

**Spoonbill Marsh Industrial Wastewater Facility Permit Renewal**


This Work Order Number 10 is entered into as of this \_\_\_ day of 201\_\_\_, pursuant to that certain Continuing Contract Agreement for Professional Services, dated November 15, 2011, and that certain Extension and Amendment of Continuing Contract Agreement for Professional Services entered into as of this 4<sup>th</sup> day of November, 2014 (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 A (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:**  
Kimley-Horn and Associates, Inc.

**BOARD OF COUNTY COMMISSIONERS  
OF INDIAN RIVER COUNTY**

By:   
David R. Bardt, P.E.  
Title: Principal

By: \_\_\_\_\_  
Joseph E. Flescher, Chairman

BCC Approved Date: \_\_\_\_\_

Attest: Jeffrey R. Smith, Clerk of Court and Comptroller

By: \_\_\_\_\_  
Deputy Clerk

Approved: \_\_\_\_\_  
Jason E. Brown, County Administrator

Approved as to form and legal sufficiency: \_\_\_\_\_  
Dylan T. Reingold, County Attorney

**EXHIBIT #A**

**Work Order Number 10**

**Spoonbill Marsh Industrial Wastewater Facility Permit Renewal**

**for**

**North Hobart Rd RO Water Treatment Plant**

**PROJECT UNDERSTANDING**

Indian River County Utilities (IRCU) owns and operates a reverse osmosis (RO) water treatment plant currently rated at 17.14 mgd maximum daily flow based on treatment capacity, but currently limited to 11.44 mgd based on an industrial wastewater facility permit for demineralized concentrate disposal rated for 2.0 mgd maximum daily flow. The existing industrial wastewater facility permit 31-FL0166511-003 expires September 10, 2017, and IRCU desires to renew the operating permit in a timely manner. The renewal application and fees are due to be submitted to FDEP Southeast District 180 days in advance, or by **March 14, 2017**.

The facility includes a brackish water wetland treatment and disposal site named Spoonbill Marsh (D-003), where concentrate from the Hobart RO water treatment plant is transmitted via a 16-inch diameter pipe and blended with Indian River Lagoon water at ratios to achieve compliance with Class III marine surface waters, then discharged to a 69+ acre marsh (designated Class II Outstanding Florida Water body) before exiting through floway breeches to the Indian River Lagoon, a Class III marine body. The site includes a river water intake structure including debris baffle, static mixer, transmission piping, and series of four man made ponds and runnels with upwelling structures and other appurtenances. The Spoonbill Marsh is located east of US Highway 1 and west of the Indian River Lagoon.

The permit allows for concentrate flow capacity to be increased from 2.0 mgd up to 3.0 mgd (MDF) contingent upon demonstration of a net environmental benefit (NEB) is achieved, defined as a net reduction of nutrients (nitrogen and phosphorus). The positive NEB has been demonstrated every year since water flowed to the Marsh since 2010, and therefore, a request for increase to 3.0 mgd will be included in the permit renewal.

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 operation of the Spoonbill Marsh 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 existing 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 Spoonbill Marsh 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 applications and supporting information 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 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. Almost all of these parameters are measured at the effluent location (EFF-003) of the treatment system. Where practical and if desired, the frequency and/or elimination of testing will be requested in the permitting process.

- Flow
- pH
- Ortho-phosphorus
- Chromium, Hex (Cr6)
- Copper
- Hydrogen Sulfide
- Dissolved Oxygen
- Conductivity (Salinity)
- Chronic Whole Effluent Toxicity – Mysid Shrimp (*Americamysis* (*Mysidopsis*) *bahia*)
- Chronic Whole Effluent Toxicity – Silverside (*Menidia beryllina*)
- Chlorine
- Phosphorus (Total)
- Nitrogen (Total)
- Ammonia Nitrogen
- Iron
- Gross Alpha
- Radium 226/228
- Turbidity

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

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 **March 14, 2017**.

### FEE SCHEDULE

We will provide these services in accordance with our Continuing Services Contract Agreement for Professional Services dated November 4<sup>th</sup>, 2014, with Indian River County.

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

<b>Task No.</b>	<b>Task</b>	<b>Task Fee</b>
<b>Task 1</b>	<b>Collect &amp; Review Data</b>	<b>\$ 5,203</b>
<b>Task 2</b>	<b>Meetings</b>	<b>\$ 4,544</b>
<b>Task 3</b>	<b>Review &amp; Evaluate Results</b>	<b>\$ 9,326</b>
<b>Task 4</b>	<b>Prepare Application</b>	<b>\$ 4,443</b>
<b>Task 5</b>	<b>Prepare Supporting Information</b>	<b>\$ 7,462</b>
<b>Task 6</b>	<b>Submit Permit Package &amp; Coordination</b>	<b>\$ 5,786</b>
<b>Task 7</b>	<b>Respond to RAI's</b>	<b>\$ 10,620</b>
	<b>Total Lump Sum Fee =</b>	<b>\$ 47,384</b>

### 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 (ACOE, IRFWCD)
- Preparation of Operating Protocols and Best Management Practices
- Design drawings

