THE GOVERNING BOARD OF THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT REMOTE SENSING AND MAPPING OF PLANT COMMUNITIES FOR THE PRESERVATION OF NATURAL SYSTEMS REQUEST FOR QUALIFICATIONS 35112

The Governing Board of the St. Johns River Water Management District (the "District"), requests that interested parties respond to the solicitation below by 2:00 p.m., November 7, 2019. Further information is available through Onvia DemandStar at *Demandstar.com* [(800) 711-1712], Vendor Registry at *Vendorregistry.com*, or the District's website at *sjrwmd.com*. Solicitation packages may be obtained from Onvia DemandStar, Vendor Registry, or the District by calling or emailing Amy Lucey, Procurement Specialist, at 321-409-2156 or ALucey@sjrwmd.com. Responses will be opened in the EOC Conference Room, Palm Bay Service Center, 525 Community College Parkway, Palm Bay, Florida 32909.

The purpose of this contract is to:

• Acquire imagery and produce detailed spatial data and maps of the plant communities on selected District lands.

The estimated budget for the project is \$210,000.00.

Special accommodations for disabilities may be requested through Amy Lucey, Procurement Specialist, at 321-409-2156 or by calling (800) 955-8771 (TTY), at least five business days before the date needed.

The District's Evaluation Committee will meet at District headquarters at 4049 Reid Street, Palatka, Florida 32177-2571, to evaluate and rank Submitttals as follows:

- 10:00 a.m. on November 21, 2019, to
 - o Discuss the responses
 - o Finalize the initial ranking
 - o Determine a shortlist of Respondents and/or
 - Decide if oral presentations (by some or all of the Respondents) are necessary to assist in facilitating the evaluation process in determining a final recommendation and discuss negotiation strategies
- 10:00 a.m., November 26, 2019, to
 - o Conduct oral presentations, if needed, at the District's headquarters, immediately followed by an evaluation meeting to establish the final rankings
 - o Respondents selected for oral presentations will be notified in advance of the time established for their presentation
- 10:00 a.m., January 14, 2019 to
 - o Negotiate professional fees and project costs with the top-ranked Respondent as authorized by the District's Governing Board at its meeting, January 12, 2019.

RFQ 35112 Remote sensing and mapping of plant communities for the preservation of natural systems

Special accommodations for disabilities may be requested through Amy Lucey, or by calling (800) 955-8771 (TTY), at least five business days before the date needed.

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INSTRUCTIONS TO RESPONDENTS

1. **DEFINITIONS**

The definitions of capitalized terms used in this solicitation that are not otherwise defined herein can be found in the sample contract document (the "Agreement") that is at the end of these instructions. The Agreement includes these Instructions to Respondents, any addenda published by the District, the submittal provided by Respondent (the "Submittal"), and all required certifications and affidavits.

2. CONTRACT ADMINISTRATION

All inquiries related to this solicitation may only be directed to the Procurement Specialist:

Amy Lucey, Procurement Specialist

Phone: 321-409-2156 Fax: 321-722-5357

Email: ALucey@sjrwmd.com

Between the release of this solicitation and the posting of the notice of intended decision, Respondents to this solicitation or persons acting on their behalf may not contact any employee or officer of the District concerning any aspect of this solicitation, except the procurement employee listed above. Violation of this provision is grounds for rejecting a response.

3. WHERE TO DELIVER SUBMITTAL

The Submittal must be submitted in a sealed envelope to:

Amy Lucey, Procurement Specialist

St. Johns River Water Management District

Palm Bay Service Center

525 Community College Parkway, Palm Bay FL 32909

Respondents must clearly label the Submittal envelope with large bold, and/or colored lettering (place label on inner envelope if double sealed) as follows:

SEALED SUBMITTAL — DO NOT OPEN

Respondent's Name: _____

Request for Qualifications: 35112

Opening Time: 2:00 p.m.

Opening Date: November 7, 2019

4. OPENING OF SUBMITTALS

Respondents or their authorized agents are invited to attend the opening of the Submittals at the following time and place:

2:00 p.m., November 7, 2019

Palm Bay Service Center

525 Community College Parkway, Palm Bay, FL 32909

The Florida Public Records Act, §119.071(1)(b), Fla. Stat., exempts sealed Submittals from inspection and copying until such time as the District provides notice of an intended decision pursuant to §120.57(3)(a), Fla. Stat., or until 30 days after opening of bids, proposals, submittals, or final replies, whichever is earlier. This exemption is not waived by the public opening of the Submittals.

Unless otherwise exempt, Respondent's Submittal is a public record subject to disclosure upon expiration of the above exemption period. If any information submitted with the Submittal is a trade secret as defined in §812.081, Fla. Stat., and exempt from disclosure pursuant to §815.04, Fla. Stat., Respondent must clearly identify any such material as "CONFIDENTIAL TRADE SECRET" in its Submittal and explain the basis for such exemption. The District reserves the right, in its sole judgment and discretion, to reject a Submittal for excessive or unwarranted assertion of trade secret confidentiality and return the Submittal to Respondent.

5. PREPARATION AND ORGANIZATION OF SUBMITTALS

Respondent must provide its Submittal in an electronic format. (cd or jump drive)

- 1. Respondents must submit the following fully completed documents on reproduced copies of the attached forms provided in FORMS:
 - a. Submittal Form
 - b. Certificate as to Corporation
 - c. Affidavit as to Non-collusion and Certification of Material Conformance with Specifications
 - d. Qualifications (General, Similar Projects, Client References, Subcontractors, and other required qualification forms)
 - e. Drug-Free Workplace Form (not required unless there is a tie)
- 2. Copy of Professional Surveyor License
- 3. Copy of Professional Mapper License
- 4. All blank spaces on the Submittal Form shall be typed or legibly printed in ink.
- 5. Respondents shall provide and complete the following forms and questionnaires, and include them in their Submittal under the tabs identified below (responses to the forms and questionnaires can be submitted on reproduced copies):

Tab 1: Firm's and subcontractors' capabilities qualifications and capabilities

- a) Certificate as to Corporation Form
- b) Affidavit as to Non-Collusion and Certification of Material Conformance with Specifications
- c) Qualifications Form General
- d) Qualifications Form Similar Projects
- e) Subcontractors Form
- f) Drug-Free Workplace Form (not required unless there is a tie)
- g) Qualification Form Client References
- h) Letters of reference from two of the client references
- i) Has Respondent been certified by the state of Florida's Office of Supplier Diversity as a woman-, veteran-, or minority-owned business enterprise.
- j) Has the applicant been certified as a small business, and if so, who provided the certification?
- k) Number of employees currently employed by Respondent and its subconsultants; and Respondent's and its subconsultant's average annual volume of work for the past three years

In addition to the above forms, the Respondent is responsible for providing evaluative documentation that it and its subcontractors (if any) possesses the qualifications, background, and experience necessary to perform the Work, including but not limited to:

- a) Experience in acquiring aerial/satellite imagery specifically for mapping terrestrial, aquatic, and wetland communities and the means for acquiring the aerial/satellite imagery within designated time limits including subcontractor availability.
- b) Is Respondent a certified minority business enterprise as defined by the Florida Small and Minority Business Assistance Act.
- c) Plant community mapping experience of the firm and key personnel assigned to this project in similar plant community mapping projects – describe the past and present work of firm and key personnel on projects of this type or that have utilized alternative methodologies, specifically:
 - 1) Obtaining, processing and delivering end products from aerial/satellite imagery capture (including, but not limited to, frame-based aerial digital mapping cameras, hyperspectral, or satellite imagery)
 - 2) Aerotriangulation and orthorectification of aerial imagery
 - 3) Experience of Respondent and subcontractor staff in using image interpretation or computer classification to map plant communities if Florida
 - 4) Experience in conducting signature/training key development and ground-truthing for vegetation communities with the aid of GPS (including the ability to identify plant species in the field)
 - 5) Experience in conducting accuracy assessment, in both thematic as well as spatial aspects
 - 6) Experience in producing and editing map products in GIS
- d) With regards to similar completed and current work, provide a written synopsis on (1) problems encountered, (2) solutions employed to resolve problems, and (3) lessons learned and how to avoid these issues in the future.
- <u>Tab 2: Availability of necessary equipment to perform the work provide a list and description</u> of each piece of equipment.
- <u>Tab 3: Qualifications, abilities and expertise of key and professional personnel, including willingness, ability and capacity to dedicate qualified staff to the project</u>

No forms are provided for this criterion — however, the Respondent is responsible for providing evaluative documentation that

- a) Organizational profile
- b) Specific names, functions, time commitment, and special expertise of personnel assigned to work on this project (provide resumes)
- c) Provide the individual's name that will be assigned to supervise both signature development and classification of plant communities explain how and to what extent this individual will be involved in the Work (include resume)
- d) Evidence of current professional certifications (Provide copies with submittal)

<u>Tab 4: Project Management, including willingness to meet the requirements of the STATEMENT of Work, as well as, time and budget restraints</u>

- a) Project management skills and contingency procedures to assure successful performance of the work in a timely and cost-effective manner within the established budget
- b) Detail the recent, current and projected workloads of the firm and what impact these workloads will have on the performance of the Work on this contract.

Tab 5: Location of managing firm/project manager relative to District Headquarters:

Location of Respondent's company shall be judged in relation to the project area and higher consideration will be given to those that are in closer proximity due to the requirement for timely fieldwork.

Tab 5: Volume of District work previously awarded to Respondent

No forms are provided for this criterion — however, the Respondent is responsible to submit documentation as to the volume of work (in dollars) awarded by the District to firm in the past three years, including contracts, work orders and purchase orders.

Tab 6: Additional Information:

Standard brochures and specifications may be submitted as additional material, but shall not be submitted as the primary qualification data (information included under this tab will not receive a score).

- 6. Respondent is encouraged to include as much pertinent data and information under each section as necessary to ensure proper evaluation of its qualifications. Each section shall be evaluated separately on its own merit.
- 7. Respondent must follow all procedures for electronic submission or the Respondent's Submittal may be determined as "non-responsive" and rejected.
- 8. Unless directed otherwise, all information required by the solicitation, including the forms and questionnaires listed under Item "5" above must be completed (typed or hand written) and included in the submission in electronic format (forms must be completed and converted/scanned to PDF format (Adobe).
- 9. All of the forms and questionnaires in the Request for Qualifications package are available upon request in Microsoft® Word to aid the Respondent in providing its Submittal in electronic format.
- 10. The file-naming conventions for the Submittal shall include:
 - a) Submittal: RFQ # Respondent's name (abbreviated) Due Date (Example: RFQ _____ ABC Company 11-11-15)
- 11. The Submittal must include a separator page between each "Tabbed" section:
 - a) Example: Tab 1 Background and Qualifications
- 12. All electronically submitted files shall be saved to a single CD or pin/thumb/jump drive. The CD or pin/thumb/jump drive MUST be placed in a sealed envelope pursuant to the instructions under Item 3 for sealed responses DO NOT SUBMIT YOUR RESPONSE BY EMAIL THIS WILL RESULT IN THE SUBMITTAL BEING REJECTED AS NON-RESPONSIVE.

If you need assistance or have any questions about the format, please email or call Amy Lucey at ALucey@sjrwmd.com or 321-409-2156.

In the event you decline to submit a Submittal, the District would appreciate Submittal of the "No Response Form" provided at the end of the "FORMS" section to describe the reason for not submitting a Submittal.

6. INQUIRIES AND ADDENDA

District staff are not authorized to orally interpret the meaning of the specifications or other Agreement documents, or correct any apparent ambiguity, inconsistency, or error therein. In order to be binding upon the District, the interpretation or correction must be given by the Procurement Specialist and must be in writing. The Procurement Specialist may orally explain the District's procedures and assist

Respondents in referring to any applicable provision in the Request for Qualifications documents, but the Respondent is ultimately responsible for submitting the Submittal in the appropriate form and in accordance with written procedures.

Every request for a written interpretation or correction must be received at least nine days prior to opening of Submittals in order to be considered. Requests may be submitted by fax at 321-722-5357 or by email at ALucey@sjrwmd.com. Interpretations, corrections, and supplemental instructions will be communicated by written addenda to this solicitation posted by Onvia DemandStar and Vendor Registry to all prospective Respondents (at the respective addresses furnished for such purposes) no later than five days before the opening of Submittals.

Submission of a Submittal constitutes acknowledgment of receipt of all addenda. Submittals will be construed as though all addenda had been received. Failure of the Respondent to receive any addenda does not relieve Respondent from any and all obligations under the Submittal, as submitted. All addenda become part of the Agreement.

7. BUDGET

The estimated budget for the Work is \$70,000.00. The above amount is an estimate only and does not limit the District in awarding the Agreement. Respondents are cautioned to not make any assumptions from the budget estimate about the total funds available for the Work. The District retains the right to adjust the estimate in awarding the Agreement. The District also reserves the right to reject all Submittals if subsequent negotiations with qualified Respondents result in costs over this estimated budget amount. In addition, the District reserves the right to increase, decrease, or delete any class, item, or part of the Work in order to reduce costs for any reason. The District may discuss alternatives for reducing the cost of the Work with Respondents and make such modifications as it determines to be in its best interest.

8. MINIMUM QUALIFICATIONS

Respondent must use the "Qualification" forms (General, Similar Projects, and Client References) provided in these documents to document the minimum qualifications listed below. Failure to include these forms with the Submittal may be considered non-responsive.

