outline of the Plan-EA based on similar plans that have been prepared and on guidance found in NWPM. The outline will be reviewed, and adjusted as needed, by P-MRNRD, NRCS, and JEO. This outline will then become the working document from which the Plan-EA is written.

#### **2.2: Obtain Input**

JEO is committed to supporting P-MRNRD in purposefully engaging the watershed community and will lead the planning, facilitation, and summary of public and agency scoping meetings. These will take place early in the project and prior to the 30% progress milestone.

The JEO team will also work to keep the P-MRNRD Board of Directors apprised of project progress. This includes up to three board meeting updates by JEO staff, as identified throughout this scope of work. These updates are anticipated to be held at or near project milestones.

A summary of meetings associated with Step 2 follows.

#### **2.3 Stakeholder Coordination and Public Input**

- One Public Scoping Meeting (in person) – anticipated to an open house style held in Herman
- Agency Scoping Meeting (held virtually)

#### **Step 2 Key Responsibilities/Assumptions**

- P-MRNRD, NRCS, and cooperating agencies will provide input and timely reviews on all draft documents.
- No major changes to the Plan-EA outline will need to be made once approved.
- JEO will provide meeting notifications, invitations, and flyers.
  - P-MRNRD will publish, mail, or distribute.
- JEO will send invitation letters for the agency scoping meetings, outside of those required to be mailed from the State NRCS Office.
- P-MRNRD will make arrangements for meeting facilities.
- Deliverables
  - Draft purpose and need statement
  - Final purpose and need statement will be provided in final Plan-EA
  - All materials associated with public and stakeholder engagement

### **STEP 3: INVENTORY RESOURCES**

#### **3.1: Conduct Resource Inventories & Watershed Assessment**

The JEO team will identify and collect pertinent data regarding environmental resources within the watershed to establish baseline conditions and provide the basis for forecasting project effects. Unless otherwise noted, a desktop level assessment will be completed for each resource. Field visits within the watershed will occur to observe general conditions, however field verification or sampling is not



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DAVIS CREEK WFPO WATERSHED PLAN – ENVIRONMENTAL ASSESSMENT

included, unless otherwise noted. Inventories will be based on those resources identified through the scoping process, as required by NWPM, and will consider, but is not limited, to the following concerns:

- Soils
- Wetlands
- Land Use and Cover
- Air quality conditions
- Water quality conditions in terms of designated uses
- Highly erodible cropland
- Floodplain
- Fish and wildlife habitat and generally describe species composition
- State and federally listed threatened and endangered species
- Invasive species populations
- Water quantity concerns
- Topography
- Climate
- Riparian areas
- Natural areas (specially designated areas).
- Migratory bird habitat
- Prime and unique farmland
- Wild and scenic rivers
- Others as identified through the scoping process

### **3.2: Initial Hydrology and Hydraulics**

JEO will develop Hydrology and Hydraulic (H&H) models to map the existing conditions for the watershed using the HEC-HMS and HEC-RAS modeling software. Rainfall depths for applicable storms will be obtained from NOAA Atlas 14. Contributing drainage areas will be delineated using the most recent available LiDAR information and sized appropriately based upon potential alternatives. Land use will be obtained from the National Land Cover Dataset, and soil information will be obtained from the Web Soil Survey. Time of concentrations for individual sub-basins will be developed using TR-55 methodology. Development of the H&H models will take into account potential alternatives; this will allow the evaluation of effectiveness, benefits, etc. of alternatives to be evaluated and compared to existing conditions.

### **3.3: Economic and Social Effects**

The JEO team will identify pertinent economic and social resources within the watershed that may be impacted or affected. At a minimum, this will include infrastructure, demographic, health and safety, and economic conditions. Inventories will be adequate to establish baseline conditions as required by NWPM. This information will provide the basis for forecasting project effects. Unless otherwise noted, a desktop level identification and characterization will be completed for each resource, using readily available datasets. Field verification or sampling is not included, unless otherwise noted.

- Population demographics, which also includes identification of any Environmental Justice Communities and Tribal communities
- Public health and safety conditions
- Homes, businesses, and agricultural operations
- Visual concerns

## EXHIBIT A: SCOPE OF WORK

### DAVIS CREEK WFPO WATERSHED PLAN – ENVIRONMENTAL ASSESSMENT

- Economic data
- Road and bridge infrastructure
- Social/political factors that may impact land use for the life of the project
- Population centers

#### **3.4: Archeological and Historic Resources**

Comprehensive background research will be carried out in the watershed with a particular focus on any preliminary alternatives to determine the cultural resources aspects associated with these locations. This will be accomplished as early in the planning process as deemed necessary to support the initial planning steps.

