

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

Date: May 10, 2021
To: Jason E. Brown, County Administrator
From: Vincent Burke, PE, Director of Utility Services
Subject: Well Field and Alternative Water Supply Evaluation

Descriptions and Conditions:

Indian River County Department of Utility Services (IRCDUS) owns and operates two (2) regional potable water treatment plants (WTPs). The South County WTP withdraws groundwater from seven existing Upper Floridan Aquifer (UFA) production wells, while the North County WTP relies on groundwater from nine existing UFA production wells. The groundwater withdrawals from these wells are authorized by a Consumptive Use Permit (CUP) 10524 issued by the St. Johns River Water Management District (SJRWMD).

Analysis:

IRCDUS' CUP allows for average daily withdrawals of up to 12.838 MGD. IRCDUS anticipates that expected water demands over the next 20-30 years will require an increase in the CUP allocation to 23.18 MGD, subject to change based on population growth and service area boundaries modifications. IRCDUS desires to obtain additional allocation from sources meeting all of the SJRWMD's CUP criteria. As such, the following conceptual options need to be explored to achieve additional permissible source water supply to the WTPs:

1. Expand IRCDUS's well fields in a way that does not impact existing legal users (ELUs)
2. This may include a third and/or separate well field located to the west of the existing Hobart (North) and Oslo (South) plant. This third or separate well field may connect to either North County and/or South County WTP's. Alternatively, a new WTP may be constructed to accompany this new well field.
3. Possible deepening UFA wells to APPZ (Avon Park Permeable Zone), or Lower Floridan Aquifer (LFA) at Hobart and Oslo well fields considered:
 - i. North (Hobart) existing UFA well field
 - ii. South (Oslo) existing UFA well field
 - iii. North (Hobart) offsite new UFA/LFA/APPZ well field
 - iv. South (Oslo) offsite new UFA/LFA/APPZ well field

Each of these concepts carry impacts to IRCDUS' water system, including capital costs, operating costs, impacts to existing treatment equipment, ability to blend for stabilization, concentrate disposal options, etc. Accordingly, IRCDUS has requested Kimley-Horn & Associates (KHA) to prepare a scope of services to provide an evaluation of these options with respect to the IRCDUS water and potentially wastewater systems. IRCDUS desires a report that outlines these options, presents conceptual costs, describes significant changes to their system, and provides a hierarchy for IRCDUS to utilize moving forward. The

report is to be concluded with recommended hierarchy to achieve desired increase in CUP capacity consistent with regulatory requirements.

KHA has provided a work scope in accordance with the Agreement for Professional Services for Water Plant and Water Resources Engineering Services – RFQ 2019070, dated November 5, 2019, by and between Indian River County, and Kimley-Horn and Associates, Inc.

KHA will provide professional services for Task 1 through Task 6 on a lump sum fee basis as follows:

Task No.	Task	Task Fee
Task 1	Well field Expansion and New Well Field Evaluation	\$ 50,576
Task 2	Test Well Evaluation	\$ 62,224
Task 3	Evaluate Impacts to Operations	\$ 58,862
Task 4	Indirect Potable Reuse Evaluation	\$ 37,708
Task 5	Preparation of Options Matrix	\$ 25,316
Task 6	North County UFA Well Field APT	\$ 11,744
	Total Lump Sum Fee =	\$246,430

Funding:

Funds of \$246,430.00 for this project are derived from the Well Field Expansion account in the Utilities Impact Fees/Well Field Expansion (Account Number 472-169000-21550) account. Utilities impact fees are generated from assessments.

Description	Account Number	Amount
Utilities Impact Fees/Well Field Expansion	472-169000-21550	\$246,430.00

Recommendation:

Staff recommends approval of Work Order No. 5 and requests that the Board of County Commissioners authorize the Chairman to execute the Work Order on their behalf to engage the services of Kimley-Horn and Associates for a sum amount of \$246,430.00.

Attachment:

Work Order No. 5 with KHA