

**IRL Council**



**REQUEST FOR QUALIFICATIONS  
RFQ #2019-002**

**Indian River Lagoon  
Atmospheric Deposition of Nutrients  
Monitoring**



**IRL COUNCIL**  
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**RFQ #2019-002**

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**Atmospheric Deposition of Nutrients to the Indian River Lagoon**  
**Long-Term Monitoring**

The IRL is impaired by excessive nutrient loads. The pathway to achieve high-quality water, healthy sediments and systemic health depends on understanding and managing the lagoon's nutrient budget. Quantification of the atmospheric deposition of nutrients is an essential component of the overall IRL nutrient budget. This knowledge is needed to improve our ability to define restoration targets and evaluate progress toward reductions prescribed by total maximum daily loads for TN and TP.

The IRL Council (Council) is seeking Qualifications from scientific institutions, academic institutions, or organizations who can demonstrate the following qualifications:

- Expertise and experience collecting, analyzing, and synthesizing atmospheric deposition of nutrients for the Indian River Lagoon.
- Familiarity and expertise with the hardware and data collection protocols used at CASTNET sites.
- Familiarity and experience working with the CASTNET site at Sebastian Inlet (IRL141).
- Commitment to publishing atmospheric deposition data collected at the CASTNET site in a scientific peer-reviewed journal.
- Commitment to sharing atmospheric deposition data collected at the CASTNET site and metadata pursuant to contractual agreement.
- Understanding of and prior participation with IRLNEP partners and stakeholders involved in atmospheric deposition monitoring.

The CASTNET site at Sebastian Inlet (IRL141) has been in continuous operation since 2001. IRL141 is a highly valued site within the network because it provides unique information about coastal environments along the Atlantic Ocean. It is the only site along the IRL that collects both wet and dry atmospheric deposition data.

The Clean Air Status and Trends Network (CASTNET) is a long-term environmental monitoring network with 96 sites located throughout the United States and Canada ([www.epa.gov/castnet](http://www.epa.gov/castnet)). Only 3 CASTNET sites are located in Florida. CASTNET is managed and operated by the U.S. Environmental Protection Agency (EPA) in cooperation with the National Park Service (NPS); Bureau of Land Management, Wyoming State Office (BLM); and other federal, state, and local

partners including six Native American tribes that operate CASTNET sites on tribal lands. The network was established under the 1990 Clean Air Act Amendments to provide accountability for emission reduction programs by reporting trends in pollutant concentrations and acidic deposition. Data from CASTNET also support the assessment of the primary and secondary National Ambient Air Quality Standards (NAAQS) for ozone (O<sub>3</sub>), nitrogen dioxide (NO<sub>2</sub>), and sulfur dioxide (SO<sub>2</sub>). The NPS and BLM utilize CASTNET data for assessing critical loads exceedances in sensitive ecosystems (i.e., high elevation and coastal sites) and applications related to permitting.

CASTNET measures ambient concentrations of sulfur and nitrogen species as well as rural O<sub>3</sub> concentrations. Ambient concentrations of gases: SO<sub>2</sub> and nitric acid (HNO<sub>3</sub>); and particles - sulfate (SO<sub>4</sub>), nitrate (NO<sub>3</sub>), ammonium (NH<sub>4</sub>), chloride (Cl), and base cations are used to calculate dry deposition fluxes. CASTNET is the only network in the United States that provides a consistent, long-term data record of acidic dry deposition fluxes.

Interested firms may obtain a copy of the RFQ from the IRL Council website [www.irlcouncil.com](http://www.irlcouncil.com).

## **GENERAL INFORMATION**

### **1. PROJECT OBJECTIVE**

The IRL Council is seeking Qualifications from qualified and experienced scientific, academic institutions, or organizations to provide monitoring station support, data acquisition and data analysis at the IRLNEP-funded CASTNET site (IRL141) located at Sebastian Inlet. A more detailed scope of services is attached and incorporated into this RFQ as **Exhibit "A"**.

### **2. SUBMITTAL OF QUALIFICATIONS**

Interested firms are invited to submit a complete set of Qualifications for consideration. The Qualifications must address the items requested, clearly and concisely. The Council intends to negotiate a contract for the desired services upon selection of the Qualifications that best satisfy the evaluation criteria.

Any proposal received by the IRL Council after **5:00 pm July 24, 2019**, whether by electronic mail or otherwise will be not be accepted. Qualifications shall be submitted by electronic mail to [kolodny@irlcouncil.org](mailto:kolodny@irlcouncil.org). Time is of the essence and any Qualifications received after **5:00 pm July 24, 2019**, whether by electronic mail or otherwise will be disqualified from consideration. The Council will in no way be responsible for delays caused by any occurrence. Qualifications shall not be submitted and will not be accepted by courier, US mail, telephone, telegram, facsimile or in person. Respondents are responsible for insuring that their Qualifications are delivered and received by Council personnel by the deadline indicated. At the designated time and place, the Council's purchasing agent or designee will record the Qualifications for the record.

The Council reserves the right in its sole discretion to reject any or all Qualifications and/or to waive all nonmaterial, minor irregularities on any and all Qualifications. All costs and expenses, including reasonable attorney's fees, incurred by any Respondent in preparing and responding to this RFQ are the sole responsibility of the Respondent including without limitation any and all costs and fees

related to a protest. The documents included or incorporated in this RFQ constitute the complete set of instructions, scope of work, specification requirements and forms. It is the responsibility of the Respondent to ensure that all pages are included. Therefore, all Respondents are advised to closely examine this RFQ. All Qualifications must be submitted in Portable Document Format (PDF) only. Signatures are required where indicated; failure to do so may be cause for rejection of the Qualifications.

