

**INDIAN RIVER COUNTY, FLORIDA
MEMORANDUM**

TO: Jason E. Brown, County Administrator

THROUGH: Richard B. Szpyrka, P.E., Public Works Director

FROM: Eric Charest, Natural Resources Manager

SUBJECT: ATKINS Workorder 7 for conceptual design of a Stormwater Storage/Treatment facility

DATE: August 4, 2022

DESCRIPTION AND CONDITIONS

On March 16, 2021, the Board of County Commissioners (BCC) approved the purchase of a 38.35-acre unimproved parcel of land located at 7205 8th Street in Vero Beach. This purchase was made with the intent to use the property as a future stormwater treatment facility to improve water quality in the Indian River Lagoon and assist the County in attaining required Total Maximum Daily Loads (TMDLs) reductions of nitrogen and phosphorus identified in the Central Indian River Lagoon Basin Management Action Plan (BMAP).

On April 17, 2018, the BCC approved the Continuing Contract Agreement for Continuing Engineering Services with ATKINS North America, Inc. (ATKINS) for professional water resource engineering support services. The original contract was for three (3) years with an option for one (1) two-year extension at the County's discretion. This contract was renewed for the additional two (2) year period beginning on April 17, 2021. Staff has requested ATKINS provide a conceptual design proposal to convert the above referenced parcel into the targeted stormwater storage/treatment facility.

The objective is to create a water storage/pollutant removal system (stormwater park) on the property to remove nitrogen and phosphorus from the Indian River Farms Water Control District (IRFWCD) drainage canals, increasing the County's ability in meeting TMDL reductions for nutrients discharged into the Indian River Lagoon. This agenda item is to request the BCC consider ATKINS Workorder No. 7 to provide a conceptual design of a stormwater treatment/storage facility that would divert stormwater from the IRFWCD's network of drainage canals and store/treat the water on the County's site prior to it being released back into the canal system. This approach is anticipated to reduce the nitrogen and phosphorus concentrations in the stormwater through the natural uptake of nutrients by aquatic vegetation. In addition, a storage/treatment facility such as this could be used to decrease pulsed discharges of stormwater into the Lagoon during periods of extreme weather through active management of the water levels in the pond.

The Florida Department of Environmental Protection recognizes projects such as this for the environmental benefits they provide at reducing the pollutant loading to the Indian River Lagoon. As such, the proposed project will be eligible for total nitrogen and total phosphorus BMAP credits, but as that determination on the amount of credits is based on many factors, a projection of

credits at this time before the project goes through the conceptual design process is not possible.

ATKINS Workorder No. 7 proposes a design in converting the agricultural parcel into a stormwater treatment/storage facility. Based on the location of the parcel and the proximity to the IRFWCD Lateral C Canal, the ATKINS conceptual plan is anticipated to revolve around pumping water into a created pond from the Lateral C Canal, treating/storing the water prior to its controlled release back to the Lateral C Canal, then flowing into the Main Relief Canal, with an ultimate discharge into the Indian River Lagoon.

Workorder No. 7 identifies a phased approach at the conceptual design of a stormwater park as identified in Attachment 1 (ATKINS Workorder No. 7). Phase 1, covered with this workorder, includes data collection and preliminary analysis which will result in a conceptual design of the project as presented in Tasks 1 through 13. This information will be evaluated and, if deemed feasible, will be presented to the BCC for consideration in moving forward with the next steps in the project.

It is anticipated that this Phase of the project will take approximately 4 to 6 months to complete once approved by the BCC. Workorder No. 7 is billed as a lump sum cost not to exceed \$65,760.00.

FUNDING

Funding for professional water resource engineering support services is budgeted and available in the following accounts.

Account Name	Account No.	Amount
Optional Sales Tax/TDML Effluent Storage Project/Lagoon Treatment	31524338-066510-21006	\$65,760.00

RECOMMENDATION

Staff recommends that the Board of County Commissioners approve Workorder No. 7 with ATKINS in the amount of \$65,760 for the conceptual design of a stormwater treatment/storage facility on the 8th Street parcel identified above.

ATTACHMENTS

1. ATKINS 8th Street Parcel Workorder No. 7
2. ATKINS Pond exhibit
3. Workorder No. 7 Execution Agreement

APPROVED AGENDA ITEM FOR: August 16, 2022