



## 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:** August 21, 2019  
**To:** Each Director  
**From:** Paul D. Zillig, General Manager  
**Subject:** Water Resources Subcommittee Meeting Minutes

The Water Resources Subcommittee met in the NRD Office at 5:30 p.m. on Tuesday, August 20, 2019. Subcommittee members present included Bob Andersen, Karen Amen, Vern Barrett, Greg Osborn, Chelsea Johnson, Don Jacobson, Mark Spangler, and David Landis. Others present included Larry Ruth, Dale Schlautman of EA, Dick Ehrman, David Potter, and myself.

Listed below is a brief description of each of the agenda items and the additional discussion and action on each item.

**10a. Consideration of Amendment #4 to the Interlocal Agreement with Lower Platte North NRD, for the Ashland Groundwater Phase 2 Verification Study:** The wellhead protection area for the City of Ashland extends north of Ashland and approximately 1,500 acres are actually in the Lower Platte North NRD. For LPSNRD to expend funds in LPNNRD to install monitoring wells, take water and soil samples, etc we need to have an agreement with LPNNRD. Ehrman reported on the work to be done and the proposed agreement with Lower Platte North NRD.

It was moved by Osborn, seconded by Barrett, and unanimously approved by the Subcommittee (Landis did not vote as he was in route to the meeting) to recommend the Board of Directors approve Amendment No. 4 to the Interlocal Agreement with Lower Platte North NRD for the Ashland Groundwater Phase 2 Verification Study.

**10b. Consideration of a Professional Services Agreement to conduct the Raymond and Ashland Groundwater Phase 2 Verification Study:** The LPSNRD will be conducting Groundwater Phase 2 Verification Studies for Raymond and Ashland. EA Engineering Science and Technology has done numerous verification studies for this NRD. Staff has negotiated an agreement for EA to conduct the verification studies for both Raymond and Ashland Community Water System Protection Areas (CWSPA) at a cost, not to exceed, \$212,700. The work includes inventory and assessment, planning docs, installing monitoring wells and water sampling, shallow soil sampling, deep soil sampling, public participation, evaluate results, and prepare reports.

It was moved by Landis, seconded by Osborn, and unanimously approved by the Subcommittee to **recommend the Board of Directors approve a Professional Services Agreement with EA Engineering & Science Technology, Inc. to conduct the Raymond and Ashland Groundwater Phase 2 Verification Study, not to exceed \$212,700.**

**10c. Consideration of a proposal to purchase the principal spillway pipe for the Oak-Middle 82-B Watershed Rehabilitation Project:** The Oak-Middle 82-B Watershed Rehabilitation Project is currently out for bid with a bid opening on September 12<sup>th</sup>. Bids will be considered at the September Board Meeting and a contract should be signed by mid-October (at that point the contractor would be assured they could order the principal spillway pipe (see pic of similar pipe) for the project, the time required to manufacture and deliver this specialty pipe is 10 weeks). We would like to have the construction nearly completed by the end of the year but under this scenario the pipe wouldn't even be delivered to the site until late December. NRCS State Conservation Engineer, Allen Gehring is recommending that the NRD order the pipe so it can be on site for the contractor to install in late October, NRCS has made this request for several other jobs due to the time required to manufacture and deliver the pipe.

Potter reported on the status of the project and the need to order the pipe at this time. Potter reviewed the pipe proposal from WaterWorks Technology of Allen, Texas for the 30 inch diameter, 186 foot long concrete pipe that meets NRCS Standards for High Hazard dams. The pipe manufacturer is Thompson Pipe Group Pressure. According to NRCS, this company is the only known company that can manufacture this type of pipe.

It was moved by Jacobson, seconded by Amen, and unanimously approved by the Subcommittee to **recommend the Board of Directors approve the Proposal from WaterWorks Technology to purchase the principal spillway pipe for the Oak-Middle 82-B Watershed Rehabilitation Project in the amount of \$82,770.**

The Subcommittee then discussed the status of landrights negotiations for the Upper Salt 3-A Watershed Rehabilitation/SW 2<sup>nd</sup> Relocation project, this will be considered at the Board Meeting. Ehrman also reported on a meeting with the Lancaster Hills Assn concerning the Essink Poultry project near Denton, the status of the Sunset Poultry facility north of Raymond, and that we will be bringing forward some proposed groundwater R&R changes next month.

There being no further business the meeting adjourned at 6:40 pm.

PDZ/pz

Pc: Steve Seglin  
Corey Wasserburger

# WaterWorks Technology

Marketers To The Water and Wastewater Industry

6006 Andover Drive - Allen, Texas 75002 – Phone and Fax: (972) 727-6393

e-mail: Jim Pendleton<jepwwt@swbell.net



August 16, 2019

## Quotation

**Location:** Seward County, Nebraska

**Project:** Oak Middle Watershed  
Rehabilitation Project  
Sites No: 82-B  
Invitation No:

**Bid Date:** September 12, 2019

**Prices:** Firm for delivery quoted herein.

**Delivery:** F.O.B. Jobsite Only

**WWT REP:** Jim Pendleton

**Available:** Dallas Office – 972-727-6393 Phone & Fax – Jim Pendleton  
Cell 214-695-9418

# WaterWorks Technology

Seward County, Nebraska  
Oak Middle Watershed  
Rehabilitation Project  
Site No: 82-B  
Invitation No: LBBNRD 1-19

August 16, 2019

Gentlemen:

We are pleased to quote the following for Prestressed Concrete Lined Cylinder Pipe (L-301), conforming to AWWA Specification C-301-99, equipped with our rubber gasket type of joint, all in accordance with the project plans and specifications as prepared by the Natural Resources Conservation Service.

