

City of Fayetteville Staff Review Form

2015-0044

Legistar File ID

2/17/2015

City Council Meeting Date - Agenda Item Only
N/A for Non-Agenda Item

Chris Brown

1/30/2015

Engineering /
Development Services Department

Submitted By

Submitted Date

Division / Department

Action Recommendation:

Approval of the 2015 USGS joint funding agreement in the amount of \$61,721.00 (City's share) for stream gauge installation, operation and maintenance as well as water quality sampling and monitoring for various locations within the City of Fayetteville.

Budget Impact:

4470.9470.5314.00 and 5400.5800.5314.00

4470-Sales Tax Capital Improvements and 5400 -
Water and Sewer

Account Number

Fund

02097 and 10027.1001

Stormwater Quality Management (Stormwater
Quality Mgmt/Nutrient Reduct) and Wastewater
Treatment/Water Quality Improvements

Project Number

Project Title

Budgeted Item? Yes

Current Budget \$ 542,786.00

Funds Obligated \$ 204,625.39

Current Balance **\$ 338,160.61**

Does item have a cost? Yes

Item Cost \$ 61,721.00

Budget Adjustment Attached? No

Budget Adjustment

Remaining Budget **\$ 276,439.61**

V20140710

Previous Ordinance or Resolution # _____

Original Contract Number: _____

Approval Date: _____

Comments:

MEETING OF FEBRUARY 17, 2015

TO: Mayor and City Council

THRU: Don Marr, Chief of Staff
Jeremy Pate, Development Services Director
Chris Brown, City Engineer

FROM: Alan Pugh, Staff Engineer

DATE: January 26, 2015

SUBJECT: Approval of the 2015 USGS joint funding agreement in the amount of \$61,721.00 (City's share) for stream gauge installation, operation and maintenance as well as water quality sampling and monitoring for various locations within the City of Fayetteville

RECOMMENDATION:

Staff Recommends approval of the 2015 USGS joint funding agreement in the amount of \$61,721.00 (City's share) for stream gauge installation, operation and maintenance as well as water quality sampling and monitoring for various locations within the City of Fayetteville. In addition, this proposal was reviewed by the Water and Sewer Committee, and the Committee voted 3-0 to recommend approval.

BACKGROUND:

The City of Fayetteville has historically contracted with USGS to operate and maintain three urban stream gauges. These gauges are located at Mullins Branch at Martin Luther King Blvd, Town Branch at Highway 16 and Niokaska Creek at Township Avenue. This program has not included water quality sampling at these locations in the past. The gauging stations strictly monitor flow and generate hydrographs for various storm events. The information produced by the gauges can be viewed on the USGS website by following:

<http://waterwatch.usgs.gov/?m=real&r=ar>

In 2014 the City of Fayetteville contributed \$21,528 to the stream gauge program and the USGS contributing \$5,802 in funds.

DISCUSSION:

In an effort to further quantify potential pollutants to some of the main tributaries of Fayetteville, a revision to the USGS contract that would include at two new stream gauges and water quality monitoring. Staff presented multiple options to the Water and Sewer Committee as shown on the attached spreadsheet and by a vote of 3-0 the Committee recommends for council approval the option further described below.

The recommendation includes a continuous monitor stream gauge with sampling and determination of various pollutant concentrations at two locations within the City of Fayetteville. These locations would track continuous information regarding flow, turbidity, temperature and conductance. The sampling at these locations would provide a mechanism in which these constituents could be related to other pollutants such as total suspended solids (TSS) essentially providing relatively accurate continuous pollutant loading information.

The first station would be located on Town Branch near Armstrong Ave and would monitor a largely developed area that discharges into the West Fork of the White River which currently has Total Maximum Daily Load (TMDL) defined by ADEQ for turbidity. Monitoring just upstream of the West Fork would allow the City to determine Fayetteville's contribution to this TMDL. While no waste load allocation (WLA) has been set for Fayetteville, it would be beneficial to have a base line measurement in the event ADEQ sets a WLA.

The second station would be at a determined location on the west side of town. The current locations being considered are Clabber Creek at Wheeler Road or Mud Creek at Greg Street and would also provide information as to any contribution from portions of the City to the overall amount of pollutants to the Illinois River. As you may be aware, the Illinois River phosphorus concentration is currently under dispute between the States of Arkansas and Oklahoma. Pending the outcome of this litigation, additional enforcement measures may be placed on Arkansas municipalities regulating both point and non-point source pollution. Again, it would be beneficial to have a base line from which to judge the potential TMDL as well as monitor the progress of measures developed to reduce pollutants.

