

Water Committee Meeting
Thursday, April 2, 2020 7:30 AM
Lower Platte North NRD Office
P.O. Box 126
Wahoo, NE 68066

1. UNFINISHED BUSINESS

2. Lower Platte North NRD Dealing with COVID-19

Several weeks ago management and staff began planning for altered office procedures due to the growing concern over COVID-19. The following is a listing of some of the changes that have been made over the past several weeks:

- Office staff has been divided into two work groups, each working 3 days in the office and 3 days remotely from home.
- Staff members who can continue to work outside will do so when work is needed however they will not be permitted to enter any portion of the office.
- While working from home, staff will be available for phone and e-mail communications and understand all job related responsibilities remain.
- Management and staff are conducting daily conference calls at 10 am and 2 pm to maintain aggressive communication lines and insure all staff is up to date with ongoing District workloads.
- Sick leave will not be utilized while staff is working from home.
- The office doors have been locked and the general public is not allowed into the building without an appointment.
- If a walk-up customer needs to drop off paperwork, payment or any other correspondence, staff will go to their vehicle and take care of business outside of the office.
- All staff is being asked to follow generally accepted CDC recommendations when it comes to washing hands, disinfecting equipment and operating as safely as possible in our current working environment.
- Office cleaning crew is disinfecting all solid surfaces, light switches, door handles and public spaces during their regular cleaning and staff is doing the same at the end of the 3 day shifts.
- All staff will remain home and not come into the office if they have any of the variety of COVID-19 symptoms.
- Our NRD recreation areas remain open however we have closed down the Wanhoo playgrounds and all of our recreation site toilets.
- While we can never guarantee the absolute safety to all our employees, we believe these steps and any future steps, will help us achieve our greatest goal, that of protecting the health and well-being of our staff and the general public.

3. REGULATORY

A. GROUND WATER MANAGEMENT AREA

1. Supplemental Well

Adam Pieper representing Merle and Joan Mueller Trust is requesting a new well for the SE NE Section 30-18N-2E Colfax County.. Well G-026797 is in Section 29-18N-2E presently irrigates 300 acres. The producer would like to take the hardship off of the 1 well and put in an additional well The new well will irrigate approximately 90 acres in Section 30 and well G-026797 will irrigate the remaining 210 acres. He is not increasing irrigated acres as these acres are already certified.

Map is attached showing both sections. Staff feels that taking the load off one well should make water management more efficient.

2. Lower Platte River Basin Water Management Plan Coalition (LPRBC)

The Coalition is requesting \$10,000 dues from all it's members in the upcoming budget year. As the first 5-year increment will be ending December 2021, the need to re-evaluate the depletion numbers might become necessary. More discussion was planned for the April Coalition meeting, but now has been postpone. Staff would like the Committee/Board to consider putting this amount in next year's budget

B. CHEMIGATION

C. For 2020 we have 189 renewals and 1 new permit applications for a current total of 190. Inspections for 0 renewal permits have been completed.

4. GROUND WATER PROGRAMS

A. DECOMMISSIONED WELL PROGRAM

1. Well Estimates

2. # new wells has been reviewed and approved for decommissioning since the last Committee meeting.

3. Well Owner	4. Type of Well	5. Cost Share Estimate	6. County
7. Lichten Acres LLC	8. Unregistered stock	9. \$430.50	10. Boone
11. Marvin Kasik	12. Unregistered	13. \$620.21	14. Colfax

	Irrigation		
15. David L. Groteluschen	16. Irrigation	17. \$1,000	18. Platte

19.

20. Plugged Wells

21. # wells have been plugged, reviewed, and ready for cost share payment approval this month.

22. Well Owner	23. Type of Well	24. Cost Share Estimate	25. County
26. Wesch Trust's (5 wells)	27. Irrigation	28. \$2,981.23	29. Dodge
30. Tim Foltz	31. Irrigation	32. \$1,000	33. Platte
34. Jordan A. Jisa	35. Domestic	36. \$508.92	37. Butler

38.

B. LOWER PLATTE NORTH NRD GROUND WATER STUDIES

1. Eastern Nebraska Water Resources Assessment (ENWRA)

After the Committee Meeting Daryl reviewed the agreements and corrected the dates from June 30, 2021 to June 30, 2022.

In 2017 Lower Platte North signed an agreement which continues dues of \$30,000 until FY 2022. The attachment "EMWRAfull_Interlocal_withAmend1to5" is attached with page 29 showing the most recent agreement.

Item_1_NGCAgreements page 30 shows an agreement to continue funding the GeoCloud until June 30,2022 for the original amount of \$3400 per year.

Item_2_CoordinatorAgreements will extend this agreement with UNL to June 30, 2022.

The purpose of all of these is to put all of the contract approvals on the same date

and year. The year that all of these would come back to the Committee/Board is June 2022.

C. GROUND WATER ENERGY LEVELS

Staff started measurements on March 23.

D. Nitrate Management Area NET Grant

The LPNNRD received a NET Grant in 2018 for collecting and analyzing the nitrate movement in the Nitrate Management Areas. The second year of the grant has \$50,000 budgeted (as shown on page 13 of the attachment) for doing some detail geological interpretation and nitrate movement through the vadose zone. The purpose of this part of the process is to assist in determining the most vulnerable areas, along with analyzing the most efficient best management practices for the right location. Staff would like to start the process of requesting RFPs from firms to conduct this study. Staff is looking for interactive computer results and not another map book.

5. OTHER

A. GMDA conference

Attached is letter on the GMDA conference which is scheduled for June 9-12 in Colorado Springs.

B. COMMENTS FROM THE PUBLIC

R2E

Road H

Road H

Road H

Road H

Road H



**APPLICATION FOR A PERMIT TO CONSTRUCT A WATER WELL
IN THE LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT**

DNR & NRD USE ONLY			
Permit No. _____	Date Approved/Denied _____	NRD Representative _____	
Permit Type: New, Replacement or Late _____	Date Received _____	Paid: Cash or <input checked="" type="checkbox"/> Check # <u>29902</u>	
Date Post-inspected _____	Registration No. _____	Updated Form: May 2008	

2/27/20
\$50 -
Grosch

ALL APPLICANTS SEEKING A WATER WELL PERMIT MUST COMPLETE PAGES 1 AND 2, AND THE APPROPRIATE SECTION BASED ON THE PURPOSE OF THE WELL. (CLASS 1 - 4 WELL PERMIT)
 WATER WELL PERMITS FOR IRRIGATED ACRES GREATER THAN 160 ACRES IN SIZE OR TOTAL ANNUAL WATER USE BETWEEN 150 AND 300 ACRE FEET PER YEAR MUST COMPLETE PAGES 1, 2, AND 3, AND THE APPROPRIATE SECTION BASED ON THE PURPOSE OF THE WELL. (CLASS 3 WELL PERMIT)
 WATER WELL PERMITS FOR TOTAL ANNUAL WATER USE EQUAL TO OR GREATER THAN 300 ACRE FEET PER YEAR, REGARDLESS OF NUMBER OF IRRIGATION ACRES, MUST COMPLETE PAGES 1, 2, AND 4, AND THE APPROPRIATE SECTION BASED ON THE PURPOSE OF THE WELL. (CLASS 4 WELL PERMIT)

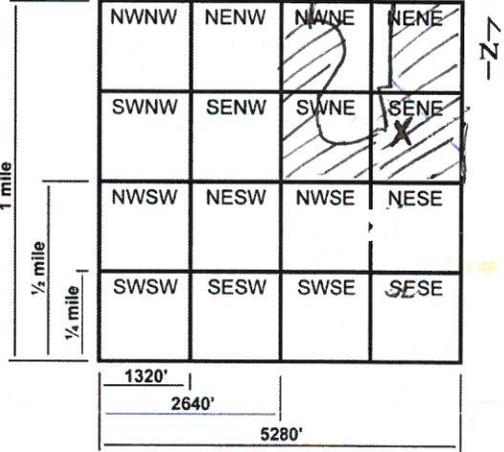
<p>1. NAME AND ADDRESS OF LAND OWNER: <u>Merle C & Joan F Mueller Trust</u> <u>206 Road H</u> <u>Richland, NE 68101</u> Phone: _____</p>	<p>NAME AND ADDRESS OF CONTACT: <u>Adam Pieper</u> <u>185 Road Z</u> <u>Richland, NE 68101</u> Phone: <u>402-910-8065</u></p>
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2. PURPOSE OF NEW WATER WELL (indicate one):

<input checked="" type="checkbox"/> Irrigation (Complete section A)	<input type="checkbox"/> Dewatering (Over 30 days, Complete section B)
<input type="checkbox"/> Livestock (Complete section C)	<input type="checkbox"/> Domestic (Irr. on one acre or larger, Complete section D)
<input type="checkbox"/> Industrial (Complete section E)	<input type="checkbox"/> Public Water Supply (Complete section F)
<input type="checkbox"/> Recovery or Remediation (Complete section G)	
<input type="checkbox"/> Other (specify) _____	(Complete section H)

3. IDENTIFY LOCATION OF PROPOSED WELL:

A. Colfax County, SE 1/4 of the NE 1/4 of Section 30, Township 18 North, Range 2 East/West. (circle one)



B. The box at the right represents one square mile, (section). Indicate with an "X", the proposed location of the well. Outline the proposed water use area. If the water is to be used outside the above written legal description, give legal description of water use area, _____ 1/4 of the _____ 1/4 of Section _____, Township _____ North, Range _____ East/West.

C. The well will be located 1581 feet from the North South section line, and will be 404 feet from the East West section line. Or enter Lat. / Long.
 Latitude Degree 41 Minute 30 Second 24.6
 Longitude Degree 97 Minute 14 Second 06.2

Approx.

4. REPLACEMENT AND ABANDONED WELL INFORMATION:

A. Is this a replacement well? Yes, No If yes, fill out the rest of this section.

B. Registration number of well to be replaced: _____

C. Well to be replaced was last operated (month/year): _____

D. Replacement well is _____ feet from original well.

E. Decommissioning of Original well on (month/day/year): _____

F. If water use is for irrigation, list the number of acres watered by the original well: _____

G. If water use is for irrigation, will replacement well, water the same tract of land as the decommissioned well?
 Yes, No: If No, list the number of additional acres _____ and legal description _____ 1/4 of the _____ 1/4 of Section _____, Township _____ North, Range _____ East/West. (circle one)

- A replacement water well must deliver water to the same tract of land as the original water well, pump from a comparable aquifer, and yield approximately the same gallons per minute and total annual water use as the original water well.

5. SPECIFICATIONS OF INTENDED WELL AND PUMP:

- A. Approximate date when construction will begin (month/day/year): ASAP
- B. Expected total well depth: 150 feet.
- C. Well Casing Diameter: 16 inches.
- D. Pump Column Diameter: 8 inches.
- E. Estimated pumping capacity: 800 GPM.
- F. Expected total annual water use in Acre Inches / Year _____ or Total Gallons / Year _____
- G. The system is to be powered by Electric Fuel
- H. Will the well be used in a system with other wells? Yes, No. If Yes, How many _____
List well registration number and legal description of each well in Section 6 below.
- I. Name of Well Driller: Grosch Irrigation - Silver Creek (Please attach test hole log, if available.)

6. List additional information requested in this Section or attached additional sheet.

hammer is currently using well G-026797 in the section to the East of the proposed location to irrigate 300 Acres & would like to take the hardship off of the 1 well & put in another well. The 300 acres are certificated irrigated already. Customer is currently having to pipe water across the road to the other section. New well will irrigate approximately 90 acres in Section 30 & well G-026797 will irrigate the remaining 210 acres in section 29.

7. Addition information and requirements for Lower Platte North NRD review.

- Attach current tax assessor records including map, parcel number, and current land use such as irrigated acres.
- Attach aerial photo showing location of water source(s) and area water or reuse water is to be used.
- All new and replacement water wells must install a District approved flow meter and report water pumped annually to the LPNNRD by January 31st of the following year.
- Water well permit conditions maybe required for approval by the Lower Platte North NRD for each individual well.

8. I certify that I am familiar with the information contained in this application, and it's restrictions, rules and regulations and that to the best of my knowledge and belief such information is true, complete and accurate.

Date 2-21-20 Signature of Applicant [Signature] P.O.A.
Signature of Well System Operator, if different than Applicant _____
NRD Certification Number of Landowner or Operator _____ (Required for irrigation, livestock, domestic (with irrigation on one acre or more of land), industrial, and public water supply wells.)

9. Lower Platte North NRD Use Only. Comments by District Representative.

**APPLICATION FOR A PERMIT TO CONSTRUCT A WATER WELL
IN THE LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT**

**WATER WELL PERMIT FOR IRRGATED ACRES GREATER THAN 160 ACRES IN SIZE OR TOTAL
ANNUAL WATER USE BETWEEN 150 AND 300 ACRE FEET PER YEAR, PROVIDE INFORMATION
REQUESTED ON PAGES 1, 2, AND 3. (CLASS 3 WELL PERMIT)**

10. WATER SOURCE INFORMATION:

In a TWO-mile radius around the water source location, provide the following information to the LPNNRD in both paper copy and electronically in Excel Spreadsheet (Microsoft) or Access Database (Microsoft) format.

- A. List of all registered wells in this area giving registration number, well identification number, legal description, latitude / longitude or UTM coordinates in NAD 83, elevation in feet above mean sea level, and well log for each well.
 - B. List of all test holes in the area that have been published by Conservation and Survey Division of the University of Nebraska.
 - C. List of all surface water rights in this area giving appropriation number, priority date, legal description, use, status, current total acres (if applicable), and grant amount.
-

11. WATER USE LOCATION INFORMATION:

In the location where the water will be used, provide the following information to the LPNNRD in both paper copy and electronically in Word (Microsoft) format.

- A. Description of expanded water use including: latitude / longitude or UTM coordinates in NAD 83 of water use location and timeframe or schedule when water will be used.
 - B. Amount of water that will be reused or recycled at this new location.
 - C. Description of how water will be used at this new location, i.e. process water vs. cooling water, etc. and estimated total annual water use for each purpose.
-

**APPLICATION FOR A PERMIT TO CONSTRUCT A WATER WELL
IN THE LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT**

**WATER WELL PERMIT FOR TOTAL ANNUAL WATER USE EQUAL TO OR GREATER THAN 300 ACRE
FEET PER YEAR, REGARDLESS OF NUMBER OF IRRIGATED ACRES, PROVIDE INFORMATION
REQUESTED ON PAGES 1, 2, AND 4. (CLASS 4 WELL PERMIT)**

12. WATER SOURCE INFORMATION:

In a FIVE-mile radius around the water source location, provide the following information to the LPNNRD in both paper copy and electronically in Excel Spreadsheet (Microsoft) or Access Database (Microsoft) format.

- A. List of all registered wells in this area giving registration number, well identification number, legal description, elevation in feet above mean sea level, latitude / longitude or UTM coordinates in NAD 83, and well log for each well.
 - B. List of all test holes in the area that have been published by Conservation and Survey Division of the University of Nebraska.
 - C. List of all surface water rights in this area giving appropriation number, priority date, legal description, use, status, current total acres (if applicable), and grant amount.
-

13. WATER USE LOCATION INFORMATION:

In the location where the water will be used, provide the following information to the LPNNRD in both paper copy and electronically in Word (Microsoft) format.

- A. Description of expanded water use including: latitude / longitude or UTM coordinates in NAD 83 of water use location and timeframe or schedule when water will be used.
 - B. Amount of water that will be reused or recycled at this new location.
 - C. Description of how water will be used at this new location, i.e. process water vs. cooling water, etc. and estimated total annual water use for each purpose.
-

14. AQUIFER PUMP TEST:

In the location of the proposed water source a District approved aquifer pump test is to be performed to obtain geologic data that will be used in the ensuing ground water modeling effort. Data from the pump test is to be reported to the LPNNRD in both paper copy and electronically in Excel Spreadsheet (Microsoft) or Access Database (Microsoft) format.