- A. Respondent (or a combination of the firm, individual, or project manager assigned to the work) must have successfully completed at least three projects of a similar nature (significant wetland plant community identification from imagery) within the five years immediately preceding the date for receipt of Submittals. These projects, as a group, should have contained tasks associated with digital imagery acquisition, surveying, mapping, geographic information systems, photogrammetry, plant identification, ground-truthing, georeferencing aerial imagery, and interpretation/classification of plant communities. Submission of projects employing alternative image acquisition technologies and classification methodologies to achieve greater efficiency are encouraged. Each successfully completed project must have covered an area greater than or equal to 5,000 acres. Each project must have had a project value of at least \$6,000.00.
- B. Respondent must have no less than five years of experience on projects of the nature specified above.
- C. At least one of the Respondent's staff members assigned to this project shall possess a minimum of five years of experience in wetland imagery interpretation/classification this individual must be assigned to supervise both signature development and classification of the plant communities. The time commitment of this person is considered very important to the evaluation. Respondents with experience in signature key development will be preferred. Explain how this individual's experience, expertise, and time will be utilized to assure the success of the Work.
- D. Respondent's staff associated with this project, especially the image interpreters, must each have no less than one year of experience using Environmental Systems Research Institute ArcMap software for

editing spatial data — provide documentation to substantiate the required experience, including any certifications or industry awards firm/staff may have received relative to the work on this project.

- E. At least one of the Respondent's staff members assigned to this project shall possess a minimum of three years of experience in accuracy assessment techniques for plant community mapping provide documentation to substantiate the required experience. Also, explain how this individual's experience and expertise will be utilized to assure the success of the Work.
- F. The Respondent's field personnel must have at least three years of experience in wetland plant identification, use of GPS equipment, and field record keeping, including use of ground imagery (i.e., photography) provide documentation to substantiate the required experience. The individual(s) supervising field personnel must also have at least three years of experience in directing field plant community assessment projects provide documentation to substantiate the required experience.
- G. Respondent must be capable of assigning an individual to supervise both signature development and classification of plant communities this individual must have at least five years of experience in wetland imagery interpretation/classification provide documentation to substantiate the required experience. The level of involvement by this individual in the project is critical to its success. Explain how this individual's experience, expertise, and time will be utilized to assure the success of the Work.
- H. Respondent must have a licensed professional surveyor and mapper (PSM) on staff that is currently licensed in the State of Florida through the Department of Agriculture and Consumer Affairs—provide copy of license(s) with submittal. The licensed PSM supervising the geo- and orthorectification Work shall have successfully completed at least two projects of a similar nature within the past five years as described in the Instructions to Respondents. These two projects may also be two of the three projects listed on the form, "QUALIFICATIONS SIMILAR PROJECTS." Each successfully completed project must have covered an area greater than or equal to 5,000 acres.
- I. All surveyors associated with the work on this project must be currently licensed as a professional surveyor through the Florida Department of Agriculture and Consumer Affairs provide copy of license(s) with submittal.
- J. Respondent shall provide resumes for all personnel assigned to this project, including the time each staff person will be committed to this project, the names and functions of personnel assigned, and special expertise of personnel
- K. Respondent must provide three client references. Up to two of the client references may be from the similar projects listed in response to subparagraph (a), above. No more than two of the references may be from completed District projects. If a District project is cited, do not request a letter from District staff. The Evaluation Committee will use the project's closeout documents in lieu of a letter of reference and may consult with the District project manager.

Irrespective of the minimum qualifications stated above, the District may make such investigations as it deems necessary to determine the ability of the Respondent to perform the Work. The District reserves the right to reject any Submittal if the evidence submitted by such Respondent and/or the District's independent investigation of such Respondent fails to satisfy the District that such Respondent is properly qualified to carry out the obligations of the Agreement and complete the Work in a manner acceptable to the District within the time period specified.

L. SIGNATURE AND CERTIFICATION REQUIREMENTS

An individual submitting a Response must sign his/her name therein and state his/her address and the name and address of every other person interested in the Submittal as principal. If a firm or partnership submits the Submittal, state the name and address of each member of the firm or partnership. If a

corporation submits the Submittal, an authorized officer or agent must sign the Submittal, subscribing the name of the corporation with his or her own name and affixing the corporate seal. Such officer or agent must also provide the name of the state under which the corporation is chartered, and the names and business addresses of the President, Secretary, and Treasurer. Corporations chartered in states other than Florida must submit evidence of registration with the Florida Secretary of State for doing business in the State of Florida. Respondent must certify that all persons or entities having an interest as principal in the Submittal or in substantial performance of the Work have been identified in the Submittal forms.

M. DISQUALIFICATION OF RESPONDENTS

Any of the following causes will be considered as sufficient grounds for disqualification of a Respondent and rejection of the Submittal:

- Contacting a District employee or officer other than the procurement employee named in this solicitation about any aspect of this solicitation before the notice of intended decision is posted.
- ii. Submission of more than one Submittal for the same subject matter by an individual, firm, partnership, or corporation under the same or different names;
- iii. Evidence of collusion among Respondents;
- iv. Submission of materially false information with the Submittal;
- v. Information gained through checking of references or other sources which indicates that Respondent may not successfully perform the Work;
- vi. Respondent is failing to adequately perform on any existing contract with the District;
- vii. Respondent has defaulted on a previous contract with the District;
- viii. The evidence submitted by Respondent, or the District's investigation of Respondent, fails to satisfy the District that Respondent is properly qualified to carry out the obligations of the Agreement in a manner acceptable to the District and within the time period specified;
- ix. Any other cause that is sufficient to raise doubt regarding the ability of a Respondent to perform the Work in a manner that meets the District's objectives for the Work.

N. REJECTION OF SUBMITTALS

Submittals must be delivered to the specified location and received before the Submittal opening in order to be considered. Untimely Submittals will be returned to the Respondent unopened. Submittals will be considered irregular and may be rejected if they show material omissions, alterations of form, additions not called for, conditions, limitations, or other material irregularities. The District may consider incomplete any Submittal not prepared and submitted in accordance with the provisions specified herein, and reserves the right to waive any minor deviations or irregularities in an otherwise valid Submittal.

The District reserves the right to reject any and all Submittals and cancel this request for qualifications when it determines, in its sole judgment and discretion, that it is not in its best interest to award the agreement.

O. WITHDRAWAL OF SUBMITTAL

Respondent may withdraw its Submittal if it submits such a written request to the District prior to the designated date and hour of opening of Submittals. Respondent may be permitted to withdraw its Submittal no later than 72 hours after the Submittal opening for good cause, as determined by the District in its sole judgment and discretion.

P. EVALUATION AND AWARD PROCEDURES

- i. Submittals will be evaluated by a staff Evaluation Committee based upon the criteria and weighting set forth in "EVALUATION CRITERIA." The committee members will meet at District headquarters or other location as appropriate to discuss the Submittals and their individual evaluations. Each committee member completes an evaluation form, from which the overall ranking of Submittals is compiled. Evaluation forms may be submitted at or subsequent to the Evaluation Committee meeting. If it is determined that it will assist the committee's evaluation for some or all Respondents to make an oral presentation, such presentations will be scheduled at District headquarters or other location as appropriate.
- ii. Section 286.0113, Fla. Stat., exempts from being open to the public, any portion of a meeting at which: (1) a negotiation with a Respondent is conducted pursuant to a competitive solicitation; (2) a Respondent makes an oral presentation as part of a competitive solicitation; (3) a Respondent answers questions as part of a competitive solicitation; or (4) negotiation strategies are discussed. Also, recordings of, and any records presented at, the exempt meeting are exempt from §119.07(1) and §24(a), Art. I of the State Constitution (Public Records) until such time as the District provides notice of an intended decision or until 30 days after opening the bids, proposals, submittals, or final replies, whichever occurs earlier. A complete recording shall be made of any portion of an exempt meeting. No portion of the exempt meeting may be held off the record.
- iii. Pursuant to §286.0113 Fla. Stat., if the District rejects all Submittals and concurrently provides notice of its intent to reissue the competitive solicitation, any recordings or records presented at any exempt meeting relating to the solicitation shall remain exempt from §119.07(1) and §24(a), Art. I of the State Constitution (Public Records) until such time as the District provides notice of an intended decision concerning the reissued competitive solicitation or until the District withdraws the reissued competitive solicitation. A recording and any records presented at an exempt meeting are not exempt for longer than 12 months after the initial District notice rejecting all Submittals.
- iv. Following the evaluation process, the District will submit the final ranking of Submittals to the Governing Board for approval, except for those instances in which the authority to approve and execute the Agreement has been delegated by the Governing Board to the Executive Director, or designee. All Respondents will be notified in writing of the Evaluation Committee's final ranking of Submittals.
- v. The Committee will meet to evaluate and rank the Submittals in the location(s), time(s) and date(s), stated at the beginning of this Request for Qualifications package.
- vi. Contract negotiations will then commence with the Respondent submitting the highest-ranked Submittal. If negotiations fail with the highest-ranked Respondent, negotiations will proceed with the other Respondents in ranked order.
- vii. The Agreement will be awarded to the Respondent having the highest ranked Submittal, which successfully concludes negotiations with the District (the "Successful Respondent"). The Agreement may be modified based on the District's acceptance of any alternatives listed in this Request for Qualifications that the District deems in its best interest.
- viii. If two or more Submittals are equal in all respects, the Agreement will be awarded as follows: (1) to the Respondent that certifies compliance with §287.087, Fla. Stat., via the Drug-Free Workplace Form; (2) to a Respondent university in the State University System pursuant to §373.63, Fla. Stat.; or (3) by lot.
- ix. The District reserves the right to award the Agreement to the next highest ranked and available Respondent in the event the Successful Respondent fails to enter into the

Agreement, or the Agreement with said Respondent is terminated within 90 days of the effective date.

x. All Respondents will be notified of the District's intent to award or decision to award the Agreement. For the purpose of filing a protest under §120.57(3), Fla. Stat., the time period will commence as provided in "NOTICES AND SERVICES THEREOF."

Q. EVALUATION CRITERIA

Responses shall include information or documentation regarding, and will be evaluated using, the evaluation criteria set forth below. The evaluation rating scale is as follows:

More than adequate $\dots 8-10$	Less than adequate $1-4$
Adequate 5 – 7	Not covered in submittal 0

1. Written Letters of Interest

The written Letters of Interest will be evaluated by a staff Evaluation Committee ("Committee") based upon the criteria and weighting set forth on the next pages. The Committee members will meet at District headquarters on November 21, 2019, to discuss the Letters of Interest and their individual evaluations. Each Committee member will complete an evaluation form from which the initial ranking of the written Letters of Interest is compiled to determine a shortlist of Respondents to invite to oral presentations, if the District so desires.

2. Oral Presentations

The Committee may invite some or all of the Respondents to make oral presentations. Oral presentations will be held at the location, time, and date stated at the beginning of this Request for Qualifications package. Oral Presentations will be evaluated by the Committee based upon the criteria and weighting set forth on subsequent pages, specifically Criteria 1(c)(i) - 1(c)(vi) 1(d), 3 and 4.

The Oral Presentation Score will be multiplied by 50% to determine a weighted score that will be added to the Initial Written Submittal Score to determine a Total Weighted Composite Score for the Respondent based on its written submittal and oral presentation.

Immediately following the Oral Presentations, the Committee will meet to establish the final rankings.

Example:	
Respondent A's written submittal score	3.7

Respondent A's oral presentation score $8.4 \times 50\% = 4.7$ Total Weighted Composite Score 13.4

WRITTEN SUBMITTAL EVALUATION CRITERIA

	Criteria	Written Submittal Weight	Written Submittal Raw Score	Written Submittal Weighted Total
1	Company/firm (including subcontractors) qualifications and capabilities (a) Experience in acquiring aerial/satellite imagery specifically for mapping terrestrial, aquatic, and wetland communities and the means for acquiring the aerial/satellite imagery within designated time limits including subcontractor availability (b) Is Respondent a certified minority business enterprise as defined by the Florida Small and Minority Business Assistance Act	15%		
	(c) Plant community mapping experience of the firm and key personnel assigned to this project in similar plant community mapping projects – describe the past and present work of firm and key personnel on projects of this type or that have utilized alternative methodologies, specifically: (i) Obtaining, processing and delivering end products from aerial/satellite imagery capture (including, but not limited to, frame-based aerial digital mapping cameras, hyperspectral, or satellite imagery)	35%		
2	Availability of necessary equipment to perform the work – provide a list and description of each piece of equipment	10%		
3		10%		
4	Project Management, including willingness to meet the requirements of the Statement of Work, as well as, time and budget restraints (a) Project management skills and contingency procedures to assure successful performance of the work in a timely and cost-effective manner within the established budget (b) Detail the recent, current and projected workloads of the firm and what impact these workloads will have on the performance of the Work on this contract.	15%		
5	Client References — provide names and contact information for at least three client references	5%		
6	Location of Respondent's Management Office/Project Manager to the project area (see explanation) Location of managing firm/project manager relative to the project area — higher consideration will be given to firms whose managing firm/project manager is located nearest to the project area. (The District has selected the City of Melbourne as the reference point for distance calibration purposes.) The website MapQuest.com (using the "Shortest" route type) should be utilized to determine mileage. The District will award points as follows: ■ Within 0-100 miles of the project area = 10 points ■ > 100 but ≤ 200 miles from of the project area = 7 points ■ > 200 but ≤ 300 miles from of the project area = 4 points ■ > 300 miles from of the project area = 0 points	5%		

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7	Volume of District work previously awarded to Respondent		
	Submit documentation as to the volume of work (in dollars) awarded by the District to firm in the past three		
	years, including contracts, work orders, and purchase orders. Points will be allocated from 0 to 10 with		
	Respondents with higher previous awarded contract totals since November 1, 2016, through the submittal date		
	of this RFQ, receiving fewer award points. Respondents with no previous work awards may receive the highest		
	allocation of points (10), while the Respondent with the highest previous work awarded will receive zero points.		
	The District shall rely on its official financial records to resolve any discrepancies. Checks issued by the District	5%	
	on or prior to the date submittals are received shall be included in this total even if Respondent has not yet		
	received the payment.		
	The formula for allocation of previous work award points will be calculated as follows: The Respondent		
	with the highest total of previous work awarded represents the Allocation Basis Total (ABT); then, the		
	ABT less the Previous Work Awarded divided by the ABT will be multiplied by 10 (the highest number		
L	of points awarded); the result will be rounded to tenths of a point.		
Г	SUBTOTAL: Written Submittal	100%	

ORAL PRESENTATION EVALUATION CRITERIA

Criteria	Oral Presentation Weight	Oral Presentation Raw Score	Oral Presentation Weighted Score
Company/firm (including subcontractors) qualifications and capabilities (c) Plant community mapping experience of the firm and key personnel assigned to this project in similar plant community mapping projects – describe the past and present work of firm and key personnel on projects of this type or that have utilized alternative methodologies, specifically: (i) Obtaining, processing and delivering end products from aerial imagery capture (including, but not limited to, frame-based aerial digital mapping cameras, hyperspectral, or satellite imagery)	40%		
 Qualifications, abilities and expertise of key and professional personnel, including willingness, ability and capacity to dedicate qualified staff to the project (a) Organizational profile (b) Specific names, functions, time commitment, and special expertise of personnel assigned to work on this project (provide resumes) (c) Provide the individual's name that will be assigned to supervise both signature development and classification of plant communities — explain how and to what extent this individual will be involved in the Work (include resume) (d) Evidence of current professional certifications (provide copies with submittal) 	30%		
 4 Project Management, including willingness to meet the requirements of the Statement of Work, as well as time and budget restraints (a) Project management skills and contingency procedures to assure successful performance of the work in a timely and cost-effective manner within the established budget (b) Detail the recent, current and projected workloads of the firm and what impact these workloads will have on the performance of the Work on this contract. 	30%		
SUBTOTAL: Oral Presentation			
WEIGHTED MULTIPLIER FOR ORAL PRESENTATION			x 0.50

SUBTOTAL (50% of Oral Presentation)	
TRANSFER: Written Submittal Score	
WEIGHTED TOTAL (100% of Written Submittal + 50% of Oral Presentation)	<u>'</u>

R. EXECUTION OF AGREEMENT

Submittal of a proposal binds the Successful Respondent to perform the Work upon acceptance of and execution of the Agreement by the District.

