




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

Agenda Item #12

Memorandum

Date: December 12, 2019
To: Each Director
From: Paul D. Zillig, General Manager 
RE: Water Resources Subcommittee Meeting Minutes.

The Water Resources Subcommittee met in the NRD Office at 5:30 p.m. on Wednesday, December 11, 2019. Subcommittee members present included Bob Andersen, Karen Amen, Vern Barrett, Greg Osborn, Chelsea Johnson, and Don Jacobson. Others present included Larry Ruth, Neil Johnson – Phoenix Web Group, Jim Cannia – Aqua Geo Frameworks, Dan Snow – Nebraska Water Center, Steve Herdzina, Dick Ehrman, Jared Nelson, Dan Schulz, Mike Murren, Katie Cameron, David Potter, and myself.

Chair Andersen opened the meeting and called on Steve Herdzina, Water Resources Compliance Specialist, to report on the proposed groundwater database modifications. Herdzina reported that the main modifications will be to calculate and communicate the Dwight-Valparaiso- Brainard SMA “rolling average” calculations and improve accessibility with property ownership information at the County Assessor’s Offices.

Herdzina reported that staff negotiated the attached agreement with Phoenix Web Group to do the necessary work at a cost of \$32,600. The Subcommittee discussed the proposal process, reviewed the working relationship and previous work done by Phoenix Web Group, and Johnson answered questions concerning the proposed contract with Phoenix Web Group.

It was moved by Jacobson, seconded by Osborn, and unanimously approved by the Subcommittee to **recommend the Board of Directors approve a professional services agreement with the Phoenix Web Group for water resources database improvements, in the amount not to exceed \$32,600, pending legal counsel review.**

The next item on the agenda was to consider a proposed statement of work (attached) for additional vadose zone work in, primarily, wellhead/Community Water System Protection Areas. Dick Ehrman, Water Resources Specialist, and Dan Snow explained the proposed work and answered questions. A further breakdown of the \$25,470 in “Other Direct Costs” was requested by Barrett (it is attached). The Subcommittee was

supportive of this work, they discussed their interest in other future sampling sites and the groundwater age dating information and profiles to be produced of the vadose zone.

It was moved by Amen, seconded by Barrett, and unanimously approved by the Subcommittee to **recommend the Board of Directors approve a contract for \$44,663 with the University of Nebraska-Lincoln to complete field and lab work and a report on the Characterization of Vadose Zone Transport and Groundwater Nitrate Attenuation in the Lower Platte South NRD.**

The next item on the agenda was to consider having the Board issue the required Order for the Groundwater Rule and Regulation modifications that were approved by the Board at the November Board Meeting. Ehrman explained and reviewed the attached order.

It was moved by Osborn, seconded by Jacobson, and unanimously approved by the Subcommittee to **recommend the Board of Directors approve the Order Adopting Changes to the Lower Platte South NRD's Rules and Regulations Pursuant to the Nebraska Ground Water Management and Protection Act.**

The next item on the agenda was to consider repairs to Plattsmouth Watershed Structure 7-C. Jared Nelson, District Engineer, reported that the Nebraska Department of Natural Resources completed a video inspection of the pipe and noted that a "rubber gasket dislodged from a conduit joint" in the principal spillway/pipe. This joint must be repaired to ensure a pressure tight seal. Under agreement with the City of Plattsmouth, these types of repairs are the responsibility of the NRD.

Nelson reported that staff negotiated the attached professional services contract for an estimated cost of \$15,918 with FYRA Engineering for the design, bidding, and construction observation of the repairs to slip line the existing principal spillway pipe.

It was moved by Osborn, seconded by Amen, and unanimously approved by the Subcommittee to **recommend the Board of Directors approve a professional services agreement with FYRA Engineering, LLC in an amount, not to exceed, \$15,918 for the Plattsmouth 7-C Spillway Rehabilitation Project, pending legal counsel review.**

The next item on the agenda was a report by Jim Cannia of Aqua Geo Frameworks on the Airborne Electromagnetic Survey results for the latest project in primarily the western portion of LPSNRD with more detailed surveys in the CWSPA areas for Ceresco, Davey-Raymond, Malcolm, Garland, Pleasant Dale, and Denton. Cannia reported that they completed 1,990 miles of flight lines at a cost of \$850,000. The results showed areas of hydrological connections between surface and ground water, areas of salt water, the importance of the Dakota sandstone aquifer, and they "identified several paleo channels that were mostly not filled with saturated material". Ehrman will present a summary of Cannia's presentation at the Board Meeting.

The next item on the agenda was an update by Potter on the status and remaining Board actions for the Upper Salt Creek 3-A Watershed Rehabilitation Project near Sprague.

Potter reported that in order to start construction next spring the NRD will need to receive the 404 Permit from the Corps, an agreement will be needed for the relocation of a Lancaster County Rural Water District #1 water line, agreements and minor relocations for Norris Public Power and Windstream utilities, a professional services contract for construction observation services for reconstructing SW 2nd Street, and hopefully in March to bid and award a contract for the construction of the project.

The final item was a report by Mike Murren on the construction activities at Oak-Middle 82-B north of Garland. Murren reported that the site was very muddy which has hampered progress on the project. Murren visited the site earlier in the day and reported the conditions had dried up some/improved and he showed several pics of the contractor's work to complete the plunge pool just downstream of the dam.

There being no additional business the meeting adjourned at 7:00 pm.

PDZ/pz

cc: Steve Seglin
Corey Wasserburger



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: December 9, 2019
To: Water Resources Subcommittee
From: Steve Herdzina, Water Resources Compliance Specialist
Subject: Professional Services Contract for Groundwater Database

The LPSNRD Water Resources Staff has contacted Phoenix Web Group (PWG) to modify the existing SQL database due to the new rules and regulations for the Dwight-Valparaiso-Brainard Special Management Area (DVBSMA) and to improve the accuracy of the database.

Some of the modifications and new functionality would include:

- New formulas and algorithms to calculate rolling allocation water usage including annual water usage for each year of the allocation period and total allocation usage
- New formulas to show irrigators what their meter should read so as not to exceed the water remaining for a given allocation period
- New CSV file (a type of spreadsheet) based on the change to rolling allocation from fixed year allocation period
- New mailings based on the conversion to a rolling allocation from a fixed allocation period
- Modifications to the well producer site to incorporate the above mentioned changes for the rolling allocation
- Ability to receive and compare county assessor information with NRD data to ensure accuracy of certified acres
- Ability to disseminate differences noted between NRD and county assessor data and contact the necessary agencies to correct discrepancies

Please see attached Scope of Work (attachment 1) for a more detailed description.

The District received a Scope of Work from PWG on October 15. Staff reviewed the Scope of Work and requested that PWG provide more information regarding the effort involved and

associated cost. The District received this additional information on November 15 (see attachment 2).

Staff sees an immediate need to increase the functionality of the database as it relates to the new DVBSMA. Staff also recognized the need to ensure the accuracy of the assessor data as it compares to currently approved certified acres throughout the District. The urgency of the assessor data comparison is less than the DVBSMA changes, but still highly important.

Staff recommends that the LPSNRD Water Resources Subcommittee recommend Board approval for the professional services contract for the Water Resources database improvements through Phoenix Web Group, in the amount not to exceed \$32,600.

Enclosures



Lower Platte South NRD

Flowmeter Allocations and Reporting

10/14/2019

Neil Johnson

CEO

njohnson@phoenixwebgroup.com

(w) 402.786.5111

Overview & Purpose

As part of a shift to a three-year rolling allocation for the Dwight-Valparaiso-Brainard special management area, the LPSNRD would like to modify and expand on currently-implemented functionality and reporting in their data management and producer-facing web applications.

Additionally, the LPSNRD would like the capability to import parcel data provided by county assessors to automatically detect discrepancies between the assessor's information and their current dataset.

This document provides pricing for PWG to work with the LPSNRD to accomplish these goals.

Agreement Terms

By accepting this agreement, the customer will receive the following benefits in addition to deliverables enumerated within the Project Modules section.

Bug-Free Guarantee

Software bugs, discovered within 30 days following completion of the project, as confirmed by PWG, will be covered in full by this quote and fixed or corrected.