- A. Description of pumping well should include legal description of well, latitude / longitude or UTM coordinates in NAD 83, elevation of well in feet above mean sea level, total amount of water pumped, gallons per minute during pump test, duration of pump test, well construction, well log, water discharge location and method.
 - B. Description of each monitoring well should include legal description of well, latitude / longitude or UTM coordinates in NAD 83, spacing in feet and direction from pumping well, elevation of well in feet above mean sea level, well log, and well construction.
 - C. Depth to bedrock, bedrock material, and name of geologic formation.
-

15. GROUNDWATER MODEL:

In a FIVE-mile radius of the location of the proposed water source a ground water model using MODFLOW software, or similar software approved by LPNNRD, is to be done. Data from the ground water model is to be reported to the LPNNRD in both paper copy and electronically using the appropriate software.

- A. Model should list boundary conditions used, grid size, include all high capacity wells in modeled area, streams and rivers in the modeled area, expected recharge rates, location and flow amounts, hydrologic conductivity and transmissivity values used.
 - B. At least one iteration, reviewed and approved by LPNNRD, should model steady state conditions over a five-year period with a no flow boundary, and little or no recharge to simulate drought conditions.
-

APPLICATION FOR A PERMIT TO CONSTRUCT A WATER WELL
IN THE LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT

PURPOSE OF WELL

IRRIGATION WELLS (SECTION A)

- A. How many acres will be irrigated? 90 acres
- B. Crops to be planted: corn & beans Crop rotation schedule every other year
- C. Type of irrigation system. Center Pivot, Gravity, Other (specify) _____
- D. The irrigation system is to be powered by Electric Fuel
- E. Expected total annual consumptive water use in Acre Inches / Year _____ or
Total Gallons / Year _____
- F. Will Fertilizer, Chemicals or Animal waste be applied through the system? Yes, No

DEWATERING WELLS OVER 30 DAYS (SECTION B)

- A. Purpose of dewatering well, such as installation of building foundation, etc. _____
- B. Expected total number of days the dewatering well will be in use _____
- C. Approximate dates (month/day/year) in operation: Start _____ End _____
- D. Legal description of water discharge location: _____ 1/4 of the _____ 1/4 of Section _____, Township _____ North, Range _____ East/West and name of river, stream or water body _____
- E. Will discharge water be used for another purpose, such as livestock, irrigation, etc.? Yes, No
If Yes, list purpose, location and expected total amount of water use in acre-inches / year or total gallons / year.

LIVESTOCK WELLS (SECTION C)

- A. Name of facility _____
- B. Type of Livestock: Feeder Cattle, Dairy Cattle, Swine over 55 lbs., Swine under 55 lbs.,
 Sheep, Poultry, Horses
- C. Average number of livestock per year _____ and average weight per animal _____ lbs.
- D. Peak number of livestock _____ and time of year _____
- E. Is facility approved by Nebraska Department of Environmental Quality? Yes, No. If Yes, list NDEQ certification IIS number _____ If No, complete the rest of this section.
- F. Type of facility: Open lot, Covered Building
- G. If facility is Open lot, list soil type _____
- H. Estimated depth to ground water under feedlot _____ ft.
- I. Describe manure collection system of feedlot _____
- J. Name and distance of nearest surface watercourse from feedlot _____
- K. For each manure land application site, list legal description and size in acres, method of application, and distance from feedlot operation. _____

DOMESTIC WELLS WITH IRRIGATION ON ONE ACRE OR MORE (SECTION D)

- A. Check all that apply:
 - a. Water use: Lawn and number of acres to be irrigated _____ acres.
 - b. Water use: Commercial garden and number of acres to be irrigated _____ acres.
 - c. Water use: Tree Farm and number of acres to be irrigated _____ acres.
 - d. Water use: Type of livestock _____ and number _____
 - B. Type of irrigation system. Sprinkler, Drip Tape, Other (specify) _____
 - C. If applicable, give Street address and town _____
- * One acre equals 43,560 square feet.

INDUSTRIAL AND COMMERCIAL WELLS

(SECTION E)

- A. Name of facility _____
- B. Products produced by facility _____
- C. In Section 6 or on a separate sheet of paper, list well registration number and legal description of current wells supplying water to this facility.
- D. In Section 6 or on a separate sheet of paper, provide a short description how water is used within the facility and the expected annual amount of water for each use. For example: "The manufacturing plant will use 45% of total annual water use, or 1.45 million gallons per year, for electroplating of galvanized pipe and the remaining 55% of total annual water use, or 1.77 million gallons per year, will be used for non-contact cooling water throughout the plant".
- E. Will any of the used water or waste water from this facility be re-used for another purpose? Yes, No.
If Yes, list purpose, location and expected total amount of water use in acre-inches / year or total gallons / year.

PUBLIC WATER SUPPLY WELLS

(SECTION F)

- A. On a separate sheet of paper, list the well registration numbers and legal description of current wells supplying water to this community.
- B. Attach a list of the five largest industrial water users that your community supplies water to, and the total annual amount of water supplied to each of these industries for the last five years.
- C. For these same industries list the total annual amount of water returned to the community as waste water for each of the last five years.
- D. Will waste water be used for another purpose, such as livestock, irrigation, etc.? Yes, No
If Yes, list purpose, location and expected total amount of water use in acre-inches / year or total gallons / year.
- E. Attach a list of the golf courses that the community supplies water to and list the location and number of acres for each one.

RECOVERY OR REMEDIATION WELLS

(SECTION G)

- A. Reason for recovery or remediation well, i.e. leaking underground storage tank. _____
- B. Contaminates of concern _____
- C. Treatment method of contaminates _____
- D. Approximate dates (month/day/year) in operation: Start _____ End _____
- E. Legal description of water discharge location: _____ 1/4 of the _____ 1/4 of Section _____, Township _____ North, Range _____ East/West and name of river, stream or water body _____
- F. Will cleanup water be used for another purpose, such as livestock, irrigation, etc.? Yes, No
If Yes, list purpose, location and expected total amount of water use in acre-inches / year or total gallons / year.

OTHER WELLS

(SECTION H)

- A. Purpose of water use _____
- B. Will the well be used for one calendar year or less? Yes, No
 - a. If Yes, list approximate dates (month/day/year) the well will be in operation: Start _____
End _____
 - b. If No, list the approximate dates (months) or seasons of the calendar year that well is expected to be in peak or highest use. _____
- C. Legal description of water discharge location: _____ 1/4 of the _____ 1/4 of Section _____, Township _____ North, Range _____ East/West and name of river, stream or water body _____

This form must be completed in full and accompanied by a non-refundable \$50.00 filing fee (payable to the Lower Platte North Natural Resources District). In addition, for Class 3 well permits an added fee of \$250.00 is required for District review. For Class 4 well permits an added fee of \$500.00 is required for District review. Forward this application and filing fees to:

**Lower Platte North Natural Resources District
P.O. Box 126
Wahoo, NE 68066
Phone: (402) 443-4675**

Please take the time and fill out the information correctly. The District will return an incomplete or defective application, with 60 days being allowed for resubmission. The District shall issue all permits with conditions attached, or denied not later than 30 days after receipt of a complete and properly prepared application.

WATER WELL PERMIT RESTRICTIONS

1. A well permit is required prior to the construction of a water well. If construction of a water well is commenced prior to obtaining a permit, a late permit must be completed and accompanied by a \$250.00 application fee. Construction or operation of a new water well without an approved water well permit shall result in the District issuing a 'cease and desist order' against further construction or use of that water well.
2. An irrigation well shall not be constructed within 1000 feet of any registered industrial or public water supply well or within 600 feet of a registered irrigation well; A public water supply well shall not be constructed within 1000 feet of any registered irrigation, industrial or other public water supplier's well; An industrial well shall not be constructed within 1000 feet of any registered irrigation, industrial or public water supply well pursuant to §46-609 and §46-651. These spacing restrictions shall not apply to water wells owned by the same person. Any person may apply to the Nebraska Department of Natural Resources for a special permit to drill a water well without regard to the spacing requirements pursuant to §46-653. The District may adopt stricter well spacing requirements based on different aquifer subareas. Check with the District office if you have any questions.
3. This permit does not register the well with the Department of Natural Resources. All wells are required to be registered by the well driller with the Nebraska Department of Natural Resources within 60 days after the well is completed.
4. A replacement water well is one, which replaces an abandoned water well that has been operated within the last three years, and is constructed to water the same tract of land as the abandoned water well that is being replaced. A replacement water well must be pumping from a comparable aquifer and yield approximately the same gallons per minute and total annual water uses as the original water well it is replacing. As of January 1, 1997, both new and replacement wells need a permit from the Lower Platte North Natural Resources District.
5. Consumptive water use in acre-inches is determined from the Department of Natural Resources (DNR) Net Corn Crop Irrigation Requirement map or a similar map produced by the University of Nebraska.
6. If the well is being replaced it must be properly abandoned according to state guidelines. A copy of these guidelines is available from the Lower Platte North NRD.
7. If the water well is not constructed within a one-year period from the date of approval, a new permit is needed.
8. Water wells may not be drilled within 50 feet of a stream bank without first obtaining a surface water right for that water withdrawal from the Department of Natural Resources pursuant to §46-637.
9. Any person who, on or after January 1, 1997, commences or causes construction of such a well for which the required permit has not been obtained, or who knowingly furnishes false information regarding such a permit, shall be guilty of a Class IV misdemeanor pursuant to §46-602.01 and §46-613.02.
10. Permits are not required for test holes or temporary dewatering wells (30 days or less). Permits are needed for water wells designed to pump 50 gallons per minute or less in Level 3 and Stay management areas.
11. Tax assessor records submitted with water well permit must include map, parcel number and an accurate account of current land use, such as irrigated acres.
12. With the well permit application, submit an aerial photograph with markings to show the location of the water source(s) and the location of where the water is to be used.
13. Any person, who knowingly furnishes false information regarding a water well permit, shall be subject to the imposition of penalties imposed through the controls adopted by the District pursuant to §46-746.
14. All new or replacement water wells must install a District approved flow meter and report water pumped annually in acre-inches per year or total gallons per year on LPNNRD approved forms by January 31st of each following year.
15. If multiple water sources are used, landowner must supply flow records from each water source in acre-inches per year or total gallons per year on LPNNRD approved forms by January 31st of each following year.
16. Water well permit applications require that the applicant or operator of irrigation, livestock, domestic (with irrigation on one acre or more of land), industrial, and public water supply wells by NRD certified.

**** Landowners must list new irrigated acres with the County Assessor, update the DNR well registration, and comply with any additional conditions within 90 days of LPNNRD approval of this water well permit. LPNNRD staff may perform a site visit to verify information provided in the well permit application. ****

CHEMIGATION – MARCH 2020

TOTAL CHEMIGATION RENEWAL APPLICATIONS – 2020

NEW CHEMIGATION APPLICATIONS – 1

Boone Butler Colfax Dodge Madison Platte Saunders

RENEWALS: 189

BOONE COUNTY – 19

BUTLER COUNTY – 13

COLFAX COUNTY – 14

DODGE COUNTY – 38

MADISON COUNTY – 4

PLATTE COUNTY – 38

SAUNDERS COUNTY – 63

RENEWAL INSPECTIONS:

Boone Butler Colfax Dodge Madison Platte Saunders

NEW INSPECTIONS:

Boone Butler Colfax Dodge Madison Platte Saunders

NEW CANCELLATIONS:

EMERGENCY: 0

Cancellations –Total

Boone Butler Colfax Dodge Platte Saunders

INTERLOCAL COOPERATIVE AGREEMENT

BETWEEN THE

**LEWIS & CLARK NATURAL RESOURCES DISTRICT
LOWER ELKHORN NATURAL RESOURCES DISTRICT
LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT
LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT
NEMAHA NATURAL RESOURCES DISTRICT and
PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT**

THIS AGREEMENT is made and entered into this 18th day of JANUARY, 2007, by and between the Lewis & Clark Natural Resources District (“LCNRD”), Lower Elkhorn Natural Resources District (“LENRD”), Lower Platte North Natural Resources District (“LPNNRD”), Lower Platte South Natural Resources District (“LPSNRD”), Nemaha Natural Resources District (“NNRD”), and the Papio-Missouri River Natural Resources District (“PMRNRD”) hereinafter referred to individually as “each District” or the individual District’s initials, for example, LPNNRD, or collectively as the “Districts”.

WITNESSETH:

RECITALS

A. The Districts are political subdivisions of the State of Nebraska organized and existing pursuant to *Neb. Rev. Stat. §§ 2-3201, et seq.*, and have the authority, pursuant to *Neb. Rev. Stat. § 2-3232(1)*, to make studies, investigations, or surveys and do research as may be necessary to carry out its authorized purposes, enter upon any land, after notifying the owner or occupier, for the purpose of conducting such studies, investigations, surveys, and research, and publish and disseminate the results

B. Among the authorized purposes of the Districts, pursuant to *Neb. Rev. Stat.* § 2-3229 are water supply for any beneficial uses, development, management, utilization, and conservation of ground water and surface water, pollution control, and solid waste disposal and sanitary drainage

C. The State or any local government may exercise any of its powers or perform any of its functions jointly or in cooperation with any other governmental entity as authorized by Article XV § 18 of the Nebraska Constitution. Any two or more public agencies (county, city, village, school district, agency of the State government, or political subdivision of this State) are authorized by Neb. Rev. Stat. §§ 13-801 to 13-827 (Reissue 1991) to enter into interlocal agreements with one another for joint or cooperative action for any power or powers, privileges or authorities exercised or capable of exercise individually by such public agencies.

D. Within the boundaries of the Districts are glaciated areas of Eastern Nebraska which are significant sources of both ground water and surface water. There exists limited data regarding water quality, water quantity, and interaction between aquifers in this area and the Districts desire to conduct studies, investigations, surveys and research for the purpose of gathering more data to better understand, predict, and manage the future use of these important water resources.

E. Each District desires to cooperate with the other Districts in three pilot studies to establish appropriate methodologies to conduct hydrogeologic framework studies for the glaciated areas of Eastern Nebraska. The overall goal is that the methodologies derived from these pilot studies may be used to conduct more extensive hydrogeologic

framework studies for the entire area of Eastern Nebraska, hereinafter referred to as the “Project”.

F. The Districts have budgeted funds for Fiscal Year 07 which will partial fund the Project and the LPNNRD has applied for funding from the Interrelated Water Management Plan Program Fund (IWMPPF) administered by the Nebraska Department of Natural Resources for the Eastern Nebraska Water Resources Assessment (ENWRA). The application requests \$1,536,000 for a three year project. The Year One request is for \$360,000, which has been approved.

NOW, THEREFORE, in consideration of the above recitals and the mutual promises and covenants contained herein, the Districts agree as follows:

ARTICLE I

OBJECTIVES AND PURPOSES

Section 1.01

The objectives and purposes of this Interlocal Agreement are to carry out those public powers, duties and obligations of the Districts by establishing a single uniform procedure for implementing the Project.

Section 1.02

In order to attain the objectives and purposes of this Interlocal Agreement, each District shall perform the applicable provisions of this Agreement in good faith and shall cooperate with the other Districts where possible.

ARTICLE II

TERM OF AGREEMENT

Section 2.01

This Interlocal Agreement shall become effective and binding upon its approval by appropriate action of the governing bodies of each District pursuant to Neb. Rev. Stat. § 13-1804(2) and execution by all of the Districts.

Section 2.02

Each District hereby agrees to participate with the other Districts to this Interlocal Agreement in the conduct of the activities hereinafter described.

Section 2.03

In the event that a District fails to perform its obligations pursuant to this Interlocal Agreement, the other Districts, either individually or jointly, may legally seek to enforce such obligation in any court of law or equity.