### **3. CHANGES AND INTERPRETATIONS**

Changes to this RFQ will be made by written addenda. A written addendum is the only official method whereby interpretation, clarification or additional information can be given. Addenda will be posted on the "Request For Proposals" section of the Council website: [www.irlcouncil.com](http://www.irlcouncil.com).

*All questions regarding this RFQ should be submitted in writing via e-mail to [kolodny@irlcouncil.org](mailto:kolodny@irlcouncil.org) and must be received no later than ten (10) calendar days prior to the due date for Qualifications. All questions will be answered via addenda. If a question is not answered, the Respondent should assume all relevant information is contained within this RFQ. The Council will attempt to not issue any addenda within three (3) business days of the due date of Qualifications; however, the Council reserves the right to issue any addenda at any time prior to the due date and time of Qualifications.*

### **4. PROPERTY OF THE COUNCIL**

All materials submitted in response to this RFQ become the property of the Council. The Council has the right to use any or all ideas presented in any response to this RFQ, whether amended or not, and selection or rejection of a Qualifications does not affect this right. No variances to this provision shall be accepted.

### **5. RFQ TIMETABLE**

The anticipated schedule for this RFQ and contract approval is as follows:

- Questions from Potential Respondents Due Up to July 12, 2019
- Issue Addendum (if necessary) July 19, 2019
- Qualifications Due July 24, 2019 (on or before 5:00 pm ET)
- Short List Announcement (if applicable) August 5, 2019
- Qualifications Selection August 9, 2019
- Contract Negotiations & Approval On or before September 30, 2019

The Council reserves the right to amend the anticipated schedule as it deems necessary.

### **6. CONE OF SILENCE**

Unless communication occurs during a publicly noticed meeting, all communication between the IRL Council Board of Directors and their alternates, Evaluation Team Members (Dr. Duane De Freese,

Kathy Hill, James Gray, Dr. Claudia Listopad, Kendra Cope, and Virginia Barker), employees and agents and any entity or person seeking to be awarded a contract (including their lobbyists and potential subcontractors) is prohibited until the time of award, rejection of all responses or some other action by the Council to end the selection process.

**7. ETHICS REQUIREMENT**

This RFQ is subject to the State of Florida Code of Ethics. Accordingly, there are prohibitions and limitations on the employment of Council officials and employees and contractual relationships providing a benefit to the same. Respondents are highly encouraged to review the Florida Code of Ethics in order to ensure compliance with the same.

**8. DISCLOSURE AND DISCLAIMER**

The information contained herein is provided solely for the convenience of Respondents. It is the responsibility of a Respondent to assure itself that information contained herein is accurate and complete. Neither the Council, nor its advisors provide any assurances as to the accuracy of any information in this RFQ. Any reliance on the contents of this RFQ, or on any communications with Council representatives or advisors, shall be at each Respondent's own risk. Respondents should rely exclusively on their own investigations, interpretations and analyses in connection with this matter. The RFQ is being provided by the Council without any warranty or representation, express or implied, as to its content, accuracy or completeness and no Respondent or other party shall have recourse to the Council if any information herein contained shall be inaccurate or incomplete. No warranty or representation is made by the Council that any Qualifications conforming to these requirements will be selected for consideration, negotiation or approval.

In its sole discretion, the Council may withdraw this RFQ either before or after receiving Qualifications, may accept or reject Qualifications, and may accept Qualifications which deviate from the non-material provisions of this RFQ. In its sole discretion, the Council may determine the qualifications and acceptability of any firm or firms submitting Qualifications in response to this RFQ. Following submission of Qualifications, the Respondent agrees to promptly deliver such further details, information and assurances, including, but not limited to, financial and disclosure data, relating to the Qualifications and/or the Respondent, including the Respondent's affiliates, officers, directors, shareholders, partners and employees, as requested by the Council. Any action taken by the Council in response to Qualifications made pursuant to this RFQ or in making any award or failure or refusal to make any award pursuant to such Qualifications, or in any cancellation of award, or in any withdrawal or cancellation of this RFQ, either before or after issuance of an award, shall be without any expense, liability or obligation on the part of the Council, or their advisors.

Any recipient of this RFQ who responds hereto fully acknowledges all the provisions of this Discloser and Disclaimer and agrees to be bound by the terms hereof. Any Qualifications submitted pursuant to this RFQ is at the sole risk and responsibility of the Respondent submitting such Qualifications.

**9. CONTRACT AGREEMENT / COMPENSATION**

The terms and conditions of the resulting contract including the fee for the services to be rendered will be negotiated with successful Respondent. If the Council and the successful Respondent cannot agree on the terms and conditions of the resulting contract, the Council reserves the right to terminate negotiations with the successful Respondent and move to the next ranked Respondent to commence negotiations. Negotiations may continue in this process until the Council is able to enter into a contract with a Respondent that best meets the needs of the Council.

The Council anticipates awarding either one or two contracts. The Council reserves the right to award to more than one Respondent if it is in the best interests of the Council.

The resulting non-exclusive continuing contract or contracts shall be renewable for up to 5 years. Each fiscal year of the contract and any future years will be subject to satisfactory performance and the availability of funds lawfully appropriated for its purpose by the Council. The Council need not include a lack of appropriations provision in the resulting contract to avail itself of such legal right.

Hourly rates shall remain firm for the first two (2) years of the resulting contract subject to terms and conditions to be negotiated on requests for consideration of a price adjustment.

