

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

Page 1 of 2
Customer #: AR046
Agreement #: 09C4AR046AR0420
Project #:
TIN #: 71-6013749
Fixed Cost Agreement Yes No

FOR
Water-Resources Investigations

THIS AGREEMENT is entered into as of the 28th day of July, 2009, by the U.S. GEOLOGICAL SURVEY, UNITED STATES DEPARTMENT OF THE INTERIOR, party of the first part, and the CITY OF JONESBORO, 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 installation, operation and maintenance of two streamgages in Jonesboro, 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 \$.

(a) \$0 by the party of the first part during the period
September 1, 2009 to December 31, 2009

(b) \$10,270 by the party of the second part during the period
September 1, 2009 to December 31, 2009

(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

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- 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 **annually**. 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 JONESBORO

USGS Point of Contact

Customer Point of Contact

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Email:

Signatures

By John E. Terry Date 7/28/09
Name: John E. Terry
Title: Director, USGS Arkansas Water
Science Center

By _____ Date _____
Name:
Title:

By _____ Date _____
Name:
Title:

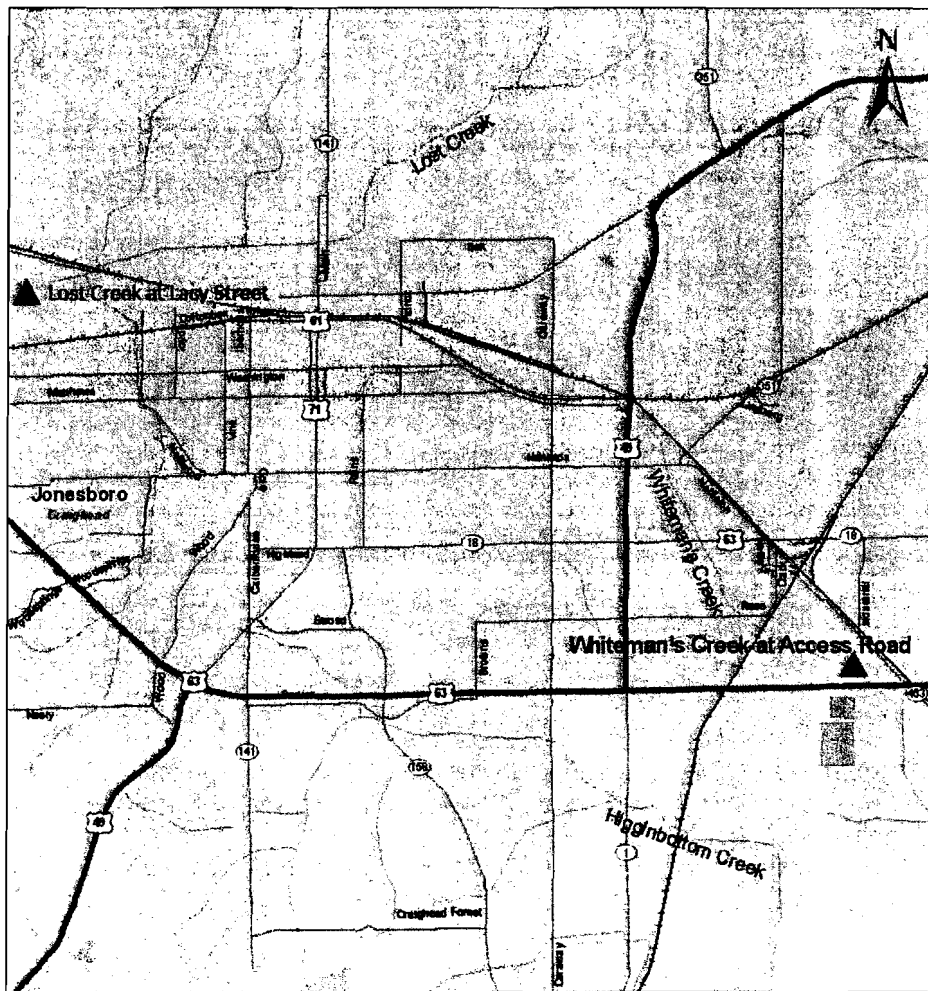
City of Jonesboro Streamgaging Network



Executive Summary



In an effort to help the City of Jonesboro develop an understanding of the hydrology of the drainage basins within city limits, the USGS proposes the installation of two gaging stations to continuously monitor streamflow and rainfall. Listed below (fig. 1, table 1) are the proposed continuous streamflow-record gaging stations and costs associated with installation, operation, and maintenance.