ITEM	SITE	SIZE	LENGTH	DESIGN	WT./FT.	JT. LENGTH	DELIVERED
	82-B	30"	189 L.F.	27.4'-4740 PLF	328#	20'	\$445.00/LF

The above unit price for each site includes (1) 26' length with the spigot mortared plus sufficient joint lengths to produce the desired total length from the riser plus (1) wall fitting, shorts, bevels, deep joints, shop welds etc. Also, included is sufficient joint lubricant per site plus the Ram-Nek type mastic joint filler.

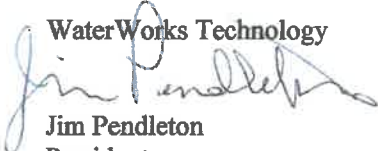
**Delivery:** The above quoted price per foot delivered includes delivery f.o.b. jobsite and is based upon prompt unloading by the owner or installation contractor. If the unloading of trucks is delayed beyond (1) one hour by the buyer or installation contractor, detention time will be charged to the buyer at the rate of \$75.50 per hour. The pipe can be delivered beginning in approximately ten (10) weeks from approved drawings. The delivery schedule is subject to change due to conditions beyond our control.

**Terms:** Net 30 days. Invoicing and purchase contracts will be by WaterWorks Technology.

We look forward to working with you on this project.

Sincerely,

WaterWorks Technology



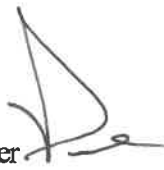
Jim Pendleton  
President



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### Memorandum

**Date:** August 15, 2019  
**To:** Each Director  
**From:** Paul D. Zillig, General Manager   
**Subject:** Water Resources Subcommittee - Background Information

The Water Resources Subcommittee will be meeting next Tuesday, August 20<sup>th</sup>. Please find attached some background information on their August Board Meeting agenda items.

**10a. Consideration of Amendment #4 to the Interlocal Agreement with Lower Platte North NRD, for the Ashland Groundwater Phase 2 Verification Study:** The wellhead protection area for the City of Ashland extends north of Ashland and approximately 1,500 acres are actually in the Lower Platte North NRD. For LPSNRD to expend funds in LPNNRD to install monitoring wells, take water and soil samples, etc we need to have an agreement with LPNNRD. Please find attached a copy of Amendment #4 to the Interlocal Agreement and a map of the area.

**10b. Consideration of a Professional Services Agreement to conduct the Raymond and Ashland Groundwater Phase 2 Verification Study:** The LPSNRD will be conducting Groundwater Phase 2 Verification Studies for Raymond and Ashland. EA Engineering Science and Technology has done numerous verification studies for this NRD. Staff has negotiated an agreement for EA to conduct the verification studies for both Raymond and Ashland Community Water System Protection Areas (CWSPA) at a cost, not to exceed, \$212,700 (see attached agreement). The work includes inventory and assessment, planning docs, installing monitoring wells and water sampling, shallow soil sampling, deep soil sampling, public participation, evaluate results, and prepare reports.

**10c. Consideration of a proposal to purchase the principal spillway pipe for the Oak-Middle 82-B Watershed Rehabilitation Project:** The Oak-Middle 82-B Watershed Rehabilitation Project is currently out for bid with a bid opening on September 12<sup>th</sup>. Bids will be considered at the September Board Meeting and a contract should be signed by mid-October (at that point the contractor would be assured they could order the principal spillway pipe (see pic of similar pipe) for the project, the time required to manufacture and deliver this specialty pipe is 10 weeks). We would like to have the construction nearly completed by the end of the year but under this scenario the pipe wouldn't even be delivered to the site until late December. NRCS State Conservation Engineer,



Allen Gehring is recommending, in the attached letter, that the NRD order the pipe so it can be on site for the contractor to install in late October, NRCS has made this request for several other jobs due to the time required to manufacture and deliver the pipe.

Staff has requested a pipe proposal from WaterWorks Technology of Allen, Texas for the 30 inch diameter, 186 foot long concrete pipe that meets NRCS Standards for High Hazard dams. The pipe manufacturer is Thompson Pipe Group Pressure. According to NRCS, this company is the only known company that can manufacture this type of pipe. We expect to receive their proposal later this week.

**10d. Consideration of landrights negotiations for the Upper Salt 3-A Watershed Rehabilitation Project.** Dave Minino of Midwest Right-Of-Way has continued to meet and negotiate with several landowners impacted by the Upper Salt Creek 3-A Watershed Rehabilitation and SW 2<sup>nd</sup> Street Improvement Projects. Minino will attend the Board Meeting and report on the situation, additional action will likely be needed.

PDZ/pz

Encl

Pc: Steve Seglin  
Corey Wasserburger

## AMENDMENT NO. 4 TO AGREEMENT

This Amendment made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2019, by and between the Boards of Directors of the Lower Platte North Natural Resources District, hereinafter referred to as "LPNNRD", and the Lower Platte South Natural Resources District, hereinafter referred to as "LPSNRD".

### RECITALS

This Amendment is entered into pursuant to paragraph "A" of the Agreement previously entered into between the parties dated October 16, 1996, for the purpose of one NRD assisting on beneficial projects / programs that are to be implemented in the neighboring NRD.

NOW, THEREFORE, it is agreed by the parties hereto to proceed as set forth below with an investigation to determine the source and levels of nitrates in the Ashland community ground water supply as follows:

1. LPSNRD plans to conduct soil and ground water investigations and other activities in all or portions of Sections 1-4, Township 12 North, Range 9 East (LPSNRD), and Sections 33-35, Township 13 North, Range 9 East (LPNNRD), Saunders County Nebraska. (see attached map).
2. The investigations will include shallow soil sampling, deep/vadose zone soil/sediment sampling, installation and monitoring of three (3) dedicated ground water monitoring wells, and appropriate public outreach/communications.
3. The investigations will be completed over approximately two (2) years beginning on the date of this Amendment, and the results will be used to consider if non-point source nitrate-nitrogen pollution of the ground water is occurring.
4. Should the LPSNRD determine that non-point source ground water pollution is occurring and the designation of a higher phase of management as provided for in LPSNRD's Ground Water Management Plan is appropriate, the LPSNRD will form an advisory group, including representatives from LPNNRD, to consider recommendations for Phase II regulations and cost-share programs on best management practices.