Unless all proposals are rejected, a contract substantially in the form included in these documents will be provided to the Successful Respondent, who must execute and return the Agreement to the District within ten days of the date of receipt, along with the following:

- i. A completed Internal Revenue Service Form W-9;
- ii. Satisfactory evidence of all required insurance coverage;
- iii. Proof satisfactory to the District of the authority of the person or persons executing the Agreement on behalf of Respondent;
- iv. All other information and documentation required by the Agreement.

The District will not execute the Agreement until the above documents have been executed and delivered to the District. The Agreement will not be binding until executed by the District. A copy of the fully executed Agreement will be delivered to the Successful Respondent. The District reserves the right to cancel award of the Agreement without liability at any time before the Agreement has been fully executed by all parties and delivered to the Successful Respondent.

Failure upon the part of the Successful Respondent to execute the Agreement or timely submit the required evidence of insurance coverage, or any other matter required by the Agreement, will be just cause, if the District so elects, for the recommended award to be annulled. In such event, the District will be entitled to the full amount of the guaranty, not as a penalty, but in liquidation of and compensation for damages sustained.

S. EXAMINATION OF AGREEMENT DOCUMENTS AND WORK AREA

Respondent is solely responsible for being fully informed of the conditions under which the Work is to be performed in relation to existing conditions. Respondent is responsible for carefully examining the general area of the Work, the requirements of the drawings and other contract documents related to the Work, the time in which the Work must be completed, and any other details of the Work. Respondent must satisfy itself from its own personal knowledge and experience or professional advice as to the character of the Work, the conditions and materials to be encountered, the character, quality, and quantities of the Work, and any other conditions affecting the Work, including surrounding land.

Failure to satisfy the obligations of this paragraph will not relieve a Successful Respondent of its obligation to furnish all material, equipment, and labor necessary to perform the Agreement and to complete the Work for the consideration set forth in its Submittal. Any such failure will not be sufficient cause to submit a claim for additional compensation.

No verbal agreement or conversation with any District officer, agent or employee, either before or after the execution of the Agreement, will affect or modify any of its terms.

T. **DIVERSITY**

The District is committed to the opportunity for diversity in the award and performance of all procurement activities. The District encourages its Prime Respondents to make a good faith effort to ensure that women and minority-owned business enterprises (W/MBE) are given the opportunity for maximum participation as second and lower tier participants. The District will assist Respondents by sharing information on W/MBEs to encourage their participation.

U. FLORIDA SALES TAX

The District is exempt from payment of State of Florida sales tax pursuant to §212.08(6), Fla. Stat. Any tangible personal property that is the subject of this Request for Qualifications is intended to remain tangible personal property and not become part of a public work owned by the District.

V. PUBLIC ENTITY CRIMES/DISCRIMINATORY VENDORS

In accordance with §287.133 and §287.134, Fla. Stat., a person or affiliate who has been placed on the convicted or discriminatory vendor lists following a conviction for a public entity crime or placement on the discriminatory vendor list may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in §287.017 for CATEGORY TWO (\$35,000) for a period of 36 months following the date of being placed on the convicted or discriminatory vendor lists.

W. USE BY OTHER FLORIDA GOVERNMENTAL ENTITIES

Respondent may provide services to other State of Florida governmental entities pursuant to the terms and conditions of the Agreement. These governmental entities include other water management districts, state of Florida agencies (including members of the state university system and community college system), counties, school boards, municipalities, special districts, and other local public agencies or authorities. References to the St. Johns River Water Management District in the Agreement will be replaced with the purchasing entity and the District will not be a party to any other governmental entity's agreement to purchase. Nor will the District be responsible for payment for any goods or services delivered or performed for any other governmental entity that utilizes Respondent pursuant to this paragraph.

X. NOTICES AND SERVICES THEREOF

The District will publish notice of specifications and criteria, including addenda, intended agency decisions, or other matters pertinent to this solicitation on Onvia DemandStar at *DemandStar.com* and Vendor Registry at *vendorregistry.com*. Onvia DemandStar and Vendor Registry may also be accessed through the District's web site at *sjrwmd.com*. In addition, the District will post notices of intended agency decisions at the District's headquarters, 4049 Reid Street, Palatka, Florida, Administration Building, Procurement Bulletin Board, on the date the publication is posted on Onvia DemandStar.

Notices that are posted on Onvia DemandStar and Vendor Registry are deemed received at 8:00 a.m. on the next business day following the date posted. Notices that are posted at the District's Procurement Bulletin Board are deemed received at 8:00 a.m. on the next business day following the date of posting. Notices will be posted for a minimum of 72 hours following the time at which they are deemed received. The time period for filing a Notice of Protest pursuant to §120.57(3), Fla. Stat., and Rule 28-110.003, Fla. Admin. Code, commences at the time notices are deemed received.

As a courtesy to Respondents, the District may send copies of the notices of intended agency decisions via email or facsimile to Respondent. These courtesy communications neither constitute official notice nor vary the times of receipt set forth above.

Y. PROTEST PROCEDURES

Pursuant to§120.57(3), Fla. Stat., and Rule 28-110.003, Fla. Admin. Code, any person adversely affected by the procurement methodology described herein, or the specifications or criteria, including addenda, must file a Notice of Protest within 72 hours after receipt of the solicitation documents or addenda.

Pursuant to §120.57(3), Fla. Stat., and Rule 28-110.003, Fla. Admin. Code, any person adversely affected by a District decision or intended decision to award a contract, or to reject all bids, proposals, or qualifications, must file a Notice of Protest within 72 hours after receipt of the decision or intended decision. Pursuant to §120.57(3), Fla. Stat., and Rule 28-110.004, Fla. Admin. Code, the protester must also file with the District Clerk a Formal Written Protest within ten days after the date the Notice of Protest is filed with the District. The Formal Written Protest must state with particularity the facts and law upon which the protest is based. Pursuant to §287.042(2)(c), Fla. Stat., any person who files an action protesting the decision or intended decision must post with the District Clerk at the time of filing the formal written protest a bond, cashier's check, or money order made payable to the St. Johns River Water Management District in an amount equal to one percent (1%) of the estimated contract amount.

No additional time will be added for mailing. All filings must comply with Rule 28-106.104, Fla. Admin. Code, and must be addressed to and received by the District Clerk at the District Headquarters in Palatka, Florida within the prescribed time periods. The District will not accept as filed any electronically transmitted facsimile pleadings, petitions, Notice of Protest or other documents. Failure to file a protest within the time prescribed in §120.57(3), Fla. Stat., or failure to post the bond or other security required by law within the time allowed for filing a bond will constitute a waiver of proceedings under chapter 120, Fla. Stat. Mediation under §120.573, Fla. Stat., is not available.

FORMS

SUBMITTAL FORM

Include this form in the response

RESPONDENT:

The undersigned, as Respondent, hereby declares and certifies that the only person(s) or entities interested in this submittal as principal(s), or as persons or entities who are not principal(s) of the Respondent but are substantially involved in performance of the Work, is or are named herein, and that no person other than herein mentioned has any interest in this submittal or in the Agreement to be entered into; that this submittal is made without connection with any other person, company, or parties making a submittal; and that this submittal is in all respects fair and in good faith without collusion or fraud.

Respondent represents to the District that, except as may be disclosed in an addendum hereto, no officer, employee or agent of the District has any interest, either directly or indirectly, in the business of Respondent to be conducted under the Agreement, and that no such person shall have any such interest at any time during the term of the Agreement, should it be awarded to Respondent.

Respondent further declares that it has examined the Agreement and informed itself fully in regard to all conditions pertaining to this solicitation; it has examined the specifications for the Work and any other Agreement documents relative thereto; it has read all of the addenda furnished prior to the submittal opening, as acknowledged below; and has otherwise satisfied itself that it is fully informed relative to the Work to be performed.

Respondent agrees that if its submittal is accepted, Respondent shall contract with the District in the form of the attached Agreement, and shall furnish everything necessary to complete the Work in accordance with the time for completion specified in the Agreement, and shall furnish the required evidence of the specified insurance.

Acknowledgment is hereby made of the following addenda (identified by number) received:

Addendum No.	Date	Addendum No.	Date
Respondent (firm name)		Date	
Address			
Email address			
Signature		Telepi	hone number
Typed name and title		Fax n	ımher

PROPOSED SUBCONTRACTORS

Include this form in the response

Respondent must identify all portions of the Work Respondent intends to perform through subcontractors.

1.	Name and address of subcontractor:
	Description of work:
	Estimated value of Work:
2	
2.	Name and address of subcontractor:
	Description of work:
	Estimated value of Work:
3.	Name and address of subcontractor:
	Description of work:
	Estimated value of Work:
4.	Name and address of subcontractor:
	Description of work:
	Estimated value of Work:
5.	Name and address of subcontractor:
	Description of work:
	Estimated value of Work:
6.	Name and address of subcontractor:
	Description of work:
	<u> </u>
	Estimated value of Work:

CERTIFICATE AS TO CORPORATION

Include this form in the response

The below Corporation is organized under the laws of the St to respond to this Request for Qualification and perform all required under the Agreement, and is authorized to do busin	work and furnish materials and equipment
Corporation name:	
Address:	
Registration No.:	
Registered Agent:	
	;
(Affix corporate seal)	(Official title)
Att	test:(Secretary)
The full names and business or residence addresses of perso as principals or officers of Respondent are as follows (special Treasurer and state the corporate office held of all other indicates the corporate of the state of the	fically include the President, Secretary, and
Identify any parent, subsidiary, or sister corporations involve and directors that will or may be involved in performance of requested above on a photocopy of this form.	

If applicable, attach a copy of a certificate to do business in the state of Florida, or a copy of the application that has been accepted by the state of Florida to do business in the state of Florida, for the Respondent and/or all out-of-state corporations that are listed pursuant to this form.

AFFIDAVIT AS TO NON-COLLUSION AND CERTIFICATION OF MATERIAL CONFORMANCE WITH SPECIFICATIONS

Include this form in the response

51	ATE OF	
CC	DUNTY OF	
I, the undersigned,		being first duly sworn, depose and say that:
1.	I am the owner or duly authorized offi	cer, representative, or agent of:
	the Respondent that has submitted the	attached submittal.
2.	The attached submittal is genuine. It is	s not a collusive or sham submittal.
3.	I am fully informed respecting the pre- circumstances respecting the attached	paration and contents of, and knowledgeable of all pertinent submittal.
4.	parties in interest, including this affiand directly or indirectly, with any other R in connection with the Agreement for submitting in connection with such Agagreement, collusion, communication, the price or prices in the attached submitted prices or	cers, partners, owners, agents, representatives, employees, or at, has in any way colluded, conspired, connived, or agreed, espondent, firm, or person to submit a collusive or sham submittal which the attached response has been submitted, or to refrain from greement, or has in any manner, directly or indirectly, sought by or conference with any other Respondent, firm, or person to fix mittal of any other Respondent, or to fix any overhead, profit, or the submittal price of any other Respondent, or to secure through unlawful agreement any advantage against the District or any other rement.
5.		per and are not tainted by any collusion, conspiracy, connivance, or Respondent or any of its agents, representatives, owners, ding this affiant.
6.	whole or in part by the District, is dire	te of the District, whose salary or compensation is payable in ctly or indirectly interested in this submittal, or in the supplies, o which it relates, or in any of the profits therefrom.
7.	conform in all respects to the specifica	d to be supplied in fulfillment of the Agreement to be awarded ations thereof. Further, the proposed materials and equipment will mer acceptable and suitable for the intended purposes of the
		Signature:
		Title:
Su	bscribed and sworn to before me this	day of, 20
No	otary Public, state of	at Large
M	y commission expires:	
	(SEAL)	

QUALIFICATIONS — GENERAL

Include this form in the response

As part of the submittal, Respondent shall complete the following so that the District can determine Respondent's ability, experience, and facilities for performing the Work.

