

Memorandum

To: Programs, Projects and Operations Subcommittee

Re: Pigeon/Jones Site #15 Final Design for Professional Services,
Request for Contract Amendment

Date: October 6, 2010

From: Ralph Puls, Land/Water Programs Coordinator

In June 2010, the Nebraska Department of Environmental Quality (NDEQ) approved the District's request for a Section 319 Grant pursuant to the Federal Clean Water Act and the Nebraska Nonpoint Source (NPS) Management Program with the funds being provided by the U.S. Environmental Protection Agency (EPA). The grant is for continuance of the water quality improvements planned for the Pigeon/Jones Creek Watershed Site #15. The grant is in the amount of \$112,500.00 which represents 60% of the cost to implement water quality related measures in the watershed. The District's contribution will be 40% of the costs, \$75,000.00.

The grant request was the result of the efforts of citizens who served on a Watershed Advisory Council (WAC) and who developed a Community Based Watershed Management Plan (CBWMP) with the assistance of a Technical Advisory Team (TAT). The goal of the group was to develop a plan to improve the water quality in Pigeon/Jones Creek Recreation Site #15 once it is constructed. The need to control sediment in the watershed in order to improve water quality was emphasized in the plan. When developing the CBWMP, the group relied in large part on the Pigeon/Jones Watershed plan that had been developed in 2002 by the Natural Resources Conservation Service and the P-MRNRD and that subsequently was approved for implementation by the District Board of Directors. Part of the grant request was for funds to hire a Watershed Coordinator for a two-year period. That position was filled in September 2010. The remainder of the grant funds will be used for the design of three of the structures identified in the original P/J Watershed plan. Two of the structures will be road structures and the third will be a grade control weir located on a tributary of Jones Creek. A second grant application has been submitted to the NDEQ for funds to construct the three structures.

Olsson Associates has assisted and provided guidance in the development of the Citizen Based Watershed Management Plan and with the application for the Section 319 grant. It is proposed that an amendment be made to the existing contract with Olsson Associates to provide the professional services necessary to complete the design and to support the construction bid process. The cost for these services is estimated to be \$117,500.00 with 60% (\$70,500) provided through the Section 319 grant and 40% (\$47,000) provided by the District. A breakdown of the professional services to be provided and the costs are shown in the attached proposal by Olsson Associates.

- **Staff recommends that the subcommittee recommend to the Board of Directors that the General Manager be authorized to execute the professional services contract amendment with Olsson Associates for the Pigeon/Jones Watershed Site #15 project, bringing the total not to exceed maximum amount of the contract to \$1,213,103.00, subject to changes deemed necessary by the General Manager and approval as to form by District Legal Counsel.**

October 4, 2010

Mr. Ralph Puls
Papio-Missouri River NRD
8901 S. 154th Street
Omaha, NE 68138-3621

Re: Pigeon-Jones Creek Site 15 Additional Services
OA Project No. 007-1658

Dear Mr. Puls:

The purpose of this letter is to request an amendment to the existing Pigeon-Jones Creek Site 15 project for additional services necessary to design three grade/sediment control structures upstream of the future lake. These structures are considered part of the Community-Based Watershed Management Plan completed for this watershed in March 2010. Sixty percent of the funding necessary to design these upstream water quality improvements has been secured through the NDEQ Section 319 2010 grant program. In accordance with the implementation of this grant and the overall watershed plan, the intention is to complete the design of these three structures early next spring and follow-up with construction in 2011. An application for Section 319 grant funds to support the construction of these grade/sediment control structures was recently submitted and is awaiting approval from NDEQ and EPA.

Olsson is proposing to provide the following professional services necessary to complete this design and support the construction bid process:

1. Project Management
2. Topographic Survey
3. Geotechnical Investigation and Analysis
4. Preliminary Design
5. Final Design, Specifications, and Bid Documents
6. Environmental Permitting and Coordination

The following paragraphs provide a short description for each of these services along with their respective costs. We respectfully request that you consider a total contract increase of \$114,150 to accomplish all of these activities and move the project forward.