5. LPSNRD will then consider issuing an Order establishing a Phase II ground water management area and adopting regulations and cost-share programs on best management practices for the portion of the area in LPSNRD.
6. If LPSNRD recommends that a portion of LPNNRD should be included in the Phase II area, LPSNRD will work with LPNNRD to discuss how the lands within the LPNNRD will be affected, and determine whether an additional Amendment to this Agreement will be prepared for consideration, outlining the responsibilities of the parties.

Executed by the parties the day and year first written above.

**LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT**

By Gene Ruzicka

Title Chairperson

**LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT**

By \_\_\_\_\_

Title \_\_\_\_\_



NE3115506

R 9E R 10E



Wellhead Protection Area Boundary

Lower Platte North NRD

Lower Platte South NRD

T 13N  
T 12N

T 13N  
T 12N

Ashland

Salt Creek

Time-of-Travel lines are created using the U.S. EPA's Wellhead Analytic Element Model, WhAEM2000, 3.2.1 which assumes steady-state flow and average groundwater travel times. This model is a representation of reality based on the best known geologic, water level, and pumping information available. NDEQ will continue to update and revise wellhead protection areas as new information becomes available.

The wellhead protection boundary was deliberately drawn slightly larger than time-of-travel lines shown on the map to allow for seasonal changes and some natural variability in the aquifer. The wellhead protection boundary is also drawn to conform to property boundaries, section lines, and water bodies to allow for easier land management and identification.



Q-142851  
WRI 2009-2  
WRI #1  
WRI ID 177281

Q-185365  
WRI 2014-1  
WRI #2  
WRI ID 242826

Q-070338  
WRI 72-1  
WRI #4  
WRI ID 78507

A-C10089C  
WRI 63-1  
WRI #2  
WRI ID 3226



**ASHLAND SAUNDERS**  
Drawn by Nebraska Department of Environmental Quality, Wellhead Protection Program, October 2018



EA Engineering, Science,  
and Technology, Inc., PBC

221 Sun Valley Boulevard, Suite D  
Lincoln, NE 68528  
Telephone: 402-476-3766  
Fax: 402-476-7825  
www.eaest.com

16 August 2019

Dick Ehrman  
Water Resources Specialist  
Lower Platte South NRD  
3125 Portia Street  
Lincoln, NE 68521

RE: Proposal for Additional Groundwater Verification Studies  
Ashland and Raymond Community Water System Protection Areas  
EA Proposal #0702330

Dear Mr. Ehrman:

The purpose of this letter is to forward EA Engineering, Science, and Technology, Inc., PBC's (EA's) requested proposal per our past discussions. EA's proposal response consists of three elements: Scope of Work, Price Schedule, and EA's Standard Consulting Services Contract. In summary, EA proposes to perform the requested services as outlined in the attached documents for a firm fixed price of \$212,700. The work will be conducted in close coordination with the ongoing Groundwater Verification Studies for Pleasant Dale, Emerald, and Greenwood.

Under EA's Consulting Services Contract format, this project will be identified as shown above as 0702330. If additional projects/services are desired, follow-on work can be added by simply forwarding a proposal that references the Consulting Services Contract above, which will serve as a Basic Ordering Agreement. Follow-on projects will contain the same basic identifying number as above followed by a dash and a numerically increasing number. This will facilitate expedited proposal preparation, project setup, and execution.

We have provided our amended Consulting Services Contract which includes *Exhibit A: Scope of Work*, *Exhibit B: Price Schedule*, and *Exhibit C: LPSNRD Insurance Requirements*. Please review the attached exhibits to ensure that they meet your approval. To confirm your acceptance of EA's project approach and technical assumptions, pricing, and contract terms, please sign and date the acknowledgement of proposal in the "client" space provided on Page 3 of EA's Consulting Services Contract, and return this entire document to my attention. I will countersign the contract and a copy will be immediately returned for your records. EA will begin work shortly after receiving the documents.

EA greatly appreciates the opportunity to serve you on this project. If I can be of any further assistance, please do not hesitate to contact me at 402-476-3766.

Sincerely,

Dale Schlautman  
Project Manager

Attachments

ed. 01-13-15

**EA** as used herein means **EA Engineering, Science, and Technology, Inc., PBC**

**Client** as used herein means the other party to this contract.

**WHEREAS**, EA provides an extensive range of integrated and comprehensive consulting, engineering, scientific, and analytical services; and

**WHEREAS**, Client desires to utilize EA's services.

**NOW, THEREFORE**, for good and valuable consideration, EA agrees to provide the professional services described herein, and Client agrees to accept and pay for such services, all in accordance with the following terms and conditions:

1. **Definitions** The following terms shall have the meanings set forth below whenever they are used in this Agreement:
  - a) "Scope of Work" (SOW) shall mean the description of the services to be provided by EA as mutually agreed upon by EA and Client, and will be performed on either a firm fixed price (FFP) or time and materials (T&M) basis. The SOW and the Price will be set out in the attached Exhibit "A"(s) (or EA's Proposal) as described below, incorporated by reference into this Agreement.
  - b) "Documentation" shall mean deliverable documentation as described in the SOW.
  - c) "Equipment" shall mean all indoor and outdoor equipment used by EA at Client sites for the purpose of providing services as described in the SOW.
  - d) "Proprietary Information" shall mean all data, information, manuals, materials, trade secrets, patents, products, processes, plans, whether in written, graphic or oral form, and similar proprietary know-how of EA.
2. **Ordering** EA services sought by the Client shall be ordered as follows:
  - a) In response to either a written or verbal request from Client, EA will prepare a written proposal that shall minimally contain a SOW, cost and form of compensation (FFP or T&M).
  - b) Each EA Proposal shall be dated and sequentially numbered as Exhibit A1, A2, A3, etc. and reference this EA Consulting Service Agreement contract number.
  - c) If acceptable, the Client will sign and date the EA proposal acknowledging acceptance of the costs of the services to be rendered by EA
3. **Compensation / Billing** EA's invoices will be issued at least monthly and are payable upon receipt. Invoices shall reference the appropriate EA Proposal

## CONSULTING SERVICES CONTRACT

Contract #0702330

Date: August 16, 2019

Letter or Exhibit A numbers. Balances thirty (30) days past due are subject to interest at 1.5% per month. EA may suspend services under any Client Agreement until all past due accounts have been paid.