You Own the Code

PWG does not retain ownership of the solution developed for the customer. The customer is free to request a current copy of the source code at any time, and free to use it as they see fit. This is covered in greater detail the Software Development Agreement.

Continuing Support

When the solution has been deployed, the customer will be presented with options for continuing support of the product. In addition to continuing bug fixes, support plan options may include small changes, technical support, server monitoring/maintenance, and periodic reporting on key activities.

Change Requests

Changes to the scope, value, or deliverables in this agreement will be managed with a formal change request, to be signed off by both the customer and PWG. Either party may initiate a request.

Major Project Components

Mailing and Reporting

Allocations will be changed to conform to a three-year rolling allocation of a maximum of 21 inches per acre over 3 years and a cap of 9 acre inches in a single year for all irrigations in the DVB management area.

For flowmeters in the DVB special management area, letters will be expanded to include more information pertaining to the producer's water-use over a three-year period, including:

- Inches applied for each of the past three years
- Total inches applied within the past three years
- Inches remaining until allocation is exceeded
- The meter reading that should not be exceeded by the end of the year

For flowmeters not in the DVB special management area, previous meter readings are still to be provided.

To aid in the annual reporting process, a Yearly Meter Readings CSV will be implemented, displaying the past three years' readings, past three years' usage, and remaining allocation for each meter.

Public Site

Calculated Allocations as displayed on the public site will be modified to account for the changes outlined above. For producers associated with meters in the DVB area, an explanation of new special management area allocation rules will be displayed with the meter reading entry form.

A page will be implemented to allow the LPSNRD to track metrics with regard to:

- The frequency of producer log-ins
- The frequency of reporting through the public site

County Assessor Data Import

A new page is to be provided, allowing the LPSNRD to compare imported County Assessor data with their existing Parcels database. Differences in the data will be exportable in a format that will help the LPSNRD report this information to whomever it may be pertinent.

The expected format of this import is to be determined by the structure of the data at the time of development, and may vary by County.

Project Timeline

The Project Manager will work with the customer to establish realistic expectations of project deadlines that meet customer needs.

Pricing

Mailing and Reporting – \$16,400

Public Site – \$6400

County Assessor Data Comparison – \$9,800

Total for Project – \$32,600

Payment Terms

An initial deposit of 50% will be due at signing. 50% of the amount will be invoiced upon code completion, when the project is turned over for final review.

Sample Fee Schedule

Beginning of Project – \$16,300

Code Completion – \$16,300

Phoenix Web Group

We're a group of engineering-minded individuals from all walks of life, brought together by our passion for creative problem solving. The inner math-and-puzzle-loving geek within each of us thrives on developing innovative solutions to tackle your toughest challenges. We feel fortunate that we can honestly say we love what we do, and it's what we'd be doing for fun anyway.

Beginning in 1987, when we made our start in the Equities and Agriculture verticals, we've expanded PWG to broad-range of industries including Commodities, Finance, Transportation, Telecommunications, Retail, Education, and more. Clients from the smallest start-ups to the largest Fortune 500 companies rely on our solutions to simplify their tasks and give them an edge on igniting their potential.

Notes

Work will begin upon receipt of first payment. Payment is due upon receipt of invoice; past due invoices will trigger the halt of work and are subject to interest.

The customer is responsible for paying applicable taxes in addition to the prices above.

This quote will expire after a time period of 30 days from the date printed on the cover sheet.

SOFTWARE DEVELOPMENT AGREEMENT

THIS AGREEMENT is made this ____ day of _____, 2019 between Lower Platte South Natural Resources District (the "Company"), and **Phoenix Web Group, Inc.**, a Nebraska corporation (the "Vendor").

1. **Background.** The Company desires to engage Vendor as an independent contractor to provide computer programming and other services to the Company.

2. **Services and Pricing.** Vendor is hereby engaged by the Company to provide services to the Company as specified in the Schedule of Services attached hereto as **Exhibit A** (the "Services"), as may be amended by the parties from time to time. The terms and conditions in this Agreement shall apply to any and all work performed (whether identified on Exhibit A or not) with respect to the Services rendered by Vendor in accordance with this Agreement.

Vendor hereby irrevocably assigns to Company all of Company's worldwide, right, title and interest in and to Company's inventions in whatever form they may exist, including in print, video, electronic or other media, as well as any technology now known or which is created, discovered or developed hereafter, including worldwide copyrights, together with all causes of action (either in law or in equity) relating thereto, and the right to sue, counterclaim, and recover damages for past, present and future infringement of the rights assigned under this Assignment, the same to be held and enjoyed by Company, its successors and assigns from and after the date hereof as fully and entirely as the same would have been held and enjoyed by the Vendor had this Assignment not been made. To the extent that Vendor uses routines, materials, inventions, enhancements, discoveries and developments (including, but not limited to computer software programs and/or source code, object code and listings and compilations of information from its internal code library which pre-exist this Agreement or are developed for third-parties outside of the scope of the Services provided under this Agreement) (collectively "Vendor's Inventions"), Vendor shall retain all right, title, and interest (including ownership of copyright, patent or trademark) to such Vendor's Inventions, and such shall not be subject to the provisions of this Section 2. Vendor agrees, at the request of Company, to execute and deliver further instruments of transfer and assignment and take such other action as Company may reasonably request to more effectively transfer and assign to and vest in Company all right, title and interest in and to the Company's Inventions, all at the sole cost and expense of Company.

3. **Compensation.** As full and complete compensation for the Services, Vendor will invoice and Company shall pay the charges identified in such invoices as further described and calculated in accordance with attached Exhibit "A", which may be amended in writing in accordance with the terms of this Agreement by the parties from time to time. In addition, the Company shall also reimburse Vendor for all pre-approved expenses reasonably incurred by Vendor in direct connection with the Services. Vendor shall maintain records and keep receipts for all actual and necessary expenses incurred by Vendor in connection with the Services performed hereunder. Vendor shall submit written invoices on a monthly basis for Services performed by Vendor during the preceding month and shall include copies of receipts for its actual and necessary expenses with such invoices. The Company agrees to pay Vendor's invoices within fifteen (15) days of receipt of such invoice, provided that there is no dispute concerning the amount of the invoice, or the services performed in connection therewith. The Company shall pay a late payment charge of 1.5% per month or the maximum rate permitted by law (whichever is less) on all principal amounts remaining unpaid after 30 days from the invoice date. Each party shall be responsible for the payment of taxes attributed to it as required by law.

4. Ownership of Inventions. Vendor hereby irrevocably sells, transfers and assigns to the Company all of Vendor's right, title and interest in any and all inventions, enhancements, discoveries and developments (including, but not limited to computer software programs or source code, object code and listings and compilations of information), whether or not eligible for or covered by patent, copyright, or trade secret protection, and whether or not such constitute works for hire or would otherwise belong to the Company by operation of law (all collectively hereinafter referred to as "Company's Inventions") that become known to, or are discovered, conceived or developed by Vendor, alone or jointly with Company employees or contractors during the term of this Agreement and which are associated with or related to the Services, or that result from the use of premises or personal property (tangible or intangible) of the Company or from any intellectual property or Confidential Information of the Company.

Such Inventions shall become and remain the sole and exclusive property of the Company, and the Company shall be the sole owner of all patents, copyrights and all other interests and rights in connection therewith. Vendor will assist the Company in every reasonable way, at the Company's expense, to secure, maintain and defend, for the Company's benefit, all copyrights, patent rights, trade secret rights and other proprietary rights in and to the Company's Inventions.

To the extent that Vendor, or any other third party, has rights to any property which is incorporated in or necessary to the use of the Company's Inventions, Vendor warrants that it has obtained all necessary licenses and permits to grant the Company an irrevocable, royalty-free and fully paid, sublicense to such property, and hereby grants the Company and its affiliates a royalty-free and fully paid, irrevocable, worldwide nonexclusive license to practice, use, disclose, reproduce, modify, license and distribute such property rights, including, without limitation, the rights to sublicense, assign and transfer all such rights.