In addition to the items above, the recommendation also includes maintaining a crest stage gauge on Niokaska Creek at Township. This gauge has been useful in the past in determining the intensity of storm events and the extent of any flooding that they caused.

The total cost for the program described above would be \$71,721 with the USGS contributing \$10,000 in Cooperative Funding for a total cost to the City of Fayetteville of \$61,721. In addition to the Cooperative Funds, the USGS is proposing to provide and install the equipment at no cost to the City.

BUDGET/STAFF IMPACT:

As stated the total cost of the program would be \$71,721 with the USGS contributing \$10,000 in funding. The remaining \$61,721 would be split between projects managed by the Engineering Division and the Water and Sewer Department. As the information collected would benefit both departments equally, it is proposed to split the required funds 50/50 between the two projects, or a total of \$30,860.50 each.

Attachments:

Proposed Contract with USGS
2015 Contract Options Spreadsheet

City of Fayetteville - Purchase Order Request (PO)

(Not a Purchase Order)

All PO Requests shall be scanned to the Purchasing e-mail: Purchasing@fayetteville-ar.gov.
Purchase shall not be made until an actual PO has been issued.

Requisition No.:	Date:
P.O Number:	

Vendor #: 6123	Vendor Name: US Geological Survey (USGS)	Mail <input type="checkbox"/> Yes <input type="checkbox"/> No	Legistar#: 2015-0044
Address:		FOB Point:	Expected Delivery Date:
City:	State:	Zip Code: Ship to code:	
		Taxable <input type="checkbox"/> Yes <input type="checkbox"/> No	
		Quotes Attached <input type="checkbox"/> Yes <input type="checkbox"/> No	

Requester: Alan Pugh	Requester's Employee #: 4073	Extension: 8208		
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Item	Description	Quantity	Unit of Issue	Unit Cost	Extended Cost	Account Number	Project.Sub#	Inventory #	Fixed Asset #
1	2015 USGS Joint Funding Agreement	1	Lot	30,860.50	\$30,860.50	4470.9470.5314.00	02097		
2	2015 USGS Joint Funding Agreement	1	Lot	30,860.50	\$30,860.50	5400.5800.5314.00	10027.1001		
3					\$0.00				
4					\$0.00				
5					\$0.00				
6					\$0.00				
7					\$0.00				
8					\$0.00				
9					\$0.00				
10					\$0.00				
*	Shipping/Handling		Lot		\$0.00				

Special Instructions:	Subtotal: <u> \$61,721.00</u> Tax: <u> \$0.00</u> Total: <u> \$61,721.00</u>
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Approvals:

Mayor: _____	Department Director: _____	Purchasing Manager: _____
Chief Financial Officer: _____	Budget Director: _____	IT Director: _____
Dispatch Manager: _____	Utilities Manager: _____	Other: _____



United States Department of the Interior
U.S. GEOLOGICAL SURVEY
Lower Mississippi-Gulf Water Science Center
Little Rock Office
401 Hardin Road
Little Rock, Arkansas 72211

January 27, 2015

Mr. Chris Brown, City Engineer
City of Fayetteville
113 West Mountain Street
Fayetteville, Arkansas 72701
(479) 575-8206

Dear Mr Brown:

Enclosed is a Joint Funding Agreement (JFA) for the 2015 calendar year (January 1, 2015 to December 31, 2015) in the amount of \$61,721. The agreement includes installation, operation, and maintenance of two streamgages and two continuous water-quality meters, one on a tributary of Clear Creek (Mud or Clabber Creek) and one on Town Branch; sampling 12 times for nutrients, suspended sediment, and bacteria at the streamgage on Mud or Clabber Creek; and sampling six times for major anions and 12 times for nutrients and suspended sediment at the streamgage on Town Branch. A minimum of two of the 12 samples at each station will be collected during storm events. Additionally, in 2015, the USGS will completely dismantle two streamgages (07048480, College Branch at MLK Boulevard, and 07048490, Town Branch Tributary at Highway 16) and convert one streamgage (07194809, Niokaska Creek at Township Street) to a non-transmitting, crest-stage gage. If the proposed program meets your approval, please have the Mayor sign the JFA and return it to the attention of Suzanne Abernathy (saber@usgs.gov), our Budget Analyst. She may be reached at (501) 228-3603.