The SOW is often not fully definable prior to the execution of this Agreement as investigation may uncover additional facts and information requiring an alteration in the SOW and/or the Price for the services. For services on a time and materials basis, the proposed fees are EA's best estimate of the charges required to complete the SOW. EA will inform Client of any material changes to either the SOW or the Price that may be required and which may alter the terms of this Agreement.

Costs and schedule commitments are subject to renegotiation for unreasonable delays caused by Client's failure to provide free access to sampling areas, specified facilities, or information, or for delays caused by unpredictable occurrences, or force majeure, such as fires, floods, strikes, riots, unavailability of labor or materials or services, acts of God or of the public enemy, or acts or regulations of any governmental agency. Temporary work stoppage caused by any of the above may result in additional cost beyond that outlined in this Agreement.

In the event EA is required to respond to a subpoena, government inquiry or other legal process related to the services in connection with a proceeding to which it is not a party, Client shall reimburse EA for its costs and compensate EA at its then standard rates for the time spent gathering information and documents. Client agrees to compensate EA at the rate of one and one-half times EA's then current hourly rates for time spent in any deposition, hearing, proceeding or trial.

For services provided on a time-and-materials basis, the minimum time segment is four (4) hours for field work is and one (1) hour for office work. The rental or use of EA's Equipment will be charged to the project in accordance with EA's "Corporate Equipment Rate Billing Schedule" which is either incorporated into the rates shown in Exhibit B, or is available upon Client's request. Equipment rates are subject to annual adjustment each September. EA's labor rates for services provided on a time-and-materials basis are fixed for one year with annual adjustment upon notice to Client.

Expenses related to the services and reimbursable by Client ("Other Direct Costs") include without limitation, travel and living expenses, phone, FAX, overnight delivery services, postage, shipping, and production costs; identifiable drafting and word processing supplies; equipment usage and rental fees; and expendable materials and supplies. Other Direct Costs are reimbursable by Client and are billed at EA's cost plus 20 percent.

Subconsultant and/or subcontractor costs are reimbursable by Client and are billed at EA's cost plus 20%. Where applicable, any local or state taxes or fees (except state income taxes) are in addition to any quoted price/cost.

4. **Termination** This Agreement may be terminated by either party in the event of substantial failure by the other party to fulfill its obligations under this Agreement through no fault of the terminating party. Such termination is effected upon providing: (1) not less than thirty (30) calendar days written notice, and (2) an opportunity for consultation with the terminating party prior to termination. Client will be responsible for all services and direct expenses associated with the project through the effective date of cancellation, plus reasonable fee(s) and/or expenses for reallocation and demobilization of personnel and equipment.

5. **Confidential Information / Inventions** All Proprietary Information furnished by EA in connection with this Agreement, but not developed as a result of work under this Agreement or under prior agreements between Client and EA, shall be held confidential by Client, and returned to EA within thirty (30) days of the completion of the services or conclusion of the litigation wherein EA's services were provided.

All inventions, techniques, and improvements held by EA to be proprietary or trade secrets of EA prior to any use on behalf of Client, as well as all inventions, techniques, and improvements developed by EA independent of the services rendered to Client under this Agreement, remain the property of EA. Documents provided by Client will remain the Client's property, but EA may retain one confidential file copy.

6. **Standard of Care** EA will prepare all work and provide services in accordance with generally accepted professional practices ordinarily exercised by reputable companies performing the same or similar services in the same geographic area. NO WARRANTIES OR GUARANTIES, EXPRESS OR IMPLIED, ARE MADE WITH RESPECT TO ANY GOODS OR SERVICES PROVIDED UNDER THIS AGREEMENT, AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY DISCLAIMED.

Client shall furnish documents and information reasonably within Client's control and deemed necessary by EA for proper performance of its services. EA may rely upon Client-provided documents and information in performing the services required under this Agreement and EA assumes no responsibility or liability for their accuracy.

Client agrees to advise EA, no later than upon the execution of this Agreement, of any hazardous substance or any condition, known or that reasonably should be known by Client, existing in, on, or near the

site where EA's services are to be performed, that presents a potential danger to human health, the environment, or EA's equipment. Client agrees to a continuing obligation to provide EA related information as it becomes available to the Client. By virtue of entering into this Agreement or providing services hereunder, EA does not assume control of, or responsibility as an operator, waste generator or otherwise for the site or the person(s) in charge of the site, or undertake responsibility for reporting to any federal, state or local public agencies any conditions at the site that may present a potential danger to public health, safety or the environment. Client agrees to notify the appropriate federal, state or local public agencies as required by law; or otherwise to disclose, in a timely manner, any information that may be necessary to prevent damage to human health, safety, or the environment.

Upon Client's request, EA's work product may be provided on magnetic media. By such request, Client agrees that the written copy retained by EA in its files shall be the official base document. The Client will retain one conformed written copy. EA makes no warranty or representation to Client that the magnetic copy is accurate or complete. Any modifications of such magnetic copy by Client shall be at Client's sole risk and without liability to EA. Such magnetic copy is subject to all conditions of this Agreement.

