



Date: April 8, 2014

To: Thomas J. Bonfield, City Manager
Through: W. Bowman Ferguson, Deputy City Manager
From: Marvin G. Williams, Public Works Director
Subject: Resolution to Support the Upper Neuse River Basin Association (UNRBA) FY2015 Funding Level and City of Durham Contribution

Executive Summary

At the March 16, 2014 meeting of the Board of Directors of the UNRBA, a revenue increase was approved to continue work on field monitoring, a key component of the second step in the re-examination of the Falls Lake Nutrient Management Strategy goals. The Board approved a revenue increase from \$643,500 in FY2014 to \$812,000 in FY2015. Based on this approved budget, the City of Durham’s contribution would increase from \$149,742.67 in FY2014 to \$184,404.28 in FY2015.

Recommendation

The Administration recommends that the City Council adopt the resolution supporting the UNRBA FY2015 funding level of \$812,000, with a City of Durham contribution of \$184,404.28.

Background

A re-examination of the Stage II goals of the Falls Lake Nutrient Management Strategy was identified as a critical component of the Consensus Principles adopted by City Council on February 18, 2010 (Resolution #9707). The Consensus Principles also put forth a two stage strategy with the first stage designed to achieve the water quality standard for chlorophyll a in the lower lake below Highway 50 where the water supply intake is located. (Chlorophyll a is an indicator of the amount of algae in the water.) In March of 2011, the UNRBA member governments voted to increase revenue in order to begin the process of re-examining the Falls Lake Nutrient Management Strategy. The revenue increase was needed to hire an Executive Director, and contract with a consulting firm to develop a framework that addresses the technical, legal/regulatory and political needs to successfully accomplish a re-examination of the Stage II goals of the Falls Lake Nutrient Management Strategy. Both of these initiatives were accomplished in early 2012.

The UNRBA contracted with Cardno ENTRIX in early 2012 to develop a framework to accomplish the re-examination of the Stage II goals, analyze and review the existing monitoring data for Falls Lake, evaluate the mass of nitrogen and phosphorus delivered to Falls Lake annually, describe methods of determining jurisdictional loads for both Stage I and Stage II, and provide recommendations on future monitoring and modeling to accomplish the re-examination. Cardno ENTRIX completed technical memoranda addressing each of these topics in 2012 and 2013. The final technical memorandum, issued in June of 2013, described the overall cost benefit of Stage II of the Falls Lake Nutrient Management Strategy and provided several regulatory options that the UNRBA member governments could pursue.

As described in the report and the summary of the report prepared by the Public Works Department, each of the identified regulatory options require additional monitoring and modeling (see attachment). This initial contract is complete.

The UNRBA issued a new contract to Cardno ENTRIX to develop a monitoring program for Falls Lake and the Falls Lake watershed, and to implement that program. Currently, Cardno ENTRIX is evaluating the existing monitoring programs to determine if they have applicability beyond the original intent. Water quality and discharge monitoring programs that are currently in place provide information at specific locations throughout the watershed (e.g., Ellerbe Creek at Glenn Road). Cardno ENTRIX believes the existing monitoring programs can be leveraged to avoid adding a large number of additional monitoring locations for the purposes of this project. The overall monitoring program cost may be reduced as a result of these evaluations. To that end, two technical memoranda were completed in early 2014 to evaluate the potential to leverage existing programs.

1. Flow Estimation Technical Memorandum
2. Model Sensitivity Technical Memorandum

The executive summaries of these memoranda are attached. A third technical memorandum describing techniques to estimate water quality in unmonitored locations is pending. The Executive Director has indicated that the final monitoring plan will incorporate information gained from these technical memoranda. The original schedule called for the UNRBA to begin lake monitoring in March or April of 2014. However, that monitoring has been delayed. Therefore, the UNRBA Board adopted a monitoring funding level of \$650,000.00 for FY2015, which is less than the previously recommended \$800,000.00.

The UNRBA member government contributions also cover the costs associated with the Executive Director position. The funds allocated to the Executive Director, and additional administrative support, increased to \$162,000.00 during FY2014. The UNRBA Board adopted \$162,000 as the funding level for the Executive Director and administrative support.

The City of Durham provides funds to the UNRBA through the Departments of Water Management and Public Works. With a target budget of \$812,000, the City of Durham would contribute \$184,404.28 in FY2015. Other major contributors in FY2015 would include the following:

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| City of Raleigh | \$230,130.15 |
| Orange County | \$ 86,236.12 |
| Durham County | \$ 72,299.05 |
| Granville County | \$ 53,359.04 |

These local governments and the City of Durham account for approximately 77% of the FY2015 budget of \$812,000.

Alternatives

The alternative is to reject the resolution and the increased contributions to the UNRBA. This would result in a delay of monitoring and may negate the re-examination of the Falls Lake Stage II goals. An option could be for the City to pursue the re-examination of the Falls Lake Stage II goals without the assistance of the other local governments in the watershed. In this case, the City would pay the full cost of the re-examination, estimated at

\$4,000,000.00 to \$7,000,000.00, and dedicate staff time to manage the necessary contracts. Leveraging Durham's contributions with the other jurisdictions is the least cost alternative.

Financial Impact

The Public Works and Water Management Departments have budgeted for the increased contribution of \$184,404.28 as follows: Public Works operating budget, \$26,091.79 in 5500L041, 728600 and the Water Management operating budget, \$158,312.49 in 5100P501, 724300.

SDBE Summary

Not applicable

Attachments

Resolution supporting the UNRBA FY2015 Budget
Resolution #9707 (Support of the Consensus Principles)
UNRBA Adopted FY2015 funding level with member contributions
Framework for a Re-examination of Stage II of the Falls Nutrient Strategy: Summary
Framework for a Re-examination of Stage II of the Falls Nutrient Strategy Technical
Memorandum – Executive Summary
Flow Estimation Technical Memorandum – Executive Summary
Model Sensitivity Technical Memorandum – Executive Summary
Presentation