Section 2.04

The term of this Interlocal Agreement shall be five (5) years from the date of its adoption by each District, unless further extended by the mutual agreement of all Districts. This Interlocal Agreement shall survive a transition of the form of government of a District from one form to another.

ARTICLE III

THE PROJECT

Section 3.01

Each District shall designate a representative to serve on the Technical Committee, which shall have authority to make technical decisions on behalf of the Districts.

Section 3.02

The Technical Committee shall annually elect a Project Coordinator who will serve as the contract person for the overall coordination of the Technical Committee, including the USGS, UNL/C&SD, and others involved in the Project.

Section 3.03

The Technical Committee shall meet at least once each calendar quarter, at a location selected by the Committee.

Section 3.04

A quorum of the members of the Technical Committee may take action on behalf of the Committee, so long as such actions are within the parameters established by this agreement, the work plan, and the annual budget.

Section 3.05

Minutes of all Technical Committee meetings shall be kept by the Committee and distributed to all ENWRA members, along with copies of the quarterly reports from each of the local Pilot Study sites.

Section 3.06

The Technical Committee member from each District that is located in a study area of a Pilot Study Site, shall be required to serve on the Local Pilot Study Site Team. The study areas are Oakland, Firth, and Ashland/Linoma.

Section 3.07

All contractors, including USGS, UNL/C&SD, will be required to notify the Local Pilot Study Site Team if there is a need for them to enter upon private property.

Section 3.08

Each District shall be responsible for obtaining entry onto private property for contractors who are working in their respective Districts, and to pay any damages that result from such entry or work performed on private property.

Section 3.09

Each Local Pilot Site Study Team shall determine the method for notifying and shall notify the public of the work being performed as a party of the Project.

Section 3.10

Any permit required by Contractors in connection with the Project shall be obtained by the District in which the work is being performed.

Section 3.11

Each District in which work is being performed as part of the Project shall ensure that the One Call Notification Law is complied with.

Section 3.12

The Technical Committee shall provide copies of all reports prepared as part of the Project to each District.

Section 3.14

Each District shall be responsible for the negligent acts or omissions of its own employees and shall not be responsible for the negligent acts or omissions of other Districts employees.

ARTICLE IV

WORK PLAN, BUDGET AND ADMINISTRATION

Section 4.01

Each District shall annually approve a work plan and budget which shall then be forwarded to the Technical Committee.

Section 4.02

LPNNRD shall be responsible for applying for all grants and the administration of all grant funds which are received and shall entered into all contracts in its name for the Project and all other work set forth in this Agreement and the annual work plan.

Section 4.03

LPNNRD shall prepare and send annually, a statement of the shared costs incurred for the Project for each District and each District shall pay its share of the costs within 45 days of the receipt of such statement.

Section 4.04

LPNNRD shall prepare and send to each District on a quarterly basis, a summary of the receipts and expenses of the Project.

Section 4.05

LPNRD shall require each Contractor to provide adequate liability insurance for bodily injury and property damage sustained as a result of each Contractor's performance of its obligations and responsibilities under any contract related to the Project.

ARTICLE V

FUNDING

Section 5.01

State funding for the Project which includes a three year study is crucial for its time completion. Funding from IWMPPF for the first year has been approved in the amount \$360,000.

Section 5.02

Each District has budgeted funding for fiscal year ("FY") 2007 as follows:
LCNRD \$5,000; NNRD \$10,000, PMRNRD \$15,000; LENRD \$20,000; LPSNRD \$20,000; and LPNNRD \$20,000; a total of \$90,000 for FY 2007.

Section 5.03

The Districts agree that funding for FY 2008 and 2009 will be limited as follows:

LCNRD \$7,000; NNRD \$20,000; PMRNRD \$30,000; LENRD \$30,000; LPSNRD \$30,000 and LPNNRD \$30,000; a total of \$147,000 for FY 2008 and a total of \$147,000 for FY 2009.

ARTICLE VI

POWERS

Section 6.01

The Districts hereto shall have all of the powers and authorities pursuant to state statutes that are necessary to carry-out the stated objectives and purposes on behalf of the joint and cooperative effort to facilitate the gathering of data for of the Project.

Section 6.02

Each District shall have such other powers as are authorized under the Nebraska statutes that establish each such District, and under the Interlocal Cooperation Act, Neb. Rev. Stat. §§ 13-801 to 13-827, which are necessary and proper for the achievement of the stated objectives and purposes as set forth in this Interlocal Agreement.

ARTICLE VII

AMENDMENTS

Section 7.01

Any District may propose an amendment to this Interlocal Agreement by submitting it in writing to the other Districts, which shall immediately consider in good faith the proposed amendment; provided, however, that no such amendment shall,

directly or indirectly, affect or impair any written contracts or agreements entered into prior to the effective date of such amendment.

Section 7.02

No amendment or other modification to this Interlocal Agreement shall be effective unless it is in writing and approved by all Districts. Such amendment shall become effective after all six (6) parties have approved and executed the same.

Section 7.03

This agreement may be executed in two or more counterparts, each of which shall be an original but all of which shall constitute one and the same instrument.

IN WITNESS WHEREOF, each District has caused this Interlocal Agreement to be executed by its duly authorized officer as of the date and year shown below.

LEWIS AND CLARK NATURAL RESOURCES DISTRICT

BY: Tom J. Moser

DATE: November 20, 2006

NEMAHA NATURAL RESOURCES DISTRICT

BY: Jim Wirth, Chairman

DATE: 12-14-06

LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT

BY: Clint Johannes

DATE: 12-11-06

LOWER ELKHORN NATURAL RESOURCES DISTRICT

BY:

William J Meyer

DATE:

Jan 18, 2007

PATIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT

BY:

John W. Allen

DATE:

12-18-06

LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT

BY:

[Signature]

DATE:

Nov. 22, 2006

ORIGINAL SIGNATURE PAGES ARE ON FILE AT THE LPSNRD

INTERLOCAL COOPERATIVE AGREEMENT

BETWEEN THE

**LEWIS & CLARK NATURAL RESOURCES DISTRICT
LOWER ELKHORN NATURAL RESOURCES DISTRICT
LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT
LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT
NEMAHA NATURAL RESOURCES DISTRICT and
PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT**

AMENDMENT #1

THIS AMENDMENT is made and entered into this ___ day of _____, 2007, to modify the original agreement signed on the 18th day of January, 2007.

Modification #1: Article III, Section 3.01

The section shall be changed to read:

The Districts shall retain an ENWRA Coordinator (“the Coordinator”) as part of the annual budget of the project. The Coordinator shall be responsible for developing goals, objectives, and work plans for the project; shall seek funding for the project; shall seek expert advice on pertinent technical issues; shall develop and assist in the implementation of standard operating procedures for data collection; shall collect background information, conduct literature searches, and oversee the development and maintenance of databases; shall coordinate meetings of the technical committee and other meetings; shall maintain an understanding of each District’s water resources issues, current studies and problems, and relate them to the appropriate agencies or persons; shall

analyze and address hydrogeologic problems that cross District boundaries; shall coordinate groundwater modeling efforts that cross District boundaries; shall assist the Districts in developing groundwater management plans that are consistent with regional hydrogeologic knowledge; shall prepare reports and address the Boards of Directors; shall assist with field activities as necessary; shall oversee contracts associated with performing the work; and shall perform duties as necessary for the advancement of the goals of the project. A search committee shall be selected by the Technical Committee to select the Coordinator. The office location of the coordinator shall be approved by the General Manager of the District in which he/she chooses to be located and by mutual agreement of all Districts. The coordinator shall be a full-time employee of the District in which he/she is located, with salary and benefits paid for through the project funds as outlined in Section 5.03. LPNNRD shall reimburse the District in which the Coordinator is located on a quarterly basis for the amount of \$15,250.74 for the second quarter of fiscal year 2008 (October through December 2008), for the amount of \$16,244.28 for the third quarter of fiscal year 2008 (January through March 2009) and \$16,711.04 per quarter thereafter for the duration of this agreement. LPNNRD shall reimburse the District in which the Coordinator is located annually for Coordinator expenses in the third quarter of each fiscal year starting in fiscal year 2008 for the duration of this agreement. The Coordinator expenses will be assumed to be \$5,000 annually.

Modification #2: Article IV, Section 4.01

This section shall be changed to read:

The General Managers of each participating District shall meet as needed, but at least annually in March for the duration of the Agreement to review the status of the project, discuss policy issues related to the project, and approve a work plan and budget which shall then be forwarded to the Technical Committee.

Modification #3: Article V, Section 5.02-5.03

This section shall be changed to read:

The Districts shall contribute funding for the project for the entire term of the agreement, which is 5 years from the date of the signed original agreement, unless further extended by mutual agreement of all Districts. The Districts agree that funding for FY 2007-08 through FY 2011-12 will be as follows:

	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11	FY 2011-12
LCNRD	\$7,000	\$7,000	\$7,000	\$7,000	\$7,000
NNRD	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
PMRNRD	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000
LENRD	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000
LPSNRD	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000
LPNNRD	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000
Total	\$147,000	\$147,000	\$147,000	\$147,000	\$147,000

LEWIS AND CLARK NATURAL RESOURCES DISTRICT

BY: Tom J. Moser

DATE: 11/5/07

LOWER ELKHORN NATURAL RESOURCES DISTRICT

BY: [Signature]

DATE: 11/2/07

LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT

BY: [Signature]

DATE: 11-17-07

LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT

BY: [Signature]

DATE: 12-17-07

NEMAHA NATURAL RESOURCES DISTRICT

BY: [Signature]

DATE: 12-14-07

PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT

BY: [Signature]

DATE: 10-15-07

INTERLOCAL COOPERATIVE AGREEMENT

BETWEEN THE

LEWIS & CLARK NATURAL RESOURCES DISTRICT
LOWER ELKHORN NATURAL RESOURCES DISTRICT
LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT
LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT
NEMAHA NATURAL RESOURCES DISTRICT and
PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT

AMENDMENT #2

THIS AMENDMENT is made and entered into this ___ day of _____, 2007.

This Amendment supplements the original agreement effective as of January 18, 2007, and Amendment #1 effective as of _____, 2007.

A. Pursuant to the provisions of Amendment #1, which modifies Article III, Section 3.01 of the original agreement the ENWRA Coordinator (the "Coordinator"), has been hired, and the Technical Committee has chosen the LPSNRD's office in Lincoln, Nebraska, as his/her work location. The General Manager of LPSNRD has approved the office location, and all of the Districts by the execution of this Amendment #2, agree that the office location of the Coordinator shall be at the LPSNRD's office in Lincoln, Nebraska.

B. Pursuant to Amendment #1, the Coordinator is a full-time employee of LPSNRD, and his/her salary and benefits will be paid through project funds as set forth in Amendment #1.

C. Pursuant to Amendment #1, LPNNRD will reimburse LPSNRD the amounts set forth in Amendment #1 for the salary and benefits of the Coordinator.

D. In all other respects the original agreement and Amendment #1 are hereby reaffirmed.

LEWIS AND CLARK NATURAL RESOURCES DISTRICT

BY: Tom J. Moser

DATE: 11/5/07

LOWER ELKHORN NATURAL RESOURCES DISTRICT

BY: Jan Jacob

DATE: 11/2/07

LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT

BY: David M. White

DATE: 11-21-07

LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT

BY: Alan D. J.

DATE: 12-17-07

NEMAHA NATURAL RESOURCES DISTRICT

BY: A/W

DATE: 12-14-07

PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT

BY: John W.

DATE: 10-30-07

INTERLOCAL COOPERATIVE AGREEMENT

BETWEEN THE

LEWIS & CLARK NATURAL RESOURCES DISTRICT
LOWER ELKHORN NATURAL RESOURCES DISTRICT
LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT
LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT
NEMAHA NATURAL RESOURCES DISTRICT and
PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT

AMENDMENT #3

THIS AMENDMENT #3 is made and entered into by and between the above natural resources district this 29 day of June, 2010. The natural resources districts are hereinafter referred to collectively as the Districts. This Amendment supplements the original agreement effective as of January 18, 2007, and Amendments #1 and #2 effective as of December 17, 2007.

Modification #1: Article II, Section 2.04, original agreement

The term of this Interlocal Agreement is hereby extended until June 30, 2017, by mutual agreement of the Districts.

Modification #2: Article V, Sections 5.02-5.03, original agreement

These sections shall be changed to read:

The Districts shall contribute funding for the project for the entire term of the agreement which now terminates on June 30, 2017, unless further extended by mutual agreement of all Districts. The Districts agree that funding for FY 2013 through FY 2017 will be as follows:

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
LCNRD	\$7,000	\$7,000	\$7,000	\$7,000	\$7,000
NNRD	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
PMNRD	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000
LENRD	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000
LPSNRD	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000
LPNNRD	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000
Total	\$147,000	\$147,000	\$147,000	\$147,000	\$147,000

Modification #3: Article IV, Sections 4.01-4.05, original agreement

These sections shall be changed to read:

LPSNRD shall be responsible for applying for all grants and the administration of all grant funds which are received and shall enter into all contracts in its name for the Project and all other work set forth in this Agreement and the work plan. LPSRD shall require each Contractor to provide adequate liability insurance for bodily injury and property damage sustained as a result of each Contractor's performance of its obligations and responsibilities under any contract related to the Project.

The Technical Committee shall annually approve a work plan and budget. This work plan and budget will be described in applications for grant funding. Approval of grant application submissions by the LPSNRD will serve as approval of the work plan and budget.

Transfer of financial responsibility from LPNNRD to LPSNRD will occur on July 1, 2010. Transfer of existing ENWRA funds will occur within 60 days of this date.

Modification #4, Article C., Amendment #2

Subsequent to July 1, 2010 LPSNRD will be responsible for paying out of the funds contributed by the Districts the amounts set forth in Amendment #1 for the salary and benefits of the Coordinator.

LEWIS AND CLARK NATURAL RESOURCES DISTRICT

BY: Tom J. Moser

DATE: June 23, 2010

LOWER ELKHORN NATURAL RESOURCES DISTRICT

BY: Tom Moser

DATE: 6-25-10

LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT

BY: Tom Moser

DATE: June 22, 2010

LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT

BY: Tom Moser

DATE: June 11, 2010

NEMAHA NATURAL RESOURCES DISTRICT

BY: R/M

DATE: June 17, 2010

PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT

BY: Neil J. Peterson

DATE: June 29, 2010

INTERLOCAL COOPERATIVE AGREEMENT

BETWEEN THE

**LEWIS & CLARK NATURAL RESOURCES DISTRICT
LOWER ELKHORN NATURAL RESOURCES DISTRICT
LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT
LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT
NEMAHA NATURAL RESOURCES DISTRICT and
PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT**

AMENDMENT #4

THIS AMENDMENT #4 is made and entered into by and between the above natural resources district this ____ day of _____, 2012. The natural resources districts are hereinafter referred to collectively as the Districts. This Amendment supplements the original agreement effective as of January 18, 2007, and Amendments #1, #2, and #2 effective as of June 29, 2010.

Modification #1: Article III, Section 3.02, as modified in Amendment #1, Modification #1:

The Section shall be changed to read:

The ENWRA Coordinator (“the Coordinator”) shall be a Geologist/Hydrogeologist hired by the Conservation and Survey Division (CSD), University of Nebraska as provided in a Cooperative Agreement between CSD and the LPSNRD, on behalf of ENWRA. A copy of the Cooperative Agreement is attached and made as Exhibit A and incorporated herein by reference. The Coordinator shall be responsible for developing goals, objectives, and work plans for the project; shall seek funding for the project; shall seek expert advice on pertinent technical issues; shall develop and assist in the implementation of standard operating procedures for data collection; shall collect background information, conduct literature searches, and oversee the development and maintenance of databases; shall coordinate meetings of the technical committee and other meetings; shall maintain an understanding of each District’s water

resources issues, current studies and problems, and relate them to the appropriate agencies or persons; shall analyze and address hydrogeologic problems that cross District boundaries; shall coordinate groundwater modeling efforts that cross District boundaries; shall assist the Districts in development groundwater management plans and integrated management plans that are consistent with regional hydrogeologic knowledge; shall prepare reports and address the Boards of Directors; shall assist with field activities as necessary; shall oversee contracts associated with performing the work; and shall perform duties as necessary for the advancement of the goals of the project.