A file search of previously recorded archeological sites in the locations of past cultural resource surveys will be carried out within one mile of potential project areas to provide information concerning the density and distribution of known archaeological sites in the watershed vicinity and the intensity of previous cultural resource investigations in the area to better understand the potential settings where cultural resources may be encountered. Historic archival resources such as county plats and atlases and General Land Office survey notes and plats will also be consulted to determine the presence of past settlement, trails/roads, and communities in the vicinity of preliminary alternatives. All archaeological and historic resource research will be conducted by an individual who meets the Secretary of Interior's Professional Qualifications Standards for History, Archaeology, and/or Architectural History (36 CFR 61).

#### **3.5: Engineering and Geology**

This task includes identifying and collecting pertinent data for engineering and geologic evaluation within the watershed. JEO will collect limited field topographic survey of critical features, if needed. This survey will not include a full topographic survey. Boundary or property information will not be collected by surveyors. JEO will collect and review land ownership records utilizing county parcel data. Regional and site-specific geological data, where available, will be identified and collected.

#### **3.6: Maps and Documentation**

Maps and summary documentation will be produced using a geographic information system (GIS) for key watershed characteristics. A summary of the watershed problems, technical capabilities, constraints, or any concerns that may impact the project will be documented within the watershed plan.

#### **Step 3: Key Responsibilities/Assumptions**

- P-MRNRD will assist with property access for all necessary site visits.
- Field work for wetlands or cultural resources is not included in this task.
- Full topographic survey is not included.
- Deliverables
  - Maps, tables, and narratives will be included within the Plan-EA

### **STEP 4: ANALYZE RESOURCE DATA**

#### **4.1: Analyze Existing Data**

JEO will analyze and summarize inventory and watershed assessment data collected in Step 3 through statistics, maps, and other analytical techniques and tools.

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### DAVIS CREEK WFPO WATERSHED PLAN – ENVIRONMENTAL ASSESSMENT

#### **4.2: Geology**

JEO will analyze geologic and soil data collected in Step 3. Soil erosion, sedimentation rates, and delivery ratios will be developed, as needed, to identify constraints and project needs to consider during alternative development. It is anticipated soil erosion will be estimated using a simple watershed model which utilizes the Universal Soil Loss Equation (USLE) - such as the Spreadsheet Tool for Estimating Pollutant Load (STEPL) or the Pollutant Load Estimate Tool (PLET). Stream erosion estimates will be developed based on a simplified stream assessment similar to NRCS's Stream Visual assessment Protocol (SVAP) used in conjunction with desktop data (LiDAR, aerial imagery, etc.) and stakeholder input. Prior to completing this analysis, JEO will verify procedures with NRCS staff.

#### **4.3: Economics and Social Effects**

An initial analysis will be completed using the existing data to identify what effects or damages the project area would face without a project. This may include identifying the following:

- Urban or developed area damages
- Agricultural area damages
- Non-agricultural area damages (roads, bridges, utilities, etc.)
- Reviewing social resource data
- Ecosystem services

#### **4.4: Environmental Evaluation**

An environmental evaluation, utilizing the data collected within Step 3, will be performed across the watershed. This evaluation is done concurrently with other resource assessments performed in Steps 3 and 4. NRCS Form CPA-52 Environmental Evaluation Worksheet will be completed.

#### **4.5: Stakeholder Coordination**

The JEO team will continue planning, facilitating, and documenting stakeholder engagement.

Anticipated meetings in Step 4 include:

- One update provided to P-MRNRD Board
- One Existing Conditions (30%) milestone meeting with NRCS and cooperating agencies (virtual)

#### **Step 4: Key Responsibilities/Assumptions**

- Deliverables
  - Drafts of Chapters 1-3 delivered as part of the 30% milestone
  - Maps, tables, and narratives will be included within the Plan-EA
  - Updated H&H Model
  - Environmental Evaluation Form CPA-52 delivered with 90% milestone
  - All materials associated with public and stakeholder engagement

### **STEP 5: FORMULATE ALTERNATIVES**

#### **5.1: Analysis of Initial Alternatives**

JEO will formulate a reasonable list of both structural and nonstructural alternatives targeted to meet project goals. Alternatives will be sited based on existing conditions of structures, resource data analysis, consideration of work from previously completed projects, collected resource and scoping information, and input from P-MRNRD, NRCS, cooperating agencies, and the public and other stakeholders. GIS will

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be used to identify appropriate drainage areas and initial structure sizing. Alignments of potential structures will be shown on maps, should they be considered.