To the extent that Vendor uses routines, materials, inventions, enhancements, discoveries and developments (including, but not limited to computer software programs or source code, object code and listings and compilations of information from its internal code library which pre-exist this Agreement or are developed for third-parties outside of the scope of the Services provided under this Agreement) (collectively "Vendor's Inventions"), in which Vendor has all right, title, and interest (including ownership of copyright, patent or trademark), Vendor hereby grants to Company a nonexclusive, worldwide, irrevocable, royalty-free and fully paid license to use, execute, reproduce, display, perform, sublicense, assign, transfer and use Vendor's Inventions. Vendor warrants and agrees that it will not use or incorporate any third party intellectual property, including but not limited to any open source software, or any other material in which a third party has an interest in any Services performed for the Company without Company's knowledge and prior written consent. Company's knowledge and prior written consent to permit Vendor to use or incorporate such third party software shall not relieve Vendor of liability for any claim of infringement against Company by such third party.

Subject to Section 8(c), both parties are free to enter into similar agreements with others, and to develop and provide services similar to those identified on the Schedule of Services; provided, however, that Vendor shall not use any Company Invention, Company Confidential Information or any other Company intellectual property in such other work; and Company shall not use (or allow others to use) any Vendor Invention, Vendor Confidential Information or any other Vendor intellectual property in such other work. Further, Vendor shall in no way be prohibited or restricted by this agreement from fully and freely utilizing the Vendor's Inventions.

5. Independent Contractor. Vendor's relationship with the Company shall be that of an independent contractor and nothing in this Agreement shall be construed to create an employer-employee relationship between the parties hereto. Vendor shall be deemed an independent contractor for all purposes under any and all laws, whether existing or future, including without limitation, Social Security laws, unemployment insurance laws, worker's compensation laws, withholding and other employment taxation laws. Vendor agrees to comply with all applicable laws, rules, and regulations in respect to self-employment, including without limitation, the payment of all taxes required. Vendor shall not, at any time or in any manner whatsoever represent or in any way imply that Vendor is an employee of the Company. In addition, Vendor shall have no authority to incur any liability or obligation on behalf of or in the name of the Company.

6. **Insurance.** Phoenix Web Group agrees to procure and maintain, at its expense, Workers' Compensation insurance as required by statute; Employer's Liability of \$1,000,000; Commercial General Liability insurance of \$1,000,000 combined single limit for personal injury and property damage; and Professional Liability insurance of \$1,000,000 per claim, all for protection against claims arising out of performance of services under this Agreement caused by the negligent acts, errors or omissions for which Phoenix Web Group is legally liable. Lower Platte South NRD shall be made an additional insured on Commercial General insurance policies and certificates of insurance for all types of insurance referred to above will be furnished to Lower Platte South NRD prior to the commencement of work on the contract.

7. **Documents Property of the Company.** Vendor hereby acknowledges that all documents in whatever form they may exist, including, but not limited to, drawings, blueprints, manuals, letters, notes, notebooks, reports, electronic files and the like in Vendor's custody or possession, whether delivered to Vendor by the Company or made by Vendor in connection with the Services or otherwise relating to the Company's business, whether or not confidential, are the sole and exclusive property of the Company. Upon completion of Vendor's Services to the Company, Vendor agrees to deliver to the Company all physical materials in Vendor's custody or possession in connection with the Services or other Company materials in Vendor's possession or control.

8. **Nondisclosure.** Each party recognizes and acknowledges that it will have access to certain confidential and proprietary information of the disclosing party and of entities affiliated with the disclosing party, including but not limited to trade secrets, business, financial and company information, computer software (including source code and object code), machine and operator instructions, business methods, procedures, know-how, and other proprietary information that relates to the business or technology of the disclosing party (collectively, the "Confidential Information"), and that such Confidential Information constitutes valuable, special and unique property of the disclosing party and such other entities. Each party agrees that it will not, during or after the term of this Agreement disclose any of such Confidential Information to any person, firm, corporation, association or other entity for any reason or purpose whatsoever, except: (i) to authorized representatives of the disclosing party and its affiliated entities; (ii) on behalf of the disclosing party and in furtherance of the disclosing party's business, with appropriate non-disclosure agreements to prevent further disclosure pursuant to written consent of the disclosing party; or (iii) with the written consent of the disclosing party.

In the event of a breach or threatened breach by either party of the provisions of this Section 7, the disclosing party shall be entitled to an injunction restraining the other party from disclosing, in whole or in part, such Confidential Information. Nothing herein shall be construed as prohibiting the disclosing party from pursuing any other remedies available to it or such breach or threatened breach, including the recovery of damages. The obligation of confidentiality does not extend to information (i) in the public domain, (ii) already known to the non-disclosing party, as evidenced by written documentation thereof without the obligation of confidentiality, (iii) created by the non-disclosing party independently of the disclosing party's data or materials or (iv) that comes lawfully into the non-disclosing party's possession from sources other than the disclosing party, its employees, agents or contractors.

9. **Non-solicitation and Non-competition.** During the term of this Agreement and until two years after any termination of such Agreement, both parties agree that they will not solicit, induce, aid or suggest to any of the clients, companies, employees, vendors, or other persons having any business or contractual relationship with the other party in an effort to terminate or modify such business or contractual relationship.

(a) In the event that the provisions of this Section 8 should ever be deemed to exceed the time, geographic or occupational limitations permitted by the applicable law, then such provisions shall be reformed to the maximum time, geographic or occupational limitations permitted by the applicable law.

(b) Vendor acknowledges and agrees that the Company has expended significant time and resources in developing certain software identified on Exhibit A, and Company considers such

software to be the Company's Confidential Information. Vendor further agrees that Vendor's Services may involve such software.

(c) It is the intent of the Company and Vendor that the provisions of Section 8(b) above be enforced to the fullest extent permissible under the laws and public policies of each jurisdiction in which enforcement is sought. Accordingly, if any portion of this Agreement is adjudicated to be invalid or unenforceable, the parties hereto expressly agree that the provisions herein will not be rendered void but will apply to the extent as such court or arbitrator may judicially determine or indicate constitutes a reasonable restriction under the circumstances involved (and such court is hereby authorized to make such determinations if necessary), and all remaining portions of this Agreement will continue in full force and effect.

10. Term and Termination. The term of this Agreement shall be continuing until terminated as provided herein. This Agreement may be terminated as follows:

- (a) by the Company upon the occurrence of any event that prevents Vendor from performing the Services for more than ten (10) consecutive days;
- (b) by mutual written agreement; or
- (c) during the Initial Phase of development (as defined in attached Exhibit A) by either party, with good cause, upon five (5) days notice to the other party; or
- (d) at any time other than during the Initial Phase of development (as defined in attached Exhibit A) by either party, with or without cause, upon fourteen (14) days notice to the other party.

Upon any termination of this Agreement, the Company shall pay Vendor all compensation accrued but unpaid pursuant to Section 3. All other provisions of this Agreement shall remain in force and effect according to their terms.

11. Notice. All notices required or permitted hereunder shall be in writing and deemed effectively given upon personal delivery or upon deposit in the United States Post Office, by registered or certified mail, postage prepaid, addressed to the other party hereto at the address shown beneath his or its respective signature to this Agreement, or at such other address or addresses as either party shall designate to the other in accordance with this Section 10.

12. Governing Law. This Agreement shall be governed by the laws of the State of Nebraska. If any term or provision of this Agreement is found by a court of competent jurisdiction to be illegal or invalid for any reason whatsoever, such illegality or invalidity shall not affect the validity of the remainder hereof.

13. Amendment. This Agreement may be amended or modified only by a written instrument executed by both the Company and Vendor.

14. Entire Agreement. This Agreement and the documents referenced herein, if any, constitute the entire agreement between the parties hereto in respect of the association of Vendor with the Company, and the provisions herein and therein shall be regarded as divisible and separable. If any of such provisions or any part thereof are declared invalid or unenforceable, the validity and enforceability of the remainder of such provisions or parts thereof or their applicability shall not be affected. In the event of any conflict between the provisions of this Agreement and any other agreement between the parties, the provisions of this Agreement shall control.

15. Non-Waiver. The failure of either party at any time to require performance by the other party of any provision of this Agreement required to be performed by such other party, will in no way affect the right of the party to require such performance at any time thereafter. The waiver by either party of a breach by the other party of any provision of this Agreement shall in no way be construed as a waiver of any succeeding breach of such provision or a waiver of the provision itself.