**10. INSURANCE REQUIREMENTS**

Prior to execution of the resulting contract derived from this RFQ, the awarded Respondent shall obtain and maintain in force at all times during the term of the resulting contract insurance coverage as required herein. All insurance policies shall be issued by companies authorized to do business under the laws of the State of Florida. The Certificates shall clearly indicate that the firm has obtained insurance of the type, amount, and classification as required for strict compliance with this provision and that no material change or cancellation of the insurance shall be effective without thirty (30) days prior written notice to the Council. Compliance with the foregoing requirements shall not relieve the selected Respondent of its liability and obligations under the resulting contract.

- A. The selected firm shall maintain during the term of the contract, standard Professional Liability Insurance in the minimum amount of \$1,000,000.00 per occurrence.
- B. The selected firm shall maintain, during the life of the contract, commercial general liability, including public and contractual liability insurance in the amount of \$1,000,000.00 per occurrence (\$2,000,000.00 aggregate) to protect the firm from claims for damages for bodily and personal injury, including wrongful death, as well as from claims of property damages which may arise from any operations under the contract, whether such operations be by the firm or by anyone directly or indirectly employed by or contracting with the firm.
- C. The selected firm shall carry Workers' Compensation Insurance and Employer's Liability Insurance for all employees as required by Florida Statutes.
- D. The selected firm shall maintain comprehensive automobile liability insurance in the minimum amount of \$1,000,000 combined single limit for bodily injury and property

damages liability to protect from claims for damages for bodily and personal injury, including death, as well as from claims for property damage, which may arise from the ownership, use, or maintenance of owned and non-owned automobiles, including rented automobiles whether such operations be by the firm or by anyone directly or indirectly employed by the firm.

All insurance, other than Professional Liability and Workers' Compensation, to be maintained by the selected Respondent shall specifically include the Council as an "Additional Insured".

## **11. EVALUATION AND AWARD**

Each member of the Evaluation Team will evaluate Respondents' qualifications consistent with the qualification evaluation criteria listed below. The IRLNEP will then provide the evaluations to the IRLNEP Management Board and/or the IRL Council Board of Directors with or without presentations and/or discussions for ranking and a decision. Council staff will notify all submitting Respondents and advertise (if any) the Evaluation Team meeting(s) in the appropriate media as directed by law. The Council is not bound by the evaluations of the Evaluation Team and the Council may determine the best overall Qualifications which are most advantageous and in the best interest of the Council. Recommended awards will be available for review by interested parties at the Council Office and the Council's website.

Each submitted Qualifications will be evaluated individually and in the context of all other Qualifications. Qualifications must be fully responsive to the requirements described in this RFQ and to any subsequent requests for clarification or additional information made by the Council through written addenda to this RFQ. Qualifications failing to comply with the submission requirements, or those unresponsive to any part of this RFQ, may be disqualified. There is no obligation on the part of the Council to award to the most qualified, and the Council reserves the right to award the contract to the Respondent submitting the best overall Qualifications and in the best interest of the Council (consistent with the evaluation criteria and successful negotiations). The Council shall be the sole judge of the Qualifications and the resulting agreement that is in its best interests.

As part of the evaluation process, the Council may conduct an investigation of references, including but not limited to, a record check of consumer affairs complaints. By submitting Qualifications, Respondents acknowledge this process and consent to the Council's investigation. Council is the sole judge in determining the Respondent's qualifications.

At its sole option, the Evaluation Team or Council may require brief presentations from some or all of the Respondents. This requirement is at the sole discretion of the Council.

While the Council allows Respondents to specify any desired variances to the RFQ terms, conditions, and specifications, the number and extent of variances specified will be considered in determining the Qualifications which are most advantageous to the Council.

### **RFQ Evaluation Scoring Criteria:**

The evaluation of the Qualifications will be conducted in accordance with the following criteria (with associated points available).

<b><u>Qualification Evaluation Criteria</u></b>	<b><u>Points Available</u></b>
Demonstrated evidence of capability, experience and skill	30 points
Evidence of successful past performance for similar projects	30 points
Evidence of adequate personnel to perform	25 points
Completeness and responsiveness of Qualifications	5 points
Terminations and/or litigation	5 points
Evidence of required license(s) and certification(s)	5 points

**12. QUALIFICATIONS FORMAT**

Each Respondent shall submit **One Original**, electronically and in PDF format. All RFQ responses are to be emailed to directly to **kolodny@irlcouncil.org**, in English. Each submittal shall contain all the information required herein to be considered for award. Omission of required data may be cause for disqualification. Any other information thought to be relevant, but not applicable to the enumerated sections, should be provided as an appendix to the proposal. If publications are supplied by a Respondent to respond to a requirement, the response should include reference to the document number and page number. Qualifications not providing this reference will be considered to have no reference materials included in the additional documents.

Qualifications must be properly signed by the owner/principal having the authority to bind the firm to a resulting contract. **Signatures are required where indicated; failure to do so shall be cause for rejection of Qualifications.**

Only one set of Qualifications may be submitted by each Respondent.

Qualifications which do not contain or address key points or sufficiently document the requested information may be deemed non-responsive.

All Qualifications shall be submitted in the format identified below. Failure to submit the required documentation in the format identified may cause for disqualification.

**A. Letter of Transmittal (not to exceed three pages)**

This letter will summarize in a brief and concise manner the following:

- General summary of Respondent's firm; how long in business; general approach to tasks and projects; location; and, summary of the firm's qualifications.
- Proposer's brief understanding of the scope of services.
- The letter must name all persons or entities interested in award as principals. Identify all of the persons authorized to make representations for the firm, including the titles, addresses, and telephone numbers of such persons.