Each alternative will be evaluated against the purpose and need, planning objectives, planning constraints, and NRCS evaluation criteria (acceptability, completeness, efficiency, and effectiveness). This process will be documented through an initial screening for each alternative. Based on the recently updated NWMP, JEO is required to bring three alternatives (including the no action alternative) forward into the final array of alternatives for detailed analysis. Additionally, at least one of these alternatives is required to be a nonstructural alternative, per the PR&G.

A draft of Chapter 4 (Alternatives) will be compiled and reviewed with P-MRNRD, cooperating agencies, and NRCS during the Alternatives Review Meeting and/or the Draft Alternatives (60%) milestone meeting(s). This chapter will serve as documentation for any alternatives removed from further consideration and analysis.

#### **5.2: Area of Potential Effect & Affected Resource Area Maps**

Maps illustrating the area of potential effect (APE) and affected resource area (ARA) will be used to further evaluate and review cultural and environmental resources of alternatives carried forward in the final array of alternatives. APE/ARA areas will be developed after initial watershed and engineering analysis is complete and feasible alternatives are known. The APE/ARA will also include access roads and other likely facilities potentially impacted by construction or inundation that will be included in the project. A review of the collected data will then be completed to identify constraints and project needs to consider throughout alternative development. The APE/ARA maps will be reviewed by NRCS, P-MRNRD, JEO, and the cooperating agencies as part of the Alternatives Review Meeting.

#### **5.3: Stakeholder Coordination**

The JEO team will continue planning, facilitating, and documenting stakeholder engagement. Anticipated meetings in Step 5 include:

- Alternatives Review milestone meeting with NRCS and cooperating agencies (virtual)
- Up to three days (24 Hours) of landowner meetings to discuss property-specific impacts associated with identified alternatives (in person, location TBD within watershed)

#### **Step 5 Key Responsibilities/Assumptions**

- P-MRNRD will facilitate landowner coordination, when necessary.
- Deliverables
  - Draft Chapter 4
  - Maps illustrating the APE and ARA areas
  - GIS data of potential alternative locations
  - All materials associated with public and stakeholder engagement

## **STEP 6: EVALUATE ALTERNATIVES**

### **6.1: Evaluate Resource Data**

After screening the full list of alternatives, the JEO team will complete a more detailed evaluation of each alternative carried forward into the final array of alternatives. Field work to complete wetland delineations, cultural resource surveys, geotechnical analysis, and detailed economic analysis will only be completed for the preferred alternative, once selected by P-MRNRD. Final ARA and APE boundaries

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will need to be agreed upon between NRCS, P-MRNRD, cooperating agencies, and JEO prior to field work.

Wetland Delineations

Wetland delineations will be completed using the 1987 USACE Wetland Delineation Manual and applicable regional supplement. Delineations will be limited to the ARA and occur only for project sites that are part of the preferred alternative. The Nebraska Stream Condition Assessments Procedure (NeSCAP) or functional assessments will be completed only for alternatives under detail review to a level necessary to compare impacts within the Plan-EA document. It is anticipated that full 404 permitting and mitigation planning (if needed) will be completed during future WFPO phases (design and/or construction), and not during the planning phase.

Archeological and Historic Resources

Minimally intensive (Class III level) cultural resource inventory of the proposed area of potential effect (APE) will be required to identify any archeological sites or historic structures that may be affected by the preferred alternative. This may include the following:

- Intensive survey will be limited to the APE, and will be focused in areas that will be permanently altered, excavated, or modified. Survey will seek to visually identify the presence of any archaeological sites or man-made features greater than 50 years of age in or immediately adjacent to each project area on the ground surface or in creek bank exposures.
- Survey may include supplemental subsurface investigations as an additional test for the presence of cultural material in areas where surface visibility is limited. Typically, this would involve hand excavation with shovels or bucket augers depending on the depth of potential deposits. Excavations will be immediately backfilled upon completion and every effort taken to minimize the disturbance or appearance of disturbance of the excavated area. The survey will also include photographic documentation and preliminary National Register of Historic Places eligibility recommendations of standing structures (i.e., houses, outbuildings, bridges, etc.) within the viewshed of any proposed dams or levees.
- A report providing a historical context for the current work, summarizing previous investigations, the cultural background in the vicinity, and detailing the results and findings of the current investigation along with any necessary recommendations will be submitted for review. The background/archival research results will be incorporated where possible to contribute to this final report.