1. Project Management (add \$16,850) – Olsson will oversee the performance of this design project and coordinate all aspects of the design with the P-MRNRD. This management and coordination will include as many as four (4) progress meetings and two (3) agency or watershed advisory committee meetings. This task will also include, but not be limited to: organizing meeting agendas and producing meeting notes, monthly progress reports, and internal and external communication.

2. Topographic Survey (add \$8,500) – Olsson will conduct field surveys of the proposed project locations to determine elevation of the existing ground surface, detailed locations of existing infrastructure, and to establish horizontal and vertical control for the projects. Control will be established at the intersection adjacent to all three projects. Detailed survey will be performed for the existing roadways, culverts, and other infrastructure. Upstream of the roadways, cross sections will be required to provide topographic data for the impoundment areas.
3. Geotechnical Investigation and Analysis (add \$25,200) – Olsson will conduct geotechnical investigations and analysis necessary for each structure in order to determine its individual stability, expected settlement, and predicted seepage. Soil borings across the roadways and around the expected spillway structure locations will be taken and representative samples will be collected for laboratory analysis. Specific testing will be used to determine soil properties necessary for engineering analysis. Results of subsurface investigations, soil testing, and engineering analysis will be compiled into a summarized report along with recommendations for design considerations at each of the project sites. All boring locations must be readily accessible. Any cost of making boring locations accessible is Owner's responsibility. Olsson shall not be liable or responsible for any site disturbance that may occur as a result of bringing equipment on site when notified by Olsson representative that damage is likely to occur and directed by the Owner to proceed.
4. Preliminary Design (add \$30,000) – During preliminary design, Olsson will prepare a draft design report and plans for all three proposed grade/sediment control structures. The draft design report will document the hydrologic, hydraulic, and sedimentation calculations needed to properly size and route the anticipated hydrologic design events and long-term sedimentation. This will include preliminary sizing and configuration of principal spillway outlets and auxiliary overflow structures. Plan sheets for each project will be prepared in accordance with the appropriate standards and specifications. Design estimates of quantities will be used to prepare preliminary opinions of probable construction costs.
5. Final Design, Specification, and Bid Documents (add \$19,680) – For the final design phase, 95% plans and quantities will be prepared and presented. Any necessary updates will be made to the draft design report. Final revisions will then be completed and the preparation of project specifications will begin. This phase will include the incorporation of any final design recommendations from NDNR. Once final plans, specifications, and bid documents are complete, Olsson will work with P-MRNRD staff to procure construction bids for all three projects. No construction observation is proposed at this time, but will likely be necessary and better defined once design plans are completed.
6. Environmental Permitting Assistance (add \$13,920) – In addition to the 404 permit required from the U.S. Army Corps of Engineers for the Site 15 project, the three grade/sediment control structure proposed will require separate 404 permits. Currently, it is assumed that these three structures can be submitted as nationwide permits since their impacts to the stream channels are limited to additional fill beyond the existing roadway embankments and a thin weir structure. Olsson will prepare the information necessary for securing a Section 404 Permit for the referenced projects. As part of this task, Olsson will also coordinate the necessary impoundment and dam design review approval from the Nebraska Department of Natural Resources.

If approved, the increase of \$114,150.00 would bring the total contract amount to **\$1,213,103.00**.

Thank you for your consideration of our proposal. As always, feel free to contact me with any questions you may have.

