AGREEMENT FOR PROFESSIONAL SERVICES FOR WATER PLANT AND WATER RESOURCES ENGINEERING SERVICES RFQ2019070 WORK ORDER 7

Indian River County Utilities Department South Oslo Road Water Treatment Plant Industrial Wastewater Facility Permit Renewal

This Work Order Number 7 is entered into as of this 29th day of July 2021, pursuant to that certain AGREEMENT FOR PROFESSIONAL SERVICES FOR WATER PLANT AND WATER RESOURCES ENGINEERING SERVICES RFQ2019070 entered into as of this 5th day of November, 2019 (collectively referred to as the "Agreement"), by and between INDIAN RIVER COUNTY, a political subdivision of the State of Florida ("COUNTY") and Kimley-Horn and Associates, Inc., ("Consultant").

The COUNTY has selected the Consultant to perform the professional services set forth on Exhibit A (Scope of Work), attached to this Work Order and made part hereof by this reference. The professional services will be performed by the Consultant for the fee schedule set forth in Exhibit B (Fee Schedule), attached to this Work Order and made a part hereof by this reference. The Consultant will perform the professional services within the timeframe more particularly set forth in Exhibit C (Time Schedule), attached to this Work Order and made a part hereof by this reference all in accordance with the terms and provisions set forth in the Agreement. Pursuant to paragraph 1.4 of the Agreement, nothing contained in any Work Order shall conflict with the terms of the Agreement and the terms of the Agreement shall be deemed to be incorporated in each individual Work Order as if fully set forth herein.

IN WITNESS WHEREOF, the parties hereto have executed this Work Order as of the date first written above.

CONSULTANT:		BOARD OF COUNTY COMMISSIONERS
	B. 9	OF INDIAN RIVER COUNTY
Ву: _		Ву:
Print N	Brian Good	, Chairman
Title:	Senior Vice President	BCC Approved Date:
		Attest: Jeffrey R. Smith, Clerk of Court and Comptroller
		Ву:
		Deputy Clerk
		Approved:
		Jason E. Brown, County Administrator
	Approved as to form and	Llegal sufficiency:
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Dylan T. Reingold, County Attorney

EXHIBIT #A

Work Order Number

Industrial Wastewater Facility Permit Renewal

for

South Oslo Rd Water Treatment Plant

PROJECT UNDERSTANDING

Indian River County Utilities (IRCU) owns and operates a reverse osmosis (RO) water treatment plant currently rated at 8.57 mgd maximum daily flow with an industrial wastewater facility permit for demineralized concentrate disposal rated for 1.5 mgd maximum daily flow. An upcoming expansion of the RO plant will reduce the amount of membrane concentrate flow from 1.5 mgd to 1.3 mgd, but the overall water quality will increase to the ATS. Also, a minor modification to the permit dated April 23, 2021, to only report average daily flow (ADF) on the DMR's was included.

The existing industrial wastewater facility permit FL0037940-006 expires <u>May 6, 2022</u>, and IRCU desires to renew the operating permit and include some of these conditions listed above. The renewal application and fees are due to be submitted to FDEP Southeast District 180 days in advance, or by <u>November 7, 2021</u>.

The facility includes a new Algal Turf Scrubber system which includes up to 10 mgd of stormwater pumped from South Relief Canal, comingled with RO plant concentrate which trickles over a 4.6 acre treatment area prior to discharging to Sub-Lateral J-1 canal. Various monitoring locations throughout the treatment system are included with monthly and/or quarterly monitoring. A 1.15 acre final polishing man-made wetland is used to treat the ATS treated blend water before discharging to the Sub-Lateral J-1 canal. A return (recycle forcemain) allows reuse of effluent to hydrate the ATS in the event South Relief canal supply water is not available for use. All surface waters' used for stormwater supply and discharge of treated effluent are considered Class III fresh surface water, and therefore require freshwater species (fathead minnows & daphnia water fleas) for chronic toxicity testing.

The following scope of services consists of preparing and submitting an operating permit renewal and responding to requests for additional information from the Florida Department of Environmental Protection.