The inventory will be conducted to professional standards in accordance with the *Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation* (48 FR 44716-44742), the *Secretary's Standard for Identification* (48 FR 44720-44723), and *Secretary's Standard for Evaluation* (48 FR 44723-44726). All archeological field investigations, reports, and site forms will follow the guidelines issued in the *Nebraska State Historic Preservation Office National Historic Preservation Act Archeological Properties Section 106 Guidelines* and be completed by an individual who meets Secretary of Interior's Professional Qualification Standards (48 FR 44738-44742). All documents produced will meet the standards for supporting documentation under Section 106 of the National Historic Preservation Act (36 CFR 800.11(e)).

**6.2: Geology**

An evaluation of geologic and groundwater resource data will be completed to identify how those resources will be affected by and how they affect designs of alternatives. Geotechnical analysis would

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only occur on projects that are part of the preferred alternative. Soil erosion and sedimentation rates will be evaluated for proposed alternatives, following the methodology identified in Step 4.

#### **6.3: Hydrology and Hydraulics Conceptual Design**

A list of alternatives carried forward will be further evaluated using the H&H modeling to define project locations and benefits up to a conceptual design level. Feasible alternatives will be carried forward until they can be eliminated from further evaluation for any number of potential reasons, such as not meeting project purpose or need, technical feasibility, costs, benefit/cost ratio, or other environmental, cultural, or social considerations. JEO will prepare conceptual design of the final preferred alternative in accordance with standard engineering principles that comply with NRCS programmatic requirements.

Conceptual design details would include:

- Preliminary grading plans
- Summary of Quantities
- Preliminary Opinions of cost
- Right-of-Way needs
- Utility research
- Preliminary Geotechnical Evaluation (if applicable)

#### **6.4: Economics**

Economic benefits for the preferred alternative will be identified and quantified, according NRCS guidance, including the recently updated PR&G Guidelines. The following process will guide the economic analysis:

- a. Identify engineering and operational cost of preferred alternative
- b. Identify benefits of preferred alternatives
- c. Quantify benefits of preferred alternative
- d. Value benefits of preferred alternatives
- e. Identify preferred alternatives with benefit-cost ratios greater than 1.0

The economic evaluation will be documented within Appendix D of the Plan-EA, and will include all required Economic Tables.

#### **6.5: Identify Other Effects and Requirements**

In order to fully evaluate each alternative, a multitude of other potential effects or requirements for each alternative included in the final array of alternatives will be evaluated. These include the following:

- Direct, Indirect cumulative effects
- Significance of impacts from the proposed action (context and intensity)
- Develop mitigation or reformulate to avoid adverse environmental effects
- Determine potential for effect controversy
- Identify possible conflicts between Federal, State, Local and Tribal; Policies, Laws, and Objectives
- Identify major environmental conflicts resolved
- Identify unresolved environmental conflicts and proposed resolution
- Identify consistency with Regional Water Resource plans
- Identify and determine if effects are cumulatively significant
- Identify adverse environmental effects that can't be avoided
- Determine the impacts on short-term land use
- Determine impacts to long-term productivity
- Determine energy and natural or non-renewable resource requirements & conservation

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potential

- Determine urban quality impacts
- Determine reuse and conservation potential of Alternatives
- Identify Risks and Uncertainty of effects
- Determine if actions create any precedents
- Identify irreversible or irretrievable commitments of resources

**6.6: Stakeholder Coordination**

The JEO team will continue planning, facilitating, and documenting stakeholder engagement.