7. **Indemnification** Each party shall indemnify, defend and hold harmless the other party from and against all liability, loss, cost, expense, or damage caused by the indemnifying party's negligent acts or negligent omissions in the performance of this contract. However in the event of any loss, damage or liability, whether to person or to property, arising out of the sole negligence of either EA or Client, such party will assume full responsibility for any liability arising thereof and hold harmless the other party. EA and Client further agree that if either EA or Client engages in willful misconduct, such party shall assume full responsibility for any liability arising thereof irrespective of the nature and degree of the other party's negligence, and will indemnify and hold harmless the other party. In no event shall either party be liable for any special, incidental, economic, or consequential damages whatsoever, regardless of the legal theory under which such damages may be incurred. In no event will EA's liability under this provision or Agreement exceed the the insurance policy coverage limits required under this Agreement.(see Exhibit C).

For claims related to or involving pollution, toxic substances or hazardous wastes or for any other claims arising from underground hidden or undisclosed hazards, Client agrees to release, defend, indemnify and hold harmless EA and its officers, directors, employees, agents, consultants, and subcontractors from all claims, damages, losses, and expenses, including, but not limited to, reasonable fees and expenses of attorneys and consultants, and

court costs, arising out of the performance of this Agreement. Such indemnification and release includes claims which arise out of the actual, alleged, or threatened dispersal, escape, or release of chemicals, wastes, liquids, gases or any other material, irritant, contaminant or pollutant regardless of the legal theory under which such damages may be incurred.

EA's field personnel will avoid hazards or utilities that are visible to them at the site. EA is not responsible for any damage or loss to property owned by Client or third parties due undisclosed or unknown surface or subsurface conditions, except to the extent such damage or loss is a direct result of EA's gross negligence.

8. **Severability** If any term or provision of this Agreement is held or deemed to be invalid or unenforceable, in whole or in part, by a court of competent jurisdiction, this Agreement shall be ineffective to the extent of such invalidity or unenforceability without rendering invalid or unenforceable the remaining terms and provisions of this Agreement.
9. **Third Party Rights** EA's services under this Agreement are being performed solely for the benefit of Client, and no other entity shall have any claim against EA because of this Agreement or the performance or nonperformance of services provided by EA hereunder.
10. **Entire Agreement** This Agreement contains the entire agreement of the parties. It may not be modified or terminated orally. Any modification to these terms and conditions without the written approval of EA shall be null and void. In no event will the terms of any purchase order, work order or any other document provided by Client modify or amend this Agreement, even if it is signed by EA, unless EA signs a written statement expressly indicating that such terms supersede the terms of this Agreement. Any such terms are expressly rejected by EA.
11. **Assignment** EA reserves the right to assign this Agreement to its affiliates, subsidiaries, or successors as necessary in order to effectively carry out and complete the services specified by this Agreement.
12. **Governing Law** This Agreement shall be deemed made in, and in all respects interpreted, construed, and governed by, the laws of the State of Nebraska, U.S.A. All disputes arising hereunder are to be resolved in the state and federal courts having jurisdiction of such disputes sitting in the State of Nebraska or hearing appeals therefrom. Both parties consent to the jurisdiction of such courts over them for the purposes of this Agreement, and agree to accept service of process by registered mail, subject to Paragraph 2 of Exhibit C.

**ATTACHMENTS**

Exhibit A Statement of Work  
(May be added by reference to EA Proposal Letter(s))

Exhibit B EA Price Schedule, and/or  
EA Labor Rates and,  
EA Equipment Cost Rate Schedule  
(May be added by reference to EA Proposal Letter(s))

Exhibit C: Lowe Platte's Insurance and Dispute Requirements

**EA ENGINEERING, SCIENCE, AND TECHNOLOGY,  
INC., PBC**

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

Name: Dale Schlautman

Title: Vice President

Date: \_\_\_\_\_

**CLIENT: LOWER PLATTE SOUTH NATURAL  
RESOURCES DISTRICT**

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

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

## **Exhibit A-1: Scope of Work (Contract No. 0702330)**

This Scope of Work is incorporated into the Consulting Services Contract referenced above between EA Engineering, Science, and Technology, Inc., PBC (EA) and Lower Platte South Natural Resources District (LPSNRD).

### **PROJECT DESCRIPTION**

The LPSNRD is seeking consulting services for groundwater studies to investigate the source(s) and levels of nitrate contamination in two Community Water System Projection Areas (CWSPAs). The two communities (Ashland and Raymond) are being investigated for possible Phase II CWSPAs.

The work will be coordinated and conducted in parallel with the CWSPA studies currently ongoing for Pleasant Dale, Emerald, and Greenwood.

The CWSPA for Ashland is across the LPSNRD boundary with a portion within the Lower Platte North Natural Resources District (LPNNRD) boundary. Project activities for Ashland will be coordinated with the LPNNRD as described in the Scope of Work.

### **OVERALL PROJECT OBJECTIVES**

The study results will provide data to the LPSNRD to determine if Phase II groundwater quality management areas are warranted. The overall objective of the study is to determine if nitrate levels in groundwater exceed Phase II triggers, and to evaluate whether nitrate contamination is partially or mostly attributable to non-point sources.

### **SCOPE OF WORK**

EA will provide the following service under this Statement of Work.

#### Task 1 – Inventory and Assessment

##### Task Objectives

- Compile available information
  - Verify land use.
- 1.1 Compile and assess reports and historical vadose and groundwater sampling data. Source: LPSNRD and LPNNRD.
  - 1.2 Compile and assess readily available information including: land ownership, registered wells, soil maps, aerial photographs, previous hydrogeologic reports, surface water sampling results, and spill records. Sources include CSD, NDEQ, county, NDNR, NHHS, USGS, local drillers, and USDA.
  - 1.3 Obtain data files from NDEQ that were used for delineating the CSWPA boundaries (U.S. EPA's Wellhead Analytic Element Model [WhAEM]). Evaluate assumptions used to determine the 20-year capture zone. If significant discrepancies are identified, the

LPSNRD will be notified to discuss implications to the collection of field data. If appropriate, rerun model with 50-year capture zone to better understand the potential change in results. Summarize findings in a model review memorandum.