Work performed with funds from this agreement will be conducted on a fixed-price basis and billed quarterly. We acknowledge Mary Alice, (479) 575-8206, to be the administrative contact at the City of Fayetteville for this project. Our budget contact is Suzanne Abernathy (501) 228-3603.

The results of all work under this agreement will be available for publication by the U.S. Geological Survey and can be accessed by using the following link: <http://ar.water.usgs.gov/>.

We look forward to working with you during this project. If you have any questions or comments, please contact Dan Wagner at (479) 442-4888, ext. 201. Dan is the technical point of contact for this project.

Sincerely,

W. Scott Gain, Director
USGS, Lower Mississippi-Gulf Water Science Center

Enclosures

JEF:rkc

U.S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Customer #: 6000000775
Agreement #: 15E4AR026AR0320
Project #:
TIN #: 71-6018462
Fixed Cost
Agreement YES

JOINT FUNDING AGREEMENT

FOR

Water Resources Investigations

THIS AGREEMENT is entered into as of the, 27th day of January, 2015 by the U.S. GEOLOGICAL SURVEY, UNITED STATES DEPARTMENT OF THE INTERIOR, party of the first part, and the CITY OF FAYETTEVILLE, 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 for installation, operation, and maintenance of two streamgages and two continuous water-quality meters, one on a tributary of Clear Creek (Mud or Clabber Creek) and one on Town Branch; sampling 12 times for nutrients, suspended sediment, and bacteria at the streamgage on Mud or Clabber Creek; and sampling six times for major anions and 12 times for nutrients and suspended sediment at the streamgage on Town Branch. . A minimum of two of the 12 samples at each station will be collected during storm events. Additionally, in 2015, the USGS will completely dismantle two streamgages (07048480, College Branch at MLK Boulevard, and 07048490, Town Branch Tributary at Highway 16) and convert one streamgage (07194809, Niokaska Creek at Township Street) to a non-transmitting, crest-stage gage, 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
\$10,000.00	January 1, 2015		December 31, 2015
 - (b) by the party of the second part during the period

Amount	Date	to	Date
\$61,721.00	January 1, 2015		December 31, 2015
 - (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 part 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.

9-1366 (Continuation)

Customer #:

600000775

Agreement #:

15E4AR026AR0320

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**

CITY OF FAYETTEVILLE

USGS Point of Contact

Customer Point of Contact

Name: Daniel Wagner
 Address: USGS Lower Mississippi-Gulf Water Science Center
 Northwest Arkansas Field Office
 700 West Research Center Boulevard, MS 36
 Fayetteville, AR 72701

Name: Lioneld Jordan, Mayor
 Address: City of Fayetteville
 113 West Mountain Street
 Fayetteville, AR 72701

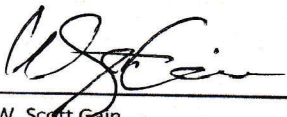
Telephone: (479) 442-4888, ext. 201

Telephone: (479) 575-8330

Email: dwagner@usgs.gov

Email: mayor@ci.fayetteville,ar.us

Signatures and Date

Signature:  Date: 1/29/15
 Name: W. Scott Cain

Signature: _____ Date: _____
 Name: Lionel Jordan

Title: Director, USGS Lower Mississippi-Gulf Water Scie...