Anticipated meetings in Step 6 include:

- One update provided to P-MRNRD Board
- One Draft Alternatives (60%) milestone meeting with NRCS and cooperating agencies (virtual)
- Clean Water Act (CWA) milestone meeting with NRCS and USACE (virtual)
- Endangered Species Act (ESA) milestone discussion (JEO attendance is not anticipated)

**Step 6 Key Responsibilities/Assumptions**

- Engineering design work is only up to a conceptual design (~20 to 30%) level
- P-MRNRD will assist with property access for all necessary site visits.
- The cost for cultural and wetland field investigations and report preparation is based on an estimated area of approximately 600 acres.
- The cost for geotechnical investigations, lab analysis, and report preparation is based on completing up to a total of 20 test borings.
- It's assumed that no major archeological or historic resources are present in the APE. If identified, then JEO will work with NRCS Cultural Resources Specialists to determine what next steps will be and if any revision to scope, fee, or schedule will be necessary.
- Deliverables
  - Final ARA/APE maps
  - Draft wetland delineation reports and, if needed, NeSCAP reports.
  - Cultural Resources Inventory Report (including associated site forms, shapefiles of survey areas, and shapefiles of archaeological site boundaries)
  - Summary of each evaluation will be included within the Plan-EA, and provided as part of the 90% milestone review.
  - Draft Investigation and Analysis Report (Appendix D), to be included as part of the draft Plan-EA
  - Graphics/renderings of preferred alternative and its effect on the floodplain (if needed) will be provided in Appendix C
  - Maps of breach inundation areas (if required) will be provided in Appendix C

**STEP 7: MAKE DECISIONS**

**7.1: Compare and Review Alternatives with Sponsor**

JEO will guide P-MRNRD and NRCS through an alternatives assessment process. Each alternative will be screened against evaluation criteria such as social acceptance, financial, technical, environmental, etc. This process will guide feasibility and help the project team determine a preferred alternative. The alternative assessment would also include red flag criteria, such as significant permitting challenges, controversy, or projects with poor benefits.

## EXHIBIT A: SCOPE OF WORK

### DAVIS CREEK WFPO WATERSHED PLAN – ENVIRONMENTAL ASSESSMENT

The most socially acceptable, environmentally friendly, and economically effective alternative which meets the project's purpose and need, P-MRNRD goals, and plan requirements will be selected as the preferred alternative. The preferred alternative will move forward for inclusion within the Watershed Plan-EA.

#### **7.2: Prepare the Draft Plan-EA**

JEO will prepare the Plan-EA as outlined in NWPM and in cooperation with USACE and other agency input. The draft Plan-EA will follow the finalized plan outline and utilize input from all previous tasks. The environmental assessment process will evaluate effects of the alternatives for all resources and concerns identified during the scoping process. In addition to the identification of the preferred alternative, cost and benefits, and environmental assessment, the plan will also include a review of permitting requirements, land rights, operation and maintenance needs, and the Plan-EA's relationship to other plans and projects.

Plan writing will follow a concurrent review process, with several chapters written at a time and submitted for P-MRNRD and NRCS review while subsequent chapters are drafted. JEO will follow a robust QA/QC process including both an editorial and subject matter expert review.

#### **7.3: Reviews**

Following the concurrent review process, the full draft plan-EA (with appendices) will be provided ahead of the 90% progress meeting for review. The Plan-EA document will be substantially complete by this point with all findings incorporated. The draft Plan-EA will be updated to address any comments received from the State NRCS review.

Following updates, the Plan-EA will be submitted to the NRCS National Water Management Center (NWMC) for review. Once complete, JEO will facilitate a meeting with P-MRNRD and NRCS to review all comments and concerns from NWMC. At this meeting a decision will be made on how to address each comment and concern. JEO will then address each comment and consider each concern on the draft Plan-EA. Once NWMC comments are addressed, a revised draft plan will be submitted to NRCS National Headquarters (NHQ) for a programmatic review. Comments from NHQ will be addressed.

This task also includes time and effort for preparing, receiving, and addressing correspondence and comments from agencies and the public. Formal letters will be drafted and sent to agencies requesting input on the draft Plan-EA and inviting them to a review meeting. All comments received during the formal agency and public review period will receive a documented response. All input received will be provided to P-MRNRD and NRCS for review. Following discussions with P-MRNRD and NRCS, JEO will prepare formal responses, which acknowledge the comments and state how they were incorporated into the Plan-EA.

#### **7.4: Prepare Final Plan-EA**

JEO will address comments made by participating agencies and other parties and the Plan-EA will be updated to reflect any necessary changes due to public or agency comments. JEO will address comments on the final environmental document made during or after the NRCS National Programmatic Review.

#### **7.5: Final Plan Approval**

JEO will work with the P-MRNRD to obtain the required signatures for the approved Plan-EA. JEO will provide hard copies of the final Plan-EA, along with a digital copy and associated supporting files.