- 1.4 Develop map of current land use based on aerial photographs and land ownership records. Conduct visual inspections to field verify land use.
- 1.5 Conduct phone calls with land owners to verify accuracy of land ownership maps, and identify tenants.
- 1.6 Conduct phone interviews with water system operators for each site. LPSNRD will make the initial contact, but EA will conduct phone interviews. Collect information on the existing water supply system and identify projected system improvements.

## **Task 2 – Planning Documents**

### Task Objectives

- Define sampling method procedures
  - Define QA/QC procedures
  - Develop CWSPA specific sampling locations and depths.
- 2.1 Prepare project wide work plans to define the study methods and procedures, sample designations, and QA/QC procedures.
  - 2.2 Prepare brief site-specific field sampling plans for each CWSPA. EA will work closely with LPSNRD for selecting sampling locations. It is assumed that all field data will be collected in one field season for mobilization considerations. The sampling locations are assumed to be within the current CWSPA boundaries. EA will notify the LPSNRD if there are reasons to consider sampling outside of the current boundaries.
  - 2.3 EA will lead efforts for site access for field data collection with assistance from LPSNRD. Site access agreements may be as simple as an email form the landowner, or a form may be used. LPSNRD will coordinate with landowners to secure long term monitoring agreements as needed for monitoring wells or future deep vadose zone sampling.
  - 2.4 As a courtesy, prior to accessing private properties EA will contact all landowners a minimum of 1 week in advance of field activities. EA will retain copies of access agreements on-site during field activities to help address questions that may arise from property owners and tenants.
  - 2.5 Sample analysis will consist of only nitrate in soils and nitrate in groundwater. All samples will be submitted to the LPSNRD's contracted off-site analytical laboratory; however, EA will be responsible for sample delivery. The LPSNRD will pay directly for sample analysis using their on-call contract with the laboratory.
  - 2.6 The draft of the work plans will be submitted to the LPSNRD for review and comment. EA will make necessary revisions and submit final work plans.

## **Task 3 – Baseline Ground Water Monitoring**

### Task Objectives

- Establish “baseline” of nitrate levels and water levels through dedicated monitoring wells
- Provide additional vadose zone and aquifer information.

- 3.1 EA will conduct one-call utility clearance activities before all subsurface data collection field activities.
- 3.2 Install monitoring wells for each CWSPA. EA will coordinate with the LPSNRD regarding selection of individual locations. The quantity of planned new monitoring wells at each site is as follows:
  - 3.2.1 Ashland: 3 monitoring wells with an average depth of 60-80 feet to bottom of well.
  - 3.2.2 Raymond: 3 monitoring wells with an average depth of 50-70 feet to bottom of well.
- 3.3 A test hole will be drilled for each monitoring well. The test hole will be drilled to the bottom of the aquifer, where possible (i.e., to a depth where the base of the aquifer is encountered, expected to consist of shale or limestone). Lithologic characterization will be completed from drill cuttings and well logs will be prepared for each test hole. In the case where the total boring depth is deeper than the bottom of the well, the boring will be backfilled with clean sand, using tremie pipe, from the bottom of the boring to the bottom of the screened interval. Care will be taken so that no aquitards, between two distinct aquifers, are breached with the backfill sand. If an aquitard is encountered, it will be sealed with bentonite pellets or chips. The total depth of drilling was assumed to be no more than 20 feet further than the total average depth of the well.
- 3.4 Monitoring well construction will include the following:
  - 3.4.1 4-inch diameter casing, 10 feet of well screen placed approximately midway between 'average' water table and bottom of aquifer.
  - 3.4.2 The well will be equipped with a submersible pump (target pumping rate of 0.25 to 3-gpm at the required lifts) wired for plug-in connection to an LPSNRD sampling vehicle, including drop pipe, wiring, and faucet (spigot). The pumps will be a Grundfos or equivalent, stainless steel construction, single speed, with no more than a 30-amp startup current draw. Pump wiring will be attached to the drop pipe at least every 10 feet and a 5 foot length of wiring will be provided above the well seal. 230-volt pump wiring shall be completed with a 4-prong, 30-amp (NEMA L14-30P) locking plug end, and 115-volt pump wiring shall be completed with a 3-prong, 30 amp (NEMA L5-30P) locking plug end. A standard faucet or spigot will be attached to the top of the drop pipe, and will be compatible with a standard (1-inch) garden hose fitting. The well seal will contain a minimum 3/4-inch access hole for water level measurements.
  - 3.4.3 Well surface completion will include a 3 foot stickup well casing, enclosed in a minimum 12-inch diameter steel protective cover with a locking metal protective cover, with 4-ft x 4-ft x 6-in. concrete pad and four protective bollards. The bollards will be 6 to 7 foot in length, with 3 feet of stickup. Bollards will be installed in concrete, but will not contact the well pad.
  - 3.4.4 Well measuring point and land surface will be surveyed for new wells using a survey grade GPS.
  - 3.4.5 All monitoring wells will be properly developed and well development results will be documented. Wells will be developed by surging and bailing to remove initial fine-grained materials, followed by pumping, while moving the pump up and down throughout the screened interval, until the water is clear and free of fines and field parameters of turbidity, pH, specific conductivity, and temperature are stable (within 10%) between consecutive readings.