Modification #2: Amendment #2:

The provisions in Amendment #2 are completely replaced with Amendment #4.

Modification #3: Amendment #3, Modification #4:

This section shall be changed to read:

LPSNRD shall be responsible for paying out of the funds contributed by the Districts the amounts to CSD set forth in the Cooperative Agreement between LPSNRD and CSD for the salary, benefits and operating expenses of the Geologist/Hydrogeologist assigned as the ENWRA Coordinator.

Modification #4: Article C., Amendment #2

This section shall be changed to

The ENWRA Coordinator will be provided office at the LPSNRD. LPSNRD shall be reimbursed out of funds contributed by the Districts the amount of \$5,000 annually for the costs of office space, clerical support, and office supplies/equipment for Geologist/Hydrogeologist assigned as the ENWRA Coordinator.

LEWIS AND CLARK NATURAL RESOURCES DISTRICT

BY: Tom J. Moser Manager

DATE: June 21, 2012

LOWER ELKHORN NATURAL RESOURCES DISTRICT

BY: 

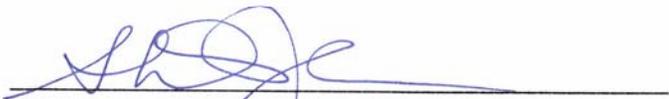
DATE: 10-25-12

LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT

BY: Ralph Pink

DATE: 12/10/12

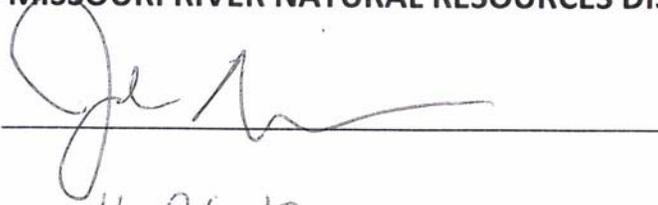
LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT

BY: 

DATE: May 16, 2012

PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT

BY:

A handwritten signature in black ink, appearing to be "John", written over a horizontal line.

DATE:

11-26-12

INTERLOCAL COOPERATIVE AGREEMENT

BETWEEN THE

**LEWIS & CLARK NATURAL RESOURCES DISTRICT
LOWER ELKHORN NATURAL RESOURCES DISTRICT
LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT
LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT
NEMAHA NATURAL RESOURCES DISTRICT and
PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT**

AMENDMENT #5

THIS AMENDMENT #5 is made and entered into by and between the above natural resources districts this 17th day of July, 2017. The natural resources districts are hereinafter referred to collectively as the Districts. This Amendment supplements the original agreement effective as of January 18, 2007, and Amendments #1, #2, #3 and #4 effective as of December 10, 2012.

Modification #1: Article III, Section 3.02, original agreement, as modified in Amendment #1,

Modification #1 and Amendment #4, Modification #1:

The "Exhibit A" Cooperative Agreement references related to the coordinator position shall refer to the updated Cooperative Agreement for the July 1, 2017 - June 30, 2020 term, attached hereto.

Modification #2: Article V, Section 5.02-5.03, original agreement, as modified in Amendment #1,

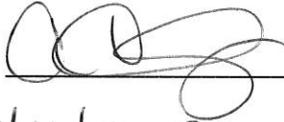
Modification #3 and Amendment #3, Modification #2:

These sections shall be changed to read:

The Districts shall contribute funding for the project for the entire term of the agreement which now terminates on June 30, 2022, unless further extended by mutual agreement of all Districts. The Districts agree that finding for the FY 2018 through FY 2022 will be as follows:

	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
LCNRD	\$7,000	\$7,000	\$7,000	\$7,000	\$7,000
NNRD	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
PMRNRD	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000
LENRD	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000
LPSNRD	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000
LPNNRD	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000
Total	\$147,000	\$147,000	\$147,000	\$147,000	\$147,000

LEWIS AND CLARK NATURAL RESOURCES DISTRICT

BY:  _____

DATE: 05/19/2017

LOWER ELKHORN NATURAL RESOURCES DISTRICT

BY: Michael P. Sack

DATE: 17 Jul 17

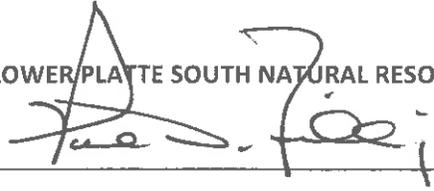
LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT

BY: John W. Smith chairman

DATE: 5-8-17

LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT

BY:

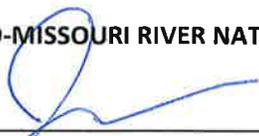


DATE:

APRIL 19, 2017

PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT

BY:



DATE:

May 12, 2017

COOPERATIVE AGREEMENT

THIS COOPERATIVE AGREEMENT (the "Agreement") is made and entered into between the LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT ("DISTRICT"), acting as Administrator under an Interlocal Agreement identified in Exhibit "A", and the BOARD OF REGENTS OF THE UNIVERISTY OF NEBRASKA ON BEHALF OF THE UNIVERSITY OF NEBRASKA-LINCOLN CONSERVATION AND SURVEY DIVISION, SCHOOL OF NATURAL RESOURCES ("CSD"), collectively referred to herein as the "Parties."

WITNESSETH:

RECITALS

- A. The Parties have a mutual interest in the study and stewardship of the geologic and groundwater resources in eastern Nebraska.
- B. The Parties desire to maintain a cooperative working arrangement to enhance the study and stewardship of the geologic and groundwater resources in eastern Nebraska.
- C. DISTRICT and CSD programs have the potential to significantly enhance the study and stewardship of the geologic and groundwater resources in eastern Nebraska.

NOW THEREFORE, in consideration of the above recitals and the mutual promises and covenants contained herein, the Parties agree as follows:

1. **Effective Date.** The Parties agree that the Agreement will become effective upon the signature of both Parties.
2. **Term.** The term of the Agreement shall be for three (3) years from the effective date; provided however, that it may be terminated by either party at any time by giving sixty (60) days prior written notice to the other party. In the event that the term of the Agreement needs to be extended two years to mirror the term outlined in Exhibit A, an amendment shall be executed by both parties.
3. **Responsibilities of DISTRICT.** The DISTRICT agrees to the following:
 - (a) Set general accomplishment goals and priorities for the assigned geologist/hydrogeologist, in consultation with the CSD
 - (b) Provide input to CSD on the hiring/assignment of a qualified geologist/hydrogeologist.
 - (c) Participate in the development of annual work plans and program evaluations for the assigned geologist/hydrogeologist.

(d) Provide 60% of the salary and benefits plus annual operating expenses of up to \$6,250 for the assigned geologist/hydrogeologist. DISTRICT policies do not allow payment of indirect costs.

(e) Provide office space, clerical support, and office supplies/equipment for the assigned geologist/hydrogeologist.

(f) Submit appropriate reports to CSD.

(g) Function as the administrative representative of the Eastern Nebraska Water Resources Assessment. (ENWRA)

4. Responsibilities of CSD. CSD agrees to the following:

(a) Hire and assign a qualified geologist/hydrogeologist to work full-time on geologic and groundwater related activities and/or projects pertaining to eastern Nebraska.

(b) Invoice the DISTRICT on a semi-annual basis for 60% of the assigned geologist/hydrogeologist salary and benefits plus annual operating expenses of up to \$6,250 (based on the July 1 through June 30 fiscal year).

(c) Use the DISTRICT and CSD funding agreed upon within this agreement to provide a vehicle and to cover travel expenses for the assigned geologist/hydrogeologist.

(d) Acquire additional funding, if necessary, to provide specialized equipment and supplies for the assigned geologist/hydrogeologist.

(e) Submit an annual budget for the assigned geologist/hydrogeologist to the DISTRICT by May 1 of each year.

5. Duties of the Assigned Geologist/Hydrogeologist. The geologist/hydrogeologist assigned under the Agreement will be required to perform the following tasks:

(a) Focus on geologic and groundwater resources in eastern Nebraska.

(b) Provide technical geologic and groundwater resource services to rural and urban cooperators within eastern Nebraska.

(c) Prepare and provide educational materials and compile, record, and publish information on the geology and groundwater resources of eastern Nebraska.

(d) Submit appropriate work plans and accomplishment reports to CSD and the DISTRICT.

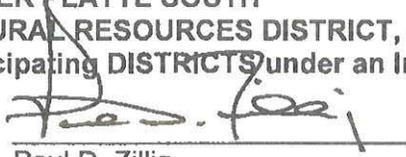
(e) Provide technical and coordinator support to the Eastern Nebraska Water Resources Assessment.

(f) Obtain supervision from the Director of the Conservation and Survey Division.

6. **Amendments.** The Agreement may only be amended in writing signed by the Parties.

IN WITNESS WHEREOF the Parties have executed the Agreement by their authorized representatives on the date show below.

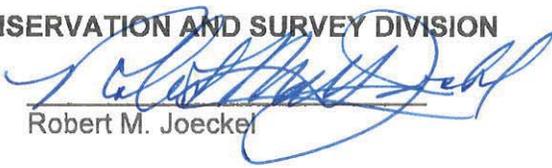
**LOWER PLATTE SOUTH
NATURAL RESOURCES DISTRICT, as Administrator, acting on behalf of the
participating DISTRICTS under an Interlocal Agreement attached as Exhibit "A" hereto.**

By: 
Paul D. Zillig

Title: General Manager

Date: APRIL 19, 2017

CONSERVATION AND SURVEY DIVISION

By: 
Robert M. Joeckel

Title: Director

Date: 05/03/2017

UNIVERSITY OF NEBRASKA

By: **Jeanne Wicks** Digitally signed by Jeanne Wicks
DN: cn=Jeanne Wicks, o=University of Nebraska-Lincoln,
ou=OSU Director, email=jwicks2@unl.edu, c=US
Date: 2017.05.04 09:01:28 -0500
Jeanne Wicks

Title: Director of Sponsored Programs

Date: 05/04/2017

Lower Platte South Natural Resources District Cooperative Agreement – BUDGET

Budget Category	YEAR ONE (July 1, 2017 to June 30, 2018)	TOTAL YEAR ONE
Personnel		
Salary	39,293	39,293
<i>Benefits</i>	11,788	11,788
Total Personnel	51,081	51,081
Travel	3,125	3,125
Supplies	350	350
Operating	2,775	2,775
Total Direct Costs	6,250	6,250
Total	57,331	57,331

Budget justification: Salary will be used to support a geologist/hydrogeologist. Travel is for field work and for attendance at service/educational activities and meetings. Supplies are for software needed for model development and data analysis and various small laboratory and field supplies needed to complete the project. No equipment will be purchased as part of this project.

Memorandum

Date: March 16, 2020



To: Nebraska GeoCloud (NGC) Sponsors (SPONSORS):

LEWIS & CLARK NATURAL RESOURCES DISTRICT, LOWER ELKHORN NATURAL RESOURCES DISTRICT, LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT, LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT, NEMAHA NATURAL RESOURCES DISTRICT, PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT, LOWER LOUP NATURAL RESOURCES DISTRICT, UPPER ELKHORN NATURAL RESOURCES DISTRICT, TWIN PLATTE NATURAL RESOURCES DISTRICT, and CENTRAL PLATTE NATURAL RESOURCES DISTRICT

From: The NGC team

Subject: Authorization for the Lower Platte South General Manager on behalf of the SPONSORS to sign a Two Year Interlocal Agreement (and necessary related sub-agreements) to continue operation, maintenance and coordination of the NGC Platform hosting the state-wide Airborne Electromagnetic Survey (AEM) and supporting datasets for the SPONSOR's data sharing and visualization needs:

- 1) Nebraska GeoCloud (NGC) Two Year Agreement w/10 member NRDs
 - a. NGC Sub-agreement with University of Nebraska Conservation and Survey Division (UNL CSD)
 - b. NGC Sub-joint funding agreement with U.S. Geological Survey (USGS) – (extension of original)
 - c. NGC Sub-agreement with Aqua Geo Frameworks, LLC (AGF)

Background: The SPONSOR's Water Sustainability Fund (WSF) award #4164: *Nebraska GeoCloud and Airborne Electromagnetic (AEM) Data Integration*, approved for \$247,437.60 in funding by the Natural Resources Recourses Commission (NRC) on December 12, 2016, is expected to close out this June 30, 2020. The WSF reimbursed 60% of eligible project costs and required a 40% local match (last claim and final reimbursement is expected this summer). The NGC Accomplishments to date are summarized in Exhibit A to the Interlocal Agreement. The Draft Interlocal, Exhibit A, and three sub-agreements (1a, 1b and 1c above) further describing scope and estimated costs are included as **Attachment #1**. The two year agreement costs incorporated into the 10 NRD interlocal agreement (Table in Section 4.01), are anticipated to remain the same or similar to the annual amounts for each NRD that were outlined in the previous agreement (we no longer have 60% WSF dollars but our previous annual 40% match breakdown should cover the anticipated operations and maintenance). The agreements have already been reviewed by Lower Platte South Natural Resources District's (LPSNRD's) legal representative and are on the agenda for consideration on your behalf at the upcoming April 2020 LPSNRD board meeting (pending upcoming developments with potential emergency conditions).

With the approval of this authorization, all of the necessary agreements to operate and maintain the NGC for the next two years will be in place (includes minor new developments and facilitation with SPONSORS). The NGC team plans to begin Nebraska Viewer training and discussions with potential "superusers", NGC representatives delegated by each of the individual SPONSOR's once the NGC goes live. The next workshop is tentatively scheduled for late summer or fall 2020. Thank you for your support and consideration. Feel free to contact us for further discussion or to schedule onsite sessions.

Jesse Korus, PhD, Assistant Professor



402.472.7561 ·
jkorus3@unl.edu

Chris Hobza, Lead Hydrologist, P.G.



402.328.4133
cmhobza@usgs.gov

Katie Cameron, P.G



402.419.4798 cell
kcameron_enwra@lpsnrd.org

ATTACHMENT 1

INTERLOCAL COOPERATIVE AGREEMENT

BETWEEN THE

**LEWIS & CLARK NATURAL RESOURCES DISTRICT
LOWER ELKHORN NATURAL RESOURCES DISTRICT
LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT
LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT
NEMAHA NATURAL RESOURCES DISTRICT
PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT
LOWER LOUP NATURAL RESOURCES DISTRICT
UPPER ELKHORN NATURAL RESOURCES DISTRICT
TWIN PLATTE NATURAL RESOURCES DISTRICT
CENTRAL PLATTE NATURAL RESOURCES DISTRICT**

THIS AGREEMENT is made and entered into this ____ day of _____, 2020, by and between the between the Lewis & Clark Natural Resources District (“LCNRD”), Lower Elkhorn Natural Resources District (“LENRD”), Lower Platte North Natural Resources District (“LPNNRD”), Lower Platte South Natural Resources District (“LPSNRD”), Nemaha Natural Resources District (“NNRD”), Papio-Missouri River Natural Resources District (“P-MRNRD”), Lower Loup Natural Resources District (“LLNRD”), Upper Elkhorn Natural Resources District (“UENRD”), Twin Platte Natural Resources District (“TPNRD”), and Central Platte Natural Resources District (“CPNRD”), hereinafter referred to individually as “each District” or the individual District’s initials, for example, LPSNRD, or collectively as the “DISTRICTS” .

