

Agenda Item: 7a. – c.

Memorandum

To: Pappio-Missouri River Natural Resources District Programs Projects and Operations Subcommittee

From: Paul W. Woodward, PE, Groundwater Management Engineer

Date: May 2, 2016

Re: Platte and Elkhorn River Valley Integrated Water Monitoring Project Grant Awards, Interlocal Agreement with Lower Platte North NRD, and Joint Funding Agreement with USGS

In December 2015, the Board approved the submission of two grant applications to monitor and analyze groundwater levels between the Platte River streamflow gage near Leshara and the Elkhorn River streamflow gage at Waterloo. It is anticipated that analysis of groundwater elevations and gradients between the two rivers can provide a predictable relationship for streamflow gains or losses based on river level and flow. The attached Figure 1 shows a map of the proposed area and the use of five continuous monitoring wells.

The District has been notified that both grants have been awarded in the amounts requested. The Nebraska Department of Natural Resources (NDNR) has approved a grant in the amount of \$72,000 from their INSIGHT Data Enhancement Program (IDEP). A draft agreement between NDNR and the District for the IDEP grant is drafted and attached. In addition, the Natural Resources Commission has approved cost-share in the amount of \$64,200 to be reimbursed during our next fiscal year.

USGS is best suited to perform this study as they already have the real-time telemetry system in place and they have the expertise necessary to statistically evaluate the data once it is obtained. USGS has updated their scope and approach for the study and it is attached to this memo. The proposed cost for two years of monitoring and analysis including a final interpretive report is now \$253,500, increased from \$245,000 as reported in December. However, the USGS is contributing additional cooperative funding in the amount of \$78,000, up from \$66,000, leaving a remaining balance of \$175,500, instead of \$179,000.

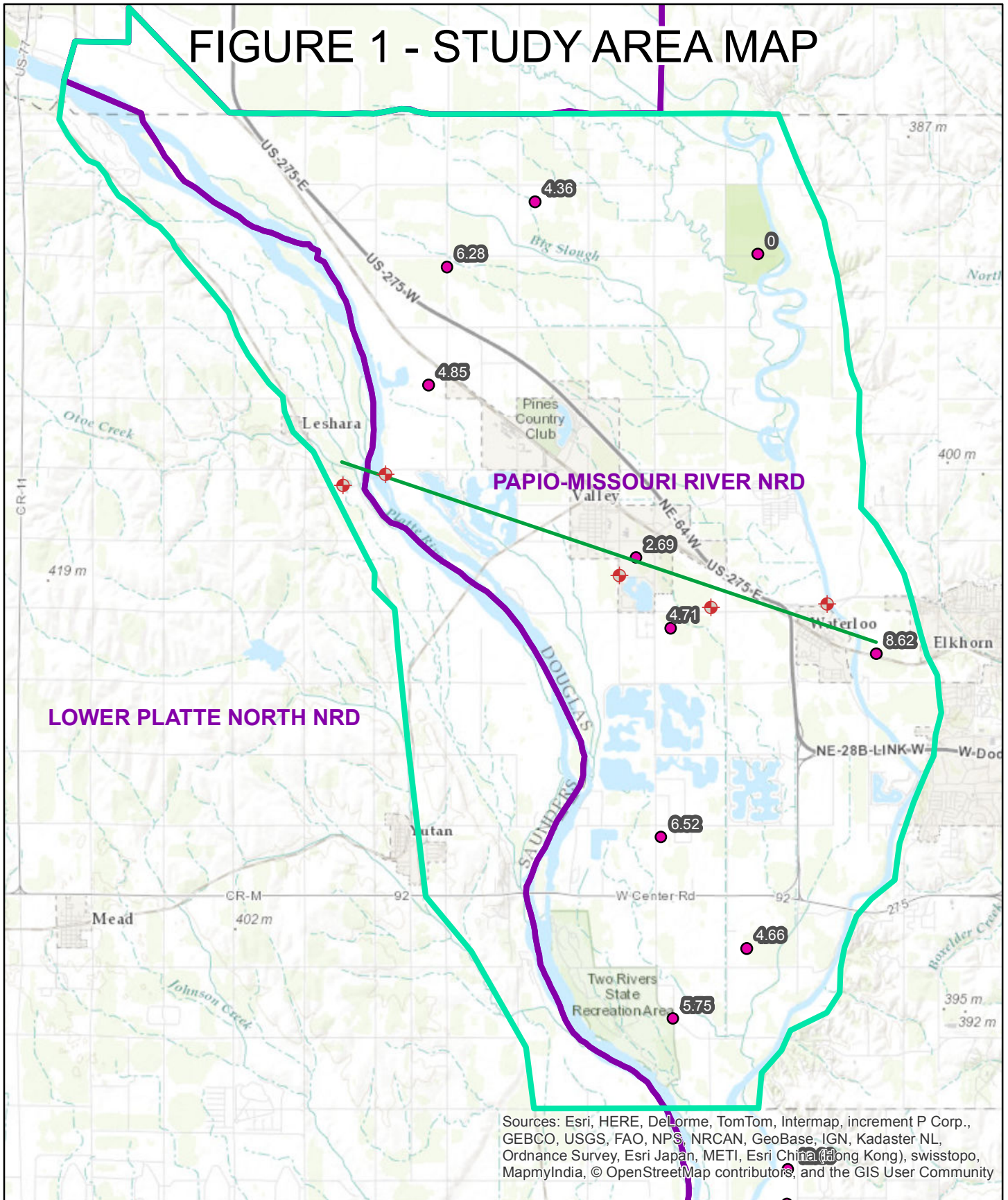
Agency	Funding
USGS	\$78,000
NDNR IDEP	\$72,000
WSF	\$64,200
LPNNRD	\$19,650
P-MRNRD	\$19,650
Total	\$253,500