Name of Respondent:
Respondent's tax identification No.:
Year company was organized/formed:
Number of years Respondent has been engaged in business under the present firm or trade name:
Total number of years Respondent has experience in similar significant wetland plant community identification is work described in the INSTRUCTIONS TO RESPONDENTS: _
Has Respondent previously been engaged in the same or similar business under another firm or trade name? If so, please describe each such instance.
Has Respondent ever been adjudicated bankrupt, initiated bankruptcy, or been the subject of bankruptcy proceedings on behalf of the current entity submitting this submittal or a prior entity that Respondent substantially operated or controlled? If yes, please describe the nature and result of those proceedings and the entity involved.
Describe the background/experience of the person or persons who will be primarily responsible for directing the Work that will be performed pursuant to this submittal. This inquiry is intended to encompass the project manager and/or superintendent who will be engaged on a daily basis in directing performance of the Work.

QUALIFICATIONS — SIMILAR PROJECTS

Include this form in the response

Respondent (or a combination of the firm, individual, or project manager assigned to the work) must have successfully completed at least three similar projects within the five years immediately preceding the date set for receipt of the response, as described in the INSTRUCTIONS TO RESPONDENTS. Each project shall have had a project value of at least \$6,000.00. (Add additional sheet for optional additional completed projects.)

Completed Project 1	<u>:</u>			
Agency/company:				
Telephone:	Fax:	Email:		
Address of agency/co	mpany:			
Description:				
Project value:	Start date:	Completion date:		
Troject value.	(mor	nth/year)	(month/year)	
Name(s) of assigned p	<u>versonnel</u> :			
Project manager:				
Others:				
Completed Project 2	<u>:</u>			
Agency/company:				
Telephone:	Fax:	Email:		
Address of agency/co	mpany:			
	G 1 .			
Project value:	Start date: (moi	Completion date:	(month/year)	
Name(s) of assigned p	<u>personnel</u> :		•	
Project manager:				
Others:				

QUALIFICATIONS — CLIENT REFERENCE

Include this form in the response

Respondent shall provide three client references, which may include the similar projects listed above. No more than two references shall be from the District. (For similar projects listed above, simply state "Similar Project No. ____.")

Client Reference 1:			
Agency/company:			
Current contact person at ag	gency/company:		
Telephone:	Fax:	E-mail:	
Agency/Company Address:	:		
Description:			
Project value:	Project manaş	ger:	
Client Reference 2:			
Agency/company:			
Current contact person at ag	gency/company:		
Telephone:	Fax:	E-mail:	
Agency/Company Address:	:		
Name of project:			_
Project value:	Project manaş	ger:	
Client Reference 3:			
Agency/company:			
Current contact person at ag	gency/company:		
Telephone:	Fax:	E-mail:	
Agency/Company Address:	:		
Name of project:			_
Project value:	Project manag	ger:	

DRUG-FREE WORKPLACE FORM

This form required only in the event of a tie response

	1	
§28	The Respondent, (business name)	_, in accordance with
1.		d employee
2.	Publishes a statement notifying employees that	
	 the unlawful manufacture, distribution, dispensing, possession, or use of a contr prohibited in the workplace and specifying the actions that will be taken against violations of such prohibition. 	
	b. as a condition of working on the contractual services that are the subject of this employee will abide by the terms of the statement and will notify the employer or plea of guilty or nolo contendere to, any violation of chapter 893, Fla. Stat., or substance law of the United States or any state, for a violation occurring in the violation five days after such conviction.	of any conviction of, or of any controlled
3.	Gives each employee engaged in providing the contractual services that are the subjacopy of the statement specified in paragraph 2, above.	ect of this solicitation
4.	. Imposes 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 convicted of a violation listed in sub-paragraph 2.b., above.	
5.	Makes a good faith effort to continue to maintain a drug-free workplace through im §287.087, Fla. Stat.	plementation of
req	As the person authorized to sign this statement, I certify that this firm complies fully quirements.	with the above
	By:	
	Title:	

NO RESPONSE FORM

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT INVITATION FOR BIDS INVITATION TO NEGOTIATE REQUEST FOR PROPOSALS REQUEST FOR QUALIFICATIONS Contract Num,

Your reasons for not responding to this Invitation for Bids Invitation to Negotiate Request for Proposals Request for Qualifications are valuable to the St. Johns River Water Management District's procurement process. Please complete this form and return it to the Office of Financial Services no later than the date set for receipt of bidsproposalssubmittals. Thank you for your cooperation.

Please che	ck (as applicable):		
	Specifications too "general" (explain be	elow)	
	Insufficient time to respond to the Invitation for Bids		
	Do not provide this type of work for the	is project	
	Schedule would not permit us to perfor	m	
	Unable to meet bid specifications		
	Specifications unclear (explain below)		
	Disagree with solicitation or Agreement terms and conditions (explain below)		
	Other (specify below)		
Remarks:			
DATE			
DAIL			
RESPONDENT	(FIRM NAME)		
ADDRESS			
E-MAIL ADDR	ESS		
SIGNATURE		TYPED NAME AND TITLE	
TELEPHONE N	TIMBER	FAY NUMBER	

AGREEMENT BETWEEN THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT AND TO/FOR

REMOTE SENSING AND MAPPING OF PLANT COMMUNITIES FOR THE PRESERVATION OF NATURAL SYSTEMS

THIS AGREEMENT is entered into by and between	en the GOVERNING BOARD of the ST.
JOHNS RIVER WATER MANAGEMENT DISTRICT (th	ne "District"), whose address is 4049 Reid
Street, Palatka, Florida 32177-2571, and	("Consultant"), whose address is
All references to the parties l	nereto include the parties, their officers,
employees, agents, successors, and assigns.	

In consideration of the payments hereinafter specified, Consultant agrees to furnish and deliver all materials and perform all labor required for 35112, Remote Sensing and Mapping of Plant Communities for the Preservation of Natural Systems (the "Work"). In accordance with RFQ 35112, Consultant shall complete the Work in conformity with this Agreement, which consists of and incorporates all of the following documents: (1) advertisement for bids, proposals, or qualifications; (2) Instructions to Respondents; (3) addenda; certifications, and affidavits; (4) bid, proposal, or qualifications submittals; (5) Agreement, including the Statement of Work, and any Special Conditions or other attachments. If any provision in the body of this Agreement conflicts with any attachment hereto, the body of this Agreement shall prevail. This Agreement, including attachments, shall take precedence over all solicitation documents (items 1 – 4). The parties hereby agree to the following terms and conditions.

1. **TERM**

- (a) The term of this Agreement shall be from the Effective Date to the Completion Date. Time is of the essence for each and every aspect of this Agreement. Where additional time is allowed to complete the Work, the new time limit shall also be of the essence. All provisions of this Agreement that by their nature extend beyond the Completion Date survive termination or expiration hereof.
- (b) **Effective Date.** The Effective Date is the date upon which the last party to this Agreement has dated and executed the same.
- (c) **Completion Date.** The Completion Date of this Agreement is September 30, 2022, unless extended by mutual written agreement of the parties. The Work shall be completed for use no later than said date.

2. LIQUIDATED DAMAGES

(a) If Consultant neglects, fails, or refuses to satisfactorily complete the Work by the Completion Date, Consultant shall, as a part of the consideration for this Agreement, pay the District the amount stipulated herein, not as a penalty, but as liquidated damages for such breach, for each day Consultant is in default thereafter. This amount is fixed and agreed upon between the parties due to the impracticability and extreme difficulty of ascertaining the actual damages the District would sustain in such event. The amount of liquidated damages shall be one half of one percent (.5%) of the total contract amount per day. Liquidated damages shall be deducted from payments as they become due and may be deducted from the retainage due upon completion. They constitute an agreed-upon liquidated sum solely for consequential damages attributable to delay and are not a substitute for any other consequential damages incurred by the District, such as the

- cost of finding a replacement Consultant for completion of the Work if this Agreement is terminated by the District for non-performance.
- (b) Consultant shall not be charged with liquidated damages or any excess cost when the District determines that Consultant's reasons for the time extension are acceptable in accordance with **FORCE MAJEURE**; **DELAYS**; **EXTENSION OF COMPLETION DATE**. A written extension of the Completion Date constitutes a waiver of liquidated damages to the new Completion Date unless expressly provided therein to the contrary.

3. **DELIVERABLES**

- (a) The Work is specified in the Statement of Work, Attachment A. Consultant shall deliver all products and deliverables as stated therein, and shall correct errors or omissions without additional compensation. In addition to hard copies, all written deliverables (reports, papers, analyses, etc.) shall be submitted in machine readable form in formats consistent with the District's standard software products, which include the Microsoft® Office Suite (Word, Excel, Access, and PowerPoint). Other formats may be accepted if approved by the District's Project Manager. If the Statement of Work does not include assistance in litigation undertaken or defended by the District, Consultant agrees to testify and assist the District in any such litigation that is dependent upon or related to the Work, except suits or claims between the parties, at the hourly rate provided in the Statement of Work. This obligation shall survive termination or expiration of this Agreement.
- (b) Consultant is responsible for the professional quality, technical accuracy, and timely completion of the Work. Both workmanship and materials shall be of good quality. Consultant shall, if required, furnish satisfactory evidence as to the kind and quality of materials provided. Unless otherwise specifically provided for herein, Consultant shall provide and pay for all materials, labor, and other facilities and equipment necessary for performance of the Work. The District's Project Manager shall make a final acceptance inspection of the deliverables when completed and finished in all respects.
- (c) If not otherwise addressed in the Statement of Work, upon written request, Consultant shall submit written progress reports to the District's Project Manager at the frequency requested in a form approved by the Project Manager at no additional cost to the District. The progress report shall provide an updated progress schedule, taking into account all delays and approved changes in the Work. Failure to provide a progress report will be cause to withhold payment.

4. OWNERSHIP OF DELIVERABLES

- (a) All deliverables, including Work not accepted by the District, are District property when Consultant has received compensation therefor, in whole or in part. For any Work subject to patent, copyright, such Work is a "work made for hire" as defined by the patent and copyright laws of the United States. Consultant shall not make any representation otherwise and, upon request, shall sign any documents so affirming. Any District source documents or other District or non-District documents, specifications, materials, reports, or accompanying data developed, secured, or used in the performance of the Work, excluding proprietary materials, as outlined in the Statement of Work, are District property and shall be safeguarded and provided to the District upon request. District plans and specifications shall not be used on other work and, with the exception of the original plans and specifications, shall be returned to the District upon request. This obligation shall survive termination or expiration of this Agreement.
- (b) The District shall have the unrestricted right to use and disseminate all of the above-referenced documents without payment of further compensation to Consultant, provided that any future use for other than the purpose intended by this Agreement shall be at the District's sole risk and

without liability to Consultant. Consultant shall include language in all subcontracts clearly indicating that ownership and copyright to all materials produced pursuant to this Agreement remains with the District, as provided herein. All original sketches, tracings, drawings, computation details, calculations, field books and plans that result from the Work shall become the sole property of the District. Consultant shall submit all such work products to the District, if requested. Consultant may retain copies of all work products created pursuant to this Agreement.

5. FUNDING OF AGREEMENT

(a) For satisfactory performance of the Work, the District agrees to pay Consultant a sum not to exceed \$______ (the "Total Compensation"). The amount expended hereunder shall be paid in accordance with and subject to the following multi-year funding allocations for each District fiscal year:

Fiscal Year: October 1, 2019 – September 30, 2020	Amount:\$	\$70,000.00
Fiscal Year: October 1, 2020 – September 30, 2021	Amount:\$	\$70,000.00
Fiscal Year: October 1, 2021 – September 30, 2022	Amount:\$	\$70,000.00

Funding for each applicable fiscal year is subject to District Governing Board budgetary appropriation.

6. PAYMENT OF INVOICES

- (a) Consultant shall submit one invoice at the completion of the work by one of the following two methods: (1) by email to acctpay@sjrwmd.com (preferred) or (2) by mail to the St. Johns River Water Management District, Finance Director, 4049 Reid Street, Palatka, Florida 32177-2571. Each invoice shall be submitted in detail sufficient for proper pre-audit and post-audit review. If necessary for audit purposes, Consultant shall provide additional supporting information as required to document invoices.
- (b) **End of District Fiscal Year Reporting.** The District's fiscal year ends on September 30. Irrespective of the invoicing frequency, the District is required to account for all encumbered funds at that time. When authorized under the Agreement, submittal of an invoice as of September 30 satisfies this requirement. The invoice shall be submitted no later than October 30. If the Agreement does not authorize submittal of an invoice as of September 30, Consultant shall submit, prior to October 30, a description of the additional Work completed between the last invoice and September 30, and an estimate of the additional amount due as of September 30 for such Work. If there have been no prior invoices, Consultant shall submit a description of the Work completed on the project through September 30 and a statement estimating the dollar value of that Work as of September 30.
- (c) Final Invoice. The final invoice must be submitted no later than 45 days after the Completion Date; provided, however, that when the Completion Date corresponds with the end of the District's fiscal year (September 30), the final invoice must be submitted no later than 30 days after the Completion Date. Final invoices that are submitted after the requisite date shall be subject to a penalty of ten percent of the invoice. This penalty may be waived by the District, in its sole judgment and discretion, upon a showing of special circumstances that prevent the timely submittal of the final invoice. Consultant must request approval for delayed submittal of the final invoice not later than ten days prior to the due date and state the basis for the delay.
- (d) All invoices shall include the following information: (1) District contract number;
 (2) Consultant's name and address (include remit address, if necessary); (3) Consultant's invoice number and date of invoice; (4) District Project Manager; (5) Consultant's Project Manager;