16. Venue; Attorney Fees. Any dispute regarding this Agreement or its modification or termination shall be settled in accordance with Article 17 'Disputes' and enforcement proceedings thereon will be commenced and held in any court of competent jurisdiction in Lancaster County, Nebraska. The
SLK_TOL-#1635537v2

prevailing party shall be entitled to all costs and expenses incurred in connection with the dispute and its resolution, including reasonable attorney fees.

17. 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 30 days of the notice, the Parties may resort to any remedy available under law.

18. Warranties and Limitation of Liability. Vendor warrants that it will perform the services under this Agreement using reasonable care and skill. Both parties agree that in the event of a default by a party to this Agreement, regardless of the basis on which damages may be claimed by the non-defaulting party, neither party shall be liable to the other for special, incidental, consequential, or indirect damages, or for any special economic consequential damages (including lost profits or savings), even if the breaching party has been informed of their possibility.

19. Migration From Vendor. Upon termination of this Agreement for any reason, and without regard to whether the parties may be engaged in a dispute, the Vendor shall provide adequate support staff, technical and managerial services and shall cooperate fully with Company (at Company's cost) to plan and execute an orderly migration of hardware (if applicable), software, Company Inventions (including those developed by Vendor hereunder) and Services to the destination (including an electronic destination) of Company's choice according to a migration plan and schedule mutually agreed upon by the parties.

20. Covenant Against Anti-Use Devices and Remedies. The Vendor covenants that the equipment used and Services furnished, enhanced, modified, upgraded or updated by the Vendor under this Agreement does not and will not contain an anti-use device, a disabling device, so-called "time bomb" or device, instructions, contaminants or any other mechanism which will disable, damage, impair or impede, alter, halt, abnormally end, or terminate the use of the equipment or software or any of its functions or features upon the occurrence of a specific event.

21. Government Action. Provided that such matters are not remedied, if remedy is possible, within a commercially-reasonable period of time or the time permitted for cure under any notice by a government entity, the Vendor shall be considered to be in default of its material obligations under this Agreement in the event that an inspection, audit or other inquiry by a governmental regulatory entity discloses exceptions, requires corrective action or imposes fines or penalties for the Vendor's failure to meet governmental regulatory or statutory requirements related to the Services provided under this Agreement.

22. Assignment; Transfer. Unless otherwise agreed in writing, the Vendor shall not transfer, assign, delegate or subcontract any aspect of the Services provided under this Agreement nor any of its rights or obligations hereunder to any person or entity without the prior consent of the Vendor. If Vendor transfers, assigns, delegates or subcontracts any aspect of its rights or obligations hereunder, it shall bind the third party to terms and conditions no less stringent than those contained in this Agreement, and shall remain fully responsible for the third party, and remain liable to Company for any breach or attempted breach of this Agreement, negligence, intentional acts and omissions by or of any such third party.

23. Force Majeure, Back-Up and Disaster Recovery. The Vendor shall not be liable for delays caused by events not under its control provided the Vendor is not at fault in causing the delay and the Vendor acts with due diligence to perform its obligations under this Agreement. All Service Fees shall be suspended during the period of material nonperformance for Force Majeure.

If the delay or failure to perform continues for a period of ten consecutive days, the Company may terminate this Agreement without further liability.

To the extent that Vendor has access to and/or downloads, transmits, uploads, or otherwise transfers Company's data from one physical or virtual location to another or any purpose including testing, programming, or for any other purpose whatsoever, it shall maintain physical and logical security for Company's data, and shall insure that the data is backed up at least daily and stored in a physically secure and safe environment. The Company may require that the data be backed up at a specific location and/or under specific conditions.

24. Compliance with Transfer of Technology Laws. Vendor shall comply with all federal and state laws, regulations, treaties and government proclamations and policies (collectively "Laws") with respect to the transfer of technology, including but not limited to software, computing equipment and data (collectively "Technology") to foreign nationals, foreign countries or other persons or entities subject of such Laws, and Vendor shall not employ any person in violation thereof. Unless otherwise expressly or impliedly authorized by the Company, Vendor shall not permit any of Company's Inventions to be transferred to or reside on any computing equipment used by any employee of Vendor who is located temporarily or permanently in a foreign country.

25. Indemnification. Phoenix Web Group shall indemnify, defend and hold LPSNRD harmless from any and all liabilities of any kind that arise as a result of the performance of this Agreement except that Phoenix Web Group shall have no obligation to indemnify, defend or hold Lower Platte South NRD harmless for any claim or liability of any kind that result from the negligent act or omission or the intentional misconduct of Lower Platte South NRD, its agents or employees.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement effective as of the date first written above.

COMPANY:

By: _____

Title: _____

Address: _____

Date: _____

PHOENIX WEB GROUP, INC.:

By: _____

Title: _____

Address: _____

Date: _____

Appendix A

Major Project Components

Mailing and Reporting

Allocations will be changed to conform to a three-year rolling allocation of a maximum of 21 inches per acre over 3 years and a cap of 9 acre inches in a single year for all irrigations in the DVB management area.

For flowmeters in the DVB special management area, letters will be expanded to include more information pertaining to the producer's water-use over a three-year period, including:

- Inches applied for each of the past three years
- Total inches applied within the past three years
- Inches remaining until allocation is exceeded
- The meter reading that should not be exceeded by the end of the year

For flowmeters not in the DVB special management area, previous meter readings are still to be provided.

To aid in the annual reporting process, a Yearly Meter Readings CSV will be implemented, displaying the past three years' readings, past three years' usage, and remaining allocation for each meter.

Public Site

Calculated Allocations as displayed on the public site will be modified to account for the changes outlined above. For producers associated with meters in the DVB area, an explanation of new special management area allocation rules will be displayed with the meter reading entry form.

A page will be implemented to allow the LPSNRD to track metrics with regard to:

- The frequency of producer log-ins
- The frequency of reporting through the public site

County Assessor Data Import

A new page is to be provided, allowing the LPSNRD to compare imported County Assessor data with their existing Parcels database. Differences in the data will be exportable in a format that will help the LPSNRD report this information to whomever it may be pertinent.

The expected format of this import is to be determined by the structure of the data at the time of development, and may vary by County.

Project Timeline

The Project Manager will work with the customer to establish realistic expectations of project deadlines that meet customer needs.

Pricing

Mailing and Reporting – \$16,400

Public Site – \$6400

County Assessor Data Comparison – \$9,800

Total for Project – \$32,600

Payment Terms

An initial deposit of 50% will be due at signing. 50% of the amount will be invoiced upon code completion, when the project is turned over for final review.

Sample Fee Schedule

Beginning of Project – \$16,300 (October)

Code Completion – \$16,300 (December)

COMPANY:

By: _____

Title: _____

Address: _____

Date: _____

PHOENIX WEB GROUP, INC.:

By: _____

Title: _____

Address: _____

Date: _____

1. Allocation logic

- Allocation logic doesn't currently exist in the management site and would need to be implemented.
- The code behind a **rolling** three-year allocation in a solution like this is entirely different from the code behind a static three-year allocation (which is currently written for the producer site)
 - So this logic would have to be implemented from scratch
 - Additionally, we'd need to rewrite parts of the producer entry site to account for this

2. The Letter Content

- Due to layout changes, we would have to completely redesign the letter to make sure that all of the content fit on the page. This isn't huge, but also has to be taken into consideration
- While the data may exist within the system, the coded model behind the letter would have to be largely rewritten (or parts would have to be added to it) to accommodate for multiple readings and allocation calculations. The model is currently built around the idea of one letter to one meter reading and has many layers to it:
 - It starts with determining whether or not letters are for owners or tenants.
 - From there, it splits into two paths (one for each), as tenants and owners are treated differently in the data.
 - For owners, we have to join the owner record to a person record in addition to any wells that person owns.
 - From there, we have to join that well to flowmeters
 - and from there, we join the well + flowmeter with a specific meter reading.
 - This is the tricky part. We would have to change/rewrite this part and anything beyond it to accommodate for multiple readings.
 - That gives us the object that we use to populate the actual model.
 - The model calculates and is assigned values which are then displayed on the letter view, itself.