A Joint Funding Agreement between the USGS and the District has been prepared to reflect these funding amounts and is attached. A detailed cost summary and estimated labor costs are also attached for reference. The USGS will perform the monitoring during both 2016 and 2017 and then finalize their findings in a report due late 2018.

Having received both grants, the LPNNRD is proposing to split any local funding required for the project 50/50 up to a maximum of \$21,400 each. The Interlocal Agreement attached lays out this cost-share arrangement and the LPNNRD's involvement in the study to use one of their monitoring wells as well as any historical data they have collected.





Staff recommends that the subcommittee recommend to the Board of Directors that the General Manager be authorized to execute grant awards for the NDNR INSIGHT Data Enhancement Program funding in the amount of \$72,000 and Water Sustainability Fund in the amount of \$64,200, execute a Joint Funding Agreement with U.S. Geological Survey for a total cost to the District of \$175,500, and execute an Interlocal Agreement with the Lower Platte North NRD for cost-share of up to \$21,400 for the Platte and Elkhorn River Valley Integrated Water Monitoring Project, subject to changes deemed necessary by the General Manager and approval as to form by District Legal Counsel.

FIGURE 1 - STUDY AREA MAP



Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community



-  Prop Real-Time Monitoring Wells
-  Approx Profile
-  Study_Area
-  GW_levels_Spring2015