Sincerely,

Paul W. Woodward, P.E., CFM
Project Engineer

Enclosures

Jones Creek Watershed Grade/Sediment Control Structures Design Fee Estimate
 Olsson Associates
 October 4, 2010

Senior Engineer \$185	Project Engineer \$117	Associate Engineer \$53	Assistant Engineer \$82	Project Scientist \$112	Assistant Scientist \$54	Geotech. Engineer \$134	Ditch Crew \$145	Associate Technician \$58	2-Man Survey Crew \$120	Senior Surveyor \$54	Senior Surveyor \$77	Secretarial \$51	Direct Costs	Extension	Phase Sub-Totals
Jones Creek Watershed Grade/Sediment Control Structures															
Phase 100 Project Management and Coordination															
	6	12	16	6	12								2,000	7,186	\$16,850
Phase 200 Design Phase															
Topographic Survey															
Geotechnical Investigation and Analysis	4		50			60	40	40	40	15	24			6,506	\$8,506
Hydraulic Design	4		24			24		24						25,187	\$25,200
Structural Design	4		40			80		40						8,072	
Prepare 65 % Design Documents	4		24			80		40						5,872	
Calculate 65% GlycerCast	4		24			80		40						13,068	
Prepare 95% Design Documents	4		24			80		40						2,086	\$30,000
Calculate 95% GlycerCast	4		24			80		20						2,412	
Finalize Design Documents	4		16			16		16						3,162	
Prepare Bid Documents	4		10			24		16						4,884	
Prepare Project Specifications	4		40					8						4,352	\$19,800
Phase 300 Permitting Phase															
Section 404 Permit Application (Nationwide)															
Mitigation Plan and Consents (Under Existing Plan)					40	80								10,752	
NDNR Dam Safety Permit														3,168	
Phase 500 Construction Observation Phase															
Construction Observation															
Construction Administration															
Project Totals**															
42	66	358	156	50	80	80	40	156	40	15	24	50	2,000	\$114,172	\$114,150
\$6,426	\$7,956	\$34,284	\$16,072	\$6,720	\$5,120	\$10,720	\$5,600	\$9,048	\$4,800	\$1,410	\$1,848	\$2,958	\$ 2,000	\$114,172	\$114,150

Project Schedule

	2010												2011																
	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec			
Jones Creek Watershed Grade/Sediment Control Structures																													
Phase 100 - Project Management and Coordination																													
Project Management and Coordination																													
Progress Meetings																													
Technical and Agency Meetings																													
Phase 200 - Preliminary Design Phase																													
Topographic Survey																													
Geotechnical Investigation																													
Hydraulic Design																													
Structural Design																													
Prepare 60% Design Documents																													
Calculate 60% Olyr/Cost																													
Prepare 95% Design Documents																													
Calculate 95% Olyr/Cost																													
Calculate Bid Document																													
Prepare Project Specifications																													
Phase 400 - Permitting Phase																													
Section 404 Permit Application (Nationwide)																													
Mitigation Plan and Concepts																													
NDNR Dam Safety Permit																													
Phase 600 - Construction Oversight Phase																													
Construction Meetings																													
Construction Observation																													

SUGGESTED FORMAT
(for use with E-582, 2004 Edition)

This is **EXHIBIT K**, consisting of 1 pages, referred to in and part of the **Agreement between Owner and Program Manager** dated October 4, 2007.

Amendment to Owner-Program Manager Agreement

1. Background Data:

- a. Effective Date of Owner-Program Manager Agreement: October 4, 2007
- b. Owner: Papio-Missouri River NRD
- c. Program Manager: Olsson Associates
- d. Program: PMRNRD Pigeon/Jones Creek Watershed Site 15 Final Design

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

- Additional Services to be performed by Program Manager
 Modifications to Services of Program Manager
 Modifications to Responsibilities of Owner
 Modifications to Payment to Program Manager
 Modifications to Time(s) for rendering Services
 Modifications to other terms and conditions of the Agreement

3. Description of Modifications

Attached letter to Ralph Puls dated October 4, 2010 detailing the nature of the requested additional services.

Owner and Program Manager 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. The Effective Date of this Amendment is October 15, 2010.

OWNER:

PROGRAM MANAGER:

By: John Winkler

By: Louis Lamberty

Title: General Manager

Title: Omaha Office Manager

Date Signed: _____

Date Signed: _____