3. County Assessor Data Import

○ When estimating this, we had a CSV in mind, as well as a letter to the county assessor, as was discussed in our meeting. Including a letter to the producer would use basically the same data, so that could be within the originally-defined scope. We would need to discuss potential reports in further detail to work out what's desired, there, that couldn't be derived from an exported CSV and determine whether or not those fall into the same scope.

4. Historical Pricing

○ We have previously dramatically under-priced changes to letters, and the result was spending enough time implementing them that we ended up working at a loss. The most recent agreement we sent was *severely under-priced (a new map and letter changes, both of which ended up being significantly more effort than we had optimistically estimated)*

24 October 2019

NUgrant ID# 132270

Dick Ehrman
Lower Platte South Natural Resources District
3125 Portia St
Lincoln, NE 68521
dehrman@lpsnrd.org

Re: UNL Institutional Letter of Commitment

Dear Mr. Ehrman:

The Board of Regents of the University of Nebraska, for the University of Nebraska-Lincoln (UNL) is pleased to submit a proposal to your organization on behalf of Dr. Daniel Snow, for the project titled "Characterization of Vadose Zone Transport and Groundwater Nitrate Attenuation."

The total request is for \$44,663 for the proposed period 11/1/2019-9/30/2020. Our EIN # is 47-0049123, our DUNS # is 55-545-6995, and our Congressional District is NE-001. Our participation is administratively approved for submission on behalf of the Board of Regents by the appropriate University officials.

Questions regarding the technical aspects of this project should be directed to Dr. Snow at (402) 472-7539 or dsnow1@unl.edu. Administrative questions should be directed to me at (402) 472-3244 or dshannon2@unl.edu. We look forward to our involvement in this project.

Sincerely,



Dennis Shannon Jr
Grants Coordinator III
Office of Sponsored Programs

Characterization of Vadose Zone Transport and Groundwater Nitrate Attenuation Lower Platte South NRD

Draft Statement of Work – October 2019

Daniel D. Snow and Chittaranjan Ray - University of Nebraska

This project will focus on investigation of the vadose (unsaturated) zone and groundwater nitrate and agricultural contaminant occurrence and transport near several areas where public water supplies have historical monitoring data. Test holes will be drilled to collect and characterize soil types and physical properties, and chemical analysis will be conducted on selected core samples. Groundwater will be sampled for stable isotope and trace element cha Proposed areas include the towns of Brainard, Ceresco, Lower Salt Creek (LSC - Waverly, Greenwood, & Ashland), Eagle, Roca and Cottontail Wildlife Mgt. Area (figure 1).

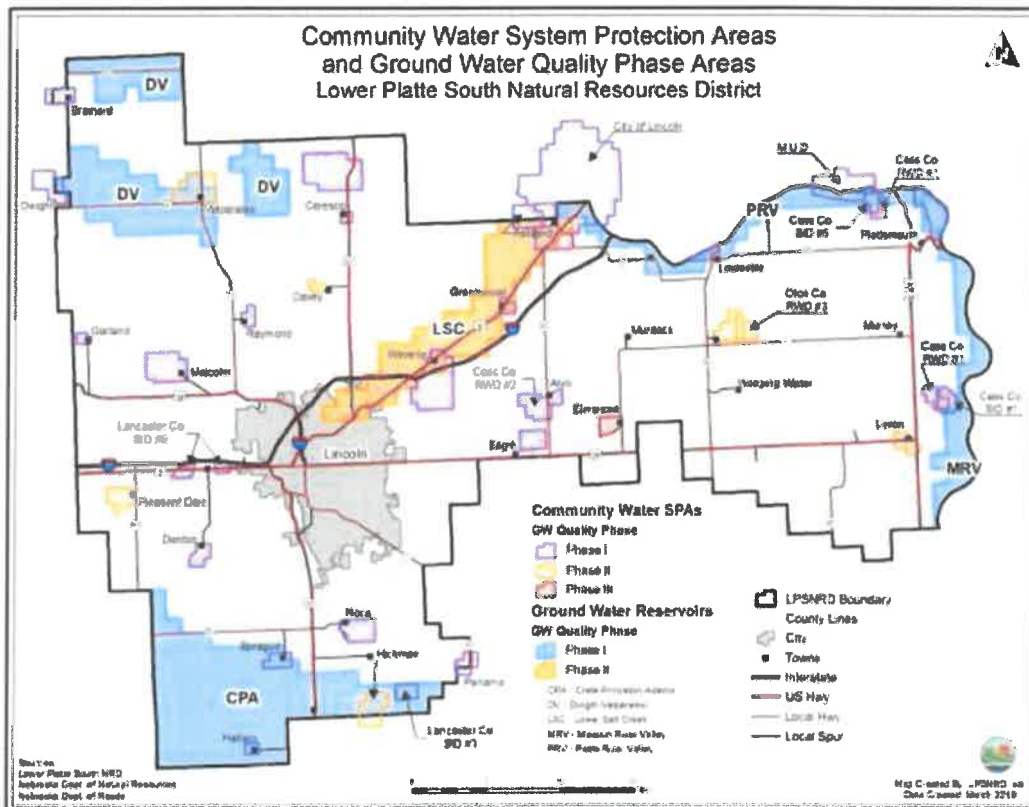


Figure 1. Community water system protection areas in Lower Platte South NRD

The sampling plan, collection, and chemical analysis will be led by Dr. Daniel Snow, Nebraska Water Sciences Laboratory and based on an approved Quality Assurance and Protection Plan (QAPP). The Lower Platte South NRD will contact landowners, supervise coring and field work, as well as assist with collection of groundwater samples. The results will be summarized in a

Technical Report including datasets, geologic classification and chemical analysis of the core intervals, water samples and other interpretations.

Project tasks include:

- Review and document previous analytical results of vadose zone monitoring in these areas.
- Develop a sampling plan and QAPP if required to conduct the vadose sampling.
- Collect, geologically classify, and composite subsamples analyzed chemically every 2 to 5 feet for nitrate, ammonia, pH, and moisture content.
- Selected core subsamples may be analyzed for arsenic, uranium and/or for isotope analysis
- All nitrate, ammonia, pH and moisture content measurements will graphed to indicate changes in composition versus depth below the surface.
- Porewater nitrate will be graphed and compared to groundwater nitrate concentrations collected from nearby monitoring and municipal wells.
- Calculate the nitrate amount in the vadose zone by lbs./acre and at discrete depths.
- Collect and analyze groundwater samples for nitrate isotopes, anions, cations, dissolved organic carbon characterize nitrogen sources and denitrification potential
- Collect and analyze samples for dissolved gases and tritium activity for age dating of recharge.
- Estimate the vertical transit rate of water and nitrate or other chemicals at specific locations using data obtained from the vadose zone and ground water samples

Description of work

The University of Nebraska will compare the profiles of nitrate to any previously collected vadose zone core profiles to determine where additional cores may provide the best overall information to characterize nitrate storage and estimated transport rates to the water table. After agreement on the locations for coring, the Lower Platte Natural Resources District (LPSNRD) will obtain permission to collect core samples. After permission has been obtained from the landowner by the LPSNRD, the University of Nebraska will arrange and schedule core collection using the Nebraska Conservation and Survey drilling equipment and crew. Coring will be scheduled so as to be completed prior to the 2020 growing season for sites involving crop ground. The driller will be responsible for ensuring the locations have been checked for underground cables and utilities. The University of Nebraska will work determine the best method for coring, schedule collection of cores, collect cores, store and then process cores using approved methods.

Cores will be divided in to 2' intervals and subsamples immediately collected for determination of gravimetric moisture content. The remaining core will be air dried and composited by grinding and mixing. Ground and dried subsamples of composites will be extracted for nitrate and ammonia using 1M KCl¹. Particle sizes will be measured using wet sieving and pipette methods². Sediment pH will be measured using 0.01 M CaCl₂ slurry. Nitrate and ammonia will be extracted using 1M KCl and analyzed using a Lachat 8500 autoanalyzer by Cd reduction and salicylate colorimetric methods¹. Additionally, undisturbed cores will be retrieved from appropriate depths (based on geologic heterogeneity) to determine bulk density, saturated hydraulic conductivity, and water retention properties, which will be useful for travel time analysis in the vadose zone.