SCOPE OF SERVICES

The scope of services will consist of collecting and reviewing the existing operating data since the last renewal (5-years) and implementation of the Algal Turf Scrubber (ATS) system, preparation and submittal of permit application including existing information furnished by IRCU which will be updated as part of the application package, concentrate water quality, and responding to FDEP requests for additional information (RFI).

Consultant will attend a kick-off meeting to discuss the operation of the treatment system since the previous permit renewal, collect data, and discuss potential revisions to the permit through the application renewal. Consultant will conduct a site visit with operations staff to review the operation of the existing ATS and stormwater pump station and attend a pre-application/site meeting with FDEP staff as suggested in their notice of permit renewal.

Consultant will prepare applicable application forms to maintain the existing rated capacity. Application forms including 62-620.910(1) and 2DC 62-620.910(18) forms will be prepared and submitted along with supporting tables, graphs, and process flow diagram. Consultant will update the existing engineering report prepared for the previous up-rating.

Consultant will prepare a list of data and documentation needed for the preparation of the permit renewal application. Information such as background water quality data, treatment plant water quality, MOR's, daily plant flow data, non-compliance notices, historical concentrate water characteristic data, etc., as a minimum, will be provided by IRCU for use in preparing the permit application.

The following parameters are included as part of the existing operating permit and will be reviewed as part of the permit application. Several of these parameters are measured at multiple locations within the ATS treatment system. Where practical and if desired, the frequency and/or elimination of testing will be requested in the permitting process.

•	Flow	Chlorine
•	pH	Temperature
•	Phosphorus (Total)	CBOD ₅ (removed from testing)
•	Nitrogen (Total)	Mercury
•	Ammonia Nitrogen	Copper
•	Hydrogen Sulfide	Gross Alpha
•	Dissolved Oxygen	Radium 226/228
•	Fluoride	Fecal coliform (removed from testing)
•	Conductivity (Salinity)	Acute Toxicity (Daphnia water fleas, fathead
		minnows)

Consultant will rely on the calculations for Total Daily Mass Load (TMDL) and ATS system performance as outline in the permit.

A condition of the permit allows a reduction in monitoring frequency of acute toxicity to every six months, which Consultant will review as part of the permit renewal, if the data supports this request.

Consultant will prepare a draft application with supporting tables, graphs, trends, and explanations to the permit application renewal and submit draft copies to IRCU staff for review one month prior to submittal deadline. Consultant will attend a review meeting to

discuss the draft application and supporting information and revise the permit application based on comments developed in review meeting.

It is assumed that only minor adjustments to the best management plan and standard operating protocols will need to be provided, and Consultant will update the existing Best Management Practices (BMP) and Standard Operating Procedure (SOP) provided and prepared previously by IRCU.

We do not anticipate more than two requests for additional information which will be addressed under this scope. Should the permitting process involve extensive coordination and additional responses beyond what is listed herein with FDEP, this should be considered additional scope and services.

A permit application fee of \$6,000 will be paid for by IRCU and is NOT included in this scope of services.

TIME SCHEDULE

Consultant will complete these tasks in a timely and mutually agreed upon schedule, and intends on submitting the permit application and supporting information by the submittal deadline of **November 7, 2022.**

FEE SCHEDULE

We will provide these services in accordance with our Continuing Services Contract Agreement for Professional Services dated April 17th, 2018, with Indian River County.

The Consultant will provide professional services for Task 1 through Task 7 on a lump sum fee basis as follows:

Task No.	Task	Task Fee
Task 1	Collect & Review Data	\$ 4,800
Task 2	Meetings	\$ 4,500
Task 3	Review & Evaluate Results	\$ 5,000
Task 4	Prepare Application	\$ 4,000
Task 5	Prepare Supporting Information	\$ 4,100
Task 6	Submit Permit Package & Coordination	\$ 3,300
Task 7	Respond to RAI's	\$ 6,500
	Total Lump Sum Fee =	\$ 32,200

ADDITIONAL SERVICES

The following services are not included in the Scope of Services for this project, but may be required depending on circumstances that may arise during the execution of this project. Additional services include, but may not be limited to the following:

- Additional coordination and responses to FDEP or other agencies (IRFWCD)
- Preparation of Operating Protocols and Best Management Practices
- Design drawings