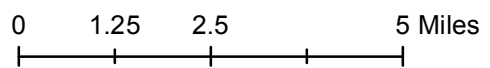
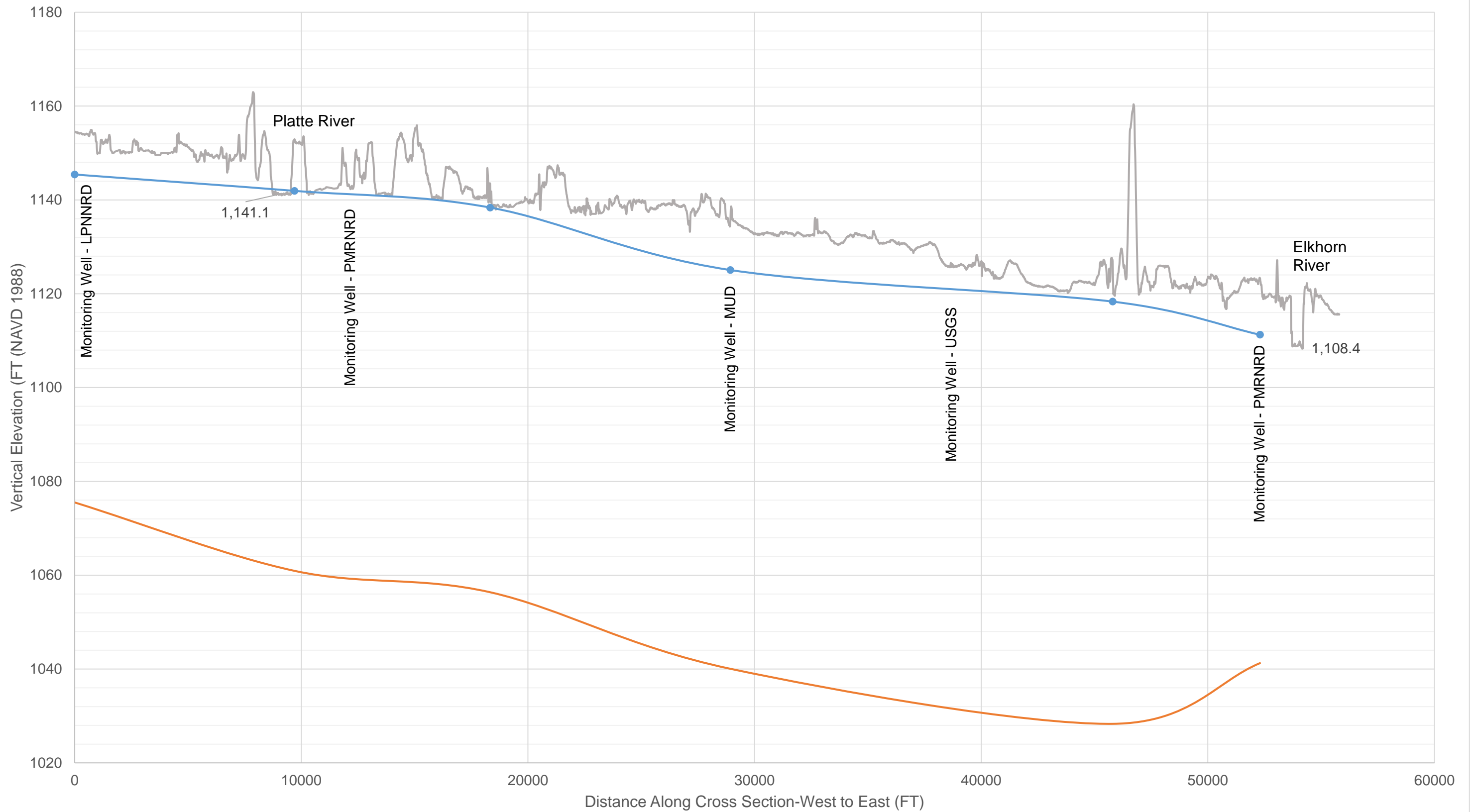


FIGURE 2. Platte River to Elkhorn River Valley Integrated Water Monitoring Profile View



— Approx Ground Elev ●— Approx Water Table — Approx Quaternary Base



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

April 26, 2016

John Winkler
Papio Missouri River Natural Resources District
8901 S. 154th Street
Omaha, NE 68138

Dear  Mr. Winkler:

Enclosed are two copies of Joint Funding Agreement No. 16EMNE000240 for the Lower Elkhorn GW/SW project. The total amount of the agreement is \$253,500 or \$78,000 for the U.S. Geological Survey and \$175,500 for the Papio Missouri River Natural Resources District. Please sign one copy of the agreement and return it to this office by 5/1/16. The second copy is for your records. Work cannot be started until we receive the signed agreement.

Work performed with funds from this agreement will be conducted on a fixed-price basis under the authority of statute 43 USC 36C. 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,



Robert B. Swanson, Director
USGS Nebraska Water Science Center

2 Enclosures
USGS DUNS No. 949286512

Form 9-1366
(April 2015)

**U.S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY**

JOINT FUNDING AGREEMENT

FOR

WATER RESOURCES INVESTIGATIONS

Customer #: 6000000134
Agreement #: 16EMNE000240
Project #: NR00GFF
TIN #: 47-0542969
Fixed Cost Agreement YES

THIS AGREEMENT is entered into as of the, 1st day of May, 2016 by the U.S. GEOLOGICAL SURVEY, UNITED STATES DEPARTMENT OF THE INTERIOR, party of the first part, and the Papio - Missouri River Natural Resources District, party of the second part.

