



**Date:** March 8, 2016

**To:** Thomas J. Bonfield – City Manager  
**Through:** W. Bowman Ferguson – Deputy City Manager  
**From:** Marvin G. Williams – Public Works Director  
**Subject:** Eno River Watershed Improvement Plan

### **Executive Summary**

The Stormwater Division is responsible for developing watershed plans for all of Durham's watersheds as required by its National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit (NCS000249). Many of Durham's waterways are currently impaired due to failure to meet water quality standards for one or more parameters (bacteria, sediment, nutrient enrichment and biological diversity). This is common for streams in urban areas. Watershed plans are an assessment and a plan for improving water quality in a watershed. This project addresses the Eno River which flows into Falls Lake and is subject to the Falls Lake Nutrient Management Strategy which requires reduction of nitrogen and phosphorus loading to the lake from existing development. Watershed plans are an essential first step to restoring degraded watersheds and identifying projects and strategies to meet Falls requirements.

The Eno River watershed plan will involve planning, conducting public meetings, assessment of current watershed conditions, formulation of watershed restoration goals, development of watershed restoration recommendations, identification of stormwater retrofit/restoration opportunities, water quality modeling, watershed modeling, hydraulic/hydrologic modeling, engineering, design, analysis, cost estimates, surveying, data collection, preliminary plans and construction plans for stormwater projects. Requests for proposals were solicited for professional watershed planning and design services for the Eno River watershed. Proposals were received from seven firms. The review committee selected three firms for interviews. Based on competence and experience, in accordance with G.S. 143-64.31, the committee selected AECOM with their team including Kimley Horn, JC Waller, and Three Oaks Engineering.

### **Recommendation**

The Administration recommends that the City Council:

1. Authorize the City Manager to execute a contract for Eno River Watershed Professional Planning and Design Services with AECOM in an amount of \$2,444,928;

2. Establish a contingency fund in the amount of \$244,493 (10%);
3. Authorize the City Manager to negotiate change orders provided that the cost of all change orders and the contract does not exceed \$2,689,421.

### **Background**

Watershed plans are needed to restore Durham's waterways. Streams in Durham are impaired for one or more parameters (bacteria, dissolved oxygen, sediment, turbidity, nutrient enrichment, and biological diversity). Watershed plans are an assessment and a plan for improving water quality in a watershed. Watershed planning is a requirement of the City's NPDES Municipal Stormwater permit and is in the NCDENR draft Falls Lake Nutrient Management Strategy existing development model plan. The project will help to identify and model potential projects that will help in reducing nitrogen and phosphorus loading to Falls Lake. The City is responsible for its waterways meeting water quality standards. The City is responsible for monitoring and evaluating progress toward meeting water quality standards and revising programs as needed to meet those standards. Watershed plans are also a requirement for the City to receive grant funds or partner with the North Carolina Division of Mitigation Services (formerly Ecosystems Enhancement Program) and the Environmental Protection Agency (EPA) sponsored grants such as 319 grants for watershed restoration projects. The watershed plans for Ellerbe, Third Fork, Northeast and Crooked Creeks are completed, but will need to be updated in the future to reflect current field conditions and regulatory issues. Future watershed planning efforts in the City of Durham will include the study of the New Hope Creek, Stirrup Iron Creek and updates to the local watershed plan for Lick Creek.

### **Issues and Analysis**

If the City Council does not authorize the City Manager to negotiate and execute this contract, the City will fall farther behind in its requirements to complete watershed planning for use in the Falls Lake Nutrient Strategy. Failure to develop and implement watershed planning may result in violations of the City's NPDES municipal stormwater permit.

### **Alternatives**

The City could develop watershed plans by hiring additional staff. This would involve hiring a large number of additional staff over a very short period of time in order to complete the plans within the required timeframes.

### **Financial Impact**

This project is budgeted for in the adopted Ordinances for Watershed Planning and Design and Stormwater Retrofitting Professional Design Services from the following accounts in the years below:

YEAR	Ordinance	ACCOUNT	AMOUNT
2016	14780	4300L045-725000-LK102	500,000.00
2016	14780	4300L045-725000-LK109	135,504.00
2016	14780	4300L045-731900-LK109	13550.00
2016	14778	3601L010-725000-LE457	299596.00
2016	14778	3601L010-731900-LE457	29960.00
2017	TBD	4300L045-725000-LK102	1009828.00
2017	TBD	4300L045-731900-LK102	200983.00
2018	TBD	4300L045-725000-LK102	500,000.00
<b>TOTALS</b>			<b>\$2,689,421.00</b>

### SDBE Summary

The Equal Opportunity/Equity Assurance Department reviewed the proposal submitted by AECOM Technical Services of NC, Inc. of Morrisville, North Carolina to determine compliance with the Ordinance to Promote Equal Business Opportunities in City Contracting. The goals for this project are MSDBE 3% and WSDBE 2%. It was determined that AECOM Technical Services of NC, Inc. is in compliance with the Ordinance to Promote Equal Business Opportunities in City Contracting.

### SDBE Requirements

AECOM Technical Services of NC will subcontract to the following certified firms:

Firm	ID	City/State	Amount	% of Contract
JC Waller & Associates, PC	MSDBE	Greensboro, NC	\$ 89,270.00	3.7%
Three Oaks Engineering	WSDBE	Durham, NC	\$ 84,373.00	3.5 %

The MSDBE and WSDBE goals were exceeded.

### WORKFORCE STATISTICS

Workforce statistics for AECOM Technical Services of NC, Inc. are as follows:  
(Consolidated)

Total Workforce	790	
Total Females	295	(37%)
Total Males	495	(63%)
Black Males	19	(3%)
White Males	421	(53%)
Other Males	55	(7%)
Black Females	167	(21%)
White Females	79	(10%)
Other Females	49	(6%)

### Attachments

Draft Professional Services Contract and Scope of Work  
Summary of Watershed Plans