Detailed textural descriptions will be compared to measurements of nitrate-N, ammonia-N, pH, moisture and lithology. Selected undisturbed core samples will include determination of water retention properties and hydraulic conductivity. Measurement of water retention properties using undisturbed cores will help estimating rate of travel of nitrate pulse to ground water. Repeated coring at specific locations will permit correlation of nitrate concentration profiles and potentially provide *in situ* estimates of transport and attenuation rates. Samples of groundwater will be collected in the same areas as the cores. Groundwater will be sampled for stable isotope analysis of nitrate, anions, dissolved organic carbon and noble gases from the monitoring wells and used to characterize recharge rates, the nitrate sources, transport and attenuation. Historical data from groundwater monitoring at each location will be compared to recharge estimates and nitrate-N profiles to estimate rates of transport/loading at each location.

Calibration of vadose zone transport calculations at these locations could permit more accurate estimates of transport rates at new sites. Finally, accurate assessment of the occurrence and potential leaching rates beneath specific land uses can help land and water resource managers identify areas where the most effort should be placed on managing fertilizer application and irrigation practices. A standardized protocol for collecting and analyzing vadose zone cores is currently being developed to collect vadose zone data used in estimating nitrate occurrence and transport potential. This project will help in development of this standardized protocol.

Budget

The project budget will be used to support coring by the Nebraska Conservation and Survey using either direct-push or hollow stem auger drilling techniques. Shallow cores (<50' below the surface) will generally be collected using the direct push methods, while deeper cores will be collected using hollow stem auger. Auger or direct-push sampling cores can be collected at the rate of 1 to 1.5 per day, and the rate for each approach is \$1000 per day including the operator and assistant. Laboratory costs will include analysis of an average of 40 composite samples per core for gravimetric moisture, ammonia and nitrate-N, pH, and particle size (%clay, silt, sand). Up to 20 ground water samples may be collected from the monitoring wells for nitrate isotopes, trace elements, dissolved organic carbon, and to 10 samples collected for ground water age dating using noble gas (^3H - ^3He) helium-tritium analysis. Partial salary support for Dr. Snow and support for a graduate student stipend will be used to cover costs for laboratory processing, data reduction, analysis and generation of final report.

UNL Budget (November 1, 2019-September 30, 2020)

UNL Basic Request Budget			
	Person Months	Year 1	Total
<i>Senior Personnel</i>	Yr1		
Daniel Snow	0.50	4,886	4,886
Total Senior Personnel		4,886	4,886
<i>Other Personnel</i>	# of Ppl		
Post Docs	0	-	-
Other Professionals	0	-	-
Graduate Students	0.25	5,625	5,625
Undergraduate Students	0	-	-
Secretarial	0	-	-
Other	0	-	-
Total Other Personnel		5,625	5,625
Fringe Benefits		4,322	4,322
Total Salaries and Benefits		14,833	14,833
Equipment		-	-
Travel		300	300
Supplies		-	-
Subawards		-	-
Other		25,470	25,470
Total Other Direct Costs		25,770	25,770
Total Direct Costs		40,603	40,603
F&A Base	TDC	40,603	40,603
F&A	10.0%	4,060	4,060
Total Request		44,663	44,663

MTDC Exclusions	Year 1	Total
Equipment	-	-
Tuition Remission	2,250	2,250
Subawards in excess of \$25K	-	-
Participant Support Costs	-	-
Rent	-	-
Alterations and Renovations	-	-
Total Exclusions	2,250	2,250

References

1. Spalding, R. F.; Kitchen, L. A., Nitrate in the intermediate vadose zone beneath irrigated cropland. *Ground Water Monitoring & Remediation* **1988**, 8, (2), 89-95.
2. ASTM, Standard Test Method for Particle-Size Analysis of Soils **2014**, *ASTM D422-63*.

OTHER DIRECT COSTS – LABORATORY AND DRILLING COST BREAKDOWN

Group Description: Description	Other 1		Year 1		Total	
	Unit \$	Unit Type	Qty	\$	Qty	\$
Core processing - Texture, NO3N, NH4N, pH, Moisture	\$12.00	per sample	240	\$2,880	240	\$ 2,880
As and U in Core Samples	\$32.80	per sample	50	\$1,640	50	\$ 1,640
Nitrate Isotopes	\$88.00	per sample	35	\$3,080	35	\$ 3,080
Noble Gases- Age Dating	\$528.00	per sample	20	\$10,560	20	\$ 10,560
DOC and Anions	\$39.60	per sample	35	\$1,386	35	\$ 1,386
Groundwater U and As	\$26.40	per sample	35	<u>\$924</u>	35	<u>\$ 924</u>
		Group 1 Total:		\$20,470		\$20,470
CSD Drilling	\$1,000.00	per day	5	\$5,000	5	\$ 5,000
		Group 2 Total:		<u>\$5,000</u>		<u>\$5,000</u>
Total Other Direct Costs				\$25,470		\$25,470

**ORDER ADOPTING CHANGES TO THE LOWER PLATTE SOUTH
NATURAL RESOURCES DISTRICT'S RULES AND REGULATIONS
PURSUANT TO THE NEBRASKA GROUND WATER MANAGEMENT
AND PROTECTION ACT**

Now on the 18th day of December, 2019, the matter of adopting the proposed changes to the District's rules and regulations pursuant to the Nebraska Ground Water Management and Protection Act came before the District Board of Directors.

The Board finds that notice of the public hearing to adopt these changes to the rules and regulations was published in the Lincoln Journal-Star on September 23, 30, and October 7, 2019, a public hearing was held on October 21, 2019, and all present were given the opportunity to testify and present other evidence.

The Board, after the hearing, took into account all testimony and other evidence presented at the hearings and other factors directly affecting the ability of the District to implement and carry out the rules and regulations changes.

The Board finds that the proposed changes to the rules and regulations, as modified, are actions necessary to carry out the District's responsibilities pursuant to the Ground Water Management and Protection Act.

A general description of all controls to be adopted, as modified, is as follows:

- Add/revise definitions for the following terms:
 - Allocation;
 - Aquifer Test;
 - Certified Irrigated Acres;
 - Domestic Well;
 - Irrigation Well;
 - Rolling Allocation;
- Simplify additional information required for water well permits;
- Eliminate details for aquifer test and reasons for granting/denying/cancelling Class 3 water well permits as this requirement is superseded by 600' spacing protection;
- Unify specification for quality/quantity triggers so all triggers must be exceeded for a period of not less than two consecutive years;
- Changes related to the Hydrologically Connected Area (HCA):
 - Revise allowable expansion of irrigated acres in the HCA to account for consideration of allowable depletions under the Lower Platte River Basin Coalition;
 - Eliminate reference to 20% of historical acres in the HCA as per revised allowable expansion;
- Changes related to the Dwight-Valparaiso-Brainard Special Management Area (DVB SMA):
 - Establish three-year rolling allocation in DVB SMA;

- Eliminate distinction between sprinkler and gravity irrigation for allocation;
- Specify that allocation will remain in place until the District Board of Directors acts to change it;
- Eliminate carryover penalty for existing three-year fixed allocation; and
- Correct various grammatical errors.

It is therefore ordered that the proposed amended changes to the rules and regulations are hereby adopted for the specified area.

It is finally ordered that the rules and regulations adopted will be implemented by the District. This order shall become effective January 15, 2020, and notice of this order shall be duly published as set forth in Neb. Rev. Stat. Section 46-744.

A copy of the full text of the proposed rule changes, as modified, may be obtained at the offices of the Lower Platte South Natural Resources District, 3125 Portia Street, Lincoln, NE 68501-3581, between the hours of 8AM and 430PM, Monday through Friday. A complete copy of the proposed ground water rules and regulations may be obtained by accessing the District's website at www.lpsnrd.org or by calling 402-476-2729, or by visiting the District's offices at the above address between the hours of 8AM and 430 PM, Monday through Friday.

Dated this 18th day of December, 2019.