1. The parties hereto agree that subject to availability of appropriations and in accordance with their respective authorities there shall be maintained in cooperation Lower Elkhorn GW/SW project herein called the program. The USGS legal authority is 43 USC 36C; 43 USC 50; and 43 USC 50b.
2. The following amounts shall be contributed to cover all of the cost of the necessary field and analytical work directly related to this program. 2(b) includes In-Kind Services in the amount of \$0.00
 - (a) by the party of the first part during the period

Amount	Date	to	Date
\$78,000.00	May 1, 2016		September 30, 2018
 - (b) by the party of the second part during the period

Amount	Date	to	Date
\$175,500.00	May 1, 2016		September 30, 2018
 - (c) Contributions are provided by the party of the first part through other USGS regional or national programs, in the amount of: \$0.00

Description of the USGS regional/national program:
 - (d) Additional or reduced amounts by each party during the above period or succeeding periods as may be determined by mutual agreement and set forth in an exchange of letters between the parties.
 - (e) The performance period may be changed by mutual agreement and set forth in an exchange of letters between the parties.
3. The costs of this program may be paid by either party in conformity with the laws and regulations respectively governing each party.
4. The field and analytical work pertaining to this program shall be under the direction of or subject to periodic review by an authorized representative of the party of the first part.
5. The areas to be included in the program shall be determined by mutual agreement between the parties hereto or their authorized representatives. The methods employed in the field and office shall be those adopted by the party of the first part to insure the required standards of accuracy subject to modification by mutual agreement.
6. During the course of this program, all field and analytical work of either party pertaining to this program shall be open to the inspection of the other party, and if the work is not being carried on in a mutually satisfactory manner, either party may terminate this agreement upon 60 days written notice to the other party.

4/26/2016

9-1366 (Continuation)

Customer #:

600000134

Agreement #:

16EMNE000240

7. The original records resulting from this program will be deposited in the office of origin of those records. Upon request, copies of the original records will be provided to the office of the other party.
8. The maps, records, or reports resulting from this program shall be made available to the public as promptly as possible. The maps, records, or reports normally will be published by the party of the first part. However, the party of the second part reserves the right to publish the results of this program and, if already published by the party of the first part shall, upon request, be furnished by the party of the first part, at costs, impressions suitable for purposes of reproduction similar to that for which the original copy was prepared. The maps, records, or reports published by either party shall contain a statement of the cooperative relations between the parties.
9. USGS will issue billings utilizing Department of the Interior Bill for Collection (form DI-1040). Billing documents are to be rendered QUARTERLY. Payments of bills are due within 60 days after the 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).

**U.S. Geological Survey
United States
Department of the Interior**

Papio Missouri River Natural Resources District

USGS Point of ContactCustomer Point of Contact

Name: Chris Hobza
Address: 5231 South 19 St Lincoln, NE 68512
Telephone: 402-328-4133
Email: cmhobza@usgs.gov

Name: John Winkler
Address: 8901 South 154th Sreet
Telephone:
Email:

Signatures and Date

Signature:

Date:

Signature:

Date:

 4/26/16

Name: Robert B. Swanson
Title: NEWSC Director

Name:
Title:

LABOR COSTS: Platte and Elkhorn Groundwater/Surface-water Interaction Project

TASK	STAFF MEMBER	FY16 DAILY RATE	FY16	FY17	FY18	TOTAL	TOTAL SALARY
DATA COLLECTION -	GS-12	\$395	10	25	0	35	\$13,825
DATA COLLECTION	GS-11	\$357	15	15	0	30	\$10,710
DATA COLLECTION	GS-9	\$270	0	25	16	41	\$11,070
DATA COLLECTION	GS-7	\$221	31	38	21	90	\$19,890
DATA INTERPRETATION	GS-12	\$395	0	20	5	25	\$9,875
REPORT WRITING/PREPARATION	GS-12	\$395	0	5	25	30	\$11,850
REVIEW/PUBLICATION	GS-12	\$395	0	0	10	10	\$3,950
PROJECT MANAGEMENT/ADMINISTRATION	GS-12	\$395	10	0	0	10	\$3,950
						SUBTOTAL	\$85,120
						Contingency*	\$4,013
						TOTAL	\$89,133