- An authorized agent of the firm must sign the Letter of Transmittal and must indicate the agent's title or authority.
- The individual or firm identified on the Letter of Transmittal will be considered the primary firm.

**B. Addenda (unlimited pages)**

This section shall include a statement acknowledging receipt of each addendum issued by the Council. Each Respondent is responsible for visiting the Council's website to view and obtain addendum.

**C. References & Materials (not to exceed 15 pages plus the form).**

1. Evidence of capability, experience and skill: Respondents shall provide a summary of the firm's capability, experience and skill to provide the requested services (which shall not exceed two pages) and include the firm's organizational structure. Bullet point format is appreciated.
2. Evidence of successful past performance for similar projects: Using the reference form provided, Respondents shall identify successful past performance for similar projects. Respondents shall provide a minimum of three (3) references on the form provided demonstrating their successful past performance. Prior experience with other Florida agencies is desirable. Respondents are responsible for verifying correct phone numbers and contact information provided. Failure to provide accurate information may result in the reference not being obtained or considered.
3. Evidence of adequate personnel to perform: Respondents shall provide 1-page summaries or resumes of key personnel to be assigned to provide services to the Council. Resumes should include a description of:
  - Training, education and degrees.
  - Related experience and for whom.
  - Professional certifications, licenses and affiliations.

**D. Proof of Licenses (unlimited)**

Respondents shall provide proof of required licenses for the firm and scope of services to be performed. This shall include:

- Proof of all applicable licenses for services to be rendered (including registration with State of Florida Division of Corporations if applicable);
- Statement or proof of required insurance; and,
- Proof of Proposer's Business Tax Receipt (as applicable).

**E. Litigation and/or Terminations (unlimited)**

Respondents shall provide a summary of any litigation filed against their firm or key personnel in the past five (5) years which is related to the services sought under this RFQ and that the Respondent provides in the regular course of business. The summary shall state the nature of the litigation, a brief description of the case, the outcome or projected outcome, and the monetary amount involved. *If none, state as such.*

Respondents shall also state if the Respondent has or had a contract or contracts for the services sought under this RFQ which were terminated for default, non-performance or delay, in the past five (5) years. Respondents shall describe all such terminations, including the name and address of the other contracting party for each such occurrence. *If none, state as such.*

**F. Evidence of Ability to Deliver on Time (limited to three pages)**

Respondents shall provide a summary regarding their ability to deliver the requested services in a specific timeframe. Information regarding dedicated staff and current and projected firm workload should be provided.

**13. REPRESENTATIONS BY SUBMITTAL OF QUALIFICATIONS**

By submitting Qualifications, the Respondent warrants, represents and declares that:

- A. Person(s) designated as principal(s) of the Respondent are named and that no other person(s) other than those therein mentioned has (have) any interest in the proposal or in the anticipated contract.
- B. The Qualifications are submitted without connection, coordination or cooperation with any other persons, company, firm or party submitting Qualifications, and that the Qualifications are, in all respects, true and correct without collusion or fraud.
- C. The Respondent understands and agrees to all elements of the RFQ unless otherwise indicated or negotiated, and that the RFQ shall become part of any contract entered into between the Council and the Respondent.
- D. By signing and submitting Qualifications, Respondent certifies that it and any parent corporations, affiliates, subsidiaries, members, shareholders, partners, officers, directors or executives thereof are not presently debarred, proposed for debarment or declared ineligible to bid or participate in any federal, state or local government agency projects.
- E. Pursuant to 287.133, Florida Statutes, a person or affiliate who has been placed on the convicted firm list maintained by the State of Florida may not submit Qualifications to the Council for 36 months following the date of being placed on the convicted firm list. Respondent certifies that submittal of its Qualifications does not violate this statute.
- F. Respondent recognizes and agrees that the Council will not be responsible or liable in any way for any losses that the Respondent may suffer from the disclosure or submittal of its Qualifications to third parties.

**14. PROTESTS**

Any actual Respondent who is aggrieved in connection with this RFQ may protest such procurement. The protest must be filed with the Council in accordance with the Council's procurement code. A

complete copy of the Council's procurement code is available on- line at <http://www.irlcouncil.com/uploads/7/9/2/7/79276172/operatingproceduresmanual.pdf>.

**15. EXHIBITS**

This RFQ consists of the following exhibits (which are incorporated herein by reference):

- A. Exhibit "A"            Scope of Services
- B. Exhibit "B"            Proposer Information Form (must be submitted)
- C. Exhibit "C"            Drug Free Workplace Form (must be submitted)
- D. Exhibit "D"            References (must be submitted)

**16. COMPLIANCE**

All Qualifications received in accordance with this RFQ shall be subject to applicable Florida Statutes governing public records including without limitation Chapter 119, Florida Statutes. If any Respondent believes its Qualifications contain exempt or confidential information, the Respondent must identify the same at the time of submission of its Qualifications. Failure to do so may result in the waiver of such exemption or confidentiality.

**END OF GENERAL INFORMATION**

**EXHIBIT "A"**  
**SCOPE OF SERVICES**

The qualified and awarded Respondent shall provide the following Scope of Services:

The goal of this project is to continue long-term monitoring of atmospheric deposition of nutrients at the IRL CASTNET monitoring station located at Sebastian Inlet and to work cooperatively with the SJRWMD (District) and other IRLNEP stakeholders developing and tracking a nutrient budget for the Indian River Lagoon.

