



INDIAN RIVER COUNTY, FLORIDA DEPARTMENT OF UTILITY SERVICES

Date: November 19, 2017
To: Jason E. Brown, County Administrator
From: Vincent Burke, P.E., Director of Utility Services
Subject: John's Island Water Management Reclaimed Water Agreement

DESCRIPTIONS AND CONDITIONS:

John's Island Water Management (JIWM), Inc. is a Florida not-for-profit corporation whose address is 1 Turtle Beach Road, Vero Beach, Florida 32963. JIWM has provided, and continues to provide, irrigation supply to the residents and golf courses within the Town of Indian River Shores (IRS). JIWM, in looking to diversify its fresh water irrigation supply, has approached the Indian River County Department of Utility Services (IRCDUS) to inquire about the possibility of providing 1 million gallons per day (1 MGD) of reclaimed water (a.k.a. "reuse water") for irrigation purposes. JIWM is looking for a long term (25 year) agreement.

ANALYSIS/ENGINEERING:

The City of Vero Beach (COVB) has a non-exclusive franchise agreement with IRS to provide pressurized and non-pressurized reclaimed water within the IRS. The non-exclusive agreement allows other providers the opportunity to supply reclaimed water to customers within the IRS, if available. COVB does not have the infrastructure or available reclaimed water supply to be able to accommodate JIWM's request for an additional 1 MGD. In 2016, JIWM approached County staff about the possibility of providing reclaimed water, and since that time, staff has learned that JIWM is planning to construct a \$5M (estimate based on verbal communications with JIWM) 16" diameter reclaimed water main from the county's 77th street storage tank and re-pump station, along 69th Street, under the Indian River Lagoon (via a sub-aqueous line) and along the Old Winter Beach (OWB) Road to a final discharge point inside IRS. Originally, the line was to be a 12" main to accommodate the 1MGD demand, but JIWM wants to upsize the line to a 16" in order to accommodate additional demand. IRCDUS staff is in agreement with the upsizing decision.

Since 2012, IRCDUS has attempted to provide reclaimed water to other customers along A1A or within the northern boundary of IRS. Lack of infrastructure, customer demand and high capital costs have prohibited the development of a more robust reclaimed water delivery system along the barrier island. If the JIWM agreement is approved, this infrastructure will allow JIWM to count on a steady supply of irrigation quality water while also providing IRCDUS other delivery options for the northern boundary of IRS and portions of the unincorporated County along A1A.

IRCDUS has done an internal analysis as well as basic modeling scenarios to see if this 1MGD reclaimed water demand is feasible. Based upon preliminary investigations, IRCDUS can supply reclaimed water to JIWM. However, prior obligations will need to be re-examined in order to better plan for expected demand (including the JIWM needs) versus unpredictable requests for reclaimed water. Some current users have large paper-based reclaimed water allocations that have historically not been used. Re-allocating water, especially to customers that can confirm demand, will clarify IRCDUS' obligations and allow IRCDUS to better plan for existing and/or future demand requirements.

OWNERSHIP:

Under the Reclaimed Water Agreement, JIWM will provide IRCDUS with a Bill of Sale for the reclaimed facilities. County ownership of the reclaimed water line makes the installation and delivery of reclaimed water much more simplistic and beneficial for customers on the island. A County-owned and maintained reclaimed water line greatly simplifies the right-of-way (ROW) permitting process with the Public Works Department. It also allows IRCDUS to provide reclaimed water to other customers on the island, if additional reclaimed water can be sent in the oversized line. As long as the infrastructure is in place and the necessary pumping requirements can be met, providing additional demand above and beyond the 1MGD that JIWM requires will be a function of the County's reclaimed water availability and its methods of moving the reclaimed water through its existing pipe network.

IRCDUS will need to invest additional capital in its own infrastructure to be able to send the water east (i.e., pipe upgrades, pump valves, etc.). Those costs are yet to be determined since JIWM has not submitted a Utility Construction Permit (UCP). Another issue is one of uncertain demand. Many places want reclaimed water in the dry months when demand is great. At certain dry times, the County may have too many customers wanting more reclaimed water than what is available. Conversely, in the wet months, when demand is minimal or non-existent, the County could have an issue with "parking the water" during heavy or prolonged precipitation events. Simply put, many of the reclaimed water customers who normally take their allotted share shut down their intake systems if their storage ponds are full or overflowing to a relief structure.

