

November 8, 2022
ITEM 14.B.

**INDIAN RIVER COUNTY
BOARD OF COUNTY COMMISSIONERS**

INTER-OFFICE MEMORANDUM

TO: Members of the Board of County Commissioners

DATE: October 26, 2022

SUBJECT: Discussion on Water Farming in a Proposed 260-acre Reservoir Directly South of the West Regional Waste Water Treatment Plant (WWTP)

FROM: Joseph H. Earman
Commissioner, District 3

Discussion Item

I'd like to discuss some possible changes and adaptations to the original "Move Water West" plan that was presented at the July 13, 2021, BOCC meeting. This change would start with storage of excess stormwater ("water farming") in a proposed 260-acre holding area (reservoir) directly south of the West Regional WWTP located on the 4th Street canal between 82nd and 90th Avenues, keeping with the original plan of the potential for future flow directly into the Upper St. Johns River Basin.

Background

There are two established water systems already in place and operating in our County, one moving water eastward and the other moving water westward. The west-flowing system, the St. Johns Improvement District (SJID), maintains surface water control through a system of canals, pumps, and accessory drainage and is considered the main conduit for sending water into the Upper St. Johns Basin. Conversely, the Indian River Farms Water Control District (IRFWCD) encompasses almost 300 miles of canals and supporting drainage and was designed to move the county's water from the western sand ridge (I-95 corridor) east to the Indian River.

During a BOCC meeting on July 13, 2021, the Board discussed the possibility of moving "some" excess stormwater to the western part of the county, specifically into the Upper St. Johns Basin, thereby keeping it out of the coastal estuary system. A motion was passed to direct staff to enter into discussions about the relocation of stored and excess

stormwater with representatives from the St. Johns River Water Management District (SJRWMD), the SJID, and the IRFWCD.

Analysis

On April 22, 2022, county staff and I hosted a meeting with senior leadership from the SJRWMD. Consensus amongst the group centered on the concept of “water farming” rather than setting out to create a direct and continuous flow of water into the Upper St. Johns River Basin. There were several reasons for this recommendation:

1. SJID, which would be a partner in the original plan, questioned whether the output amount would be worth the up-front investment in creating the system;
2. SJID expressed concern about the purity of the water that might be made available;
3. SJID had some questions of potential funding impacts that would need SJRWMD review if the plan expanded to using SJID infrastructure;
4. Available county-owned acreage in the western region is well-suited for water farming;
5. There are potentially useful public-private partnerships in the area of water farming;
6. State money is expected to be available to support water farming;
7. The regulatory hurdles involved in establishing a county-run water farm are substantially less than those required to create a “continuous flow” system across multiple agencies.

To fill the new 260-acre reservoir, water would be taken out of the IRFWCD (or simply prevented from entering) and then treated (“polished”) upon arrival; the West Regional WWTP could play a role in this system. The reservoir could be used for recreational activities, with reasonable limits established to avoid contamination.

As mentioned in July of 2021, the Upper St. Johns Basin consistently receives a lesser water quantity than is needed to maintain appropriate basin levels. Once more is known about the output and purity of the water held in the new reservoir, the SJRWMD could seek to move water from the reservoir onward to the SJID Flow Way (located at Oslo Road) and into the Upper St. Johns Basin.

Way Forward

Sufficient groundwork has been laid such that County staff could enter into discussions with the SJRWMD, SJID, IRFWCD, any appropriate State and Federal agencies, and other identifiable stakeholders; the purpose of these conversations would be to define constituent concerns and evaluate the potential return on investment of this concept.

Funding

As of today, there is no funding for this project, but a collaborative funding mechanism could be envisioned amongst the various players. These would likely include the SJRWMD and other State of Florida and Federal agencies, such as the Indian River Lagoon Estuary Program. Any BOCC funding would be based on current practices for this type of effort; there is potential for BOCC approval of a Land Conservation Bond renewal referendum on the 2022 ballot and future use of such bond funds, as allowed by law.