General objectives of this project include:

- Sample meteorological conditions, wet deposition and dry deposition at the IRL CASTNET station to yield data that will provide reliable estimates of deposition into the IRL for key compounds containing N and P.
- Properly collect, prepare and ship all atmospheric deposition samples pursuant to standard methodologies with corresponding paperwork to the designated SJRWMD laboratory within allowable sample holding times;
- Electronically submit water quality-related field data reports and scanned documentation to Council and the SJRWMD in a timely manner after each field sampling event; and
- Collect, prepare and ship wet deposition samples from the IRL CASTNET atmospheric deposition station (IRL141) located at Coconut Point, Sebastian, along with submittal of corresponding paper and electronic documentation.

In the achievement of the above objectives, the contracted team shall follow protocols, procedures and timeframes, per specifications in the contract Scope of Work (below).

**SCOPE OF WORK:**

This renewable 5-year contract is pursuant on satisfactory annual performance and availability of funds. The project covers operation and maintenance of the CASTNET field instruments at IRL141; collection and analysis of samples documenting wet and dry deposition of key compounds; and the calculation and reporting of concentrations and fluxes for wet, dry and bulk deposition.

**TASK IDENTIFICATION:**

**TASK I. Continuous Data Collection/Operation and Maintenance**

Continuous, site-specific data for meteorological parameters, ozone concentrations and air flow through the filter pack are required inputs to the Multi-Layer Model that estimates dry deposition. Therefore, the standard set of CASTNET instruments shall be operated and maintained (Table 1). Contractor shall calibrate the instruments twice per year. Contractor shall submit the results of calibration to the IRLNEP and the SJRWMD within four weeks. Contractor shall perform daily checks of telemetered data, undertake

maintenance or repairs as needed, and submit updated records of continuous data within 60 days following each calibration.

Table 1. Parameters, units and required precision for continuous measurements.

<u>Parameter</u>	<u>Units</u>	<u>Precision</u>
Precipitation	millimeters (111111) per hour	0.251111111
Wind direction	degrees true	1 degree
Wind speed	meters (m) per second	0.1 m
Delta temperature	degrees Centigrade	0.1 degree
Temperature	degrees Centigrade	0.1 degree
Relative humidity	percent (%)	0.1%
Solar radiation	watts per square meter (W m-2)	1 w m-2
Wetness	yes/no -	
Std dev. of wind direction	degrees true	0.1 degree
Air flow through filter pack	liters per minute	0.01 liter
Ozone concentration	parts per billion (ppb)	1 ppb

**TASK 2. Wet Deposition**

Respondent shall collect samples from the N-CON bucket that has accumulated rainwater for one week, following the methods and procedures set forth in the IRL Wet Deposition Standard Operating Procedures (included herein). In summary, the N-CON bucket shall be removed and replaced with a clean bucket at approximately 9:00 a.m. Eastern Standard Time each Tuesday (10:00 am during Daylight Saving Time) regardless of recent rainfall. After cleaning and prior to deployment, a blank comprising deionized water placed in the N-CON bucket shall be collected and stored. On the same day that a sample is collected, the Respondent shall prepare and ship the relevant subsamples and the associated blank that has been stored for a week to the District's laboratory via a next-day courier service. The Respondent shall clean and maintain the N-CON collector and clean or replace the bucket as needed. Maintenance or repairs that exceed 25% of the allocated contingency funds shall be discussed with the Council and District before expenditures are made.

Respondent shall complete an Atmospheric Wet Deposition Field Sheet (included as Attachment A) and a Chain of Custody (COC) Form for each sampling event, following the District's Field Standard Operating Procedures for Surface Water Sampling (FSOP, [ftp://ftp.sjrwm.com/IRL-WQMN/2016/FY2016\\_BWRI\\_FSOP.pdf](ftp://ftp.sjrwm.com/IRL-WQMN/2016/FY2016_BWRI_FSOP.pdf)). The completed Wet Deposition Field Sheet (WDFS) shall be e-mailed to the Project Managers for the Council and the District (or their designees) each Wednesday regardless of whether a sample was collected. Care should be taken to note any contamination of the bucket, equipment malfunction, etc. in the "Comments" section of the WDFS. The original, signed COC shall accompany any samples shipped to the District's laboratory, and a scanned copy of the completed form shall be e-mailed to the Project Managers along with the WDFS. Names of electronic files shall conform to an approved format. Council and District staff may conduct field audits to ensure compliance with the IRL Wet Deposition Standard Operating Procedures (Attachment B)

### TASK 3. Dry Deposition

Respondent shall perform analyses on weekly samples to characterize dry deposition of phosphate in the CASTNET single-stage filter packs operated at 20 L per minute, with regulation by an appropriate mass-flow controller. Approximately 56 filter packs shall be analyzed for phosphate each year (including field blanks).

Respondent shall provide the Council and the District with updated copies of their EPA-approved CASTNET Quality Assurance Project Plan (QAPP) throughout the duration of the contract. Contractor shall report continuous data and concentrations of the relevant compounds quarterly in an Excel file e-mailed to the Project Managers for the Council and the District (or their designees), along with results from quality assurance and quality control. Reports shall include applicable reporting limits, method detection limits (Practical Quantitation Limits [PQLs] and Minimum Detection Limits [MDLs]), results for blanks, and results from analyzing a Continuing Calibration Check Standard (CCCS) and a Commercial Quality Control Check Standard (QCCS) at the beginning of each analytical run. Target MDLs and PQLs for the phosphate analyses shall be 0.011 mg L<sup>-1</sup> and 0.04 mgL<sup>-1</sup>, respectively. Results for replicates shall include the relevant values and percentage differences. Spikes shall be reported as percent recovery, and results of CCCS and QCCS shall be reported as the target value with percent recovery. All quality assurance data shall be reported with the relevant data for samples, and they must fall within the applicable control limits established in Respondent's QAPP. If data do not fall within established control limits, corrective action shall be taken, and a description of the corrective action shall be provided with the data as a comment.