EXPLANATION

- ▲ Continuous Stream Flow-Record and Rainfall Gaging Station

Figure 1. Illustration of site locations for continuous streamflow-record and rainfall gaging stations for Jonesboro, Arkansas.

Table 1. Continuous streamflow-record and rainfall gaging stations to be installed for Jonesboro, Arkansas and costs associated with installation, operation and maintenance.

Monitoring Location	Task	Jonesboro
Lost Creek (S,Q,R)	Gage Installation	\$960 *
	Operation and Maintenance	\$4,175 **
Whiteman Creek at Access Road (S,Q,R)	Gage Installation	\$960 *
	Operation and Maintenance	\$4,175 **
TOTAL		\$10,270

[S, stage (water level), Q, streamflow; R, rainfall]

* Actual cost of installation is \$15,000. Other funding sources used to cover the remaining \$14,040.

** represents 4 months of operation and maintenance (9/09 - 12/09)

The USGS will install the instrumentation, shelters, and equipment for each gaging station at select locations (fig. 1). Each gaging station will be equipped with stage (water-level) sensing instruments that are accurate to within 0.01 feet and rainfall tipping buckets that can measure as little as 0.01 inches of rainfall over a range of rainfall intensities. All gaging stations will be equipped with a data collection platform (DCP) that will record these data in 15-minute increments and transmit the data to the USGS office in Little Rock via satellite telemetry once every hour. The data will be stored in the USGS database and posted to the Arkansas Water Science Center's webpage (fig. 2).

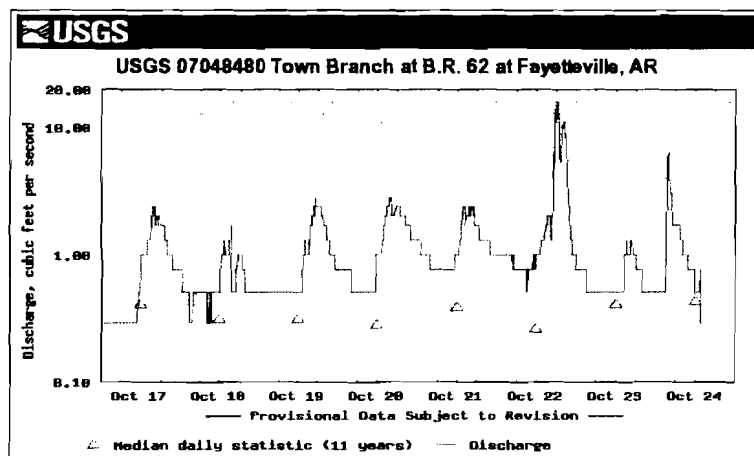


Figure 2. Streamflow hydrograph displayed on the USGS website (<http://ar.water.usgs.gov/>)

Transmitted data from each gaging station will be inspected daily at the USGS Arkansas Water Science Center to ensure that data are being transmitted properly, battery voltage is appropriate, and that all components of the station are functioning properly. At least once every eight weeks, sites will be visited and inspected by USGS personnel. If a gaging station is malfunctioning, the USGS will make the necessary repairs at no additional cost to the city of Jonesboro.

At each of the gaging stations, streamflow will be measured during routine visits (and during high-flow conditions) according to established USGS standards and methods using acoustic velocity meters and/or conventional streamflow measurement equipment. Upon returning to the Arkansas Water Science Center in Little Rock, USGS personnel will apply necessary corrections to the stage and rainfall data stored in the USGS database based upon information collected during site inspections. For each station, stage-discharge relations will be developed, modified, and maintained based upon streamflow measurement data collected at the site. Using the stage-discharge relations and the USGS automated data processing system, streamflow will be computed and stored in the USGS database for each unit-value (15-minute reading) that was transmitted to the USGS office from the gaging station. Additionally, based on site visit inspections, the accuracy of the data will be assessed. Annually, daily mean (average) values of the streamflow data and total rainfall will be published and available online at: <http://pubs.usgs.gov/wdr/#AR>.