



United States Department of the Interior

U.S. GEOLOGICAL SURVEY
North Carolina Water Science Center
3916 Sunset Ridge Road
Raleigh, North Carolina 27607

March 19, 2008

Ms. Michelle Woolfolk
Stormwater Services Division
City of Durham
101 City Hall
Durham, NC 27701

Dear Michelle:

The USGS is pleased to submit for your approval a Joint Funding Agreement (JFA) for the installation and operation of a hydrologic data collection network for the City of Durham, as outlined in Table 1. This Cooperative Water Program Agreement covers the period March 24, 2008 through June 30, 2009 and includes the installation and operation and maintenance of 3 new streamflow gaging stations, 3 new stage-only sites and 6 new raingages all of which are colocated at or near streamflow or stage gage in and around the City of Durham. As noted in our proposal dated, February 19, 2008, these stations will be instrumented to record data every 15 minutes and transmit the data hourly via satellite for display on the internet at: <http://waterdata.usgs.gov/nc/nwis/rt>. Initially, only stage information for streamflow gaging stations will be displayed on the internet until the stage-discharge relation is developed. More frequent transmissions can be triggered during high flow events, and we will work with you to develop these trigger levels.

Attached are four copies of the JFA. Please have two copies of the JFA signed and returned to us at your earliest convenience. Regulations state that we cannot start new work or purchase equipment for this effort until we receive the signed agreement. We plan to have the gages installed by July 1, 2008 pending receipt of the attached JFA and permission from the NCDOT for right-of-way encroachment and/or landowner permissions. The U.S. Geological Survey (USGS) proposes to provide matching funds in the amount of \$20,000, subject to availability of Federal funding, for maintenance and operation. Work performed with funds from this agreement will be conducted on a fixed-price basis. The results of all work under this agreement will be available for publication by the USGS. Billing will be made on a quarterly basis.

We look forward to working with you in support of hydrologic data collection and water-resources investigations in North Carolina. If you have any questions, please call me or Jeanne Robbins at (919) 571-4000

Sincerely,

A handwritten signature in black ink, appearing to read 'J. Bales', with a long horizontal line extending to the left.

Jerad D. Bales, Director
USGS North Carolina Water Science Center

cc: Jeanne Robbins, USGS, Raleigh, NC
Doug Walters, USGS, Raleigh, NC

Enclosures

Table 1. Installation and operation and maintenance costs for City of Durham Hydrologic Data Collection Network – March 18, 2008.

Stream	Data	Installation Cost Spring/Summer 2008	Operation and Maintenance Cost 7/1/08 – 6/30/09
Little Lick Creek at NC 98	Stage and rainfall ^c	32,000	11,200
Eno River at Cole Mill Road	Stage and rainfall	25,000	8,800
Ellerbe Creek at Acadia and Club Boulevard	Stage, discharge and rainfall	25,000	17,200
Sandy Creek at Cornwallis Road ^a	Stage, discharge and rainfall ^c	33,000	19,600
Third Fork Creek at South Roxboro Road	Stage, discharge and rainfall ^c	32,000	19,600
North Prong Northeast Creek at Carpenter Fletcher Road	Stage only	22,000	5,600
Eno River near Durham USGS Station 02085070	Rainfall at existing stage-discharge site	3,000	3,200
Totals		\$172,000	\$ 85,200^b

^a Additional cost to redevelop low water control at site

^b USGS will provide matching funds in the amount of \$20,000 toward this effort

^c Raingages at these locations will be stand-alone raingages near the streamgage.