*contingency built in for increases in labor rates and health care benefit costs for FY17 and FY18

COST SUMMARY: Platte and Elkhorn Groundwater/Surface-water Interaction Project

	FY16	FY17	FY18	FY19	FY20	FY21	Total
Salaries	\$16,731	\$43,788	\$28,614	\$0	\$0	\$0	\$89,133
Overtime	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Travel	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Vehicles	\$600	\$2,520	\$198	\$0	\$0	\$0	\$3,318
Training	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Equipment	\$2,733	\$1,435	\$0	\$0	\$0	\$0	\$4,168
Supplies	\$0	\$4,200	\$0	\$0	\$0	\$0	\$4,200
Other Cost Center	\$23,500	\$0	\$0	\$0	\$0	\$0	\$23,500
Contracts	\$0	\$0	\$0	\$0	\$0	\$0	\$0
USGS Labs	\$0	\$0	\$0	\$0	\$0	\$0	\$0
non-USGS Labs	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Shipping	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Publications	\$0	\$0	\$11,025	\$0	\$0	\$0	\$11,025
SV & Miscellaneous	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total (without Leave or Contingency)	\$43,564	\$51,943	\$39,838	\$0	\$0	\$0	\$135,345
CONTINGENCY FACTOR	\$2,178	\$2,597	\$1,992	\$0	\$0	\$0	\$6,767
DIST. TRAINING & MISC PROJ TIME FACTOR	\$0	\$0	\$0	\$0	\$0	\$0	\$0
LEAVE FACTOR	\$2,928	\$7,663	\$5,008	\$0	\$0	\$0	\$15,598
PROJECT EXPENSES	\$48,670	\$62,203	\$46,837	\$0	\$0	\$0	\$157,711
SCIENCE SUPPORT	\$0	\$0	\$0	\$0	\$0	\$0	\$0
BASIS + NET FUNDING REQUIREMENT	\$48,670	\$62,203	\$46,837	\$0	\$0	\$0	\$157,711
COST CENTER	\$12,792	\$33,160	\$18,798	\$0	\$0	\$0	\$64,750
FACILITIES	\$2,292	\$5,942	\$3,369	\$0	\$0	\$0	\$11,603
BUREAU	\$6,009	\$7,902	\$5,382	\$0	\$0	\$0	\$19,293
BASIS+ INDIRECT COSTS Subtotal	\$21,094	\$47,005	\$27,548	\$0	\$0	\$0	\$95,647
BASIS + GROSS	\$69,764	\$109,208	\$74,386	\$0	\$0	\$0	\$253,357
AUGMENTATION REDUCTION	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL INDIRECT COSTS (INCLUDES SS)	\$21,094	\$47,005	\$27,548	\$0	\$0	\$0	\$95,647
ESTIMATED TOTAL PROJECT REQUIREMENTS	\$69,764	\$109,208	\$74,386	\$0	\$0	\$0	\$253,357
USGS Cooperative Matching Funds	\$0	\$16,500	\$39,000	\$22,500	\$0	\$0	\$78,000
Cost to the PMRNRD	\$0	\$53,500	\$70,000	\$52,000	\$0	\$0	\$175,500

from net2gross-FY16_5Feb16_ElkhornPlatteGWSW.xlsx

INTERLOCAL COOPERATION ACT AGREEMENT

between

LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT

And

PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT

For

**PLATTE AND ELKHORN RIVER VALLEY INTEGRATED WATER
MONITORING**

THIS AGREEMENT (“**THIS AGREEMENT**”) is entered into by and between the **LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT** (“**LPNNRD**”) and the **PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT** (“**P-MRNRD**”). The LPNNRD and the P-MRNRD are referred to collectively hereinafter as “**PARTIES**” and individually as a “**PARTY**”.