### TASK 4. Data Validation, Analysis and Reporting

On an ongoing basis, the Respondent shall validate and process the data needed for the annual run of the Multi-Layer Model (MLM). Methods for validating data shall be agreed between the Respondent, the Council, and the District. In addition to data generated by the Respondent and the District's laboratory, Contractor also shall obtain data on gaseous ammonia provided by the National Atmospheric Deposition Program's Ammonia Monitoring Network (AMoN) for use in estimating total N and P deposition.

At the end of the sixth month after the end of each full calendar year of sampling or 30 days after receiving validated concentrations in samples of wet deposition from the District, whichever is later, the Respondent shall deliver a summary report that includes comparisons to estimates of atmospheric deposition calculated for Coconut Point in previous years and estimates for other sites along the Atlantic coast, with due recognition of differences in methodology. Each of the two summary reports shall be accompanied by Excel files containing collated meteorological data and concentrations of relevant compounds, along with estimated weekly, monthly, quarterly and annual fluxes.

### DELIVERABLES:

- Initial Project Executive Summary Sheet. The Respondent shall submit Council's Initial Project Executive Summary sheet.

- Quarterly Reports. The Respondent shall provide Quarterly Reports that include Council's Quarterly Report Summary Cover page and any results, WDFSs, COCs, maintenance logs, and any other raw data from the quarter.
- Project Final Report. A final report at the project completion shall be submitted that includes Council's Final Report Executive Summary Cover Page, all raw data, metadata, and analyses.

**BUDGET:**

The budget shall total \$25,000 annually unless adjusted by mutual agreement by the parties to the contract. Invoices for work shall be submitted monthly after approval of deliverables, and invoices shall include a justification for claims against funds set aside for contingencies. Samples to document wet deposition will be analyzed by the District's laboratory as an in-kind contribution.

# ATTACHMENT A

## INDIAN RIVER LAGOON WET DEPOSITION FIELD SHEET

### WET DEPOSITION FIELD DATA SHEET

Date (YYYYMMDD)	
Prelogin #	
Subproject	IRLB ATM WET CONJUT
STATION	IRLATMIRL141
Data Manager	Sue Connors

Decontamination/Cleaning	
Date/Time	
Ini Balls	
Wet Bucket #	

ACIDS/DI	CID Number
Sulfuric	
Nitric	
HCL	
DI WATER	

Station Name	Sample Collection Date/Time (YYYYMMDDHHMM)	Sample Collection Start Date/Time (YYYYMMDDHHMM)	Sample Type	Collection Device	Volume of Wet Deposition (l)	Air Temperature (C)	Cloud Cover (%)	Wind Speed (mph)	Wind Direction (deg)	Weather Code (see below)	Bucket #
P-4RRAD			BLK								
IRLATMIRL141			COM								
IRLATMIRL141			DUP								

NOTE: Blank (BLK) volume = 350 ml (minimum sample volume); Incubation time = 24 hours; Bucket to yield a blank is deployed every Tuesday for the following week's sample.

Sample Comment		Insufficient		Minimum	2x Minimum	Maximum
Required	Sample bottle fill volume	No	Yes →			
	Potential Contamination?	No	Yes →			
	Equipment Problems?	No	Yes →			
	Volume in Rain Gauge (in)					
Other notes						

Weather Code	
No Rain	20
Moderate Drizzle	54
Moderate Rain	64
Heavy Rain	66
Scattered Showers	80
Thunderstorms	90

Samplers/Visitors	Organization



## ATTACHMENT B

### **WET DEPOSITION STANDARD OPERATING PROCEDURES**

#### Fieldwork

Visit the site on a weekly basis (every Tuesday at approximately 9:00 am Standard Eastern Time or 10:00 am Daylight Saving Time). During each visit:

- 1) Inspect the forestry rain gage located near the N-CON bucket, and if precipitation has occurred, record the amount. Enter this value on the atmospheric Wet Deposition Field Sheet (WDFS). After recording, discard the water in the gage.
- 2) Approach the collector from the downwind side to reduce the chance of inadvertent contamination. Locate the ON/OFF switch on the underside of the housing. Activate the lid by waving your hand through the sensor. When the lid is open halfway, turn off the power to the collector.
- 3) Collect the N-CON bucket and replace it with a previously cleaned bucket, making note of the date, time, and unique identifier for the bucket. This date and time will be assigned to any subsamples prepared on that day. If rain has fallen during the week and there is water in the bucket, cover the bucket with its dedicated clean lid (snapped on tightly to prevent loss of sample during transport), and place the closed bucket in a new and clean plastic bag for transport back to the laboratory. If rain has not occurred since the previous Tuesday and there is no water in the bucket, cover the bucket with its lid and return it to the laboratory for cleaning. Process buckets containing water following directions in the Sample Preparation section.
- 4) Record the date/time when the N-CON bucket was removed and replaced as the "Sample Collection Date/Time" on the WDFS. Enter the date and time when the bucket was originally deployed (the previous Tuesday) under "Sample Collection Start Date/Time" on the WDFS. Note the unique identifier for the bucket and any relevant information regarding conditions, the presence of contamination in the bucket, equipment failure, etc. in the appropriate places.
- 5) Submit an electronic copy of a WDFS via e-mail to the Council's and District's Project Managers and their designees no later than every Wednesday, even if subsamples and a blank were not prepared.

