



Agenda Action Form Overview

The Board is requested to approve Capital Project Amendment No. 19CPA000006 appropriating \$2,103,200 to create the Aeration System Improvements Project for the Triangle Wastewater Treatment Plant (TWWTP) Project SE055. The Board is also requested to award a construction contract to English Construction Company, Inc. for the construction of the Aeration System Improvements for the TWWTP in the amount of \$1,912,000 and to authorize the County Manager to execute the contract and any related contract amendments, not to exceed a total project budget of \$2,103,200

Background/Justification

The TWWTP utilizes a biological nutrient removal process which is comprised of three treatment trains, each utilizing 4 brush aerators. A brush aerator in train number two suffered a critical failure in March 2016, leaving the entire treatment train unable to treat its design capacity of four million gallons per day (MGD). Currently, the plant is only operating with two trains in service, reducing the effective treatment capacity of the TWWTP by a third. The TWWTP is rated to treat 12 MGD and currently operates at an average of 5.2 MGD, but in the event of high rain flows and as the service area of the plant is becoming increasingly developed, it is crucial for train two to be operational.

The Aeration System Improvements for the TWWTP includes replacement of the existing mechanical aeration rotors in oxidation ditch number two with a diffused aeration system consisting of two 125 horsepower blowers with variable frequency drives and two membrane disc diffuser grids. Additional work in oxidation ditch number two includes removing settled solids from the basin, repairing an expansion joint spanning the basin, and replacing all mixers within the basin. A ten percent contingency is recommended for this project to cover unexpected expenses.

Durham County issued an Invitation for Bid (IFB 18-040) on June 7, 2018. IFB 18-040 was advertised in local newspapers and on the Durham County website. Additionally, the requirements were emailed to multiple contractors. Only two bids were received on July 19, 2018. As a result, an additional Invitation for Bid (IFB 18-040R1) was issued on August 8, 2018. Three bids were received on August 16, 2018. The bid tabulation is attached.

A ten percent contingency is recommended for the project to cover any unexpected expenses that may arise. None are anticipated at this time.

Policy Impact

This action is in accordance with Durham County Strategic Plan Goal 4: “Environmental Stewardship and Community Prosperity,” as this project will ensure a clean environment by restoring oxidation ditch number two to its original treatment capacity. Additionally, the transition from mechanical surface aeration to diffused aeration should result in reduced energy usage at the TWWTP.

Procurement Background



Type of purchase

- ☐ Goods
- ☐ Services
- ☐ Architect, Engineer or Surveyor Services
- ☒ Construction and Repair

Did this request for purchase go through a bid process? Yes ☒ No ☐

Goods: Bids required if $\geq \$30,000$, BOCC approval if $\geq \$90,000$

Services: Bids required if $\geq \$30,000$, BOCC approval if $> \$40,000$

Construction/Repair work: Bids required if $\geq \$30,000$, BOCC approval if $\geq \$500,000$

If yes, attach a copy of bid tab and the minority and women business enterprise (MWBE) compliance review form provided by the Purchasing Division.

If no, why?

- ☐ Sole source exemption
- ☐ Cooperative purchasing program exemption
- ☐ State and federal contract exemption
- ☐ Contract is an amendment to an existing contract
- ☐ Other (please explain)

If exempted from bidding, has this request been reviewed and approved by the Purchasing Division in the agenda Legistar system? Yes ☐ No ☐

If no, why?

Fiscal Impact

The construction costs associated with the Aeration System Improvements for the TWWTP should not exceed \$2,103,200. The construction costs will be funded from the Collection System Rehabilitation Fund fund balance.

Recommendation

The County Manager recommends the Board approve Capital Project Amendment No. 19CPA000006 appropriating \$2,103,200 to create the Aeration System Improvements Project SE055 for the Triangle Wastewater Treatment Plant (TWWTP) and to authorize the County Manager to execute a construction contract with English Construction Company, Inc. and to authorize the County Manager to execute any related contract amendments, not to exceed a total project budget of \$2,103,200.