WITNESSETH:

RECITALS

A. The DISTRICTS are political subdivisions of the State of Nebraska organized and existing pursuant to *Neb. Rev. Stat.* §§ 2-3201, et seq., and have the authority, pursuant to *Neb. Rev. Stat.* § 2-3232(1), to make studies, investigations, or surveys and do research as may be necessary to carry out its authorized purposes, enter upon any land, after notifying the owner or occupier, for the purpose of conducting such studies, investigations, surveys, and research, and publish and disseminate the results.

B. Among the authorized purposes of the DISTRICTS, pursuant to *Neb. Rev. Stat.* § 2-3229, are water supply for any beneficial uses, and the development, management, utilization, and conservation of ground water and surface water.

C. The State or any local government may exercise any of its powers or perform any of its functions jointly or in cooperation with any other governmental entity as authorized by Article XV § 18 of the Nebraska Constitution. Any two or more public agencies (county, city, village, school district, agency of the State government, or political subdivision of this State) are authorized by *Neb. Rev. Stat.* §§ 13-801 to 13-827 to enter into interlocal agreements with one another for joint or cooperative action for any power or powers, privileges or authorities exercised or capable of exercise individually by such public agencies.

D. The DISTRICTS have a mutual interest in the study and stewardship of the hydrogeologic and groundwater resources in Nebraska.

E. The DISTRICTS, through a previous cooperative arrangement and Water Sustainability Fund (“WSF”) grant award (WSF#4164 - *the Nebraska GeoCloud and Airborne Electromagnetic [AEM] Data Integration*), have established the Nebraska GeoCloud platform (“NGC”) implemented by the University of Nebraska Conservation and Survey Division, School of Natural Resources (“CSD”), the U.S. Geological Survey, United States Department Of The Interior (“USGS”) and Nebraska’s Natural Resources Districts (“NRDs”). The DISTRICTS, CSD and USGS are at the “publish and disseminate the results” stage of the NGC cooperative effort (Exhibit “A” - WSF#4164 status report). The DISTRICTS, CSD and USGS are also approaching the end of the previous NGC agreement term (term closes June 30, 2020)

F. The DISTRICTS desire to establish this interlocal cooperative agreement (“ICA”), hereinafter referred to as “NGC ICA”, to sustain and maintain the AEM and supporting geologic data compiled under the NGC Platform investment for the next two years beyond the June 30, 2020 WSF#4164 grant award closeout. The NGC Platform requires server storage space, internet access and support from the NGC development team to facilitate data requests, potential NGC upload/download/input/output issues and continue outreach/workshop activities. Exhibit “A” attached to, and incorporated herein, by this reference further describes the NGC accomplishments and portal resources designed for federal, state and local agencies, the public, and the private sector.

NOW, THEREFORE, in consideration of the above Recitals and the mutual promises and covenants contained herein, the DISTRICTS agree as follows:

ARTICLE I

OBJECTIVES AND PURPOSES

Section 1.01

The objective and purpose of this NGC ICA is to establish a single uniform framework to provide \$109,800 for funding the NGC. The DISTRICTS will budget funds (individual DISTRICT funds) for Fiscal Years (July 1 to June 30) (FY) 2021 and FY 2022, all as shown in the table in Section 4.01.

Section 1.02

In order to attain the objective and purpose of this NGC ICA, each District shall perform its obligations and commitment under this Agreement in good faith and shall cooperate with the other DISTRICTS.

ARTICLE II

TERM OF AGREEMENT

Section 2.01

This NGC ICA shall become effective and binding upon its approval by appropriate action of the governing bodies of each District pursuant to *Neb. Rev. Stat.* § 13-1804(2) and execution by all of the DISTRICTS.

Section 2.02

Each District hereby agrees to participate with the other DISTRICTS in the conduct of the activities hereinafter described.

Section 2.03

In the event that a District fails to perform its obligations and commitments pursuant to this NGC ICA, the other DISTRICTS either individually or jointly, may legally seek to enforce such obligations and commitments in the appropriate court of law. .

Section 2.04

The term of this NGC ICA shall begin on the date of the last signatory District and continue until the end of the DISTRICTS FY2022 (June 30, 2022), unless further extended by the mutual agreement of all DISTRICTS. This NGC ICA shall survive a transition of the form of government of a District from one form to another. In the event that one or more Districts fails to perform their financial obligation and commitment under this Agreement, the remaining Districts, in addition to taking legal action to recover amounts in default, may at their option continue with the NGC for the remainder of the ICA term.

ARTICLE III

AGREEMENT ADMINISTRATION

Section 3.01

The NGC ICA Coordinator, is Kathleen Cameron: located at LPSNRD, PO Box #83581, Lincoln, NE 68501-3581, kcameron_enwra@lpsnrd.org, and will serve as the contact person for the overall coordination of the DISTRICTS' FY2021 and FY2022 financial obligation and commitment. .

Each District will provide a contact person to receive communications and local invoices related to the NGC ICA from the NGC ICA Coordinator.

Section 3.02

This Agreement does not establish a separate joint or legal entity. LPSNRD shall act as Administrator of the NGC ICA and shall be responsible for the administration of all funds (receivable and payable) and shall enter into all subcontracts/subagreements necessary to achieve the **ARTICLE 1 Objectives and Purposes** in its name as NGC ICA Administrator.

Section 3.03

The NGC ICA Coordinator shall obtain pre-approval for and subsequently provide copies of all NGC team subagreements/subcontracts under the NGC ICA to each District.

Section 3.04

Each District shall be responsible for the negligent acts or omissions of its own employees and shall not be responsible for the negligent acts or omissions of other DISTRICTS employees.

Section 3.05

LPSNRD shall prepare and send at the beginning of each FY a statement of the shared costs to be incurred for the upcoming FY for the NGC ICA for each District and each District shall pay its share of the costs within 45 days of the receipt of such statement.

Section 3.06

LPSNRD shall prepare and send to each District within 45 days of the close of each FY, a summary of the receipts and expenses of the NGC ICA.

ARTICLE IV

FUNDING

Section 4.01

Each District will budget funds for fiscal year FY2021 and FY2022 as follows:

Financial Sponsors	FY21	FY22	Total
LPSNRD	\$3,400	\$3,400	\$6,800
LPNNRD	\$3,400	\$3,400	\$6,800
P-MRNRD	\$3,400	\$3,400	\$6,800
LCNRD	\$1,000	\$1,000	\$2,000
LENRD	\$3,400	\$3,400	\$6,800
NNRD	\$3,400	\$3,400	\$6,800
LLNRD	\$3,400	\$3,400	\$6,800
UENRD	\$1,700	\$1,700	\$3,400
CPNRD	\$3,400	\$3,400	\$6,800
TPNRD	\$3,400	\$3,400	\$6,800
ENWRA (LCNRD, LENRD, LPNNRD, LPSNRD, NNRD, P-MRNRD)	\$25,000	\$25,000	\$50,000
TOTALS	\$54,900	\$54,900	\$109,800

ARTICLE V

POWERS

Section 5.01

The DISTRICTS shall have all of the powers and authorities pursuant to state statutes that are necessary to carryout the stated objective and purpose on behalf of the NGC ICA joint and cooperative effort.

Section 5.02

Each District shall have such other powers as are authorized under the Nebraska statutes that establish each such District, and under the Interlocal Cooperation Act, *Neb. Rev. Stat.* §§ 13-801 to 13-827, which are necessary and proper for the achievement of the stated objective and purpose as set forth in this NGC ICA.

Section 5.03

In every contract to which the state or any of its political subdivisions is a party, it shall contain a provision requiring the contractor and his or her subcontractors not to discriminate against any employee, or applicant for employment, to be employed in the performance of such contract, with respect to his or her hire, tenure, terms, conditions, or privileges of employment, because of his or her race, color, religion, sex, disability, or national origin, in accordance with the Nebraska Fair Employment Practices Act, *Ne. Rev. Stat. Section 48-1122, as amended*. The Districts are all political subdivisions of the State of Nebraska and therefore this provision is required to be included as a provision of this Agreement.

ARTICLE VI

AMENDMENTS

Section 6.01

Any District may propose an amendment to this NGC ICA by submitting it in writing to the other DISTRICTS, which shall immediately consider in good faith the proposed amendment; provided, however, that no such amendment shall, directly or

indirectly, affect or impair any written contracts or agreements entered into prior to the effective date of such amendment.

Section 6.02

No amendment or other modification to this NGC ICA shall be effective unless it is in writing and approved by all DISTRICTS. Such amendment shall become effective after all DISTRICTS have approved and executed the same.

Section 6.03

This agreement may be executed in two or more counterparts, each of which shall be an original but all of which shall constitute one and the same instrument. This Agreement is hereby approved and executed by the following DISTRICTS on the dates shown below.

IN WITNESS WHEREOF, each District has caused this NGC ICA to be executed by its duly authorized officer as of the date and year shown below.

LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT

BY: _____

DATE: _____

LEWIS AND CLARK NATURAL RESOURCES DISTRICT

BY: _____

DATE: _____

DRAFT

LOWER ELKHORN NATURAL RESOURCES DISTRICT

BY: _____

DATE: _____

DRAFT

LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT

BY: _____

DATE: _____

DRAFT

NEMAHA NATURAL RESOURCES DISTRICT

BY: _____

DATE: _____

DRAFT

PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT

BY: _____

DATE: _____

DRAFT

LOWER LOUP NATURAL RESOURCES DISTRICT

BY: _____

DATE: _____

DRAFT

UPPER ELKHORN NATURAL RESOURCES DISTRICT

BY: _____

DATE: _____

DRAFT

CENTRAL PLATTE NATURAL RESOURCES DISTRICT

BY: _____

DATE: _____

DRAFT

TWIN PLATTE NATURAL RESOURCES DISTRICT

BY: _____

DATE: _____

DRAFT

Exhibit A

Report of Accomplishments for Nebraska GeoCloud (NGC) and Airborne Electromagnetic (AEM) Data Integration · WSF Application #4164

Data Inventory

- Approximately 30,000 kilometers of AEM data and project deliverables added to the NGC

Nebraska GeoCloud and GeoScene3D Developments

- Contract with I-GIS
- Expandable design for handling further developments and new projects
- Versatile database structures
 - AEM
 - 2D grids
 - 3D grids
 - Borehole drilling information (lithology, well construction, water levels)
 - Borehole geophysical logs
 - Point data
 - Shapefiles
- Nebraska GeoCloud Web user interfaces
 - Data administration (upload data files and associated metadata)
 - Data map (browse, explore, and download data through interactive map)
 - User administration (user role, permissions, new user invitation, and password reset)
 - Projects administration (create, upload, and share GeoScene3D projects, reports, and a variety of file types)
 - Projects map (browse, explore, and download GeoScene3D projects, reports, and a variety of file types)
- Customized Nebraska GeoScene3D viewer
 - Web data portal for connection to GeoCloud
 - Extended functionality for profile views and custom color scales

Training and Education

- Workshop 1 (August 15 – 17, 2017)
 - 2.5 day training on Nebraska GeoCloud and GeoScene3D in Lincoln, NE, featuring guests from I-GIS in Denmark
 - Attended by 32 groundwater professionals; 18 Continuing Education Units (CEUs) offered.
- Workshop 2 (August 7 – 8, 2018)
 - 2 day training on Nebraska GeoCloud and GeoScene3D in Gothenburg, NE

Exhibit A

- Attended by 28 groundwater professionals; 18 Continuing Education Units (CEUs) offered.
- Workshop 3 (April 1 – 2, 2019)
 - 2 day training on Nebraska GeoCloud and GeoScene3D in Lincoln, NE, featuring guests from I-GIS in Denmark
 - Attended by 21 groundwater professionals

Hydrogeologic Investigations

- Platte and Colfax Counties
 - Data assembled and checked for quality and consistency
 - GeoScene3D project created containing boreholes, AEM, groundwater levels, and supporting information
 - 2D and 3D grids created for selected areas
 - Project used in Workshop 2 for hands-on training
 - Completed validation study of hydrostratigraphic modeling methods (MS thesis)
 - Recommendations provided for future modeling efforts
- Bazile Groundwater Management Area (BGMA)
 - Data assembled and checked for quality and consistency
 - GeoScene3D project created containing boreholes, AEM, discrete groundwater levels, water-quality, and age tracer data
 - Released previously unpublished groundwater age tracer data
 - Interpreted continuous groundwater levels, water-quality, and age tracer data to understand water movement and groundwater vulnerability
 - Recommendations provided for future groundwater monitoring within the BGMA
 - Final report currently in review

Standards and Guidelines

- Finalized standards for coordinate system, AEM file naming and metadata
- Draft standards in progress for grids, shapefiles, boreholes, and point data
- Draft document in progress containing guidelines for AEM surveys and hydrogeological modeling
- Procedures developed for mapping the bedrock surface using boreholes and AEM data
- Procedures and codes developed for assigning keywords and hydraulic property estimates to borehole lithology descriptions

**NGC Sub-agreement 1a. with University of Nebraska Conservation and Survey Division
(UNL CSD)**

COOPERATIVE AGREEMENT

THIS COOPERATIVE AGREEMENT (the "Agreement") is made and entered into by and between the LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT ("DISTRICT"), acting as Administrator under an Interlocal Cooperative Agreement ("ICA") identified in Exhibit "1", and the BOARD OF REGENTS OF THE UNIVERISTY OF NEBRASKA ON BEHALF OF THE UNIVERSITY OF NEBRASKA-LINCOLN, SCHOOL OF NATURAL RESOURCES, CONSERVATION AND SURVEY DIVISION ("CSD"), collectively referred to herein as the "Parties."

WITNESSETH:

RECITALS

- A. The Parties have a mutual interest in the study and stewardship of the hydrogeologic and groundwater resources in Nebraska.
 - B. The Parties desire to maintain a cooperative working arrangement to enhance the study and stewardship of the hydrogeologic and groundwater resources in Nebraska through the continued hosting of Nebraska GeoCloud ("NGC") Platform created under the previous mutual agreement between the parties dated March 2017.
 - C. LPSNRD is acting as Administrator under the NGC ICA attached hereto as Exhibit "1" and incorporated herein by this reference.
1. NOW THEREFORE, in consideration of the above recitals and the mutual promises and covenants contained herein, the Parties agree as follows:

Effective Date. The Parties agree that this Agreement will become effective upon the signature of both Parties.

Term. The term of the Agreement shall be from the effective date hereof through the end of LPSNRD fiscal year 2022 (June 30, 2022) with the understanding that a 5 year renewal periods are planned thereafter as long as the NGC remains a viable source of statewide hydrogeologic datasets for Nebraska. In the event additional funds are needed for the renewal scopes, amendments shall be executed by both parties.

Responsibilities of the LPSNRD. The LPSNRD agrees to the following:

Administer the NGC ICA (Exhibit "1") funding for CSD's hosting of the NGC along with the U.S. Geological Survey (USGS) and other required subagreements/subcontracts on behalf of the participating Natural Resources Districts ("SPONSORS").

Provide an agreement administration coordinator for the NGC: Kathy Spence, Lower Platte South Natural Resources District, PO Box #83581, Lincoln, NE 68501-3581, email address kspence@lpsnrd.org.

LPSNRD will submit payment within 45 days of receipt of the CSD invoices, anticipated on a semi-annual frequency. LPSNRD policies do not allow payment of indirect costs. Anticipated fiscal year funding breakdown as follows:

	FY21	FY22	Total
CSD (workshops, travel, NGC operations, coordination and maintenance)	\$4,280.50	\$4,280.50	\$8,561.00
I-GIS Subagreement	\$42,769.50	\$42,769.50	\$85,539.00
TOTALS:	\$47,050.00	\$47,050.00	\$94,100.00

The following agreements, in addition to this agreement, are necessary for LPSNRD's administration of the funds for reference:

- NGC ICA providing \$109,800.00 for the two year continuance of the NGC
- Joint Funding Agreement (JFA) between the LPSNRD and the USGS for \$13,500.00 in technical assistance (\$8,500.00 from LPSNRD on behalf of NGC ICA and \$5,000.00 in USGS Cooperative federal dollars)
- Professional Services Agreement with Aqua Geo Frameworks (AGF), primary NGC dataset authors for periodic review and hourly consulting \$7,200

Responsibilities of the CSD. CSD agrees to the following:

Lead the NGC service hosting (through Professional Services agreements with I-GIS, includes providing users access to the data) in cooperation with the USGS and participating SPONSORS.