Larry Ruth
Chair



PROFESSIONAL SERVICES AGREEMENT

PROJECT: Plattsmouth Dam 7-C Spillway Rehabilitation FYRA Engineering, LLC JOB #: 002-19-01
CLIENT: Lower Platte South NRD
ADDRESS: 3125 Portia Street, Lincoln, NE 68521
CONTACT: Jared Nelson, P.E. TEL: 402.476.2729 FAX: 402.476.6454
CONSULTANT: FYRA Engineering, LLC
ADDRESS: 12702 Westport Pkwy, Suite 300, Omaha, NE 68138
CONTACT: Michael K. Sotak, P.E. TEL: 402.502.7131 FAX: 402.932.6940
PROJECT DESCRIPTION: Design, bid solicitation and Construction Observation services for CIPP rehabilitation of high hazard dam in Plattsmouth, NE.

[X] SCOPE OF SERVICES (See Attachment) [X] SCHEDULE (See Attachment)

COMPENSATION:

The total compensation under this Agreement shall not exceed the dollar amount indicated herein or the amount authorized by Amendment(s) and/or Notice(s) to Proceed (NTP), whichever is the lesser.

[] LUMP SUM. Compensation for these services shall be a Lump Sum of \$ _____.

TIME AND MATERIALS. Compensation for these services will not exceed \$15,918 without written authorization and will be based on the following option (per the attached Budget or List of Hourly Rates), and Reimbursable Expenses based on actual costs incurred and approved by FYRA Engineering, LLC and as authorized in writing by Client.

[X] [] Subconsultant's Direct Job Wages times a factor of _____ [X] Budget/List of Subconsultant's Hourly Rates.

[] COST PLUS FIXED FEE. Compensation for these services shall be Subconsultant Cost plus a fixed professional fee, including Reimbursable Expenses. The estimated compensation for services is \$ _____ plus a fixed fee of \$ _____ for a total of \$ _____.

COMPENSATION DETAIL (See Following Pages)

SCHEDULE OF PAYMENTS (See Following Pages)

SERVICES AUTHORIZED BY: [X] Execution of Agreement or [] Amendment(s) and/or NTP

EXECUTION: Execution of this document by duly authorized representatives of FYRA Engineering, LLC and CLIENT, including FYRA Engineering LLC's Standard Conditions (reverse side) and any attachments, Additional Provisions as indicated, and addenda, represents the entire Agreement between the parties hereto and supersedes all prior negotiations, representations, or agreements, either written or oral. This Agreement may be amended or modified by written instrument, but such instrument is valid only upon signature by both parties.

CONSULTANT: FYRA Engineering, LLC CLIENT: Lower Platte South NRD
BY: Michael K. Sotak, P.E. BY: Paul Zillig
SIGNATURE: [Signature] SIGNATURE: [Signature]
TITLE: Owner/Principal Engineer TITLE: General Manager
DATE: 9 December 2019 DATE: [Blank]



FYRA ENGINEERING, LLC STANDARD CONDITIONS

SERVICES. FYRA Engineering will perform services for the Project as set forth in attachment and in accordance with these Terms & Conditions. FYRA Engineering has developed the Project scope of service, schedule, and compensation based on available information and various assumptions. The Client acknowledges that adjustments to the schedule and compensation may be necessary based on the actual circumstances encountered by FYRA Engineering in performing their services.

AUTHORIZED REPRESENTATIVES. The officer assigned to the Project by FYRA Engineering is the only authorized representative to make decisions or commitments on behalf of FYRA Engineering. The Client shall designate a representative with similar authority.

PROJECT REQUIREMENTS. The Client shall confirm the objectives, requirements, constraints, and criteria for the Project at its inception. If the Client has established design standards, they shall be furnished to FYRA Engineering at Project inception. FYRA Engineering will review the Client design standards and may recommend alternate standards considering the standard of care provision.

SITE ACCESS. The Client shall obtain all necessary approvals for FYRA Engineering to access the Project site(s).

PERIOD OF SERVICE. FYRA Engineering shall perform the services for the Project in a timely manner consistent with sound professional practice. FYRA Engineering will strive to perform its services according to the Project schedule set forth in attachment. The services of each task shall be considered complete when deliverables for the task have been presented to the Client. FYRA Engineering shall be entitled to an extension of time and compensation adjustment for any delay beyond FYRA Engineering control.

COMPENSATION. In consideration of the services performed by FYRA Engineering, the Client shall pay FYRA Engineering in the manner set forth in attachment. The parties acknowledge that terms of compensation are based on an orderly and continuous progress of the Project. Compensation shall be equitably adjusted for delays or extensions of time beyond the control of FYRA Engineering.

PAYMENT TERMS. FYRA Engineering shall submit monthly invoices for services performed and Client shall pay the full invoice amount within thirty (30) days of the invoice date. Invoices will be considered correct if not questioned in writing within ten (10) days of the invoice date. FYRA Engineering shall be entitled to a 2% per month administrative charge in the event of payment delay. Client payment to FYRA Engineering is not contingent on arrangement of project financing. Invoice payment delayed beyond sixty (60) days shall give FYRA Engineering the right to stop work until payments are current. Non-payment beyond seventy (70) days shall be just cause for termination by FYRA Engineering.

ADDITIONAL SERVICES. The Client and FYRA Engineering acknowledge that additional services may be necessary for the Project to address issues that may not be known at Project initiation or that may be required to address circumstances that were not foreseen. In that event, FYRA Engineering shall notify the Client of the need for additional services and the Client shall pay for such additional services in an amount and manner as the parties may subsequently agree.

INDEPENDENT CONSULTANT. FYRA Engineering shall serve as an independent consultant for services provided under this agreement. FYRA Engineering shall retain control over the means and methods used in performing their services and may retain subconsultants to perform certain services as determined by FYRA Engineering.

STANDARD OF CARE. Services provided by FYRA Engineering will be performed with the care and skill ordinarily exercised by members of the same profession practicing under similar circumstances. FYRA Engineering will not be liable for the cost of any omission that adds value to the Project.

COMPLIANCE WITH LAWS. FYRA Engineering shall perform its services consistent with sound professional practice and endeavor to incorporate laws, regulations, codes, and standards applicable at the time the work is performed. In the event that standards of practice change during the Project, FYRA Engineering shall be entitled to additional compensation where additional services are needed to conform to the standard of practice.



PERMITS AND APPROVALS. FYRA Engineering will assist the Client in preparing applications and supporting documents for the Client to secure permits and approvals from agencies having jurisdiction over the Project. The Client agrees to pay all application and review fees.

OWNERSHIP OF DOCUMENTS. Documents prepared by FYRA Engineering for the Project are instruments of service and shall remain the property of FYRA Engineering. Record documents of service shall be based on the printed copy. FYRA Engineering will furnish documents electronically; however, the Client releases FYRA Engineering from any liability that may result from documents used in this form. FYRA Engineering shall not be held liable for reuse of documents for any purpose other than those intended under the Project.

INSURANCE. FYRA Engineering will maintain the following insurance and coverage limits during the period of service. The Client will be named as an additional insured on the Commercial General Liability and Automobile Liability policies.

<u>Workers' Compensation</u>	As required by applicable state statute.
<u>Commercial General Liability</u>	\$1,000,000 per occurrence (bodily injury including death & property damage) \$2,000,000 aggregate.
<u>Automobile Liability</u>	\$1,000,000 combined single limit for bodily injury and property damage.
<u>Professional Liability</u>	\$1,000,000 each claim and in the aggregate.

The Client shall make arrangements for Builder's Risk, Protective Liability, Pollution Prevention, and other specific insurance coverage warranted for the Project in amounts appropriate to the Project value and risks. FYRA Engineering shall be a named insured on those policies where FYRA Engineering may be at risk. The Client shall obtain the counsel of others in setting insurance limits for construction contracts.

WAIVER OF SUBROGATION. FYRA Engineering, LLC affirmatively agrees to obtain waiver of subrogation against the client and name the client as an additional insured on the Commercial General Liability and Automobile policies.