- (6) supporting documentation as to cost and/or project completion (as per the cost schedule and other requirements of the Statement of Work; (7) Progress Report (if required); (8) Diversity Report (if otherwise required herein). Invoices that do not correspond with this paragraph shall be returned without action, stating the basis for rejection. Payments shall be made within 45 days of receipt of an approved invoice. Disputes regarding invoice sufficiency are resolved pursuant to the dispute resolution procedure of this Agreement.
- (e) **Travel expenses.** If the cost schedule for this Agreement includes a line item for travel expenses, travel expenses shall be drawn from the project budget and are not otherwise compensable. If travel expenses are not included in the cost schedule, they are a cost of providing the service that is borne by Consultant and are only compensable when specifically approved by the District as an authorized District traveler. In such instance, travel expenses must be submitted on District or State of Florida travel forms and shall be paid pursuant to District Administrative Directive 2000-02.
- (f) **Payments.** Absent exceptional circumstances, Consultant is required to sign up and receive payment(s) electronically from the District via Automated Clearing House (ACH) payment.
- (g) **Payments withheld.** The District may withhold or, on account of subsequently discovered evidence, nullify, in whole or in part, any payment to such an extent as may be necessary to protect the District from loss as a result of: (1) defective Work not remedied; (2) failure to make payments when due to subcontractors or suppliers for materials or labor; (3) failure to maintain adequate progress in the Work; (4) damage to another contractor; or (5) any other material breach of this Agreement. Amounts withheld shall not be considered due and shall not be paid until the ground(s) for withholding payment have been remedied.
- (h) **Payments.** The District shall pay Consultant 100% of each approved invoice.
- 7. **PAYMENT AND RELEASE.** Upon satisfactory completion of the Work, the District will provide Consultant a written statement accepting all deliverables. Consultant's acceptance of final payment shall constitute a release in full of all Consultant claims against the District arising from the performance of this Agreement, with the exception of any pending claims for additional compensation that have been documented and filed as required by this Agreement.
- 8. **INDEMNIFICATION.** Consultant shall indemnify and hold harmless, release, and forever discharge the District, its public officers, employees, agents, representatives, successors, and assigns, from any and all liabilities, damages, losses, and costs, including, but not limited to, reasonable attorney's fees, arising from or caused by the Consultant, its employees or subcontractors, in the performance of the Work. Consultant shall further indemnify the District for all costs and penalties the District incurs related to any failure to offer Patient Protection and Affordable Care Act compliant health care coverage to Consultant-employees performing under this contract.
- 9. **INSURANCE.** Consultant shall acquire and maintain all insurance required by Attachment B, Insurance Requirements, and shall not commence Work until it has provided Certificates of Insurance to the District as per Attachment B. Receipt of Certificates of Insurance indicating less coverage than required does not constitute a waiver of the Insurance Requirements. Consultant waives its right of recovery against the District to the extent permitted by its insurance policies. Consultant's insurance shall be considered primary, and District insurance shall be considered excess, as may be applicable to Consultant's obligation to provide insurance.
- 10. NOTICE: THIS AGREEMENT IS A PROFESSIONAL SERVICES CONTRACT WHICH MEETS THE

REQUIREMENTS OF AND IS SUBJECT TO CHAPTER 558, FL. STAT. PURSUANT TO §558.0035, FLA. STAT., AN INDIVIDUAL EMPLOYEE OR AGENT OF CONSULTANT MAY NOT BE HELD INDIVIDUALLY LIABLE FOR NEGLIGENCE.

11. **FUNDING CONTINGENCY.** This Agreement is at all times contingent upon funding availability, which may include a single source or multiple sources, including, but not limited to: (1) ad valorem tax revenues appropriated by the District's Governing Board; (2) annual appropriations by the Florida Legislature, or (3) appropriations from other agencies or funding sources. Agreements that extend for a period of more than one Fiscal Year are subject to annual appropriation of funds in the sole discretion and judgment of the District's Governing Board for each succeeding Fiscal Year. Should the Work not be funded, in whole or in part, in the current Fiscal Year or succeeding Fiscal Years, the District shall so notify Consultant and this Agreement shall be deemed terminated for convenience five days after receipt of such notice, or within such additional time as the District may allow. For the purpose of this Agreement, "Fiscal Year" is defined as the period beginning on October 1 and ending on September 30.

12. PROJECT MANAGEMENT PERSONNEL

(a) The Project Managers listed below shall be responsible for overall coordination and management of the Work. Either party may change its Project Manager upon three business days' prior written notice to the other party. Written notice of change of address shall be provided within five business days. All notices shall be in writing to the Project Managers at the addresses below and shall be sent by one of the following methods: (1) hand delivery; (2) U.S. certified mail; (3) national overnight courier; (4) email or, (5) fax. Notices via certified mail are deemed delivered upon receipt. Notices via overnight courier are deemed delivered one business day after having been deposited with the courier. Notices via email or fax are deemed delivered on the date transmitted and received.

<u>DISTRICT</u> Consultant

Dianne Hall, Project Manager TBD, Project Manager

St. Johns River Water Management District
4049 Reid Street
Palatka, FL 32177-2571
Phone: 386-329-4898
Email: dhall@sjrwmd.com
TBD
Phone: TBD
Email: TBD

(b) The District's Project Manager shall have sole responsibility for transmitting instructions, receiving information, and communicating District policies and decisions regarding all matters pertinent to performance of the Work.

(c) Consultant shall provide efficient supervision of the Work, using its best skill and attention. Consultant shall keep, on the worksite during its progress, a competent superintendent that is satisfactory to the District. The superintendent shall not be changed except with the District's consent, unless the superintendent proves to be unsatisfactory to Consultant and/or ceases to be in its employ. The superintendent shall represent Consultant in the absence of Consultant's Project Manager. All directions given to him shall be as binding as if given to Consultant. If the District produces documented evidence and informs the Consultant that any person on the job is incompetent, disorderly, or is working contrary to the Agreement or the District's instructions,

- that person shall thereupon be immediately dismissed from the project and shall not be given employment on any work connected with this Agreement. The District may request Consultant replace its Project Manager if said manager fails to carry the Work forward in a competent manner, follow instructions or specifications, or for other reasonable cause.
- (d) Consultant shall maintain an adequate and competent professional staff. Consultant's employees, subcontractors, or agents shall be properly trained to meet or exceed any specified licensing, training and/or certification applicable to their profession. Upon request, Consultant shall furnish proof thereof.

13. SCHEDULING AND WORK PLANNING; PROGRESS REPORTING

- (a) **Progress Reports.** Consultant shall provide to the District update/status reports as provided in the Statement of Work. Reports will provide detail on progress of the Work and outline any potential issues affecting completion or the overall schedule. Reports may be submitted in any form agreed to by District's Project Manager and Consultant, and may include emails, memos, and letters.
 - 1. **Progress Meetings.** The District may conduct progress meetings with Consultant on a frequency to be determined by the District. In such event, Consultant shall make available its Project Manager and other appropriate personnel to discuss matters pertinent to the Work.
 - 2. **Failure to Meet Schedule.** If progress of the Work falls five percent or more behind schedule, except as a result of District-approved delays, Consultant shall take all necessary steps to augment the work effort to get the project back on schedule. Should the progress of the Work fall ten percent or more behind schedule, the District may advise Consultant through a "cure" notice that this Agreement is subject to termination for cause if the failure is not cured within the time frame specified in said notice.

14. FORCE MAJEURE; DELAYS

- (a) Force Majeure. Consultant shall not be liable for failure to carry out the terms of this Agreement to the extent such failure is due to a Force Majeure event, except for failures that could have been reasonably foreseen and guarded against so as to avoid or reduce the adverse impact thereof. A Force Majeure event is hereby defined as the failure to carry out any of the terms of this Agreement due to any one of the following circumstances beyond the control of Consultant:

 (a) the operation and effect of rules, regulations, or orders promulgated by any commission, county, municipality, or governmental agency of the State of Florida or the United States, (b) a restraining order, injunction, or similar decree of any court of competent jurisdiction, (c) war, (d) flood, (e) earthquake, (f) fire, (g) severe wind storm, (h) acts of public disturbance,

 (i) quarantine restrictions, (j) epidemics, (k) strikes, (l) freight embargoes, or (m) sabotage. The times specified herein for performances include delays that can ordinarily be anticipated due to adverse weather conditions. The District is not obligated to grant an extension of time due to adverse weather conditions unless such conditions rise to the level of Force Majeure.
- (b) **Delay.** Consultant shall not be compensated for delays caused by Consultant's inefficiency, rework made necessary by Consultant's error, failure to perform the Work as scheduled, or any other corrective or productivity measures made necessary by errors, omissions, or failures to properly perform the Work. Within ten days after the onset of a delay, Consultant shall notify the District in writing of the delay, which shall provide: (1) a detailed description the delay and its probable duration, (2) the specified portion of the Work affected, and (3) an opinion as to the cause of the delay and liability (if any) for the delay. Notices provided more than ten days after the inception of the delay shall only be effective as to additional costs or delay incurred during the ten day period preceding receipt of such notice. In the case of continuing cause delay for the

same cause, only one notice of delay is necessary. Failure to provide this notice waives any claim for extension of time or additional compensation resulting from such delay. If the delay is due to the failure of another District contractor to complete its work in a timely manner, changes ordered in the Work, a Force Majeure event, or any other cause which the District, in its sole judgment and discretion, determines to justify the delay, then the Completion Date may be extended as necessary to compensate for the delay. All time extensions shall be in the form of a written amendment signed by both parties.

15. AMENDMENTS: EMERGENCY CHANGES IN WORK

- (a) Amendments. The parties may not amend this Agreement except in writing. Modifications that alter, add to, or deduct from the Work, or otherwise modify the terms of this Agreement, shall be implemented through a change order or formal amendment, specifying the nature of the change and any associated change in the Total Compensation and/or Completion Date. The District's Project Manager may also issue a District Supplemental Instruction (DSI) form (Attachment C) to authorize minor adjustments to the Work that are consistent with the purpose of the Work. Both parties must sign the DSI. A DSI may not be used to change the Total Compensation, quantity, quality or the Completion Date of the Work, or to change or modify the Agreement.
- (b) Emergency Changes in Work. In the event an emergency endangering life or property requires immediate action, the District may give Consultant an oral instruction to proceed with an emergency change in the Work, which will be confirmed in writing within five days. Within 15 days after commencement of the emergency change in the Work, Consultant shall provide the District with a written estimate of any increased costs or delays as a result thereof. Failure to so notify the District constitutes a waiver of any right to an extension of time or increase in compensation. Within 15 days after receipt of Consultant's estimate, the parties shall negotiate a Change Order. If unable to reach agreement, disputed issues shall be resolved pursuant to the dispute resolution procedure. In no event shall Consultant decline to perform the emergency change in the Work.

16. TERMINATION AND SUSPENSION

- (a) **District Termination for Cause.** The Agreement may be terminated by the District for cause in the event of any breach hereof, including, but not limited to, Consultant's: (1) failing to carry forward and complete the Work as provided herein; (2) failing to comply with applicable laws, regulations, permits, or ordinances; (3) failing to timely correct defective Work; (4) making a general assignment for the benefit of its creditors; (5) having a receiver appointed because of insolvency; (6) filing bankruptcy or having a petition for involuntary bankruptcy filed against it; (7) failing to make payments when due to subcontractors, vendors, or others for materials or labor used in the Work; (8) making a material misrepresentation to the District regarding the Work, or (9) any other material breach of this Agreement. In such event, the District shall provide Consultant with written notice of its intention to terminate this Agreement, stating the nature of the deficiency and the effective date of termination. At the District's sole judgment and discretion, the District may afford Consultant an opportunity to cure said deficiency, in which event the notice shall specify the time allowed. Upon termination, the District may take possession of the premises and of all materials thereon and finish the Work by whatever means it deems expedient. In such event, Consultant shall not receive any further payment until the Work is completed by the District. Consultant shall be liable for all costs involved in completing the Work, including additional managerial and administrative services, which shall be offset against any amount due to Consultant.
- (b) **District Termination for Convenience.** Notwithstanding any other provision hereof, the District may at any time terminate this Agreement or any Work issued under it, in whole or in part,

without cause, upon 30 days' written notice to Consultant. In such event, Consultant shall be compensated for any Work performed prior to the date of termination and for materials that were ordered prior to receipt of notice of termination that cannot be returned to the vendor, which shall become District property. Upon receipt of notice, Consultant shall discontinue the Work on the date and to the extent specified therein and shall place no further orders for materials, equipment, services, or facilities, except as needed to continue any portion of the Work not terminated. Consultant shall also make every reasonable effort to cancel, upon terms satisfactory to the District, all orders or subcontracts related to the terminated Work. Consultant may not claim any compensation not specifically provided for herein, including, but not limited to: loss of anticipated profits; idle equipment, labor, and facilities; any additional claims of subcontractors and vendors.

- (c) District Suspension for Cause. The District may issue a written partial or full Stop Work Notice in the event Consultant fails to comply with or is negligent in performing any provision hereof. All performance shall immediately cease as per such notice and no further billable costs shall be incurred. The District may terminate this Agreement if Consultant fails or refuses to comply with a Stop Work Notice.
- (d) **District Suspension for Convenience.** The District may direct Consultant to stop Work, in whole or in part, whenever, in the District's sole judgment and discretion, such stoppage is necessary to ensure proper completion of the Work, avoid injury to third persons, or otherwise meet the District's objectives. The District shall provide Consultant not less than five days' written notice, except in emergency circumstances. Consultant shall immediately comply with such notice. Should such stoppage increase Consultant's cost, an equitable adjustment will be made by Change Order. The notice shall be effective until rescinded in writing, unless the period of suspension is stated in the notice.

(e) Consultant's Right to Stop Work or Terminate Agreement

- (i) **Stop Work.** Consultant may stop work only under the following circumstances: (1) the Work is ordered temporarily discontinued by a court or other public authority; (2) it is necessary to stop work in order to protect the safety of Consultant or third persons; or (3) the District fails to pay Consultant when due any undisputed and adequately documented sum certified for payment by the District Project Manager. In such event, Consultant shall provide the District not less than seven days prior written notice of its intention to stop work, except in emergency circumstances or when necessary to prevent injury to persons or property.
- (ii) **Termination.** Consultant may terminate this Agreement under only the following circumstances: (1) the Work is ordered discontinued by a court or other public authority, through no act or fault of Consultant, for a period of not less than three months; (2) the District fails to pay Consultant when due any undisputed and adequately documented sum certified for payment by the District Project Manager. In such event, Consultant shall provide not less than 20 days written notice of its intention to terminate and afford the District the opportunity to cure said deficiency within said time period.
- (iii) **Duty to Perform.** Except as expressly provided above, in the event of any event, dispute, or other matter arising under this Agreement, Consultant shall fully perform the Work in accordance with the District's written instructions and may claim additional compensation as a Change Order, subject to the dispute resolution procedure.