Submit an annual budget for the NGC hosting to the LPSNRD for inclusion in the DISTRICTS budget by May 1 of each year.

Invoice the LPSNRD, on a semi-annual basis, not more than \$94,100 throughout the term of the agreement herein for the NGC hosting as outlined in DISTRICTS annual fiscal budgets as per the table shown above.

Amendments. The Agreement may only be amended in writing signed by the Parties.

IN WITNESS WHEREOF the Parties have executed the Agreement by their authorized representatives on the date show below.

LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT, as Administrator, acting on behalf of the participating NGC ICA attached as Exhibit "1" hereto.

By: _____ Date _____

CONSERVATION & SURVEY DIVISION
OF THE UNIVERSITY OF NEBRASKA

By _____ Date _____

THE BOARD OF REGENTS OF THE
UNIVERSITY OF NEBRASKA

By _____ Date _____

DRAFT

EXHIBIT "1" is the interlocal agreement (page 2 to 21 of this PDF)

NGC Sub-agreement 1b. with U.S. Geological Survey (USGS)



United States Department of the Interior

U.S. GEOLOGICAL SURVEY
Water Resources Discipline
Nebraska Water Science Center
5231 South 19th Street
Lincoln, NE 68512-1271

March 13, 2020

Paul Zillig
Lower Platte South Natural Resources District
PO Box 83581
Lincoln, NE 68501-3581

Dear Mr. Zillig:

Enclosed are two copies of supplemental Joint Funding Agreement No. 17EMNE000240, modification 001, for the Airborne Electromagnetic Data Integration and Bedrock Mapping project. The total amount of the agreement is increased by \$13,500 or \$5,000 for the U.S. Geological Survey and \$8,500 for the Lower Platte South NRD. The agreement is extended to provide technical assistance with the next phase of the Nebraska Geocloud project. Please sign one copy of the agreement and return it to this office. The second copy is for your records.

Work performed with funds from this agreement will be conducted under the authority of Statute 43 USC 36C on a fixed-price basis. Billings will be rendered quarterly. The results of all work under this agreement will be available for publication by the U.S. Geological Survey.

Please contact Chris Hobza at 402-328-4133 if you have any questions concerning this agreement.

Sincerely,

Wesley W. Stone, Acting Director
Nebraska Water Science Center

2 Enclosures

DUNS No. 949286512

Agreement No. 17EMNE000240
Modification No. 001
Customer No. 6000000121
Cost Center GGEMNR0000
Project NR00GRB
TIN 47-0542969

DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
SUPPLEMENTAL JOINT FUNDING AGREEMENT
FOR
WATER RESOURCES INVESTIGATIONS

THE GEOLOGICAL SURVEY, UNITED STATES DEPARTMENT OF THE INTERIOR, party of the first part, and the **LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT**, party of the second part, hereby agree to amend the Joint Funding Agreement No. **17EMNE000240** dated April 1, 2017 as follows:

Paragraph 2(a) is hereby **increased by \$5,000** to read as follows:

- (a) \$55,500 by the party of the first part during the period
April 1, 2017 to September 30, 2022

Paragraph 2(b) is hereby **increased by \$8,500** to read as follows:

- (b) \$136,500 by the party of the second part during the period
April 1, 2017 to September 30, 2022

The end date has been extended to September 30, 2022. Billing for this agreement will be rendered quarterly. Payments of bills are due within 60 days after billing date. If not paid by the due date, interest will be charged at the current Treasury rate for each 30-day period, or portion thereof, that the payment is delayed beyond the due date. (31 USC 3717; Comptroller General File B-212222, August 23, 1983.)

Geological Survey
UNITED STATES
DEPARTMENT OF THE INTERIOR

LOWER PLATTE SOUTH
NATURAL RESOURCES DISTRICT

By 
Wesley W. Stone, Acting Director
Nebraska Water Science Center

By _____

Date 3/13/2020

Date _____

NGC Sub-agreement 1c. with Aqua Geo Frameworks, LLC (AGF)

PROFESSIONAL SERVICES AGREEMENT

This Professional Services Agreement (this "Agreement") is made and entered into as of June X, 2020 by and between the LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT, a political subdivision of the State of Nebraska, as administrator of the Nebraska GeoCloud Interlocal Cooperative Agreement (ICA) between multiple SPONSORS (listed in Exhibit 1), having an office at 3125 Portia Street, Lincoln, Nebraska, 68521 (hereinafter collectively called "District") and Aqua Geo Frameworks, LLC., a limited liability corporation of the State of Nebraska, having its principal office located at 130360 County Road D, Mitchell, NE 69357-2508 (hereinafter called "AGF" or the "Contractor"). The District and Contractor are sometimes referred to below as "Parties" and each of them as a "Party."

WITNESSETH:

RECITALS

A. The District desires to have the Consultant provide ongoing collaboration services with the District on the Nebraska GeoCloud Project (NGC).

B. AGF is a Company qualified and experienced in conducting and preparing the AEM Survey Data (AGF team members authored much of the original NGC contents) and agrees to contract with the District to provide collaboration services as further described below.

NOW THEREFORE, in consideration of the above recitals and the mutual promises and covenants contained below, the parties agree as follows:

1. SCOPE OF WORK

The Contractor shall provide periodic review of metadata for existing and planned files on the NGC and provide author-level insight on fixing any errors that might occur on behalf of the SPONSORS supporting the NGC. There will be no report for this work, only a transmittal letter and/or digital text file documenting NGC collaboration work completed.

2. SCHEDULE

The review and insight services are scheduled to match the term of the SPONSORS NGC ICA (Exhibit 1) dated XXXX, 2020.

3. COMPENSATION.

3.1 For the services satisfactorily rendered as set forth in this Agreement Section 1.0, the Contractor will be paid as described below:

3.1.1 The District shall pay a fee of \$ 7,200 (estimated 40 hours at \$180.00 per hour).

3.2 In no event shall the work described herein exceed \$7,200.00 unless authorized in writing by the District.

4. TERM AND TERMINATION

4.1 This Agreement is effective as of June 30, 2020 and shall continue until June 30, 2022, unless terminated earlier as provided for in the Agreement, or extended by mutual agreement of the Parties.

4.2 If AGF defaults in the performance of its material obligations, the District may, without prejudice to any other remedy it may have, give AGF written notice of its intent to terminate this Agreement, unless AGF remedies the default within ten (10) days after receiving such notice. If AGF has not remedied said default within such time, District may, upon written notice to AGF, terminate this Agreement.

4.3 The District may, at its option, terminate this Agreement for reasons other than AGF's default at any time prior to the completion of the Project upon giving AGF thirty (30) days written notice. If the District elects to terminate this Agreement prior to the completion of the Project, then the District shall pay to AGF all costs incurred by AGF, pursuant to this Agreement or for which AGF has become obligated to incur, prior to the date of termination.

5. INDEPENDENT CONTRACTOR

It is understood and agreed that AGF is, and shall be deemed and treated as an independent contractor while engaged in the performance of professional services to the District and none of its employees, agents or subcontractors shall be employees or agents of the District for any purpose. AGF maintains the absolute right to supervise, manage, and exclusively control the operation and safety of its personnel, facilities and other equipment and property and the manner and means of performing the rights and obligations under this Agreement. The District shall have no right of direction or control of AGF or its employees or agents, being only interested in the final results of the Project

except in accordance with Nebraska law, *Neb. Rev. Stat. Section 48-1122, as amended*, which provides that every contract to which the state or any of its political subdivisions is a party shall contain a provision requiring the contractor and his or her subcontractors not to discriminate against any employee or applicant for employment, to be employed in the performance of such contract, with respect to his or her hire, tenure, terms, conditions, or privileges of employment, because of his or her race, color, religion, sex disability, or national origin.

6. QUALIFICATION OF CONTRACTOR

The Contractor warrants and represents that it and all employees, agents, and subcontractors are qualified to perform the services described in this Agreement and in compliance with all applicable state and federal laws, policies, practices and procedures.

7. SUBCONTRACTORS

7.1 Contractor shall not otherwise transfer any rights, duties and/or obligations under this Agreement without prior written consent of the District. The duties and obligations of the Contractor shall not terminate or transfer upon the use of any subcontractor. The District acknowledges and agrees that to fully perform under this Agreement, the Contractor may use subcontractors for certain services. The Contractor will oversee all subcontractors' efforts and the District will not be liable or responsible for any actions of any subcontractor.

7.2 This Agreement is between the Contractor and the District and nothing herein is intended to create any third party benefit to subcontractors. The Contractor shall ensure that all financial obligations are met between the Contractor and subcontractor and shall ensure there are no liens upon the District or its property arising from subcontractor's actions or deliverables. Privity of contract only exists between the District and the Contractor. Separate privity of contract exists between the Contractor and subcontractor. These are mutually exclusive relationships; accordingly, there is no privity of contract between the District and the subcontractors.

8. GOVERNING LAW

This Agreement shall be governed, construed and interpreted by the laws of the

State of Nebraska, excluding any choice of law rules that would otherwise require the application of laws of any other jurisdiction. AGF irrevocably submits to the jurisdiction of the courts of the State of Nebraska including the federal court and waives any objection that it may have to either the jurisdiction, venue, or inconvenient forum of such courts.

9. INDEMNITY

9.1 To the fullest extent permitted by law, each Party (the “Indemnitor”) shall indemnify, defend, and hold harmless the other Party, including ENWRA, and its board members, officials, directors, officers, members, managers, agents, and employees (each an “Indemnified Party”) from and against all claims, damages, losses, fines, assessments, and expenses, including, but not limited to, attorneys’ fees if permitted by law (collectively, “Losses”), arising out of or resulting from: (a) a breach of this Agreement by the Indemnitor; (b) the unlawful acts of the Indemnitor or the Indemnitor’s subcontractors; or (c) the negligent or intentional acts or omissions of the Indemnitor or the Indemnitor’s subcontractors, provided that, in no event shall an Indemnitor be required to indemnify, defend, or hold harmless an Indemnified Party for Losses to the extent such Losses are caused by the negligent or intentional acts or omissions of the Indemnified Party.

9.2 If any claim covered by this indemnity is asserted by a third party, the Indemnified Party shall promptly give the Indemnitor notice of the claim and give the Indemnitor an opportunity to defend or settle the claim with counsel of its choice and at its expense, and the Indemnified Party shall extend its full cooperation in connection with the defense, subject to reimbursement for actual out-of-pocket expenses incurred by the Indemnified Party as the result of a request by the Indemnitor. If the Indemnitor fails to defend a claim within a reasonable time, the Indemnified Party shall be entitled to assume the defense and the Indemnitor shall be bound by the results obtained by the Indemnified Party with respect to the claim, and the Indemnitor shall be liable to the Indemnified Party for its expenses incurred in the defense, including, without limitation, reasonable attorney's fees if permitted by law and any settlement payments.

10. INSURANCE

At all times during the term of this Agreement, Contractor shall carry and

maintain at its own expense, work insurance protection of the kinds and the minimum amounts set forth below:

- 10.1 Commercial General Liability (CGL) Insurance in the sum of \$1,000,000.00 to any person and \$2,000,000.00 in the aggregate. Such insurance shall cover all operations in which the Data may be performed by AGF.
- 10.2 Professional Liability insurance to cover malpractice of AGF employees, agents or subcontractors in connection with the performance of this Agreement in an amount not less than \$2,000,000.
- 10.3 With respect to all such policies of insurance, AGF shall furnish evidence that AGF's insurers waive all rights of subrogation against the District, AGF shall also furnish evidence that the District is listed as an additional insured in such policies.
- 10.4 Upon execution of this Agreement, AGF shall furnish the District with certificates of insurance certifying that the insurance required under this Paragraph is in full force and effect. Each certificate shall contain a provision stating that the insurer agrees to give the District thirty (30) days prior written notice in the event of cancellation or material change in the insurance.
- 10.5 The Parties specifically recognize that certain federal or state statutory or case law may obligate or require modification to Paragraph 10 INSURANCE and Paragraph 9 INDEMNITY and that future changes in the law and interpretations of the law during the term of this Agreement may affect the validity or scope of those Paragraphs. Therefore, the Parties specifically agree that, if any provision of Paragraphs 10 or 9 is determined to be unenforceable or in contravention of any applicable law, such provision shall be deemed modified to the minimum extent required to bring such provision into compliance with said applicable law.

11. FORCE MAJEURE

Any delay or failure in the performance by either Party here under shall be excused if and to the extent caused by the occurrence of a Force Majeure. For purposes of this Agreement, Force Majeure shall mean a cause or event that is not reasonably foreseeable or otherwise caused by or under the control of the

Party claiming Force Majeure, including acts of God, fires, floods, explosions, riots, wars, hurricane, sabotage terrorism, vandalism, accident, restraint of government, governmental acts, injunctions, labor strikes that prevent Contractor from performing, and other like events that are beyond the reasonable anticipation and control of the Party affected thereby, despite such Party's reasonable efforts to prevent, avoid, delay, or mitigate the effect of such acts, events or occurrences, and which events or the effects thereof are not attributable to a Party's failure to perform its obligations under this Contract.

12. DISPUTE RESOLUTION

Notwithstanding the provisions of Paragraph 4.2 above, before a Party may bring suit in any court concerning any dispute arising out of or in connection with this Agreement, including any question regarding its existence, validity or termination, such Party must first seek in good faith to resolve the dispute through negotiation or other form of nonbinding alternate dispute resolution mutually acceptable to the Parties.

13. ACCESS TO RECORDS

The Contractor shall be granted reasonable access to the District's records as may be necessary to complete the scope of work.

14. CONFIDENTIALITY

14.1 AGF shall use its reasonable best efforts to keep confidential (a) data acquired from working with the Data to be conducted pursuant to this Agreement, (b) information relating to the location of the surveys and the type of work performed, and (c) information supplied by the District, which is not otherwise proprietary to AGF, and which is identified in writing by the District to AGF as being confidential. AGF shall not divulge to anyone other than its employees, subcontractors, and agents, and the District's representative, employees and agents, such confidential data or information unless previously authorized by the District in writing. AGF will require the same degree of confidentiality from its subcontractors.

14.2 Likewise, the District shall observe the above confidentiality obligation, insofar as it has access to and knowledge of the equipment, instruments, programs, and procedures of the operation hereof, which are the property

of and proprietary to AGF.

14.3 The foregoing obligation of confidentiality shall survive the termination of this Agreement but it shall not apply to information which (a) was or shall have been in the possession of the receiving Party prior to disclosure by the other Party, or (b) is acquired by the receiving Party from others who have no direct or indirect confidential commitment to the other Party with respect to same, or (c) are or become part of the public domain without the fault or participation of the receiving Party, or (d) as required by law.

15. CONFLICT OF INTEREST:

The Contractor warrants that he/she has no interest presently and shall not acquire any interest, direct or indirect, which would conflict in any manner with the performance of the services required under this Agreement.

16. SEVERABILITY OF TERMS:

Should any provision of this Agreement be deemed invalid or unenforceable, that provision shall be deemed to be deleted from this Agreement and all remaining provisions shall remain in full force and effect.

17. DISTRICT REPRESENTATIVES

17.1 The District designates: Kathy Spence, Phone: 402-476-2729, Email address: kspence@lpsnrd.org as its representative, to whom AGF's representative may deliver reports and other information and from whom AGF representative will receive instructions, provided such instructions are in accordance with the terms of this Agreement. AGF shall be entitled to rely on the apparent authority of such District representative on the District's behalf to inspect such activities and give instructions to AGF. Such instructions shall be related to the Project.

