

**Agenda Item: 6.**

## **Memorandum**

**To:** Programs, Projects, and Operations Subcommittee  
**From:** Brian L. Henkel, Groundwater Management Engineer  
**Date:** February 07, 2014  
**Re:** Update on the District Groundwater Quality Sampling Program:

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The District has in place a groundwater quality sampling program as part of the Groundwater Management Plan implemented through a joint funding agreement with the US Geological Survey (USGS). The joint funding agreement expires on March 31, 2014. The program samples and analyzes the groundwater of the four aquifer systems within the District, the Missouri River alluvium, the Platte and Elkhorn River alluvium, the Dakota Aquifer, and the Upland alluvial aquifer, on a rotating basis. The program includes sampling private wells (Network Wells) in addition to sampling dedicated monitor sites. Sampling in 2013 focused on the Dakota Aquifer.

Additionally, last year's sampling included determining nitrate levels on select domestic wells in southwest Sarpy County that utilize the Dakota Aquifer. Nitrate levels in the well nest south of Springfield have been trending up and the domestic well sampling was intended to help determine the origin, extent, and the impacts to domestic wells in the area.

The District also had an agreement with the USGS to sample wells for groundwater quality as part of the Eastern Nebraska Water Resources Assessment (ENWRA). That agreement expired on September 30, 2013 with the understanding that the sampling for ENWRA would be included in the District's regular sampling program agreement. This proposed joint funding agreement includes both the regular groundwater sampling program and the ENWRA sampling. The following table lists the contributions from the District and the USGS for the previous sampling agreements and the proposed agreement.

Program	District	USGS	Total
<b>Previous Agreement</b>	\$447,800 (78%)	\$126,200 (22%)	\$574,000
<b>ENWRA Agreement</b>	\$61,880 (80%)	\$15,820 (20%)	\$77,700
<b>Subtotals</b>	\$509,680	\$142,020	\$651,700
<b>Proposed Agreement</b>	\$517,200 (74.5%)	\$167,800 (24.5%)	\$685,000

The proposed agreement continues the District's groundwater quality sampling program for the four aquifer systems including both the Network Wells and dedicated monitoring sites. The proposed agreement also includes baseline sampling for new dedicated monitoring sites being constructed by the Nebraska Department of Environmental Quality (NDEQ). Baseline sampling is done more frequently than general sampling and

includes analysis on more water quality parameters. The added baseline sampling slightly increases overall costs associated with those dedicated monitoring sites in the short term. The wells that are sampled for ENWRA no longer require baseline sampling and are now sampled only on an annual basis. The reduced frequency of sampling for the ENWRA wells helps offset some of the increase from the baseline sampling for the NDEQ monitoring sites. The agreement also includes baseline sampling for monitoring sites the District will construct using grant funds from the Nebraska Environmental Trust. The District was preliminarily awarded most of the amount requested to construct an additional 15 monitoring sites. The establishment of dedicated monitoring sites has also allowed the District to not only acquire more precise and better water quality data but to also sample fewer Network Wells. The proposed agreement also reduces the number of Network Wells sampled each year. Additionally, the USGS recognizes the importance of this type of work and has offered an increase in match percentage for this agreement. Overall the proposed agreement is a slight increase from the previous four years of sampling to accommodate the new monitoring sites baseline analysis.

**Management recommends that the Subcommittee recommend to the Board of Directors that the proposed Joint Funding Agreement for water quality monitoring, in a not exceed amount of \$517,200, be approved by the Board subject to changes deemed necessary by the General Manager and approval as to form by District legal counsel.**

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## United States Department of the Interior

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

February 7, 2014

Marlin Petermann  
Papio-Missouri River Natural Resources District  
8901 South 154 Street  
Omaha, NE 68138

Dear Mr. Petermann:

Enclosed are two copies of Joint Funding Agreement No. 14EMNE000260 for the sample collection, analysis, and reporting for the Papio-Missouri River Natural Resources District groundwater quality network project. The total amount of the agreement is \$685,000 or \$167,800 for the U.S. Geological Survey and \$517,200 for the Papio-Missouri River Natural Resources District. Please sign one copy of the agreement and return it to this office as soon as possible. The second copy is for your records. Work cannot be continued 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 50. 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 Amanda Flynn at 402-328-4144 if you have any questions concerning this agreement.

Sincerely,

Robert B. Swanson, Director  
USGS Nebraska Water Science Center

2 Enclosures

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DUNS No. 949286512



Form 9-1366  
(Oct. 2005)

**U.S. Department of the  
Interior  
U.S. Geological Survey  
Joint Funding Agreement  
FOR  
WATER RESOURCES INVESTIGATIONS**

Customer #:	6000000134
Agreement #:	14EMNE000260
Project #:	NR00DCF
TIN #:	47-0542469
Fixed Cost Agreement	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

THIS AGREEMENT is entered into as of the 1<sup>st</sup> day of **March 2014**, 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 the **sample collection, analysis, and reporting for the Papio-Missouri River Natural Resources District groundwater quality network**, 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.

(a) **\$167,800** by the party of the first part during the period  
**March 1, 2014 to March 31, 2018**

(b) **\$517,200** by the party of the second part during the period  
**March 1, 2014 to March 31, 2018**

- (c) 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.
  - (d) 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.
  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.

**Form 9-1366**  
**continued**

**U.S. Department of the Interior**  
**U.S. Geological Survey**  
**Joint Funding Agreement**

**Customer #:** 6000000134  
**Agreement #:** 14EMNE000260  
**Project #:** NR00DCF  
**TIN #:** 47-0542469

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 Contact**

Name: Amanda Flynn  
Address: 5231 South 19 St  
Lincoln, NE 68512

Telephone: 402-328-4144  
Email: aflynn@usgs.gov

**Customer Point of Contact**

Name: Brian Henkel  
Address: 8901 South 154 St  
Omaha, NE 68138

Telephone: 402-444-6222  
Email: bhenkel@papiornrd.org

**Signatures**

By \_\_\_\_\_ Date \_\_\_\_\_  
Name: Robert B. Swanson  
Title: NEWSC Director

**Signatures**

By \_\_\_\_\_ Date \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

By \_\_\_\_\_ Date \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

By \_\_\_\_\_ Date \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_