ADDITIONAL PROVISIONS

(In Alphabetical Order)

17. **DEFINITIONS**

ADDENDA: Written or graphic instruments issued prior to the opening of responses, which make additions, deletions, or revisions to the solicitation or contract documents.

AGREEMENT: The written contract between the District and Consultant covering the Work, which includes all documents attached to this Agreement or incorporated herein by reference. The words "contract" and "Agreement" are synonymous in these documents.

AMENDMENT: Any written change made to the terms and conditions of the Agreement.

BUSINESS DAY: Monday through Friday, excepting those holidays observed by the District – New Years Day, Martin Luther King Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving (and Friday), and Christmas Day.

CHANGE ORDER: A written agreement of the parties after the Commencement Date to amend this Agreement so as to modify the Statement of Work or the Total Compensation or provide for an extension of time.

CONSULTANT: Consultant, its officers, employees, agents, successors, and assigns.

CONSULTANT's PROJECT MANAGER: The individual designated by the Consultant to be responsible for overall coordination, oversight, and management of the Work for Consultant.

PERSON: Any individual, partnership, society, association, joint stock company, corporation, estate, receiver, trustee, assignee, referee, or capacity, whether appointed by a court or others, and any combination of individuals.

REQUEST FOR QUALIFICATIONS: An advertised solicitation for sealed Submittals, with the title, date, and hour of the public opening designated. It includes a detailed description of the services sought, the date for submittal of the response, and all contractual terms and conditions.

RESPONDENT: Any person who submits a response to a solicitation.

STATEMENT OF WORK: The District's written directions, requirements and technical specifications for completing the Work. Standards for specifying materials or testing that are incorporated therein by reference shall have the same force and effect as if fully set forth therein.

SUBCONTRACTORS: Those persons having a direct contract with Consultant relating to performance of the Work, including one who furnishes material worked into a special design in accordance with the plans or specifications of the Work, but not including one who merely furnishes material.

TOTAL COMPENSATION: The total funds to be expended pursuant to this Agreement upon satisfactory completion of the Work.

WORK: All labor, materials, equipment, transportation, supporting documentation, and other products, services, or facilities necessary for complete performance of the Agreement.

18. ACCESS; WORK AREA; GATES

(a) Access. The District will provide sufficient access to accomplish Work performed on District property. Consultant shall maintain all on-site roadways and paved and unpaved access roadways to and from the worksite in an acceptable and passable condition at no additional cost to the District, which shall, upon conclusion of the Work, be returned to their original condition. Land access to construction sites is restricted to the route designated by the District. Consultant is responsible for improvements and repairs to access routes required during construction. All access routes shall be used for the purpose of construction only. Consultant shall not disturb lands

- or waters outside the area of construction, except as may be found necessary and authorized by the District.
- (b) **Work Area.** All Work shall be confined to the designated work area(s). Consultant shall obtain written approval from the District before making any adjustments.
- (c) **Gates.** Consultant shall keep all gates to District lands or easements closed and locked in accordance with District specifications when not in use, and shall immediately notify the District when a gate has become impaired due to vandalism or other cause. Unless otherwise stated in the specifications, Consultant shall be responsible for providing lock(s) to District properties.
- 19. **ASSIGNMENT AND SUBCONTRACTS.** Consultant shall not sublet, assign, or transfer any Work involving more than 15% of the total cost of the Work, or assign any monies due hereunder, without the District's prior written consent; provided, however, that in all cases, if the proposed subcontractor is different than the team specified by Consultant in the contract award process, Consultant shall notify the District's Project Manager in writing and obtain the District's prior approval. Neither District approval of a subcontractor nor any other provision of this Agreement creates a contractual relationship between any subcontractor and the District. Consultant is responsible for fulfilling all work elements in any subcontracts and payment of all monies due. Consultant is fully responsible to the District for the acts and omissions of its subcontractors and persons directly or indirectly employed by them, and shall hold the District harmless from any liability or damages resulting from any subcontract to the extent allowed by law.
- 20. **AUDIT; ACCESS TO RECORDS.** Consultant must preserve its books and other records involving transactions related to this Agreement and provide the District, or its duly authorized representatives, access and necessary facilities to inspect and audit those records for five years after the receipt of funds. If an examination or audit is performed, Consultant must continue to maintain all required records until such audit has been completed and all questions arising from it are resolved. Consultant shall refund any payment(s) that are found to not constitute allowable costs based upon an audit examination.
- 21. **CIVIL RIGHTS.** Pursuant to chapter 760, Fla. Stat., Consultant shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, pregnancy, or national origin, age, handicap, or marital status.
- 22. **CLEANUP; EQUIPMENT REMOVAL.** Upon expiration or termination of this Agreement, Consultant shall restore the worksite to its original condition, except for replacement of vegetation, unless otherwise required by this Agreement. Consultant shall remove from District property and all public and private property all machinery, equipment, supplies, surplus materials, temporary structures, rubbish, and waste materials resulting from its activities. After 20 days, the District may sell or dispose of any materials left at the worksite as it sees fit and deduct the cost of sale or disposal from any amounts due to Consultant. Any revenues obtained shall be applied toward costs incurred by the District, with excess revenues paid to Consultant.
- 23. COOPERATION WITH THE INSPECTOR GENERAL, PURSUANT TO §20.055(5) FLA. STAT. Consultant and any subcontractors understand and will comply with their duty, pursuant to §20.055(5), Fla. Stat., to cooperate with the inspector general in any investigation, audit, inspection, review, or hearing.
- 24. COORDINATION WITH THE DISTRICT AND OTHER DISTRICT CONTRACTORS

- (a) The District may let other contracts in connection with the Work. Wherever work done by the District or another District contractor is contiguous to Consultant's Work, the respective rights of the various interests shall be established by the District so as to secure completion of the Work. Consultant shall arrange its Work so as not to interfere with the District or other District contractors and join its Work to that of others in a proper manner, and in accordance with the intent of the Statement of Work. Consultant shall perform its Work in the proper sequence in relation to that of other District contractors, as may be directed by the District. Consultant shall afford other District contractors reasonable opportunity for introduction and storage of their materials and execution of their work, and shall properly conduct and coordinate its Work with theirs. Consultant shall take into account all contingent work to be done by others and shall not plead its want of knowledge of such contingent work as a basis for delay or non-performance. Consultant shall be liable for any damage it causes to the work performed by other District contractors.
- (b) If any part of the Work depends for proper execution or results upon the work of other District contractors, Consultant shall inspect and promptly report any defects in the other contractors' work that render it unsuitable for Consultant's Work. Failure to so inspect and report shall constitute an acceptance of the other contractors' work as fit and proper for the reception of its Work, except as to defects which may develop in the other contractors' work after execution of the Work.
- 25. **CONTINGENCY FEES.** Pursuant to §287.055(6)(a), Fla. Stat., Consultant warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for Consultant, to solicit or secure this Agreement, and that it has not paid or agreed to pay any person, company, corporation, individual, or firm, other than a bona fide employee working solely for Consultant, any fee, commission, percentage, or other consideration, contingent upon or resulting from the award or making of this Agreement. For breach or violation of these provisions, the District may terminate this Agreement without liability and, at its discretion, deduct from the contract price or otherwise recover the full amount of any such fee, commission, percentage, gift, or other consideration.

26. CORRELATION AND INTENT OF DOCUMENTS; QUESTIONS OR ISSUES REGARDING PERFORMANCE OF THE WORK

- (a) This Agreement and all attachments are complementary. What is called for by one is as binding as if called for by all. The intent is to include all labor and materials, equipment, transportation, and incidentals necessary for the proper and complete execution of the Work. Materials or work described in words, which so applied have a well-known technical or trade meaning, shall be held to refer to such recognized standards.
- (b) It is the District's intention to fully assist Consultant in the successful performance of the Work and to respond in a timely manner to questions or issues that arise. Consultant should discuss any questions or issues with the District's Project Manager and communicate such questions or issues in writing when required by this Agreement. The District shall respond through its Project Manager.

27. **DISPUTE RESOLUTION**

(a) During the course of work. In the event any dispute arises during the course of the Work, Consultant shall fully perform the Work in accordance with the District's written instructions and may claim additional compensation. Consultant is under a duty to seek clarification and resolution of any issue, discrepancy, or dispute by submitting a formal request for additional compensation, schedule adjustment, or other dispute resolution to the District's Project Manager

- no later than 15 days after the precipitating event. If not resolved by the Project Manager within five business days, the Project Manager shall forward the request to the District's Office of General Counsel, which shall issue a written decision within 15 days of receipt. This determination shall constitute final action of the District and shall then be subject to judicial review upon completion of the Work. Consultant shall proceed with the Work in accordance with said determination. This shall not waive Consultant's position regarding the matter in dispute.
- (b) **Invoices.** In the event the District rejects an invoice as improper, and the Consultant declines to modify the invoice, the Consultant must notify the District in writing within ten days of receipt of notice of rejection that the Consultant will not modify the invoice and state the reason(s) therefor. Within five business days of receipt of such notice, if not informally resolved through discussion with the District Project Manager, the Project Manager shall forward the disputed invoice and the Consultant's written response to the District's Office of General Counsel. The matter shall then proceed as described in subsection (a), above.
- 28. **DIVERSITY REPORTING.** The District is committed to the opportunity for diversity in its procurement activities, and encourages its prime vendors (contractors and suppliers) to make a good faith effort to ensure that women and minority-owned business enterprises (W/MBE) are given the opportunity for maximum participation as sub-contractors. The District will assist Consultant by sharing information on W/MBEs. Consultant shall provide with each invoice a report describing the company names for all W/MBEs, the type of minority, and the amount spent with each at all levels. The report will also denote if there were no W/MBE expenditures.

29. DUTY TO INSPECT AND REPORT DEFICIENCIES IN PLANS AND SPECIFICATIONS

- (a) For any Work that is dependent upon conditions at the worksite, Consultant's acceptance of contract award represents and warrants that Consultant has inspected and satisfied itself concerning the nature and location of the Work and general and local conditions, including, without limitation: (1) conditions affecting transportation, disposal, handling, and storage of materials; (2) availability and quality of labor; (3) availability and condition of roads; (4) climatic conditions and seasons; (5) hydrology of the terrain; (6) topography and ground surface conditions; (7) nature and quantity of surface materials to be encountered; (8) equipment and facilities needed preliminary to and during the Work; and (9) all other matters that can affect the Work and the cost thereof. Consultant's failure to acquaint itself with such conditions will not relieve it from its responsibility for properly estimating the time required or cost of performing the Work. Where the District has investigated subsurface conditions, this data may be provided to Consultant or is available upon request. Consultant must either seek clarification concerning the data or assume the responsibility for its interpretation.
- (b) If Consultant discovers hidden or subsurface conditions that differ materially from those normally expected or indicated in the technical specifications, Consultant shall immediately, and before such conditions are disturbed, notify the District in writing of: (1) subsurface or latent physical conditions differing materially from those indicated in the technical specifications, or (2) unknown physical conditions of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for herein. The District shall promptly investigate the conditions and determine whether they materially differ so as to cause an increase or decrease in Consultant's cost. Where the differing site conditions materially impact Consultant's cost, an equitable adjustment shall be made and the Agreement modified accordingly. No claim will be allowed if Consultant fails to provide the required notice.

- (c) If Consultant in the course of the Work finds any defect in the plans and specifications, including, but not limited to, any discrepancy between the drawings and the physical conditions at the worksite, or any errors or omissions in the drawings or in the layout, as given by points and instructions, it shall immediately inform the District in writing, which shall be promptly verified by the District. Any Work done after such discovery, until authorized, will be done at Consultant's risk as to cost overruns and modifications necessary to correct deficiencies in the Work. To ensure the proper execution of its subsequent Work, Consultant shall measure Work already in place or completed and shall immediately report any discrepancy between the executed Work and the drawings or other specifications.
- 30. GOVERNING LAW, VENUE, ATTORNEY'S FEES, WAIVER OF RIGHT TO JURY TRIAL. This Agreement shall be construed according to the laws of Florida and shall not be construed more strictly against one party than against the other because it may have been drafted by one of the parties. As used herein, "shall" is always mandatory. In the event of any legal proceedings arising from or related to this Agreement: (1) venue for any state or federal legal proceedings shall be in Orange County; (2) each party shall bear its own attorney's fees, including appeals; (3) for civil proceedings, the parties hereby consent to trial by the court and waive the right to jury trial.
- 31. **INTEREST IN THE BUSINESS OF CONTRACTOR; NON-LOBBYING.** Consultant certifies that no officer, agent, or employee of the District has any material interest, as defined in chapter 112, Fla. Stat., either directly or indirectly, in the business of Consultant to be conducted under this Agreement, and that no such person shall have any such interest at any time during the term of this Agreement. Pursuant to §216.347, Fla. Stat., monies received from the District pursuant to this Agreement shall not be used to lobby the Florida Legislature or any other state agency.
- 32. INDEPENDENT CONTRACTOR. Consultant is an independent contractor. Neither Consultant nor Consultant's employees are employees or agents of the District. Consultant controls and directs the means and methods by which the Work is accomplished. Consultant is solely responsible for compliance with all labor and tax laws pertaining to it, its officers, agents, and employees, and shall indemnify and hold the District harmless from any failure to comply with such laws. Consultant's duties include, but not be limited to: (1) providing Workers' Compensation coverage for employees as required by law; (2) hiring employees or subcontractors necessary to perform the Work; (3) providing any and all employment benefits, including, but not limited to, annual leave, sick leave, paid holidays, health insurance, retirement benefits, and disability insurance; (4) payment of all federal, state and local taxes, income or employment taxes, and, if Contractor is not a corporation, self-employment (Social Security) taxes; (5) compliance with the Fair Labor Standards Act, 29 U.S.C. §§ 201, et seq., including payment of overtime as required by said Act; (6) compliance with the Patient Protection and Affordable Care Act 42 U.S.C. §§ 18001, et seq.; and (7) providing employee training, office or other facilities, equipment and materials for all functions necessary to perform the Work. In the event the District provides training, equipment, materials, or facilities to meet specific District needs or otherwise facilitate performance of the Work, this shall not affect Consultant's duties hereunder or alter Consultant's status as an independent contractor. This paragraph does not create an affirmative obligation to provide any employee benefits not required by
- 33. **LAND AND WATER RESOURCES.** Consultant shall not discharge or permit the discharge, directly or indirectly, of any fuels, oils, calcium chloride, acids, insecticides, herbicides, wastes, toxic or hazardous substances, or other pollutants or harmful materials, onto any lands or into any surface or ground waters, including, but not limited to, streams, lakes, rivers, canals, ditches, or reservoirs. Consultant shall investigate and comply with all applicable federal, state, county, and municipal laws concerning toxic wastes, hazardous substances, and pollution of surface and ground waters. If any

waste, toxic or hazardous substance, or other material that can cause pollution, as defined in §403.031, Fla. Stat., is dumped or spilled in unauthorized areas, Consultant shall notify the District thereof within one workday and thereafter shall remove the material and restore the area to its original condition. If necessary, contaminated ground shall be excavated and disposed of as directed by the District and replaced with suitable fill material, compacted and finished with topsoil, and planted as required to re-establish vegetation. All cleanup and disposal costs shall be borne by Consultant.