18. OWNERSHIP OF DATA

Upon AGF's receipt of the final payment, all information, documents, and data pertaining to the Data shall become the sole property of the District and shall be delivered to the District at the conclusion of the analysis. Subject to Paragraph 14 (Confidentiality), AGF reserves the right, but not the obligation to maintain a

digital backup of the data from the Project for archival purposes.

19. LAWS, RULES, AND LICENCES

AGF shall comply with all provisions of applicable law including, federal, state, and municipal laws, ordinances, rules and regulations relating to the performance of the Project. AGF warrants that it is duly licensed and authorized to perform the Project covered under this Agreement, if required by State, Federal or local laws, or that it will be so licensed and authorized prior to commencement thereof.

20. MECHANIC'S OR OTHER LIENS

AGF shall promptly pay all costs and charges incurred by it in connection with this Agreement and shall not suffer nor permit any Mechanic's lien or other liens attached to any property of the District.

21. ENFORCEMENT OF DISCIPLINE

AGF shall at all times enforce discipline and maintain good order among its employees and subcontractors, and shall not retain on the job any person not skilled in the task assigned to that person. AGF shall forthwith remove from the Project any employee of AGF or a subcontractor who is unacceptable, for good cause, to the District.

22. NOTICE

All notices, demands and consents required or permitted to be given under this Agreement shall be in writing and may be delivered personally, transmitted by facsimile or e-mail, or may be forwarded by first class prepaid certified mail, return receipt requested, to the addresses set forth below. Any notice shall be deemed given and received on the next business day after personal delivery or facsimile transmission or email, or if mailed, on the expiration of three (3) days after it is post marked, addressed as follows:

LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT
3125 Portia Street
Lincoln, NE 68501-3581

Attention: Mr. Paul D. Zillig
General Manager
Phone: 402-476-2729

AQUA GEO FRAMEWORKS, LLC
130360 County Road D
Mitchell, NE 69357-2508

Attention: James C. Cannia
Member Principle Geologist
Phone: 308-641-2635
Email address: jcannia@aquageoframeworks.com

23. WAIVER

The rights herein given to either Party may be exercised from time to time, singularly or in combination, and the waiver of one or more of such rights shall not be deemed to be a waiver of such right in the future or of any one or more of the other rights that the exercising Party may have. No waiver of any breach of a term, provision, or condition of this Agreement by one Party shall be deemed to have been made by the other Party unless such waiver is expressed in writing and signed by an authorized representative of such Party and failure of either Party to insist upon the strict performance of any term, provision, or condition of this Agreement or to exercise any option herein given shall not be construed as a waiver or relinquishment in the future of the same or any other term, provision, condition or option.

24. ENTIRE AGREEMENT

This Agreement contains the entire agreement between the Parties and supersedes and replaces any oral or written communication previously made between the Parties relating to the subject matter hereof. This Agreement shall not be amended except by written instrument executed by the duly authorized representatives of both parties.

25. ASSIGNMENT

Neither the Contractor nor the District shall assign, subcontract, pledge, mortgage or otherwise encumber any of its rights hereunder without the prior written consent of the other Party.

26. DISCLAIMER

AGF shall conduct this Project using the current standards of the geophysical

industry and will use in-house quality control standards to produce the converted geophysical survey products. AGF's services are performed consistent with the professional skill and care ordinarily provided by professional geophysicists under the same or similar circumstances. No other warranty or representation, either expressed or implied, is made by AGF in connection with its services unless in writing and signed by an authorized representative of AGF.

IN WITNESS WHEREOF, the Parties to this Agreement have caused it to be executed by their duly authorized representatives as of June 30, 2020.

AQUA GEO FRAMEWORKS, LLC

By:-----
James C. Cannia P.G., Member Principal
Geologist

LOWER PLATTE SOUTH
NATURAL RESOURCES
DISTRICT, as Administrator for the
Eastern Nebraska Water Resources
Assessment

By:-----
Paul D. Zillig, General Manager of the
Lower Platte South Natural Resources District

ITEM 2

INTERLOCAL COOPERATIVE AGREEMENT

BETWEEN THE

**LEWIS & CLARK NATURAL RESOURCES DISTRICT
LOWER ELKHORN NATURAL RESOURCES DISTRICT
LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT
LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT
NEMAHA NATURAL RESOURCES DISTRICT and
PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT**

AMENDMENT #6

THIS AMENDMENT #6 is made and entered into by and between the above natural resources districts this ____ day of _____, 2020. The natural resources districts are hereinafter referred to collectively as the Districts. This Amendment supplements the original agreement effective as of January 18, 2007, and Amendments #1, #2, #3, #4 and #5 effective as of July 17, 2017.

Modification #1: Article III, Section 3.02, original agreement, as modified in Amendment #1,

Modification #1, Amendment #4, Modification #1 and Amendment #5, Modification #1:

The "Exhibit A" Cooperative Agreement references related to the coordinator position shall refer to the Amended Cooperative Agreement for the July 1, 2020 - June 30, 2022 term, attached hereto.

LEWIS AND CLARK NATURAL RESOURCES DISTRICT

BY: _____

DATE: _____

LOWER ELKHORN NATURAL RESOURCES DISTRICT

BY: _____

DATE: _____

LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT

BY: _____

DATE: _____

LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT

BY: _____

DATE: _____

NEMAHA NATURAL RESOURCES DISTRICT

BY: _____

DATE: _____

PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT

BY: _____

DATE: _____

EXHIBIT A

AMENDMENT #1

TO THE

COOPERATIVE AGREEMENT (the “Agreement”) made and entered into between the LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT (“DISTRICT”), acting as Administrator under an Interlocal Agreement identified in Exhibit “A”, and the BOARD OF REGENTS OF THE UNIVERISTY OF NEBRASKA ON BEHALF OF THE UNIVERSITY OF NEBRASKA-LINCOLN THROUGH ITS CONSERVATION AND SURVEY DIVISION, SCHOOL OF NATURAL RESOURCES (“CSD”), collectively referred to herein as the “Parties.”

The Parties to the above captioned agreement hereby agree to amend said agreement as follows:

- The Period of Performance is extended until June 30, 2022. The new Period of Performance with this amendment is July 1, 2020 to June 30, 2022 (Years 4 and 5).

All other terms of the Agreement remain unchanged.

Lower Platte South NRD Cooperative Agreement –BUDGET

YEAR FOUR (July 1, 2020 to June 30, 2021)	TOTAL YEAR FOUR
Budget Category	
Salary	42,657
<i>Benefits</i>	12,797
Total Personnel	55,454
Travel	3,125
Supplies	350
Operating	2,775
Total Direct Costs	6,250
Total	61,704

Budget justification: Salary will be used to support a geologist/hydrogeologist. Travel is for field work and for attendance at service/educational activities and meetings. Supplies are for software needed for model development and data analysis and various small laboratory and field supplies needed to complete the project. No equipment will be purchased as part of this project.

EXHIBIT A

IN WITNESS WHEREOF, the Parties, intending to be legally bound, have executed this Amendment as of the last date signed below by their respective duly authorized representatives.

LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT, as Administrator, acting on behalf of the participating DISTRICTS under an Interlocal Agreement attached as Exhibit "A" hereto.

By: _____
Paul D. Zillig

Date: _____

CONSERVATION AND SURVEY DIVISION

By: _____
Robert M. Joeckel

Date: _____

**BOARD OF REGENTS OF THE
UNIVERSITY OF NEBRASKA**

By: _____

Date: _____

EXHIBIT A

AMENDMENT #1

TO THE

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LOWER PLATTE SOUTH NATURAL RESOURCES DISTRICT, as Administrator, acting on behalf of the participating DISTRICTS under an Interlocal Agreement attached as Exhibit "A" hereto.

By: _____
Paul D. Zillig

Date: _____

CONSERVATION AND SURVEY DIVISION

By: _____
Robert M. Joeckel

Date: _____

**BOARD OF REGENTS OF THE
UNIVERSITY OF NEBRASKA**

By: _____

Date: _____

Memorandum

Date: April, 2020

To: Each Director

From: Katie Cameron, ENWRA Project Coordinator

Subject: Authorization for the General Manager to sign six agreements:

- 1) Nebraska GeoCloud (NGC):
 - a. Two Year Interlocal Agreement w/10 member NRDs (grant term ended)
 - b. NGC Agreement with University of Nebraska Conservation and Survey Division (UNL CSD)
 - c. NGC Agreement with U.S. Geological Survey (USGS)
 - d. NGC Agreement with Aqua Geo Frameworks, LLC (AGF)
- 2) Eastern Nebraska Water Resources Assessment (ENWRA) Interlocal:
 - a. Amendment #6 for Two Year Extension of the Coordinator Position with the University of Nebraska Conservation and Survey Division (UNL CSD)
 - b. Amendment #1 of the UNL CSD Coordinator Agreement extending the Coordinator position two years on behalf of ENWRA

Item #1: ENWRA's Water Sustainability Fund (WSF) grant #4164: *Nebraska GeoCloud and Airborne Electromagnetic (AEM) Data Integration* award of \$247,437.60 by the Natural Resources Recourses Commission (NRC) on December 12, 2016 is expected to close out this June 30, 2020. The current status of Accomplishments for the NGC is included as Exhibit A of Item #1 Interlocal Agreement (see **Attachment #1**). The two years of costs incorporated into the 10 NRD interlocal agreement (Table in Section 4.01), are anticipated to remain the same, or similar to, the annual amounts for each NRD that were outlined in the previous agreement. We no longer have WSF dollars but our previous annual local match breakdown will cover the anticipated costs in **Attachment 1**. With the approval of this agenda item, all of the necessary agreements and funding to operate and maintain the NGC (includes minor new developments and facilitation with NRD members) for the next two years will be in place.

Item #2: The ENWRA Coordinator position with UNL CSD is up for renewal at the end of Fiscal Year (FY) 2020 (June 30, 2020). **Attachment #2** includes both Amendment #1 to the UNL-CSD Agreement and Amendment #6 to the ENWRA Interlocal to cover the UNL CSD position extension for the ENWRA Coordinator. The ENWRA interlocal is in place through June 30, 2022 and already financially commits the 6 ENWRA NRDs. The annual dues will remain the same for all 6 Districts (Lower Platte South's annual dues are \$30,000).

Item #1: Recommend that the Lower Platte South NRD Board of Directors authorize the General Manager to sign the Nebraska Geocloud 10 NRD Interlocal agreement, the U.S. Geological Survey Agreement, the University of Nebraska Conservation and Survey

Division Agreement, and the Aqua Geo Frameworks, LLC Agreement to operate and maintain the Nebraska Geocloud for two years.

Item #2: Recommend the Lower Platte South NRD Board of Directors authorize the General Manager to sign the Eastern Nebraska Water Resources Assessment Interlocal Agreement Amendment #6 and the Cooperative Agreement Amendment #1 with the University of Nebraska Conservation and Survey Division to provide 60 percent of the salary and benefits plus operating costs for the ENWRA Coordinator Position through June 30, 2022.

DRAFT



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Nebraska Environmental Trust Fund Application Cover Sheet

Project Sponsor: Lower Platte North Natural Resources District

Project Name: Aquifer Vulnerability Mapping and Analysis

Portal ID: 263

Last Activity: Waiting For Signature - 08/31/2018

Counties: Butler, Colfax

Total Amount Requested: \$91,199

Sponsor Website: www.lpnnrd.org

Nearest Town: Schuyler

Years of Funding: 2 Years

Primary Contact Info

Christopher Poole
GIS Department Head
Lower Platte North Natural Resources
District
PO Box 126
68066-0126
NE
402-443-4675 (Primary)
402-960-2950 (Alternate)
cpoole@lpnrd.org

Signer Contact Info

Eric Gottschalk
General Manager
Lower Platte North Natural Resources District
PO Box 126
68066-0126
NE
402-443-4675 (Primary)
egottschalk@lpnrd.org

Is this a continuation request for a project previously funded by the Trust? NO

Is this a resubmission of a project application previously not funded by the Trust? NO

Please indicate which category best describes the applicant: NaturalResourcesDistrict

Will this project receive federal funds or require a federal review or permit? NO

Will this project receive other State of Nebraska funds or require a state review or permit?

NO

Project Summary

In 200 words or less provide an overview of the project for which you seek funding. If you are asking the Trust to fund only a portion of the project, indicate the components for which you seek funding.

The Lower Platte North NRD (LPNNRD) has identified two areas of nitrate contamination, known as Phase II and Phase III areas. Phase II areas are defined as having 50% or more of wells with a nitrate concentration exceeding 8 ppm, while Phase III areas are those with 50% or more wells exceeding 10 ppm (10 ppm is the maximum safe drinking level limit). One area consists of all or parts of twenty-one Sections around Bellwood in Butler County and the other consists of sixty-five Sections around the towns of Richland and Schuyler in Colfax County. With such a large area, with diverse soil types, it is an incredibly difficult problem to solve. Instead of attempting to treat the area as a whole, which is impractical and costly, LPNNRD is proposing an intensive sampling and modeling effort to better understand how the nitrates are moving through these areas and attempt to identify those areas where aquifer infiltration is most likely. Once identified, LPNNRD can focus resources on these areas through education and working with producers on best management practices to ameliorate nitrate contamination in the Phase areas as a whole. This will result in the maximum benefit at the least cost.



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Nebraska Environmental Trust Fund Narrative Section

Project Sponsor: Lower Platte North Natural Resources District

Project Name: Aquifer Vulnerability Mapping and Analysis

Last Activity: Waiting For Signature - 08/31/2018

Project Narrative

In 1,200 words or less, provide a discussion of your project. Be sure to cover the following points as detailed in the Application Instructions.

Lower Platte North NRD (LPNNRD) has identified two areas of nitrate contamination, known as Phase II and Phase III areas. Phase II areas are defined as having 50% or more wells with a nitrate concentration exceeding 8ppm, while Phase III areas contain 50% or more wells exceeding 10ppm (10ppm being the maximum safe drinking level limit). One area consists of all or parts of twenty-one sections around Bellwood in Butler County, while the other consists of sixty-five sections around the towns of Richland and Schuyler in Colfax County. The Wellhead Protection Areas (WHPA) of Bellwood and Schuyler are impacted by these areas of contamination. The WHPA around Schuyler is of particular concern as the majority of the area falls within the Phase III area of 10ppm or higher nitrates. Treating nitrates is a costly endeavor and LPNNRD seeks to mitigate the problem before it becomes an issue Schuyler has to ameliorate.

LPNNRD seeks a systematic approach to treat groundwater contamination in these areas as two projects. Project One seeks to identify areas best management practices (BMPs) will have the greatest impact on contaminants and conduct public outreach to find willing landowners for BMPs. Project Two seeks to implement BMPs through cost-share, and other mechanisms, resulting in an immediate impact on contaminants. The project timeline for both is 4-8 years.

Solving nitrate issues is easier said than done. Nitrates are notoriously difficult to remove from groundwater, often taking upwards of 20 years to see improvement. With a large geographic area and diverse soil types, finding a starting point can be difficult.

Traditionally, once an area of nitrate contamination was discovered, the area was treated as a whole. LPNNRD believes if we understand the underlying system, we can more effectively tackle nitrate contamination and see results quicker.

In order to better understand the system as whole, LPNNRD proposes a rigorous multi-phase program of data collection, analysis, identifying target areas, and robust public outreach to effectively treat the identified target areas through known BMPs.

LPNNRD plans on conducting intensive well sampling for a range of contaminants including nitrates, uranium, arsenic, manganese, and iron in the first phase of Project 1. The goal is to get a baseline of nitrate, and other contaminants, in the two areas.