### 7.6: Stakeholder Coordination and Public Input

The JEO team will continue planning, facilitating, and documenting stakeholder engagement.

Anticipated meetings in Step 7 include:

- One Draft Plan Review Milestone Meeting (90%) with NRCS and cooperating agencies (virtual)
- ESA Informal Conference (virtual)
- One update provided to P-MRNRD Board
- Agency Review Meeting (virtual)
- One Public Review Meeting (in person) – anticipated to be an open house style held in Herman

### Step 7: Key Responsibilities/Assumptions

- JEO assumes an EA will be required that will likely result in a Finding of No Significant Impact (FONSI), not an Environmental Impact Statement (EIS).
- Scope assumes no unforeseen or significant controversies from agency or public reviews
- P-MRNRD and NRCS will forward any and all comments it receives to JEO.
- JEO will be responsible for preparing and sending invitational letters for the agency review meeting, except those to SHPO, tribal governments, and USFWS. NRCS will be responsible for those.
- NRCS will be responsible for direct correspondence with the USACE and USFWS (related to cooperating agency status).
- JEO assumes no more than one review, each, by the NRCS NWMC and NHQ will be necessary. Additional reviews may result in changes to the project schedule.
- JEO will coordinate one comment review meeting.
- P-MRNRD to ensure Plan-EA approval is on the Board of Directors monthly meeting agenda.
- P-MRNRD to assist in getting signatures from board members or staff on the approved Plan-EA
- Deliverables
  - Spreadsheet with comments and responses tracked.
  - Copies of correspondence, letters, and responses
  - Print, compile, and send hardcopies of the final Plan-EA to the following entities (as requested):
    - P-MRNRD
    - State NRCS
    - NRCS NHQ / NWMC
  - Provide link to electronic copy.
  - Provide a temporary location to download all project deliverables.
  - All materials associated with public and stakeholder engagement

EXHIBIT A: SCOPE OF WORK  
DAVIS CREEK WFPO WATERSHED PLAN – ENVIRONMENTAL ASSESSMENT

**PROJECT SCHEDULE**

The anticipated project schedule is based on completion within 24 months. Notice to proceed is anticipated to occur on August 9, 2024, and the draft Plan-EA is scheduled to be submitted to the NWMC by February 2026. The project is anticipated to be complete by August 2026. JEO will work with P-MRNRD and NRCS to maintain an updated schedule of project milestones.

*Note: Project schedule is dependent upon availability of funding, timing of notice to proceed, factors impacting field season, timely reviews by regulatory agencies and stakeholders, as well as timely direction from project sponsors.*

**PROJECT FEE**

JEO will provide the described services at an hourly not-to-exceed fee as included in the table below. Owner will be billed monthly for services. Additional services can be provided based upon current hourly rates as requested by the owner. JEO will begin work immediately following the receipt of Notice to Proceed. Budget may be re-distributed among tasks, with approval by P-MRNRD, so long as the total fee amount does not change.

Any expenses incurred by JEO in connection with the services provided, including but not limited to travel, lodging, meals, materials, printing, and other out-of-pocket costs, will be billed at cost. These reimbursable expenses will be itemized and included in the monthly invoice.

Task		Fee
Task 1	Identify Problems, Opportunities, and Concerns	\$ 107,465.00
Task 2	Determine Objectives	\$ 29,010.00
Task 3	Inventory Resources	\$ 54,000.00
Task 4	Analyze Resource Data	\$ 44,440.00
Task 5	Formulate Alternatives	\$ 77,580.00
Task 6	Evaluate Alternatives	\$ 320,450.00
Task 7	Make Decisions	\$ 161,035.00
--	Reimbursable Expenses	\$ 10,000.00
<b>Total</b>		<b>\$ 803,980.00</b>

**SERVICES NOT INCLUDED**

- Additional biological surveys or compliance with other agency requests not outlined in the scope of services.
- Additional archeological field investigations due to unforeseen or significant historical findings requiring detailed evaluation.
- Quality Assurance Project Plan (QAPP).
- Water quality sampling, stream gaging, analysis, or data acquisition.
- Other data collection not outlined in the scope of services.
- Design plans and cost estimates beyond conceptual level.
- Regulatory permits including 404, 401 certifications, floodplain permits, or similar authorizations.
- Final design or construction engineering services.
- Property, deed, or title searches.
- Preparation of an Environmental Impact Statement (EIS).