INDEMNIFICATION AND HOLD HARMLESS. FYRA Engineering, LLC shall indemnify and hold harmless the Client and its employees and agents from any and all liability, settlements, loss, defense costs, and expenses in connection with any action, suit, or claim resulting from the negligent acts, errors, or omissions in services provided pursuant to this Agreement by FYRA Engineering, LLC its employees, or Subconsultants and/or subcontractors. Client shall indemnify and hold harmless FYRA Engineering, LLC and its employees and agents from any and all liability, settlements, loss, defense costs, and expenses in connection with any action, suit, or claim resulting from the negligent acts, errors, or omissions in services provided pursuant to this Agreement by the Client, its employees, or subconsultants and/or subcontractors. However, if any such liability, settlements, loss, defense costs or expenses result from the concurrent negligence of FYRA Engineering, LLC, and the Client this indemnification applies only to the extent of the negligence of FYRA Engineering, LLC.



LIMITATION OF LIABILITY. To the fullest extent permitted by law, a party's total liability to the other party and anyone claiming by, through, or under the other party for any cost, loss, or damages caused in part by the negligence of the party and in part by the negligence of the other party or any other negligent entity or individual, shall not exceed the percentage share that the party's negligence bears to the total negligence of Owner, Engineer, Subconsultant and all other negligent entities and individuals.

LEGAL EXPENSE. In the event that either party takes legal action against the other that is not prosecuted, is dismissed, or if the decision is rendered for the other party, the party taking legal action agrees to pay the other their attorney fees, court costs, and defense expenses that are allowable under Nebraska state law, within thirty (30) days of the court action.

CONSEQUENTIAL DAMAGES. Neither the Client nor FYRA Engineering shall be liable to the other for any consequential damages regardless of the nature or fault.

ENVIRONMENTAL MATTERS. The Client warrants they have disclosed all potential hazardous materials that may be encountered on the Project. In the event unknown hazardous materials are encountered, FYRA Engineering shall be entitled to additional compensation for appropriate actions to protect the health and safety of its personnel, and for additional services required to comply with applicable laws. The Client shall indemnify FYRA Engineering from any claim related to hazardous materials encountered on the Project except for those events caused by negligent acts of FYRA Engineering.

COST OPINIONS. If included in the scope of service, FYRA Engineering shall prepare cost opinions for the Project based on historical information that represents the judgment of a qualified professional. The Client and FYRA Engineering acknowledge that actual costs may vary from the cost opinions prepared and that FYRA Engineering offers no guarantee related to the Project cost.

INDEPENDENT COUNSEL. The Client agrees to obtain independent legal and financial counsel for the Project considering FYRA Engineering does not furnish these services.

CONTRACTOR SELECTION. FYRA Engineering may make recommendations concerning award of construction contracts and products. The Client acknowledges that the final selection of construction contractors and products is their sole responsibility.

SHOP DRAWING REVIEW. If included in the scope of service, FYRA Engineering shall review shop drawing submittals from the contractor solely for their conformance with the design intent of and performance criteria specified for the Project. FYRA Engineering shall not be liable for the performance of or consequential damages of any equipment furnished by the contractor under the Project.

CONSTRUCTION REVIEW. If included in the scope of service, FYRA Engineering shall observe the progress and content of the work to determine if the work is proceeding in general accordance with the Contract Documents. This construction review is intended to observe, document, and report information concerning the construction process. Observation of work at the Project site shall not make FYRA Engineering responsible for the work performed by another party; the means, methods, techniques, sequences, or procedures selected by another party; nor the safety precautions or programs of another party.

REJECTION OF WORK. FYRA Engineering may recommend that the Client reject work by construction contractors that does not conform to the requirements of the Project.

SAFETY. FYRA Engineering shall be responsible solely for the safety precautions or programs of its employees and no other party.

INFORMATION FROM OTHER PARTIES. The Client and FYRA Engineering acknowledge that FYRA Engineering will rely on information furnished by other parties in performing its services under the Project. FYRA Engineering shall not be liable for any damages that may be incurred by the Client in the use of third party information.



CONSTRUCTION RECORD DRAWINGS. If included in the scope of service, FYRA Engineering will deliver drawings to the Client incorporating information furnished by construction contractors. In that construction record drawings are based on information provided by others, FYRA Engineering cannot and does not warrant their accuracy.

FORCE MAJEURE. Neither party will hold the other responsible for damages or delay caused by Acts of God, acts of war, strikes, accidents, or other events beyond the other's control.

DISPUTE RESOLUTION. The Client and FYRA Engineering agree that they shall diligently pursue resolution of all disagreements within forty-five (45) days of either party's written notice using a mutually acceptable form of mediated dispute resolution prior to exercising their rights under law. FYRA Engineering shall continue to perform services for the Project and the Client shall pay for such services during the dispute resolution process unless the Client issues a written notice to suspend work.

SUSPENSION OF WORK. The Client may suspend services performed by FYRA Engineering with cause upon fourteen (14) days written notice. FYRA Engineering shall submit an invoice for services performed up to the effective date of the work suspension and the Client shall pay FYRA Engineering all outstanding invoices within fourteen (14) days. If the work suspension exceeds thirty (30) days from the effective work suspension date, FYRA Engineering shall be entitled to renegotiate the Project schedule and the compensation terms for the Project.

TERMINATION. The Client or FYRA Engineering may terminate services on the Project upon seven (7) days written notice in the event of substantial failure by the other party to fulfill its obligations of the terms hereunder. FYRA Engineering shall submit an invoice for services performed up to the effective date of termination and the Client shall pay FYRA Engineering all outstanding invoices within fourteen (14) days. The Client may withhold an amount for services that may be in dispute provided that the Client furnishes a written notice of the basis for their dispute and that the amount withheld represents a reasonable value.

GOVERNING LAW. The terms of agreement shall be governed by the laws of the state where the services are performed provided that nothing contained herein shall be interpreted in such a manner as to render it unenforceable under the laws of the state in which the Project resides.

ASSIGNMENT. Neither party shall assign its rights, interests, or obligations under the Project without the express written consent of the other party.

WAIVER OF RIGHTS. The failure of either party to enforce any provision of these terms and conditions shall not constitute a waiver of such provision nor diminish the right of either party to the remedies of such provision.

WARRANTY. FYRA Engineering warrants that it will deliver products under the Project within the standard of care. FYRA Engineering provides no other expressed or implied warranty.

SEVERABILITY. Any provision of these terms later held to violate any law shall be deemed void and all remaining provisions shall continue in force. In such event, the Client and FYRA Engineering will work in good faith to replace an invalid provision with one that is valid with as close to the original meaning as possible.

SURVIVAL. All provisions of these terms that allocate responsibility or liability between the Client and FYRA Engineering shall survive the completion or termination of services for the project.



Engineer's Fee Estimate
Plattsmouth Dam 7-C Spillway Rehab
Lower Platte South Natural Resources District
Cass County, Nebraska

Tasks	FYRA Engineering			Expenses	Total
	Prj Manager	El	Acctg		
	Sotak	Varies	Stratton		
	\$215	\$112	\$80		
No. Project Management					
1.1 Client Meetings (1 meeting)	4				
1.2 Monthly Invoicing (3 months)	1.5		1.5		
1.3 NDNR Dam Safety Coordination	3				
Project Management Task Total	\$1,828	\$0	\$120	\$0	\$1,948
No. Preliminary Design					
2.1 Site Visit	4			\$50	
2.2 Downstream Channel Recommendation Letter	4				
Preliminary Design Task Total	\$1,720	\$0	\$0	\$50	\$1,770
No. Final Design					
3.1 Prepare Plans	6	24			
3.2 Prepare Bid Documents	4				
3.3 Prepare Technical Specifications	4				
Final Design Task Total	\$3,010	\$2,688	\$0	\$0	\$5,698
No. Construction					
4.1 Solicit Bids from Contractors	4				
4.2 Bid Recommendation	2				
4.3 Pre-Construction Meeting	2				
4.4 Construction Observation	4	20		\$150	
4.5 As-Builts/Record Drawings/NDNR Construction Certification	4	6			
Construction Task Total	\$3,440	\$2,912	\$0	\$150	\$6,502
Subtotal Hours	47	50	2	\$200	
Subtotal Costs	\$9,998	\$5,600	\$120	\$200	\$15,918

Schedule: Draft plans to be delivered to NRD for review within 30 days of execution of contract

P:\Projects\002-LPSNRD\002-19-01-Plattsmouth Dam 7-C\Contract\Dam 7-C CIPP Contract