- 3.5 No soil samples for chemical analysis will be collected during installation of monitoring wells.
- 3.6 It is understood that the LPSNRD may employ the UNL Conservation and Survey Division (CSD) to complete an e-log (resistivity and natural gamma) of the monitoring well hole before installation of the monitoring well. Subsequent to completion of each well boring to maximum depth, the driller will be required to maintain the mud level, hence hydraulic head, within the boring until the CSD arrives. Prior to running the e-logs in each boring, the boring will require flushing with clean water to remove the drilling mud and allow for accurate e-logs. It is assumed that EA's driller would have a delay of no longer than 2 hours from when the hole is complete and CSD completes the e-log.
- 3.7 Coordination with the LPSNRD to conduct groundwater sampling of new monitoring wells will be completed once development is complete and pump equipment has been installed. The LPSNRD will conduct all groundwater sampling and water level measurements, and will also provide results to EA.
- 3.8 It is assumed that no sampling or water level measurements will be conducted by EA for other wells (monitoring, domestic, industrial, and irrigation) inside each CWSPA.

#### **Task 4 – Shallow Sampling**

##### Task Objectives

- Compare nitrate concentrations between different land uses to determine if nitrate is a non-point source
  - Provide broader distribution of sampling locations at a much lower cost than deep borings
  - Identify nitrogen loading rates within the root zone and directly below the root zone.
- 4.1 A small, truck-mounted rig will be used to collect shallow (0-15 feet) vadose zone soil samples. EA will coordinate with the LPSNRD regarding site location selection.
  - 4.2 EA will conduct one-call utility clearance activities before all subsurface data collection field activities.
  - 4.3 Sampling will be conducted at 14 sites (estimated 8 sites in Ashland and 6 sites in Raymond). Sites will likely be defined by a property boundary, a field boundary, or clearly different land use areas observed in the field. Each site will then have 5 shallow boring locations completed within each site, resulting in 70 shallow borings. No shallow soil sampling will be conducted at Pleasant Dale.
  - 4.4 Each boring will have composite soil samples collected in 3 foot intervals (i.e., soil from an entire 3 foot interval will be consolidated before collecting the sample for laboratory analysis). All five depth intervals from each boring will be submitted for nitrate analysis. This results in 350 samples that will be analyzed if desired by the LPSNRD laboratory. Samples for QA/QC would be in addition to these numbers (approximately 5% additional sample quantities).
  - 4.5 Sample locations will be documented including coordinates using a hand-held GPS.

#### **Task 5 – Deep Sampling**

##### Task Objectives

- Obtain deep nitrate soil profiles

- Identify vertical trends in nitrate concentrations
  - Provide additional geologic information.
- 5.1 EA will conduct one-call utility clearance activities before all subsurface data collection field activities.
  - 5.2 Conduct deep vadose zone soil sampling in each CWSPA. EA will coordinate with the LPSNRD regarding location selection. Approximately three of the sample locations in Pleasant Dale will be matched to previous deep vadose zone sampling locations, if feasible. Additionally, an attempt will be made to place some deep borings hydraulically upgradient of the city production well.
    - 5.2.1 Ashland: 12 deep borings with an average depth of 50 feet.
    - 5.2.2 Raymond: 12 deep borings with an average depth of 40 feet.
  - 5.3 The deep sampling will be conducted using a direct push rig. Composite soil samples will be collected in 5 foot intervals. The borings will be terminated once they have penetrated a water bearing formation or upon refusal, whichever occurs first. If groundwater or refusal have not been encountered at a maximum boring depth of 75 feet, the borings will be terminated at this depth. Boring logs will be prepared for each boring.
  - 5.4 When possible, grab groundwater samples will be collected at the maximum boring depth in saturated conditions. A retractable screen direct push water sampling device will be used to attempt grab groundwater samples.
  - 5.5 Conduct survey with survey grade GPS to document the location and land surface elevation of the deep sampling locations.

## **Task 6 – Evaluation of Results**

### Task Objectives

- Evaluate and interpret study results.
- 6.1 EA will evaluate all information collected including the sampling results. Maps will be prepared illustrating the sampling locations, results, and water level measurements (collected by the LPSNRD). Nitrate profiles will also be prepared for each boring.
  - 6.2 Geologic cross-sections will be generated for each CWSPA based on new boring data (monitoring wells and deep borings) and well log information gathered from previously installed wells and borings.

## **Task 7 – Study Reports**

### Task Objectives

- Document procedures and findings for each area
  - Document data to support management decisions.
- 7.1 A separate study report will be prepared for each CWSPA to summarize findings and document the methods and procedures used for each study.
  - 7.2 A draft report will be submitted to the LPSNRD for review and comment. EA will make necessary revisions to address comments and submit a final report.
  - 7.3 GIS coverages will be provided to the NRD in electronic format compatible with ArcView.

## **Task 8 – Public Participation**

### Task Objectives

- Update LPSNRD on project progress
- Support coordination with the LPNNRD.
- Communicate study activities and results with communities
- Communicate study activities and results with landowners and tenants.

- 8.1 Submit monthly progress reports to the LPSNRD.
- 8.2 Communication with landowners and tenants:
  - 8.2.1 Prepare a draft of a general ‘kickoff’ letter to be used for landowners and tenants for LPSNRD review and revision. The LPSNRD will conduct a mass mailing of the letter to landowners and tenants. EA will provide the LPSNRD with the mailing addresses of landowners and tenants within the CWSPA.
  - 8.2.2 EA will call landowners and tenants at a minimum of one week in advance on accessing property for field activities.
  - 8.2.3 EA will provide sampling results to LPSNRD organized by each landowner and tenant that participated in the study. LPSNRD will review and mail sampling results. EA will prepare a separate packet of results for each landowner who gave access for sampling.
- 8.3 Communication with communities:
  - 8.3.1 Early in the project, EA will attend one public meeting for each CWSPA (in conjunction with a village board meeting) to provide an overview of the project, anticipated activities, and to answer questions. It is assumed that a LPSNRD representative would also attend.
  - 8.3.2 EA will coordinate with representatives of each community to collect available information, such as municipal well records.
  - 8.3.3 After the Draft Report is complete, EA will attend one public meeting for each CWSPA (in conjunction with a village board meeting) to present a summary of project activities, results and to answer questions. It is assumed that a LPSNRD representative would also attend.
  - 8.3.4 One additional public meeting for each CWSPA is included in the scope of work, to address a specific need or concern of the community.
- 8.4 EA will attend one LPSNRD subcommittee meeting and Board Meeting to discuss results and answer questions.
- 8.5 EA will attend one LPNNRD Board Meeting to discuss results and answer questions.

