



### **Agenda Action Form Overview**

The Board is requested to approve Capital Project Amendment No. 18CPA000010 for the new Rougemont Community Water System (RCWS) pH Control System Project and Budget Ordinance Amendment No. 18CPA000039 transferring \$107,175 from the Capital Financing Plan Fund to the PAYGO Fund to fund the RCWS pH Control System Project.

### **Background/Justification**

The RCWS became operational in September of 2016. The existing treatment system consists of sodium hypochlorite for disinfection and zinc orthophosphate for corrosion inhibition. Durham County completed an Optimum Corrosion Control Treatment (OCCT) study in June of 2017 at the request of the North Carolina Department of Environmental Quality (NCDEQ). NCDEQ requested the OCCT study based upon previous sampling events that indicated copper samples from individual homes were above the regulatory Action Level of 1.3 mg/l and a system pH of less than 6.8 s.u.

In response to the OCCT study, NCDEQ issued a letter dated October 24, 2017 approving of the following treatment methods to minimize the copper corrosion within the distribution system:

1. Increase the pH of the water to a range between 7.2 and 7.8 s.u. using soda ash within the distribution system; and
2. Continue orthophosphate based corrosion inhibitor to maintain a residual of 1.0 mg/l in the distribution system.

Increasing the pH from 6.8 s.u. to between 7.2 and 7.8 s.u. will result in increased efficiency of the zinc orthophosphate for corrosion inhibition.

The letter issued by NCDEQ stated the pH adjustment system must be operational by October 2019. County staff prepared and issued RFQ 18-011 in October of 2017 to select an engineering firm to design a small pH control system to meet the requirements put forward by NCDEQ. There were no responses primarily due to the small size of the RCWS. In November of 2017, County staff reached out to Advanced Water Systems, Inc. (AWS) to install an off the shelf system as recommended by one of the non-responsive engineering firms. After studying the system, AWS determined an engineering review and design would be required due to the size of the system, however, they did not have the appropriate staff to perform the work in-house.

After reaching out to several firms, Dewberry Engineers, Inc. (Dewberry) put together an engineering design proposal for the pH control system at a cost of \$34,740. After Dewberry performs the design work, the County will bid out the construction of the pH control system. The total estimated project costs that includes the \$34,740 engineering design is \$107,175.

Please note that failure to install the pH control system would be a violation of G.S. 130A-325 (1). For each violation of GS 130A-325, the Secretary of Environmental Quality may impose a fine of \$25,000 per day as outlined in G.S. 130A-22 (b). Therefore, County staff respectfully request the Board approve moving forward with this project at this time to ensure we do not violate general statute but also to ensure that we meet the October 2019 required deadline.



**Policy Impact**

There is no impact to current County policy.

This does not require an exception to Board policy.

**Procurement Background**

N/A

**Fiscal Impact**

The fiscal impact is a reduction of budgeted expenditures in the Finance cost center of \$107,175 and increasing the transfer to PAYGO Fund in the general government functional area within the Capital Financing Fund. No appropriation of fund balance in the Capital Financing Fund is necessary.

Please note that the overall fiscal impact to the Capital Financing Plan Fund is insignificant and immaterial.

**Recommendation**

The Board is requested to approve Capital Project Ordinance No. 18CPA000010 for the new Rougemont Community Water System (RCWS) pH Control System Project and Budget Ordinance Amendment No. 18CPA000039 transferring \$107,175 from the Capital Financing Plan Fund to the PAYGO Fund to fund the RCWS pH Control System Project.