Title: Mayor, City of Fayetteville

2015 USGS Contract Options					
Scenario	Description	Cost			Comments
		City	USGS	Total	
1	No change to current contract. 3 continuous-record, urban stream gages at a cost of \$27,330, of which USGS contributes \$5,802 in co-op funds, while City of Fayetteville pays \$21,528.	\$ 21,528.00	\$ 5,802.00	\$ 27,330.00	
2 TB	<ul style="list-style-type: none"> Operate the three existing urban stream gages as "crest-stage gaging stations," where peak stages and flows are verified and the peak stage and flow for the year are published Install a new, continuous-record, urban stream gage on Town Branch at White River Park (USGS pays for installing and equipping the station) Sample Town Branch at White River Park bi-monthly (6X/yr) for turbidity, suspended sediment concentration, nutrients (nitrogen & phosphorous species), and major anions & TDS (including chloride and sulfate, for which the receiving stream, W. Fk. White River, is 303(d) listed). Sample Town Branch at White River Park 2X/yr during storm events for the same constituents as in bi-monthly samples Compute annual sediment and nutrient loads using LOADEST 	\$ 24,781.00	\$ 5,802.00	\$ 30,583.00	Subtract approximately \$4,200 if crest stage gauges are eliminated (\$1,400/gauge)
3 TB	<ul style="list-style-type: none"> Operate the three existing urban stream gages as "crest-stage gaging stations," where peak stages and flows are verified and the peak stage and flow for the year are published Install a new, continuous-record, urban stream gage on Town Branch at White River Park, including a sonde to continuously monitor water temperature, specific conductivity, and turbidity (USGS pays for installing and equipping the station) Calibrate temperature, conductivity, and turbidity sonde monthly (12X/yr) Sample Town Branch at White River Park monthly (12X/yr) for suspended sediment concentration and nutrients (nitrogen & phosphorus species) across the range of turbidity with the goal of establishing a linear regression model between turbidity and suspended sediment concentration, and adding suspended sediment concentration to the real-time web page for the station. These samples would generally be collected during calibration visits Sample Town Branch at White River Park bi-monthly (6X/yr) for major anions & TDS; these samples would be collected during six of the twelve monthly visits for sonde calibration and collection of suspended sediment and nutrient samples Compute annual sediment load using surrogate relationship w/ turbidity; compute annual nutrient loads using LOADEST 	\$ 30,713.00	\$ 8,000.00	\$ 38,713.00	Subtract approximately \$4,200 if crest stage gauges are eliminated (\$1,400/gauge)
2 Alt	<ul style="list-style-type: none"> Operate the three existing urban stream gages as "crest-stage gaging stations," where peak stages and flows are verified and the peak stage and flow for the year are published Install a new, continuous-record, urban stream gage on Town Branch at White River Park (USGS pays for installing and equipping the station) Sample Town Branch at White River Park bi-monthly (6X/yr) for turbidity, suspended sediment concentration, nutrients (nitrogen & phosphorous species), and major anions & TDS (including chloride and sulfate, for which the receiving stream, W. Fk. White River, is 303(d) listed). Sample Town Branch at White River Park 2X/yr during storm events for the same constituents as in bi-monthly samples Compute annual sediment and nutrient loads using LOADEST 	\$ 25,343.00	\$ 2,000.00	\$ 27,343.00	Cost may change slightly based on gauge location and are slightly higher due to travel distance/time and the addition of a sample for Ecoli and fecal coliform as Clear Creek has a TMDL for both. If chosen, cost is in addition to program for Town Branch above.
3 Alt	<ul style="list-style-type: none"> Operate the three existing urban stream gages as "crest-stage gaging stations," where peak stages and flows are verified and the peak stage and flow for the year are published Install a new, continuous-record, urban stream gage on Town Branch at White River Park, including a sonde to continuously monitor water temperature, specific conductivity, and turbidity (USGS pays for installing and equipping the station) Calibrate temperature, conductivity, and turbidity sonde monthly (12X/yr) Sample Town Branch at White River Park monthly (12X/yr) for suspended sediment concentration and nutrients (nitrogen & phosphorus species) across the range of turbidity with the goal of establishing a linear regression model between turbidity and suspended sediment concentration, and adding suspended sediment concentration to the real-time web page for the station. These samples would generally be collected during calibration visits Sample Town Branch at White River Park bi-monthly (6X/yr) for major anions & TDS; these samples would be collected during six of the twelve monthly visits for sonde calibration and collection of suspended sediment and nutrient samples Compute annual sediment load using surrogate relationship w/ turbidity; compute annual nutrient loads using LOADEST 	\$ 33,808.00	\$ 2,000.00	\$ 35,808.00	Cost may change slightly based on gauge location and are slightly higher due to travel distance/time and the addition of a sample for Ecoli and fecal coliform as Clear Creek has a TMDL for both. If chosen, cost is in addition to program for Town Branch above.
Single Storm Sampling	Town Branch costs about \$2,400 and Clear Creek costs about \$2,500. Difference in cost is travel time and cost of materials for additional bacteria samples at Clear Creek.				Not required but optional. Goal of Scenario 3 is to establish relationship continuous data so would likely not be required