Due to the large capital cost of the project, staff has been negotiating an agreement with terms that are supported by JIWM and its board. Those items are summarized below:

- JIWM will design, permit, build, pay for and dedicate the 16" reclaimed water pipe to the County per our usual process.
- JIWM will pay 50% of the current (base) reclaimed water rates per the County's rate resolution for up to 1,000,000 gallons per day for term of the 25-year agreement.
 - Hypothetically, if reclaimed rates increase, JIWM pays 50% of the new, higher rate for the first 1MGD delivered. JIWM pays full rate for any reclaimed water in excess of 1MGD.
 - Conversely, if rates decrease, JIWM pays 50% of the new, lower rate for the first 1MGD delivered. JIWM pays full rate for any reclaimed water in excess of 1MGD.
- The effective date is upon execution of the Agreement between the County and JIWM.
- If the County serves other reclaimed water customers through the JIWM-constructed pipe, the County would share a portion (20%) of these revenues with JIWM through a credit against JIWM's reclaimed water bill.
- The agreement is contingent upon the IRS granting the County a franchise agreement to provide reclaimed water to JIWM and other non COVB customers within the town limits.

	Full Rate	Discount**
Term	25 years	25 years
Current reclaimed water Rate per 1,000 gallons	\$0.67	\$0.335
Demand per Day	1,000,000	1,000,000
Bill per day	\$670	\$335
Bill per year	\$241,200*	\$120,600*
25 year consumption total	\$6,030,000	\$3,015,000

* Hypothetical scenario assuming a 30-day month (\$/day x 30d x 12 mo).

** Based on 50% of the current rate of \$0.67. If the rate changes, JIWM will pay 50% of the new rate.

Staff is in support of the modified rate for JIWM insomuch as it is a requirement from the JIWM board that a long-term agreement is needed to offset the initial capital cost. JIWM's concern about financing and building a line, then turning it over to the County through a bill-of-sale process is only mollified through a long term rate adjustment agreement. Staff is in support of JIWM's request for more reclaimed water and to open the possibility of providing additional reclaimed water to the island should IRCDUS have the ability to do so. Furthermore, as the County expands its septic to sewer program, having additional reclaimed water customers may help move reclaimed water to portions of the County while limiting or reducing irrigation dependency on other raw water sources such as ground water.

SCHEDULE/TIMELINE:

On October 26, 2017, the Town Council for IRS approved the execution of two grant contracts with the Division of Emergency Management (\$637,500) and FDEP-TMDL (\$550,000) to reconstruct OWB Road and install a storm water treatment train to reduce nutrient loads to the Indian River Lagoon. It is staff's understanding that the grant contracts stipulate the OWB Road project must be completed by July 2018. In verbal communications with JIWM it is believed that the reclaimed water line is to be installed before or in conjunction with the OWB road reconstruction.

JIWM had initially anticipated a two-phased approach for the installation of the line. First was a sub aqueous crossing. Second is the terrestrial work. The sequencing may be flipped based on the above grant timeline. Since the OWB Road is to be reconstructed within the year, JIWM may elect to construct the entire line within the next calendar year (CY2018). Because the line is to be turned over to the IRCDUS, staff will work with JIWM and their engineers to review design/construction plans. JIWM will apply for a Utility Construction Permit (UCP) and a County Right of Way permit, which will allow staff the opportunity to review any such designs and ensure compliance with County standards. Staff will need verification that all other regulatory agencies have granted permission for the line to be installed.

FUNDING:

There is no funding for the execution of the 25-year agreement. When the design is completed and approved for construction, staff will bring an agenda item back to the Board for approval for any IRCDUS infrastructure upgrades required for the reclaimed water requested by JIWM.

RECOMMENDATION:

Staff recommends the Board of County Commissioners approve the reclaimed water agreement with John's Island Water Management for the supply of 1 MGD reclaimed water for a 25-year period with an effective date upon signature by the Board of County Commissioners.

ATTACHMENT(s):

1. Map of proposed line
2. Sample reclaimed water calculations
3. 25-year Reclaimed Water Agreement with John's Island Water Management