WHEREAS, the P-MRNRD intends to enter into a joint funding agreement with the U.S. Geological Survey’s (“**USGS**”), Nebraska Water Science Center for real-time continuous monitoring of the groundwater levels between the Platte River streamflow gage near Leshara, NE and the Elkhorn River streamflow gage at Waterloo, NE. The complete study of this data will include its interpretation and analysis, collection of historic ground water levels and streamflows, multiple groundwater level readings, ground water surface contouring, Elkhorn River bed and bank conductance, and analysis of recharge and retiming of groundwater between the rivers. The **PARTIES** now desire to enter into **THIS AGREEMENT** to complete this study and publish a final interpretive report (the “**PROJECT**”).

NOW, THEREFORE, the **PARTIES** do hereby agree as follows:

1. BENEFITS. The **PARTIES** do hereby find, determine and agree that the **PROJECT** will be of general benefit to the **PARTIES**, with only incidental special benefits.

2. PROJECT PARTICIPANTS. The **PROJECT** shall be undertaken by the **PARTIES**, as provided herein, without any separate entity being created, and the duties and responsibilities of the **PARTIES** with respect to the **PROJECT** shall be as defined by **THIS AGREEMENT**. The P-MRNRD shall be the lead organization and manage the **PROJECT**.

3. TECHNICAL REVIEW COMMITTEE. Each of the **PARTIES** shall be provided the opportunity to include a member or members of such **PARTY’S** staff to the **TECHNICAL REVIEW COMMITTEE** (**REVIEW COMMITTEE**). The **REVIEW COMMITTEE** shall be responsible for providing technical guidance for the **PROJECT**, and shall have an opportunity to review and provide comments to the report and data.

4. MONETARY CONTRIBUTIONS BY PARTIES. LPNNRD shall pay to the P-MRNRD the amount of \$10,700 for each year for two successive years prior to

August 31st of each year. The first payment shall be received by the P-MRNRD by August 31, 2016.

P-MRNRD shall pay non-reimbursed costs in an amount not to exceed \$21,400 for the PROJECT.

In the event, the Parties, either individually or jointly, reasonably believe the actual, non-reimbursed costs of the PROJECT will exceed the monetary contributions set forth in this paragraph, the Parties shall negotiate, in good faith, revisions to the PROJECT so that non-reimbursed costs are reduced and/or the non-reimbursed costs are divided evenly between the Parties.

5. INVOICES. By July 31, 2015 and thereafter by July 31, 2016, the P-MRNRD will prepare and submit an annual invoice to LPNNRD for the contribution detailed in Paragraph 4, above. The LPNNRD may request from P-MRNRD and P-MRNRD shall provide records of actual expenditures related to the PROJECT.

6. USGS CO-OP CONTRIBUTION FUNDS. P-MRNRD intends to enter into an agreement with USGS to complete the PROJECT for a total cost of approximately \$245,000, and expects to receive a credit of approximately \$66,000 in cost-share from USGS for the PROJECT, with \$33,000 provided in USGS' fiscal year 2016, and \$33,000 provided in USGS' fiscal year 2017 (collectively the "USGS CONTRIBUTION").

In the event, P-MRNRD does not receive the USGS CONTRIBUTION, whether in the total amount expected or any portion of an individual contribution during a fiscal year, P-MRNRD shall have the right, in its sole and exclusive discretion, to terminate THIS AGREEMENT upon thirty days written notice to the LPNNRD. Upon such termination, the P-MRNRD shall have no further obligations or duties related to THIS AGREEMENT.

Also upon such termination, the LPNNRD shall reimburse the P-MRNRD for fifteen percent (15%) of any non-reimbursed PROJECT costs already incurred by the P-MRNRD prior to termination. Upon payment to the P-MRNRD of fifteen percent (15%) of any non-reimbursed PROJECT costs, the LPNNRD shall have no further obligations or duties under THIS AGREEMENT.

7. AUTHORITY FOR APPROVALS.

a) Approvals by the LPNNRD, and other LPNNRD discretionary actions contemplated by THIS AGREEMENT, are authorized to be provided by the General Manager of the LPNNRD; and,

b) Approvals by the P-MRNRD, and other P-MRNRD discretionary actions contemplated by THIS AGREEMENT, are authorized to be provided by the General Manager of the P-MRNRD.

8. PUBLIC AVAILABILITY OF DATA AND REPORT. The PARTIES acknowledge that all data collected for this PROJECT and the resulting report shall be public records, and no party shall claim any intellectual property rights in any such documents.