- 34. **LIENS.** Neither final payment nor payment of any part of the retainage shall become due until Consultant delivers to the District releases of all labor and material cost liens arising from Consultant's performance of the Work, including Consultant and any subcontractor(s), and an affidavit by Consultant stating that the releases and receipts include all labor and material costs for which a lien could be filed. If any subcontractor refuses to furnish Consultant a release or a receipt in full, Consultant may furnish to the District a bond satisfactory to the District, indemnifying the District against any such potential lien. If any lien or potential lien remains unsatisfied, the District may discharge the same forthwith and deduct the cost thereof from any amounts due to Consultant. In the event Consultant has been fully paid or the amount of such lien exceeds the amount due to Consultant, Consultant shall refund to the District all monies that the District paid in discharging such lien, including all costs and a reasonable attorney's fee. The discharging of such a lien by the District shall not constitute a waiver of any claims of defenses that Consultant may have against the lienor.
- 35. **NUISANCE.** Consultant shall exercise every reasonable means to avoid creating or continuing a public or private nuisance resulting from the Work, including, but not limited to: (1) excessive noise associated with radio or other forms of electronic entertainment for persons at the worksite; (2) dust from construction operations, and (3) the uncontrolled flow of surface waters.
- 36. **PERMITS AND LICENSES; COMPLIANCE WITH LAW.** Consultant shall comply with all applicable federal, state and local laws and regulations, including those pertaining to health and safety. All materials used and work performed must conform to the laws of the United States, the state of Florida and county and municipal ordinances. Consultant represents and warrants that it is duly licensed to perform the Work in accordance with the laws of the state of Florida and the county or municipality in which the Work is to be performed. Unless otherwise specifically provided for herein, Consultant shall give to the proper authorities all required notices relative to the Work in its charge; obtain and pay for all official permits or any other licenses, including any and all professional licenses required by the nature of the Work; and furnish any bonds, security, or deposits required to permit performance of the Work. Consultant is responsible for the resolution of any issues resulting from a finding of noncompliance by any regulatory agencies, due to the Consultant's failure to comply with applicable regulatory requirements, including all costs for delays, litigation, fines, or other costs.
- 37. **PETROLEUM STORAGE TANKS.** Any petroleum storage tanks with a capacity of 55 gallons or greater that Consultant brings onto District property must be either double-walled or kept within secondary containment that will contain 110% of the tank volume.

38. PUBLIC RECORDS

(a) Consultant is responsible for identifying confidential trade secret information as such upon submittal to the District. Notwithstanding any other provision hereof, the District shall not be liable to Consultant for release of confidential information not identified as such upon submittal. If the District receives a public records request that requests information claimed to be confidential by Consultant, the District shall take such steps as are necessary to comply with chapter 119, Fla. Stat., while protecting the confidentiality of trade secret information. In the event of a dispute as to whether the requested information is a trade secret, Consultant shall be

- liable for all costs incurred by the District resulting from the dispute, including any court costs and attorney's fees. The calculation of those costs shall not include costs that are charged to the public records requestor.
- (b) Consultant shall comply with Florida Public Records law under Chapter 119, Fla. Stat. Records made or received in conjunction with this Agreement are public records under Florida law, as defined in §119.011(12), Fla. Stat. Consultant shall keep and maintain public records required by the District to perform the services under this Agreement.
- (c) If Consultant meets the definition of "Contractor" found in §119.0701(1)(a), Fla. Stat.; [i.e., an individual, partnership, corporation, or business entity that enters into a contract for services with a public agency and is acting on behalf of the public agency], then the following requirements apply:
 - (i) Pursuant to §119.0701, Fla. Stat., a request to inspect or copy public records relating to this Agreement for services must be made directly to the District. If the District does not possess the requested records, the District shall immediately notify the Consultant of the request, and the Consultant must provide the records to the District or allow the records to be inspected or copied within a reasonable time. If Consultant fails to provide the public records to the District within a reasonable time, the Consultant may be subject to penalties under s. 119.10, Fla. Stat.
 - (ii) Upon request from the District's custodian of public records, Consultant shall provide the District with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Fla. Stat., or as otherwise provided by law.
 - (iii) Consultant shall identify and ensure that all public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the Agreement term and following completion of the Agreement if the Consultant does not transfer the records to the District.
 - (iv) Upon completion of the Agreement, Consultant shall transfer, at no cost to District, all public records in possession of Consultant or keep and maintain public records required by the District to perform the services under this Agreement. If the Consultant transfers all public records to the District upon completion of the Agreement, the Consultant shall destroy any duplicate public records that are exempt or confidential and exempt from public disclosure requirements. If the Consultant keeps and maintains public records upon completion of the Agreement, the Consultant shall meet all applicable requirements for retaining public records. All records that are stored electronically must be provided to the District, upon request from the District's custodian of public records, in a format that is accessible by and compatible with the information technology systems of the District.
- (d) IF THE CONSULTANT HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLA. STAT., TO THE CONSULTANT'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE DISTRICT'S CUSTODIAN OF PUBLIC RECORDS AT:

District Clerk St. Johns River Water Management District 4049 Reid Street Palatka, Florida 32177-2571 (386) 329-4127

clerk@sjrwmd.com

39. **RELEASE OF INFORMATION.** Consultant shall not publish or release any information related to performance of this Agreement, or prepare, publish, or release any news or press release in any way related to this Agreement, without prior District review and written consent.

40. REMEDIES FOR NON-PERFORMANCE

- (a) **District Remedies.** The remedies enumerated herein are non-exclusive. In addition to the remedies set forth below, the District may avail itself of any statutory and/or common law remedies not set forth herein. In the event of a breach, the District may terminate this Agreement for cause. Alternatively, the District may allow Consultant to correct the deficiency, or may take such action as is necessary to correct such deficiency through District action or that of a third party. Delay or failure by the District to enforce any right or remedy hereunder shall not impair, or be deemed a waiver of, any such right or remedy, or impair the District's rights or remedies for any subsequent breach of this Agreement.
- (b) Consultant Correction of Deficiencies. The District shall provide Consultant with written notice of deficiency. At the District's sole judgment and discretion, the District may afford an opportunity to correct said deficiency, in which event the notice shall specify the time allowed to cure. If Consultant disputes that a failure of performance has occurred, Consultant shall, nevertheless, perform the corrective action and may submit a request for a Change Order subject to the dispute resolution procedure. Unless authorized through a Change Order, the Completion Date shall not be extended in order to correct deficiencies. Consultant shall bear the cost of correcting all work of other contractors that is destroyed, damaged, or otherwise negatively impacted by its corrective action. Failure to take timely corrective action may result in termination for cause or the District pursuing alternative remedies, as provided herein.
- (c) Alternative Remedies to Correct Deficiency. If the District determines that it is not in its best interest for Consultant to correct incomplete or damaged Work caused by Consultant's failure of performance, the District may pursue any or all of the following remedies, in whole or in part: (1) accept the Work as is and deduct the reasonable value of the deficient Work from the Total Compensation; (2) complete the Work through the utilization of District employees and deduct the cost thereof from the Total Compensation; (3) contract with a third party to complete the deficient Work and deduct the cost thereof from the Total Compensation.
- (d) **District Technical Assistance.** The District may elect to provide technical assistance to Consultant in order to complete satisfactory performance of the Work. If the District is performing a function that Consultant is required to perform, the District may deduct the cost of providing such technical assistance from the Total Compensation. Prior to providing any such technical assistance, the District shall notify Consultant that it considers such assistance to be above and beyond its duties under this Agreement and that it intends to deduct the cost of providing such assistance from the Total Compensation. Consultant shall not be entitled to reject technical assistance when the District determines that such assistance is necessary to complete the Work.
- 41. **ROYALTIES AND PATENTS.** Consultant certifies that, to the best of its information and belief, the Work does not infringe on any patent rights. Unless provided otherwise herein, Consultant shall: (1) pay all royalties, patent, and license fees necessary for the Work; (2) defend all suits or claims for infringement of any patent rights, and (3) save and hold the District harmless from loss on account

thereof; provided, however, that the District shall be responsible for any such losses when the utilization of a particular process or product of a particular manufacturer is specified by the District. If Consultant obtains information that the process or article so specified is a patent infringement, it shall be responsible for such loss unless it promptly so notifies the District.

- 42. **SAFETY.** For any Work that is to be performed on premises that are owned or controlled by the District (the Premises), Consultant has the sole and exclusive duty for the safety of the premises. Consultant shall provide and maintain sufficient protection for the safety of its employees and other persons who may utilize the Premises, and prevent damage to District property, materials, and equipment. Consultant shall at all times enforce strict discipline and good order among its employees and shall not employ any unfit person or anyone not skilled in the work assigned. Neither Consultant nor its subcontractors shall allow or cause to be allowed any hunting or any weapons, animals, alcohol, or drugs, on or from the Premises or adjacent property. Consultant employees shall not park their vehicles or store equipment or materials adjacent to roads where it may be a hazard to traffic. A clear distance of at least 30 feet from the edge of the pavement or right-of-way shall be kept free of any obstacles unless otherwise authorized by the District. Consultant shall ensure that only authorized personnel are allowed on the worksite and shall post notices warning both employees and the public of all safety hazards created by Consultant.
- 43. **TRUTH IN NEGOTIATIONS**. This provision applies only to lump sum or cost-plus-a-fixed-fee contracts entered into in excess of \$195,000 (see \$287.055(5)(a), Fla. Stat.). Consultant certifies that wage rates and other factual unit costs supporting the compensation are accurate, complete, and current at the time of contracting. The original contract price and any additions shall be adjusted to exclude any significant sums by which the District determines the contract price was increased due to inaccurate, incomplete, or noncurrent wage rates and other actual unit costs.
- 44. **USE OF COMPLETED PORTIONS OF THE WORK.** The District shall have the right to take possession of and use any completed or partially completed portions of the Work, notwithstanding the fact that the time for completing the entire Work or such portions may not have expired. Such taking of possession and use will not be deemed an acceptance of any Work not completed. If such possession and use increases the cost of or delays the Work, Consultant shall be entitled to a Change Order for extra compensation, or extension of time, as necessary, to offset the effect of such prior possession and use.
- 45. **WORK SCHEDULE.** For construction or other services upon District property, no Work shall be accomplished on official holidays or weekends unless approved in advance by the District Project Manager. Unless otherwise approved by the District Project Manager, Consultant's work hours on District property shall not commence before 7:00 a.m. and shall conclude on or before 6:00 p.m. All requests to change the schedule shall be coordinated with the District a minimum of 24 hours in advance of the change and confirmed in writing.

IN WITNESS WHEREOF, the St. Johns River Water Management District has caused this Agreement to be executed on the day and year written below in its name by its Executive Director, or duly authorized designee, and Consultant has caused this Agreement to be executed on the day and year written below in its name by its duly authorized representatives, and, if appropriate, has caused the seal of the corporation to be attached. This Agreement may be executed in separate counterparts, which shall not affect its validity. Upon execution, this Agreement constitutes the entire agreement of the parties, notwithstanding any stipulations, representations, agreements, or promises, oral or otherwise, not printed or inserted herein. This Agreement cannot be changed by any means other than written amendments referencing this Agreement and signed by all parties.

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT	CONSULTANT
By: Ann B. Shortelle, Ph.D., Executive Director (or designee)	By: Typed Name and Title
Date:	Date:
ONLY AS TO FORM AND LEGALITY	Attest:
Assistant General Counsel	Typed Name and Title
Attachments: Attachment A — Statement of Work/Technical Spec Attachment B — Insurance Requirements Attachment C — District's Supplemental Instruction	

ATTACHMENT A — STATEMENT OF WORK

REMOTE SENSING AND MAPPING OF PLANT COMMUNITIES FOR THE PRESERVATION OF NATURAL SYSTEMS

I. INTRODUCTION

Monitoring plant community changes is a cost-effective and timely method to track environmental changes due to restoration, hydrologic manipulation, land management activities, and natural disturbances, such as flooding, within natural systems. Tracking these environmental changes using remote sensing and mapping allows the District to adaptively manage areas to maximize environmental benefits and identify emerging challenges or problematic areas on District land. Consequently, the District seeks to acquire maps of plant communities on District land for ongoing management and future planning purposes.

II. OBJECTIVES

The purpose of this contract is to:

• Acquire imagery and produce detailed spatial data and maps of the plant communities on selected District lands.