LPNNRD water department crews will be tasked with sampling wells based upon a grid system. Samples will be collected and sent to an independent lab for analysis. Additionally, LPNNRD proposes to purchase two YSI ProPlus meters that sample a variety of environmental factors, including nitrates and dissolved oxygen (DO). LPNNRD will use DO and nitrate data together to see how the amount of dissolved oxygen affects the concentration of nitrates at the sampled location. The goal is to identify if nitrates, and other contaminants, are settling in a particular strata of the aquifer or if they permeate the entire column. This information will be entered into a database, and utilized with other sources of data, to shed light on the system as a whole. LPNNRD further proposes to install soil moisture sensors that can be read remotely. Irrigation is a known contributor to leaching of contaminants to the aquifer, and the installation of these sensors will allow LPNNRD to react quickly to the effects of over-irrigation on contaminant transport.

The second phase of Project 1 is to sample the vadose zone. The vadose zone is the unsaturated area of the subsurface. It is through this zone that groundwater moves and percolates into the aquifer. Through intensive sampling of the vadose zone, LPNNRD seeks to discover how nitrates, and other contaminants, are moving through the subsurface. Knowing how water moves through the vadose zone will allow LPNNRD to identify areas where nitrates, and other contaminants, more readily escape into the underlying aquifer; these areas can then be targeted for BMPs in an attempt to lessen the amount of contamination in the phase area aquifers. LPNNRD will partner with UNL to sample the vadose zone. LPNNRD will make landowner contacts to obtain permission and crews from UNL will conduct the sampling by collecting and analyzing cores. The results of the vadose zone testing shall be presented in a written report as well as various data products that can be incorporated with other data, such as the aforementioned water sampling, to produce a thorough understanding of the phase areas.

Phase three of Project 1 seeks to create a method identifying areas BMPs will provide the maximum benefit to the phase areas as a whole. To develop this method, LPNNRD will contract with a firm specializing in contamination of groundwater. In addition to data collected in the first two phases of the project, LPNNRD has conducted extensive Airborne Electromagnetic (AEM) surveys of both nitrate phase areas. AEM data is useful in understanding the interaction between the land surface and groundwater system. Emphasis on mapping areas of vulnerability to non-point source contamination by identifying pathways from the land surface to the aquifers and identifying the interaction between the aquifers is a priority of this study. Existing water quality data, water table information, AEM results from previous studies along with borehole data will be processed through GeoScene 3D software to analyze this information and will be the main output from this project. A short report on the results will be part of the completed project. Once completed, the output will be utilized to identify critical areas that would

provide the greatest benefit of implementing BMPs.

The final phase of Project 1 will be public outreach. LPNNRD will partner with producers in the phase areas to implement BMPs (fertigation and cover crops) and utilize their ground as demonstration fields. This ground will be used to showcase the effectiveness of BMPs on nitrates in the groundwater. LPNNRD will use a combination of data (Assessor and LPNNRD Certified Irrigated Acres) to create a mailing list of all landowners in the phase areas, classified by landowners with land in a priority area, identified in the previous phase, and those with ground outside a priority area. LPNNRD will advertise a public meeting and send targeted mailings to those who have ground in a priority area. The meeting will inform landowners about the nitrate problems in their area, how the nitrates move through the vadose zone, and how they act once they escape into the aquifer. The remainder of the meeting will discuss BMPs that can be implemented to improve aquifer health and more effectively rid the phase areas of nitrate contamination. Landowners interested in employing, or further discussing, BMPs will be encouraged to sign an information sheet. These interested landowners will meet with LPNNRD staff at their fields to discuss the best possible management practices for that given location. If necessary, LPNNRD will hold additional public meetings to secure more landowner interest.

Nitrate contamination is a serious issue with no immediate solution. Coupled with the proximity of Wellhead Protection Areas, the remediation of nitrates in the groundwater around Bellwood and Schuyler take on added significance. With the support of the NET, LPNNRD can tackle this problem in an innovative way that will increase efficiencies, lower costs, and hopefully serve as a blueprint for other NRDs encountering the same problems.



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Nebraska Environmental Trust Fund Application Budget Details

Project Sponsor: Lower Platte North Natural Resources District

Project Name: Aquifer Vulnerability Mapping and Analysis

Last Activity: Waiting For Signature - 08/31/2018

Project Duration: 2 Years

Have other sources of funding not listed in Funding Partners been approached for project support? If yes, name them and explain the outcome of your request.

| No, LPNNRD has not approached other sources of funding for this project.

Are all of the matching funds in the Budget Worksheets confirmed? If not, please identify those entities and list the data when confirmation is expected. Explain how you will implement the project if these sources do not confirm participation.

| Yes, UNL has committed to the in-kind listed in the budget worksheet.

If any of the project costs identified with Nebraska Environmental Trust have been expended or if debt has been incurred for these costs or a sponsor or partner is obligated for these costs in any other way: List these costs here. Explain clearly why Trust grant funds are requested for these costs.

| No project costs have been expended and no debt has been incurred.



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Nebraska Environmental Trust Fund

Application Budget Categories

Project Sponsor: Lower Platte North Natural Resources District

Project Name: Aquifer Vulnerability Mapping and Analysis

Last Activity: Waiting For Signature - 08/31/2018

Name	Basis Used to Determine Cost	Attachment
Water sampling equipment	LPNNRD received a quote from Geotech Environmental Equipment Inc. for one meter, LPNNRD would purchase 2 meters at the attached costs.	Meter Quote.pdf
Vadose Zone Sampling	LPNNRD received a Scope of Work from UNL to conduct vadose zone sampling of the two nitrate phase areas. The enclosed Scope of work includes the quote from UNL and an additional page detailing estimated LPNNRD staff time to secure landowner permission for sampling.	Landowner Contacts Vadose Zone sampling.pdf
Water Sampling	LPNNRD bases the cost of intensive water sampling on previous experience sampling the areas in question and known lab costs associated with testing for contaminants.	Water Sampling Plan.pdf

Name	Basis Used to Determine Cost	Attachment
Public Meetings and Outreach	LPNNRD proposes to hold one large public meeting and individual meetings with producers that express interest stemming from the informational meeting. Costs are based on staff time, venue rental, and a minimal cost for refreshments.	Public Outreach.pdf
Analyze Data and Develop Method	LPNNRD has received a rough quote from Aqua Geo Frameworks for analyzing the collected data as well as utilizing existing AEM data to create a method that would allow LPNNRD to target areas for Best Management Practices	Quote from AquaGeo.pdf
Demonstration Fields	LPNNRD proposes 2-3 fields to implement BMPs and use those fields as a showcase for the effectiveness of BMPs.	BMPs Demonstration Fields.pdf
Soil Moisture Probes with Remote Read Capability	LPNNRD has had discussions with Sentek regarding these types of meters. Costs per meter are \$1600 for the meter and \$800 for installation. LPNNRD is proposing a 50/50 cost share for the equipment only with willing producers.	Soil Moisture Probes.pdf



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Application Budget Summary

Project Sponsor: Lower Platte North Natural Resources District

Project Name: Aquifer Vulnerability Mapping and Analysis

Last Activity: Waiting For Signature - 08/31/2018

	NET	LPNNRD	UNL In Kind	Totals
Water sampling equipment	\$4,125	\$1,375	\$0	\$5,500
Vadose Zone Sampling	\$24,874	\$9,400	\$14,496	\$48,770
Water Sampling	\$10,000	\$7,000	\$0	\$17,000
Public Meetings and Outreach	\$100	\$4,500	\$0	\$4,600
Analyze Data and Develop Method	\$37,500	\$12,500	\$0	\$50,000
Demonstration Fields	\$5,000	\$0	\$0	\$5,000
Soil Moisture Probes with Remote Read Capability	\$9,600	\$0	\$0	\$9,600
Totals	\$91,199	\$34,775	\$14,496	\$140,470



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Nebraska Environmental Trust Fund

Application Funding Partner

Project Sponsor: Lower Platte North Natural Resources District

Project Name: Aquifer Vulnerability Mapping and Analysis

Last Activity: Waiting For Signature - 08/31/2018

Name	Short Name	Contribution Description	In Kind	Attachment
University of Nebraska Lincoln	UNL	UNL will contribute In Kind services as part of the sampling effort of the vadose zone in both phase areas.	✓	UNL LoI- Snow- signed.pdf



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Nebraska Environmental Trust Fund Application Budget Year One

Project Sponsor: Lower Platte North Natural Resources District

Project Name: Aquifer Vulnerability Mapping and Analysis

Last Activity: Waiting For Signature - 08/31/2018

	NET	LPNNRD	UNL In Kind	Totals
Water sampling equipment	\$4,125	\$1,375	\$0	\$5,500
Vadose Zone Sampling	\$24,874	\$9,400	\$14,496	\$48,770
Water Sampling	\$10,000	\$7,000	\$0	\$17,000
Public Meetings and Outreach	\$0	\$900	\$0	\$900
Analyze Data and Develop Method	\$0	\$0	\$0	\$0
Demonstration Fields	\$5,000	\$0	\$0	\$5,000
Soil Moisture Probes with Remote Read Capability	\$9,600	\$0	\$0	\$9,600
Totals	\$53,599	\$18,675	\$14,496	\$86,770



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Application Budget Year Two

Project Sponsor: Lower Platte North Natural Resources District

Project Name: Aquifer Vulnerability Mapping and Analysis

Last Activity: Waiting For Signature - 08/31/2018

	NET	LPNNRD	UNL In Kind	Totals
Water sampling equipment	\$0	\$0	\$0	\$0
Vadose Zone Sampling	\$0	\$0	\$0	\$0
Water Sampling	\$0	\$0	\$0	\$0
Public Meetings and Outreach	\$100	\$3,600	\$0	\$3,700
Analyze Data and Develop Method	\$37,500	\$12,500	\$0	\$50,000
Demonstration Fields	\$0	\$0	\$0	\$0
Soil Moisture Probes with Remote Read Capability	\$0	\$0	\$0	\$0
Totals	\$37,600	\$16,100	\$0	\$53,700



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Nebraska Environmental Trust Fund Real Estate

Project Sponsor: Lower Platte North Natural Resources District

Project Name: Aquifer Vulnerability Mapping and Analysis

Last Activity: Waiting For Signature - 08/31/2018

Legal Description	County	# of Acres
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Nebraska Environmental Trust Fund Timeline

Project Sponsor: Lower Platte North Natural Resources District

Project Name: Aquifer Vulnerability Mapping and Analysis

Last Activity: Waiting For Signature - 08/31/2018

Date	Description
06/2019	Begin water sampling in Nitrate Phase Areas beginning Summer of 2019.
06/2019	Purchase water sampling equipment needed to test for nitrates and other environmental conditions affected by high nitrate contamination.
11/2019	Conduct Vadose Zone Sampling in Nitrate Phase Areas beginning in Fall of 2019.
02/2020	Develop method to determine most effective locations of best management practices beginning early 2020.
04/2020	Use results from previously developed method to identify landowners to target for best management practices implementation. Hold public meetings to gauge landowner interest in implementing best management practices.



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Nebraska Environmental Trust Fund Signature Page

Project Sponsor: Lower Platte North Natural Resources District

Project Name: Aquifer Vulnerability Mapping and Analysis

Portal ID: 263

Last Activity: Waiting For Signature - 08/31/2018

Counties: Butler, Colfax

Nearest Town: Schuyler

Total Amount Requested: \$91,199

Years of Funding: 2 Years

Sponsor Website: www.lpnnrd.org

Primary Contact Info

Christopher Poole

GIS Department Head

Lower Platte North Natural Resources

District

PO Box 126

68066-0126

NE

402-443-4675 (Primary)

402-960-2950 (Alternate)

cpoole@lpnnrd.org

Signer Contact Info

Eric Gottschalk

General Manager

Lower Platte North Natural Resources District

PO Box 126

68066-0126

NE

402-443-4675 (Primary)

egottschalk@lpnnrd.org

In 200 words or less provide an overview of the project for which you seek funding. If you are asking the Trust to fund only a portion of the project, indicate the components for which you seek funding.

The Lower Platte North NRD (LPNNRD) has identified two areas of nitrate contamination, known as Phase II and Phase III areas. Phase II areas are defined as having 50% or more of wells with a nitrate concentration exceeding 8 ppm, while Phase III areas are those with 50% or more wells exceeding 10 ppm (10 ppm is the maximum safe drinking level limit). One area consists of all or parts of twenty-one Sections around Bellwood in Butler County and the other consists of sixty-five Sections around the towns of Richland and Schuyler in Colfax County. With such a large area, with diverse soil types, it is an incredibly difficult problem to solve. Instead of attempting to treat the area as a whole, which is impractical and costly, LPNNRD is proposing an intensive sampling and modeling effort to better understand how the nitrates are moving through these areas and attempt to identify those areas where aquifer infiltration is most likely. Once identified, LPNNRD can focus resources on these areas through education and working with producers on best management practices to ameliorate nitrate contamination in the Phase areas as a whole. This will result in the maximum benefit at the least cost.

On behalf of the sponsor named above, I hereby certify that the information contained in this application, including all attachments, is true, accurate and complete.

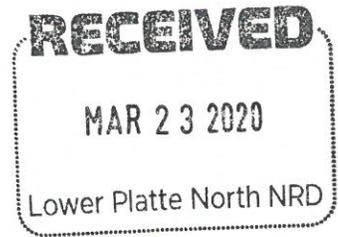
Eric Gottschalk, General Manager



Signature

8/31/18

Date



A note from President Luebbe

Members,

The GMDA Conference is proceeding as planned for June 9 - 12, 2020 in Colorado Springs, CO. We are evaluating the spread of COVID-19 and will make a final decision on the Conference by April 30, 2020. We value the health of our attendees and will not proceed if there is a risk to members.

In the event that GMDA has to cancel the Conference, we will offer a full conference registration refund to all attendees and spouses. GMDA will cancel the GMDA Conference if a nationwide or regional travel ban is in place.

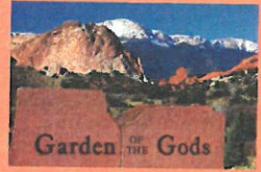
Because a great deal can happen in 30 days, we ask attendees to have patience. We will continue to monitor the situation and will notify you of any changes via e-mail.

If there are any questions, please call Linda Luebbe at 402-643-1741.



SUMMER 2020 CONFERENCE

COLORADO SPRINGS, CO



CONFERENCE REGISTRATION

Name: _____

Organization: _____

Address: _____

City, State, Zip Code: _____

Phone: _____

E-Mail: _____

Spouse/Significant Other Name: _____

Phone: _____

E-Mail: _____

For room reservations at the Mining Exchange on S. Nevada Ave, call (954) 467-0671 and request the **GMDA Summer Conference 2020** block.

CONFERENCE ATTENDEE REGISTRATION INCLUDES:

Welcome reception Tuesday night - RSVP reception attendance Yes No

All sessions Wednesday through Friday

Including Welcome Reception Tuesday, Breakfast (Wednesday-Friday), Snacks, and Lunch (Wednesday & Thursday Only)

Registration received before May 18, 2020: \$400.00 _____

Registration received after May 18, 2020: \$450.00 _____

SPOUSE/GUEST ATTENDEE REGISTRATION INCLUDES:

Spouse/Guest Registration fee includes Welcome Reception, special spouse activities to include a tour of the Olympic Museum, tea and a tour of Glen Eyrie Castle, and a tour of the Air Force Academy. A separate spouse agenda will be provided at room check-in.

Registration received before May 18, 2020: \$200.00 _____

Registration received after May 18, 2020: \$250.00 _____

OPTIONAL THURSDAY AFTERNOON: GARDEN OF THE GODS JEEP TOUR

\$60.00 per person additional

Number of persons: _____ Total \$ _____

Please include a check with your registration made payable to YMD Joint Water Mgmt District PO Box 129 Stoneville, MS 38776