9. TERM AND DURATION. THIS AGREEMENT shall be in force and effect from and after its execution by all PARTIES and shall remain in effect until the occurrence

of the earliest of the following events: (1) the completion of the PROJECT; or (2) the termination of the AGREEMENT pursuant to Paragraph 7, above, and/or Paragraph 10, below.

10. ADDITIONAL FUNDING SOURCES. In addition to the USGS CONTRIBUTION, the P-MRNRD has applied for additional funding from two separate state agencies. First, P-MRNRD submitted an application to the Nebraska Department of Natural Resources' INSIGHT Data Enhancement Program ("IDEP") seeking \$72,000 in funds for the PROJECT. Second, P-MRNRD submitted an application to the Nebraska Natural Resources Commission's Water Sustainability Fund ("WSF") seeking \$64,200. P-MRNRD makes no representation concerning the likelihood of said application(s) receiving funding from the respective state agency.

In the event the IDEP and WSF, either individually or collectively, applications are denied funding or the amount granted is less than the amounts applied for this PROJECT, the P-MRNRD shall have the right, in its sole and exclusive discretion, to terminate THIS AGREEMENT upon thirty days written notice to the LPNNRD. Upon such termination, the P-MRNRD shall have no further obligations or duties related to THIS AGREEMENT.

Also upon such termination, the LPNNRD shall reimburse the P-MRNRD for fifteen percent (15%) of any non-reimbursed PROJECT costs already incurred by the P-MRNRD prior to termination. Upon payment to the P-MRNRD of fifteen percent (15%) of any non-reimbursed PROJECT costs, the LPNNRD shall have no further obligations or duties under THIS AGREEMENT.

11. NON-DISCRIMINATION. The PARTIES shall not, in the performance of THIS AGREEMENT, discriminate or permit discrimination in violation of federal or state laws or local ordinances because of race, disability, color, sex, age, political or religious opinions, affiliations or national origin.

12. APPLICABLE LAW. The PARTIES shall follow all applicable federal and state statutes and regulations in carrying out the faithful performance and terms of THIS AGREEMENT.

13. SEVERABILITY. In the event any portion of THIS AGREEMENT is held invalid or unenforceable for any reason, it is agreed that any such invalidity or unenforceability shall not affect the remainder of THIS AGREEMENT and the remaining provisions shall remain in full force and effect, and any court of competent jurisdiction may so modify any objectionable provision of THIS AGREEMENT so as to render it valid, reasonable, and enforceable.

14. CAPTIONS. Captions used in THIS AGREEMENT are for convenience and not for use in the construction of THIS AGREEMENT.

15. COUNTERPARTS. THIS AGREEMENT may be executed in any number of counterparts, all of which taken together shall constitute one and the same instrument. Each PARTY hereto agrees that facsimile or other electronic signatures shall be considered legal and binding with respect to THIS AGREEMENT.

16. WAIVER. No delay or failure by any PARTY hereto to exercise any right under THIS AGREEMENT, and no partial or single exercise of that right, shall constitute a waiver of that or any other right unless otherwise expressly provided herein. A valid waiver by any PARTY hereto must be in writing and executed by the waiving PARTY.

17. ENTIRE AGREEMENT. Each PARTY hereto acknowledges that THIS AGREEMENT contains the entire agreement between the parties hereto, and the terms of THIS AGREEMENT are contractual in nature in all respects and not a mere recital. Each PARTY hereto further acknowledge that it has not made any representations or promises related to the subject matter of THIS AGREEMENT that have not been made part of THIS AGREEMENT.

[SIGNATURE PAGES FOLLOW]

IN WITNESS WHEREOF

The LPNNRD has executed THIS AGREEMENT on _____, 2016,
pursuant to resolution duly adopted by its Board of Directors.

**LOWER PLATTE NORTH NATURAL
RESOURCES DISTRICT**

By _____
General Manager

[ADDITIONAL SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF

The P-MRNRD has executed THIS AGREEMENT on _____, 2016,
pursuant to resolution duly adopted by its Board of Directors.

**PAPIO-MISSOURI RIVER NATURAL
RESOURCES DISTRICT**

By _____
General Manager