## **Task 9 – Review and Analysis of AEM Data (Future Task)**

### Task Objectives

- Compare AEM data to study results
  - Determine if AEM data warrants additional investigation.
- 10.1 Airborne Electromagnetic (AEM) data is scheduled to be collected in mid-2018 over the areas including Emerald and Pleasant Dale. The final report will be published in Fall of 2019.

10.2 The LPSNRD may decide to have EA review the AEM data and compare to the study results to determine if additional investigation is warranted. This is a future task that may be requested by the LPSNRD. If requested, EA and the LPSNRD will work together to develop a scope and cost for a contract modification.

## **SCHEDULE**

The project schedule will be defined in Task 2 – Planning Documents. The entire project will need to be completed within two years of notice to proceed. Notice to proceed is anticipated in July 2019.

It was assumed that Tasks 3,5, 6 and 7 will be completed on the same schedule as the ongoing nitrate studies to provide efficiencies. These efficiencies have been included in the cost.

### **Exhibit B-1: Price Schedule (Contract No. 0702330)**

The following project price and/or rates apply to the services provided by EA Engineering, Science, and Technology, Inc., PBC for the project and contract referenced above.

EA proposes to perform the requested services as outlined for a firm fixed price of \$212,700. The labor and other direct costs necessary to complete the work are included in the fixed price. Invoices for progress payment will be submitted monthly based on percent complete for each task.

A breakdown of costs associated with this project per task is provided below:

<b>Task</b>	<b>Task Description</b>	<b>Firm Fixed Price</b>
1	Inventory and Assessment	\$13,000.00
2	Planning Documents	\$9,200.00
3	Baseline Ground Water Monitoring	\$77,800.00
4	Shallow Sampling	\$20,200.00
5	Deep Sampling	\$38,800.00
6	Evaluation of Results	\$20,700.00
7	Study Reports	\$16,900.00
8	Public Participation	\$16,100.00
9	Review and Analysis of AEM Data	(Future Task)
	<b>TOTAL</b>	<b>\$212,700.00</b>

**EXHIBIT C**

**1. LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT INSURANCE REQUIREMENTS.**

EA shall purchase and maintain during the life of this Agreement the following types of insurance: (1) General Liability [\$1,000,000.00] Per Occurrence – General Aggregate [\$2,000,000.00], Products – Comp/OPS Aggregate [\$2,000,000.00], Personal and Advertising Injury [\$1,000,000.00], Fire Damage (any one fire) [\$50,000.00], Medical Expense (any one person) [\$5,000.00]; (2) Automobile Liability – Bodily Injury and Property Damage Liability Including owned, non-owned, and hired autos, Combined single limit [\$1,000,000.00]; and (3) Worker’s Compensation and Employer’s Liability, Statutory Limits [\$1,000,000.00] Each occurrence, Aggregate [\$1,000,000.00]. Professional Liability Insurance [\$2,000,000.00];

EA shall furnish a certificate of insurance with liability limits shown above with Lower Platte South Natural Resources District to be named as an additional insured and a Waiver of Subrogation in favor of Lower Platte South Natural Resources District.

**2. DISPUTES.** The Parties shall attempt to resolve any dispute, controversy, or claim arising under or relating to this Agreement, or to a material breach, including its interpretation, performance, or termination. The Parties shall without delay continue to perform their respective obligations under this Agreement which are not affected by the dispute. Any Party may invoke the dispute resolution process set forth in this paragraph by giving the other Party written notice of its intent to do so, including a description of the issues subject to the dispute and a proposed resolution thereof. Each Party shall designate, within five (5) working days of the notice a representative who shall attempt to resolve the dispute. If the designated representative cannot resolve the dispute within thirty (30) days of the notice, the Parties may resort to any remedy available under law.



United States Department of Agriculture



Natural Resources Conservation Service  
Nebraska State Office  
Federal Building, Room 152  
100 Centennial Mall North  
Lincoln, NE 68508-3866  
(402) 437-5300

<http://www.ne.nrcs.usda.gov>

August 12, 2019

Paul Zillig, General Manager  
Lower Platte South NRD  
3125 Portia St.  
Lincoln, NE 68501-3581

Dear Mr. Zillig:

After discussing the construction timeline for the rehabilitation of Oak Middle Creek 82-B with Jason Sall, I recommend the Natural Resource District order the concrete pipe needed for the project before the project is bid and a contract awarded.

If the NRD orders the pipe before the contract is awarded, I estimate that it could save six (6) weeks of time. The basis of this time saving is premised on a bid opening date of September 12, 2019 and a subsequent Notice to Proceed in early to mid-October. The concrete pipe used in NRCS designed dams is made specifically for each structure based on factors like bury depth and height of water in the dam. The pipe manufacturer is suggesting it could be ten (10) weeks before the pipe would be manufactured and delivered, therefore expediting this step should aid progress before a potential winter shutdown.

It is not uncommon for a Natural Resources District to order the pipe for a project before a contract has been awarded in order to keep the project schedule moving as quickly as possible. Examples of these instances can be provided if that is necessary.

If the NRD chooses to order and pay for the pipe, the bid documents can be easily amended to make the change.

The NRD can submit the cost of the pipe to NRCS to be reimbursed at the same cost share rate as the rest of the project, so it does not cost the NRD any more than if the contractor orders the pipe

Sincerely,

A handwritten signature in black ink that reads "Allen Gehring". The signature is written in a cursive style.

ALLEN GEHRING  
State Conservation Engineer

cc: Jason Sall, Civil Engineer, NRCS - Lincoln Field Office