#### Sample Preparation

- 1) Emphasize cleanliness during all laboratory procedures. Use only pre-cleaned labware for transferring, dispensing, and holding samples or analyte-free, deionized water (e.g., graduated cylinders and beakers). Always use disposable gloves when handling samples. Obtain labware from an approved vendor and analyte-free water from the District.

- 2) Remove the bucket's lid and decant the contents of the bucket into a dedicated, pre-cleaned, 1-L graduated cylinder. If the volume is at least 350 mL and less than 1 L, record the volume on the WDFS and proceed to steps 3-6 (below). If the volume exceeds 1 L, measure out the first liter in the graduated cylinder and proceed to steps 3-6 (below). Repeat steps 3-6 using the remaining raw sample (or more if necessary) to prepare a 'DUP' set of samples when appropriate, keeping track of the measured volumes. After sample preparation is complete, finish measuring the volume remaining in the bucket and record the total amount on the WDFS as "Volume Wet Deposition" for both the sample and the duplicate.
  
- 3) Collect subsamples from each graduated cylinder. Pour appropriate aliquots into a dedicated, pre-cleaned glass beaker in preparation for filtration. Filter subsamples using a Whatman Polydisc OW In-line disposable filter manufactured by General Electric Healthcare Life Sciences (0.45-µm pore size). Prior to use, flush polydiscs with at least 300 mL of analyte-free water. Discard polydiscs after one use. Prepare subsamples of the appropriate volumes (Table 1). Fill bottles in the following order: Filtered-Chilled (FC) and Filtered-Sulfuric-Chilled (FSC) bottles first (highest priority), the unpreserved CS bottle next, and the Nitric-preserved (N1) bottle last. Record the date and time the N-CON bucket was removed from the collector on the sample bottles and on the WDFS. Should the initial sample volume be greater than 350 mL, maximize the volumes of the subsamples, with an emphasis on maintaining the correct proportions for preservation. When possible, fill bottles to at least twice the minimum volumes because it provides sufficient material for meeting required laboratory QA/QC protocols (laboratory duplicates, spikes, etc.), while allowing for some spillage.

Table 1. Minimum volumes for subsamples.

Bottle	Analytes	Volume (ml)
FC	Dissolved nitrate/nitrite, dissolved phosphate	60
FSC	Total dissolved phosphorus, dissolved Kieldahl nitrogen, dissolved ammonium	100
C5	Alkalinity/conductivity, chloride/sulfate, pH	80
N1	Metals	110
TOTAL		350

- 4) Preserve filtered subsamples immediately using analytical-grade sulfuric acid for the FSC bottle and analytical-grade nitric acid for the N1 bottle. Add a volume of acid to each of the "preserved" bottles that maintains a volumetric ratio of 0.5 mL of acid to 250 mL of sample (schedule in Attachment E). Maintaining the correct acid-to-sample proportion is extremely important because laboratory methods are very sensitive to over-acidification. Check the final pH of the preserved subsample with a pH paper strip to ensure that it is 1.6 to 2.0. Should the pH of the subsample be greater than 2, add one drop of acid to the bottle, cover it, swirl to mix, and test again. Repeat this procedure until the pH of the subsample is between 1.6 and 2. Do not dip the pH strip into the subsample. Instead, pour a small amount of the subsample into the bottle's cap and then onto the pH strip, returning any remaining water to the bottle.

- 5) Place the prepared subsamples and a blank prepared according to directions in the Bucket Blank section on wet ice inside a cooler or in a refrigerator. Ship subsamples, the associated blank, and the original, signed COC to the District laboratory on the same day. Sufficient ice must be placed inside the cooler to ensure that the temperature of the subsamples remains  $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ , with more ice added during summer months if necessary. Notify the Council's and District's Project Managers (or their designees) and send them electronic copies of the signed COC and the completed WDFS via e-mail by 3:00 pm on the same day.
- 6) Clean the N-CON bucket and lid by washing the inside using a freshly gloved hand and the outside with a gloved hand or a dedicated, wooden-handled brush before rinsing with analyte-free, deionized water. Rinse the inside with 10% analytical-grade HCl and three liberal aliquots of analyte-free water. Allow the bucket and its lid to air dry (inverted), and then place the lid on the bucket and put the unit inside a new, clean plastic bag. Never touch the inside surfaces of the bucket or lid with ungloved hands.
- 7) Once per quarter, when the volume in the N-CON bucket is 1000 mL or more, prepare a second (duplicate) set of samples and ship them to the District Laboratory. Record sample times for duplicates as one minute after the original sample, and assign them the Sample Type "DUP." On the WDFS, record the total volume of water originally in the bucket as the volume for both the sample and the duplicate.

#### Bucket Blank

- 1) At ~09:00 on the Monday prior to the deployment of a pre-cleaned N-CON bucket, prepare a blank by adding 350 mL of analyte-free, deionized water to the pre-cleaned bucket, securing the lid to the bucket, and swirling it gently to rinse the internal walls. Allow the bucket and water to sit until the next day (Tuesday). Obtain analyte-free water from the District.
- 2) On Tuesday morning prior to deploying the new N-CON bucket, pour a blank into a new, labeled 16-oz sample bottle and keep it refrigerated for a week without filtration or preservation. If a wet deposition sample is available on the following Tuesday, process the refrigerated blank from the week before following the procedures described in the Sample Preparation section. The date and time of collection assigned to the blank corresponds to when the blank was filtered. Annotate this information on the bottles and on the WDFS. Package the blank with the corresponding subsamples and ship them to the District laboratory that same day. Discard pre-poured, refrigerated blanks corresponding to weeks when wet deposition subsamples are not prepared due to insufficient rainfall. Use labware from an approved vendor.

