



**Date:** February 4, 2014

**To:** Thomas J. Bonfield - City Manager  
**Through:** W. Bowman Ferguson - Deputy City Manager  
**From:** Marvin G. Williams – Director of Public Works  
**Subject:** Contract SD-2013-03, Third Fork Creek Stream Restoration Professional Services

**Executive Summary**

Third Fork Creek trail near Martin Luther King, Jr. (MLK) Parkway is impacted by excessive sediment deposition from the creek, making it unusable after heavy rains for trail users. The trail section near Courtland Drive is being impacted by the formation of braided channels that are scouring pedestrian bridge foundations and asphalt sections of the trail with a potential to jeopardize sanitary sewer mains in the vicinity. A detailed study and stream restoration design is needed to formulate a long-term solution to this recurrent problem.

**Recommendation**

The Administration recommends that the City Council authorize the City Manager to execute a contract for stream restoration design and construction management services with Wildlands Engineering, Inc. in an amount of \$250,000; establish a contingency fund of \$37,500 (15%); and authorize the City Manager to negotiate change orders provided that the total project cost does not exceed \$287,500.

**Background**

The focus area for this stream restoration project is Third Fork Creek, a City of Durham stream within the Jordan Lake watershed. The project area is situated downstream of the bridge on MLK Parkway. The first problem area occurs downstream of the MLK Parkway bridge where sediment deposition occurs on the trail surface making it unusable. In the second problem area near Courtland Drive (see attached location map), the original Third Fork Creek channel has left the main stream and formed oxbow (braided) channels through the floodplain. Concrete bridges were added to the greenway trail during construction to cross the oxbow channels. Increased flow from the main channel to these oxbows has caused erosion of banks and scour around the concrete bridges as well as the greenway trail section. This causes potential hazards for the trail users as well as the critical infrastructure; such as the sanitary sewer and trail. Severe erosion of the oxbow channels is likely exacerbating water quality issues such as increased turbidity and sediment associated pollutants being transported downstream from channel bed and banks.

In August 2013, the Stormwater & GIS Services Division implemented temporary bank protection measures to ensure continued use of the trail, pedestrian safety, and protection of sewer infrastructure. However, a long-term solution is needed to prevent continuous erosion of stream bed and banks. Under this project, the contractor will provide design and construction management

services for Third Fork Creek Stream Restoration. These services will include permitting, development of contract documents, and construction management for restoration, enhancement, creation and preservation of stream, buffer, and wetland areas. This professional design services project was not budgeted for in the stormwater infrastructure Capital Improvement Program (CIP) budget for this fiscal year. However, remaining bond funds allocated for the construction of the trail are sufficient to cover the anticipated analysis, design, permitting, and construction document preparation services. These professional services are within the scope of the original trail project. The preliminary estimate for the construction of the stream and trail stabilization is \$627,500. This cost has been requested as part of the fiscal year 2015 budget for the stormwater infrastructure CIP. The total budget for professional and construction services is estimated to be approximately \$915,000.

**Alternatives**

- The Council could develop the design and construction documents by hiring additional staff with the requisite expertise for a project of this complexity.
- The Council could continue to perform temporary repair and maintenance work around the trail and sewer infrastructure.
- The Council could choose to reject the proposed project and discontinue the use of trail.

**Financial Impact**

The City of Durham will pay Wildlands Engineering, Inc. up to \$250,000 with a contingency of \$37,500, resulting in a total potential, not to exceed amount of \$287,500. This professional services project is budgeted for as part of remaining bond funds allocated for the construction of the Third Fork Creek trail in the following accounts:

North-South Trail Third Fork Creek (Construction In Progress), 3000H901-731000-CH066:	\$126,430.48
North-South Trail Third Fork Creek (Contract Contingencies), 3000H901-731900-CH066:	\$142,769.52
<u>North-South Trail Third Fork Creek (Contract Contingencies), 3000H000-731900-CH066:</u>	<u>\$18,300.00</u>
Total:	\$287,500.00

**SDBE Summary**

The Equal Opportunity/Equity Assurance Department reviewed the proposal submitted by Wildlands Engineering, Inc. of Raleigh, North Carolina to determine compliance with the Ordinance to Promote Equal Business Opportunities in City Contracting. The goals for this project are MSDBE 1% and WSDBE 2%. It was determined that Wildlands Engineering, Inc. is in compliance with the Ordinance to Promote Equal Business Opportunities in City Contracting.

**SDBE Requirements**

Wildlands Engineering, Inc. will subcontract to the following certified firms:

Firm	ID	City/State	Amount	% of Contract
Planners for Environmental Quality	MSDBE	Union City, GA	\$ 8,500.00	3.4%
Turner Land Surveying	WSDBE	Raleigh, NC	\$ 30,550.00	12.2%

The MSDBE and WSDBE goals were exceeded.

**Workforce Statistics**

Workforce statistics for Wildlands Engineering, Inc. are as follows:

Total Workforce	24	
Total Females	7	(29%)
Total Males	17	(71%)
Black Males	0	(0%)
White Males	17	(71%)
Other Males	0	(0%)
Black Females	0	(0%)
White Females	7	(29%)
Other Females	0	(0%)

**Attachments**

1. Location Map for the project.
2. Copy of the contract with scope of services, project schedule, project team, and fee schedule.