



Date: July 9, 2019

To: Thomas J. Bonfield, City Manager
Through: W. Bowman Ferguson, Deputy City Manager
From: Marvin G. Williams, Director of Public Works
Subject: New Hope Creek & Little Creek Watershed Improvement Plan – SP-2019-01

Executive Summary

The Stormwater & GIS Services Division in the Public Works Department 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 New Hope Creek & Little Creek Watersheds which flow into Jordan Lake and are subject to the Jordan 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 improve water quality.

The New Hope Creek & Little Creek 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. Proposals were received from four firms. The review committee selected two firms for interviews. Based on competence and experience, in accordance with G.S. 143-64.31, the committee selected the consultant team led by AECOM Technical Services of North Carolina, Incorporated.

Recommendation

The Public Works Department recommends the City Council:

To authorize the City Manager to execute the Contract for New Hope Creek & Little Creek Watershed Improvement Plan - SP-2019-01 with AECOM Technical Services of North Carolina, Incorporated in the amount of \$1,772,449.00;

To establish a contingency fund in the amount of \$132,934.00; and

To authorize the City Manager to negotiate change orders provided that the cost of all change orders and the contract does not exceed the total project cost of \$1,905,383.00.

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 Jordan Lake Nutrient Management Strategy existing development model plan. The project will identify and model potential projects that reduce nitrogen and phosphorus loading to Jordan 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 Eno River, Ellerbe Creek, Third Fork Creek, Northeast Creek, and Crooked Creek 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 Stirrup Iron Creek, Little River, 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 Jordan 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:

FISCAL YEAR	Ordinance	ACCOUNT	AMOUNT
2020	15488	4300L045-725000-LK102 (Professional Services)	\$1,100,000
2020	15488	4300L045-725000-LK109 (Professional Services)	\$154,424
2021	TBD	4300L045-725000-LK102 (Professional Services)	\$468,025
2021	TBD	4300L045-725000-LK109 (Professional Services)	\$50,000
2021	TBD	4300L045-731900-LK102 (Contract Contingencies)	\$117,602
2021	TBD	4300L045-731900-LK109 (Contract Contingencies)	\$15,332
TOTALS			\$1,905,383.00

Equal Business Opportunity Summary

The Equity & Inclusion Department reviewed the proposal submitted by AECOM Technical Services of North Carolina, Incorporated. It was determined that they are in compliance with the Ordinance to Promote Equal Business Opportunities in City of Durham Contracting.

M/W UBE REQUIREMENTS:

The goals are MUBE 8% and WUBE 6% goals for this project AECOM Technical Services of North Carolina, Incorporated will subcontract with the following:

<u>Firm</u>	<u>ID</u>	<u>City/State</u>	<u>Amount</u>	<u>% of Contract</u>
Davenport Transportation	MUBE	Winston-Salem, NC	\$146,891	8.29%
Three Oaks Engineering	WUBE	Durham, NC	\$111,422	6.29%
CH Engineering, PLLC	WUBE	Raleigh, NC	\$21,965	1.24%

The MUBE and WUBE goals were met.

WORKFORCE STATISTICS

Total Workforce:

Employment Category	Total Employees	Total Males	Total Females
Project Manager	30	20	10
Professional	127	76	51
Technical	9	7	2
Clerical	12	1	11
Labor	0	0	0
Total	178	104	74

Male:

Employment Category	White	Black	Hispanic	Asian or Pacific Islander	Indian or Alaskan Native	Two or More Races	Choose Not to Disclose
Project Manager	19	0	0	0	0	1	0
Professional	69	1	1	2	0	1	2
Technical	6	1	0	0	0	0	0
Clerical	1	0	0	0	0	0	0
Labor	0	0	0	0	0	0	0
Total	95	2	1	2	0	2	2

Female:

Employment Category	White	Black	Hispanic	Asian or Pacific Islander	Indian or Alaskan Native	Two or More Races	Choose Not to Disclose
Project Manager	10	0	0	0	0	0	0
Professional	43	0	1	2	1	0	4
Technical	2	0	0	0	0	0	0
Clerical	7	3	0	0	0	0	1
Labor	0	0	0	0	0	0	0
Total	62	3	1	2	1	0	5

Attachments

1. Contract for New Hope Creek & Little Creek Watershed Improvement Plan - SP-2019-01
2. Exhibit A - New Hope Creek & Little Creek Watershed Improvement Plan Scope of Work
3. Exhibit B - New Hope Creek & Little Creek Watershed Improvement Plan Project Schedule
4. UBE Compliance Report for New Hope Creek & Little Creek Watershed Improvement Plan