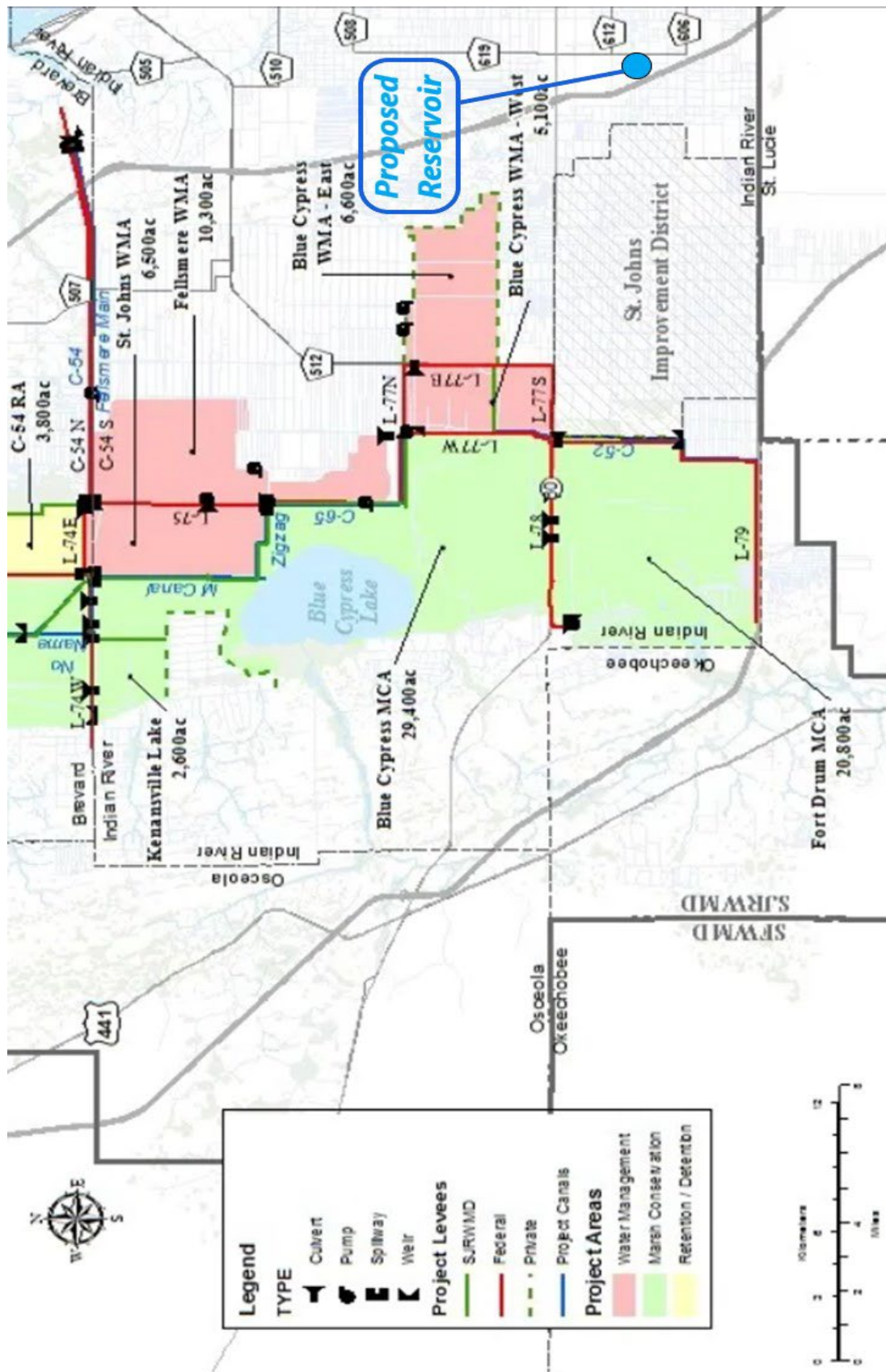
Recommendation

I recommend the BOCC task the County Administrator and Staff to estimate the key cost and schedule parameters for this project and report back to the Board with further details. Gaining state funding assistance for the reservoir should be added to the county's legislative priorities for FY2024.

Attachments

1. IRC Water Overview 1 (Political Map)
2. IRC Water Overview 2 (Imagery Overlay)
3. West Regional WWTP Proposed Reservoir

Attachment 1 – IRC Water Overview



Attachment 2 – West Regional WWTP Reservoir (Proposed)