#### Additional Comments and Field Procedures

- 1) Regularly clean the N-CON collector by moistening a Kimwipe with analyte-free water and wiping down the following parts while in the field:
  - underside of the sealing pad in the lid
  - top and sides of the lid
  - lid arms
  - posts holding the bucket

- splash shield and
  - sensor (note: remove any debris or spider webs)
- 2) Regularly inspect the sealing pad in the lid of the N-CON collector and replace it if it has cracks or other signs of deterioration.
  - 3) Replace the N-CON bucket as needed, with new buckets being leached with nitric acid as per the National Atmospheric Deposition Program Central Analytical Laboratory's Standard Operating Procedures for Bucket and Bottle Preparation (SOP PREP-03.6; see extract in Attachment F).
  - 4) Regularly inspect the tipping bucket rain gage at the site and remove any debris from within the funnel or screen.
  - 5) Keep aware of all activities in the area that may cause unusual airborne contaminants such as mowing or construction and cover the collector with plastic during these events. Make annotations in electronic field log as appropriate.
  - 6) Clean the optical precipitation sensor weekly by rinsing the plate with analyte-free water to wash away any accumulated residue.
  - 7) Inspect the N-CON collector's nuts and bolts weekly and tighten any that are loose.
  - 8) Mow or trim the vegetation inside and along the perimeter of the fenced area to keep it from interfering with N-CON bucket or rain gage. Ground vegetation should be less than two feet (0.6 m) in height, vegetation in a cone projected with a 45-degree angle from horizontal should be at least the same distance from the equipment as it is tall, and vegetation in a cone projected with a 30-degree angle from horizontal should be at least twice as far away from the equipment as it is tall. During these activities, take precautions to avoid contaminating the systems that collect wet and dry deposition.

**END OF SCOPE OF SERVICES**

**EXHIBIT "B"**

**RESPONDENT INFORMATION PAGE  
RFQ # 2019-001**

Company Name: \_\_\_\_\_

Authorized  
Signature:

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print Name

Title: \_\_\_\_\_

Physical  
Address:

\_\_\_\_\_  
Street

\_\_\_\_\_  
County State

Zip Code

Telephone: \_\_\_\_\_

Fax: \_\_\_\_\_

Email Address: \_\_\_\_\_

Web Site (if applicable): \_\_\_\_\_

Federal Identification Number: \_\_\_\_\_

This is a requirement of every Respondent.

**EXHIBIT "C"**  
**CONFIRMATION OF DRUG-FREE WORKPLACE**

In accordance with Section 287.087, Florida Statutes, whenever two or more Qualifications are equal with respect to price, quality, and service which are received by any political subdivision for the procurement of commodities or contractual services, a proposal received from a business that certifies that it has implemented a drug-free workplace program shall be given preference in the award process. In order to have a drug-free workplace program, a business shall:

1. Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
2. Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
3. Give each employee engaged in providing the commodities or contractual services that are under proposal a copy of the statement specified in subsection (1).
4. In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under proposal, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than 5 days after such conviction.
5. Impose a sanction on, or require the satisfactory participation in, a drug abuse assistance or rehabilitation program if such is available in the employee's community by, any employee who is so convicted.
6. Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

As the person authorized to sign this statement on behalf of \_\_\_\_\_, I certify that \_\_\_\_\_ complies fully with the above requirements.

\_\_\_\_\_  
Authorized Representative's Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name:

\_\_\_\_\_  
Position:

**EXHIBIT "D"**  
**REFERENCES**

List below or on an attached sheet similar past projects. Please provide the name, addresses and telephone numbers of organizations, governmental or private, for whom you now are, or have **within the past five (5) years** provided similar services. (THIS FORM MAY BE COPIED).

**#1 REFERENCE**

Name of Client: \_\_\_\_\_

Address: \_\_\_\_\_

Phone No.: (\_\_\_\_)\_\_\_\_\_ Fax: (\_\_\_\_)\_\_\_\_\_

Contact Person Name: \_\_\_\_\_ Title: \_\_\_\_\_

Description of services: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Completed on time: Yes\_\_ No\_\_ (explain:\_\_\_\_\_).

Completed within budget: Yes\_\_ No\_\_ (explain:\_\_\_\_\_).

**#2 REFERENCE**

Name of Client: \_\_\_\_\_

Address: \_\_\_\_\_

Phone No.: (\_\_\_\_)\_\_\_\_\_ Fax: (\_\_\_\_)\_\_\_\_\_

Contact Person Name: \_\_\_\_\_ Title: \_\_\_\_\_

Description of services: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Completed on time: Yes\_\_ No \_\_ (explain:\_\_\_\_\_).

Completed within budget: Yes\_ No\_ (explain:\_\_\_\_\_)

**#3 REFERENCE**

Name of Client: \_\_\_\_\_

Address: \_\_\_\_\_

Phone No.: (\_\_\_\_)\_\_\_\_\_ Fax: (\_\_\_\_)\_\_\_\_\_

Contact Person Name: \_\_\_\_\_ Title: \_\_\_\_\_

Description of services: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_.

Completed on time: Yes\_\_ No \_\_ (explain:\_\_\_\_\_).

Completed within budget: Yes\_ No\_ (explain:\_\_\_\_\_).