

**Indian River County, Florida  
Department of Utility Services  
Board Memorandum**

**Date:** May 7, 2021

**To:** Jason E. Brown, County Administrator

**From:** Vincent Burke, PE, Director of Utility Services

**Prepared By:** Richard Meckes, Wastewater Superintendent

**Subject:** West Regional Wastewater Treatment Plant Oxidation Ditch and Bridge Structural Improvements, Work Order #4 Phase 1

**Descriptions and Conditions:**

Indian River County Department of Utility Services (IRCDUS) operates the West Regional Wastewater Treatment Facility (WRWWTF) located at 8405 8<sup>th</sup> Street. The existing aeration ditch was originally built in 1994, and was repurposed and reconfigured during the facility expansion in 2010. It has been determined that there are significant concerns regarding the structural integrity of the original oxidation ditches and the associated bridges.

**Analysis:**

In March 2021, staff requested a representative from Atkins, a structural engineering firm to visit the site to make a quick assessment as to the safety of the ditch and bridges. After the initial assessment, it was determined that there are significant safety concerns affiliated with the oxidation ditch and walkway. Thus staff requested a scope of services to evaluate, design and preform construction services for a repair project.

Phase 1: Evaluate more thoroughly the current structural integrity of the overall oxidation ditch structure and associated bridges. Perform visual condition assessment and make a record of defects observed during inspection, noting location and size of defects documented. Perform survey of the oxidation ditch under empty and full conditions to determine location and extent of any movement occurring in the walls, bridge, and associated piping. Analyze the tanks based on available knowledge. Determine extent of repairs and/or replacements required. Provide options for addressing the issues that are identified and assist the County in determining the preferred alternative. Provide a rough order of magnitude engineer's estimated cost for structural repairs. These decisions will be affected by the intended use and service life expected from the renovated system.

Phase 2: Provide design and construction services to implement the structural repairs. (Future work order to be brought back to the Board of County Commissioners (BCC) at a later date.)

Per the Continuing Consulting Engineering Services Agreement for professional engineering services dated April 17, 2018, extended and amended on May 18, 2021, Atkins has submitted a proposal for Work Order #4 Phase 1 with the total negotiated cost for the professional services in a sum amount of \$68,562.00. The negotiated cost has been broken into different tasks including project management, structural survey work, and a technical memorandum to include options for addressing the issues that are identified in Work Order #4 Phase 1 and assisting the County in determining the preferred alternative. Also included in the technical memorandum will be an estimated cost for structural repairs.

**Funding:**

Funds for this project are derived from the renewal and replacement budget in the Utilities operating fund. Utilities operating funds are generated from water and sewer revenues.

Description	Account Number	Amount
WWWTF Oxidation Ditch & Walkway	47121836-044699-21540	\$68,562

**Recommendation:**

Staff recommends that the Board of County Commissioners approve Work Order #4 with Atkins, in the amount of \$68,562.00, for professional services that include evaluation of the current structural integrity of the overall oxidation ditch structure and associated bridges at the West Regional Wastewater Treatment Facility, and authorize the Chairman to execute said work order on their behalf.

**Attachments:**

1. Work Order #4: West Regional Wastewater Treatment Plant Oxidation Ditch and Bridge Structural Improvements Phase 1