III. SCOPE OF WORK

1. Mapping Approach

In prior years, plant community maps for the District were created using manual aerial photo or imagery interpretation. For the current contract, the Respondent may use a similar approach or propose an approach using new technologies, so long as the maps produced are within the required resolution, accuracy, budget, and scope of the project. Examples of similar, past projects shall be presented demonstrating the capabilities of the Respondent in using the chosen imaging and mapping technique. The proposed methodology should be time-efficient with respect to signature key development or training, ground-truthing, accuracy assessment, and production of maps.

2. Target Area

The footprint for aerial or satellite imagery acquisition covers approximately 55,000 acres of District property each year mainly in Putnam, Marion, Lake, Volusia, Orange, Brevard and/or Indian River Counties (Figure 1); covering approximately 165,000 acres over a three-year period. The Project Areas to be mapped primarily includes floodplain wetlands and adjacent uplands. Imagery acquisition and mapping is partitioned into three years which will enable timely collection of signature key/training data and ground-truthing data for accuracy assessments within each year.

3. Digital Image Data & Orthoimagery

Regardless of the methodology used for classifying plant communities, the Respondent shall obtain the necessary digital imagery for each Project Area according to the yearly schedule depicted in Figure 1 and outlined in Table 1. Images shall be captured between January 30th

and March 1st within a ten-day window for each year for the years 2020-2022. The imagery shall conform to all standards and criteria set forth within this document and generally accepted as being appropriate for comparable professional-grade work, even if not specifically described or requested in this document. Digital orthoimages and mosaics shall be created from the raw digital image data and shall conform to the standards set forth in the Florida Baseline Specifications for Orthophotography and LiDAR (https://www.floridadisaster.org/globalassets/importedpdfs/baselinespecifications_1.2.pdf). All imagery geo- and orthorectification shall be performed under the direct supervision of a Florida Professional Surveyor and Mapper (PSM).

The specific objectives for the aerial or satellite imagery acquisition component of the project are to:

- a) Acquire and produce digital aerial or satellite image data of the Project Areas.
- b) Provide airborne GPS (ABGPS) and inertial measurement unit (IMU) data, center-point data, a camera calibration report, a flight report, and flight line map for aerial (4-band; red, green, blue, near-infrared) or hyperspectral imagery. Provide equivalent products for satellite imagery acquisition.
- c) Create digital aerial orthoimages from the raw digital aerial image data or acquire geoand orthorectified satellite imagery and combine the orthoimagery to create two digital images of each Project Area, a true-color image and an infrared image. For satellite imagery, also include all individual bands acquired. Provide a database of the checkpoint survey used to estimate the accuracy of the orthoimagery or provide similar information for the satellite imagery.
- d) Post-process and aero-triangulate digital aerial images to enable interpretation / classification of plant communities.
- e) For each year, provide an annual report that describes the methodology used to create the raw imagery, digital aerial orthoimagery, or similar satellite imagery products, and includes a discussion of the distribution of mapped plant communities within each Project Area.

4. Plant Community Mapping

a) Classification Scheme

Exhibit 1 lists the 30 plant communities and categories that are to be mapped in this project and represents the minimum categorical resolution that is acceptable. The eight categories of Community Type comprise the highest attribute levels in the classification hierarchy that will be assigned to each feature. Additional classes or species categories would be valuable and desirable (e.g. exotic grass species), if accuracy standards can still be met. If additional plant/species categories are identified as part of this effort, a crosswalk to the original plant classification scheme must be included to allow for plant community change evaluation. In addition, the Respondent shall consult with and get permission from the District's Project Manager to change the classification scheme. If necessary, the Respondent shall meet with the District's Project Manager to discuss and clarify plant community classifications within three weeks after the start of the project.

b) Signature Key Development / Training Polygons

Procedures for signature key development shall be determined jointly by the District's Project Manager and the Respondent. Upon receipt of new imagery each spring, signature key/training polygon development shall be performed in the field over the entire area of each year's Project Areas before the start of the mapping process. The Respondent shall examine the imagery and select areas to be visited in the field. If the Respondent utilizes satellite imagery, training polygon data may be collected no earlier than 30 days prior to imagery acquisition. During the process of signature development, the District's Project Manager may accompany the Respondent to the field, with at least 48-hours notice to the Respondent. All visits to the field by the Respondent shall be recorded in a field notebook, which will include a brief description of the plant communities at each point visited. The number of points to be visited will be determined in consultation with the District's Project Manager. A differential GPS unit shall be used to record the exact location of visited points in Universal Transverse Mercator (UTM) to the nearest meter (NAD 1983 HARN UTM Zone 17N). Points shall be labeled with a unique identifier. Recorded points shall be converted into an Arc/Map shapefile. At least three images shall be taken at each point visited and a description of the species composition and abundance noted for each example. All images taken during this project shall be labeled with the date, the unique identifier assigned to the point, and the cardinal direction of the camera. The signature / training key development shall be complete 60 days following the acquisition of imagery by the personnel doing the actual plant community mapping.

The Respondent shall coordinate with the District's Project Manager for all field trips requiring access to District property. For the most part, access to private property will not be feasible. However, since most of the area to be mapped is public land, the Respondent should select points to visit that are located on public land. The District will provide a shapefile of District-owned land. The Respondent shall provide for the use of airboats or other boats and vehicles required to access areas that need to be visited and shall provide all field and safety equipment. When requested, the District's Project Manager will provide information on water levels, land ownership, and other conditions affecting access. However, requests for information must be made at least one week in advance of the time the information is needed. The Respondent shall visit the areas to be mapped as needed during the entire mapping process to increase their familiarity with the plant communities present and to increase their ability to map these areas accurately.

c) Plant Community Delineation/Classification

Plant community maps shall be produced by individuals who are knowledgeable and experienced in delineating or discriminating Florida plant communities using remote sensing techniques (e.g., photointerpretation, computer classification, etc.) and in field identification of plant species typically occurring in those communities. All maps shall be created using Environmental Systems Research Institute's (ESRI) ArcMap software, V10.6 format. Previously-acquired aerial imagery and plant community spatial data will be available for most Project Areas for the Respondent to use as a reference or as a starting point for the 2020-2022 mapping effort. However, the resolution and plant communities delineated during previous mapping efforts varies. Most of the required mapping can be accomplished by editing the linework from previous shapefiles to reflect new plant community distributions. Minimal mapping units shall vary with the plant communities being delineated. Plant communities with high contrast boundaries shall have a minimal mapping unit of about 1,000 square meters (0.25 acres) or minimal width of 10 meters for

elongated objects such as canals and levees. Communities with ill-defined boundaries (forming ecotones or interdigitating with other communities) shall have a minimal mapping unit of about 12,000 square meters (3.0 acres). Positional accuracy of lines relative to the image shall be within five meters of the boundary. Edit environments in ArcGIS shall be set to yield the desired accuracy and precision described above. Proprietary classification or mapping methods are not acceptable. All techniques and methodologies shall be transparent and fully documented.

d) Geodatabases

In each year, plant community maps shall be delivered as separate layers, one for each of the Project Areas designated in Table 1 and Figure 1. The format shall be feature classes within a single ArcGIS file geodatabase. The Respondent shall produce all geodatabases using ESRI's ArcMap software, V10.6 format. The XY coordinate system of the geodatabase layers shall be NAD 1983 HARN UTM Zone 17N. The District will supply a shapefile or geodatabase with the boundary lines for the Project Areas.

Before data editing begins, the Respondent shall provide an empty geodatabase, with feature classes and feature datasets defined, for approval by the District Project Manager. The geodatabase shall include draft domains for the non-numeric fields related to the plant communities, and any other geodatabase properties that the Respondent determines to be useful during the data editing process. The District will also review and approve other geodatabase properties such as Domain, Resolution, and Tolerance for each feature class.

Project Area feature classes:

The Project Area feature classes shall reside in a single feature dataset, named according to the delivery year. Grouping of feature classes and naming conventions are described in Table 1. All feature classes shall have the following fields:

Field Name	Field Type	Field Length	Notes
ProjArea	String	15	According to Table 1. (e.g. cssfca, lans, etc).
Community	String	10	According to Exhibit 1 (e.g. SG = Sawgrass)
Туре	String	5	According to Exhibit 1 (e.g. HW = Herbaceous Wetland)
Acres	Numeric, Double	10	

Plant community features within each feature class shall have no gaps or overlaps. Project Area boundaries between adjacent feature classes shall be coincident.

The metadata shall be readable to users who wish to view either ESRI Item Description fields or the full ArcGIS Metadata record. Clarification can be provided by the District's Project Manager when the metadata is being populated.

e) Ground-truthing

Random data points (or features for hyperspectral or satellite imagery) shall be generated to conduct an accuracy assessment of the plant community mapping in each Project Area within each year. The National Oceanographic and Atmospheric Administration's (NOAA's) Sampling Design Tool for ArcGIS can be used to follow a random sampling scheme stratified by map category. The "community" attribute shall be used as the map category for stratification. Using the draft plant community map, points shall be located within community types (i.e., polygons) with a total cumulative acreage of more than 25 acres. A ground-truthing plan for community types that do not have a cumulative acreage of 25 acres will need to be discussed and agreed upon by the District's Project Manager. A minimum of ten points from each plant community category within each Project Area shall be sampled following Card (1982)¹ and shall be located within at least 30 meters from the polygon boundary except for cases in which polygons are narrower than 30 meters (e.g., canals, levees). If points are determined to be too close to the polygon boundary, the point shall be relocated closer to the center of the polygon, if possible. Alternatively, another random point may be selected. Points that are selected should not occur in the same polygon. If this does occur within a large polygon, the points should be \geq 30 meters apart from one another. Ground-truthing should be completed within six months following imagery capture to ensure that vegetation communities mapped (especially those dominated by annual species) are representative of those that are observed.

f) Thematic Accuracy Assessment

An accuracy assessment analysis and annual report shall be provided for each of the Project Areas in each year. Each accuracy assessment report shall contain an error matrix and associated statistics, and a list of the ground-truth points with their precise locations. Each matrix shall consist of at least ten points for each community type as required in the ground-truthing effort. In consultation with the District Project Manager, the accuracy assessment analysis may follow the approach presented in Card (1982) or any other vetted approach that can be justified as appropriate for this type of analysis. The goal is to achieve an overall thematic accuracy of 90% for all plant communities within each Project Area. An accuracy of less than 85% is not acceptable. No individual plant community shall have a user's accuracy of less than 75% except as specified below. If ground-truth points have an overall accuracy of less than 85%, the Respondent shall investigate the source of error and, after consulting with the District Project Manager, determine if: 1) some areas need to be re-interpreted or re-classified; 2) lower user accuracy may be acceptable for some uncommon community types; or 3) some community types need to be combined. These decisions shall be made independently for each Project Area and in agreement with the District's Project Manager.

g) Test Plot

The Respondent shall supply one completed test plot for each Project Area being mapped along with an associated accuracy assessment, within 21 days from the date of delivery of the signature / training key. Each test plot will be approximately 500 acres in size, unless an alternative size is agreed upon by the District's Project Manager in advance. The test plot location and boundary will be identified by the District's Project Manager and will

¹ Card, D. H. 1982. Using known map category marginal frequencies to improve estimates of thematic map accuracy. Photogrammetric Engineering and Remote Sensing 48:431-439.

encompass a variety of plant community types. The completed test plot will be examined by the District for positional and thematic accuracy and accepted or rejected within two weeks. Thematic accuracy of the test plot will be assessed by field checking of at least 25 randomly selected points. The District Project Manager will select the points and the sites will be visited jointly by the District's Project Manager and the Respondent. If the test plot does not meet the accuracy standards, the Respondent shall, in consultation with the District's Project Manager, institute additional quality control measures to ensure that all final products will meet those standards. The Respondent shall then revise the test plot based on additional quality control measures and resubmit this material within two weeks. Classification of plant communities in the test plot must comply with thematic accuracy standards for work to proceed.

5. Scope of Work and Quality Control Plan

The final Statement of Work and Quality Control Plan shall include, but not be limited to:

- a) A justification of the selected imagery and mapping technique/methodology.
- b) A description of the quality control measures to be employed in the project.
- c) An inspection protocol for each shapefile, which shall include assessments of compliance with positional and thematic accuracy.
- d) A method for accuracy assessment, including the type of error matrix and statistics using data gathered in the field at stratified, random points during the ground-truthing portion of the project.
- e) A schedule for submittal of written status reports and conference calls.
- f) A plan for data sharing and transfer.

The specific objectives for the mapping component of the project are to:

- a) Create ArcGIS maps showing the distribution of the 30 plant communities and categories and provide the ArcGIS files necessary to create these maps and for use in spatial analyses of change in plant community distribution (complete with metadata).
- b) For each Project Area, provide an annual report that describes the methodology used to assess the accuracy of the mapping effort and the results, and provides a description of the distribution of plant communities within each Project Area.

IV. TASKS

This contract is divided into three distinct years (see Figure 1, Table 1). Each year is further divided into Project Areas which shall be mapped as separate feature datasets in the annual file geodatabase (Table 1 and Figure 1). The final product for each year shall be completed and accepted by the District before the next is initiated.

1. Digital Aerial Imagery

Create or acquire raw digital image data that meets the following specifications:

a) Imagery Area

The target area for image data capture encompasses approximately 55,000 acres each year distributed mainly in Putnam, Marion, Lake, Volusia, Orange, Brevard and/or Indian River Counties. (Figure 1).

b) Mission Constraints

<u>Weather conditions</u>: Imagery capture will only be acceptable during the following conditions: calm, clear, cloud-free, and visibility of at least seven miles. Wind speed should be sufficiently low so that a straight flight line can be maintained if aerial 4-band or hyperspectral imagery is being acquired.

<u>Flight season</u>: All imagery shall be obtained between January 30th and March 1st within a ten-day window for each year. Email notification of the Mission Plan shall be provided to the District's Project Manager 24 hours prior to the flight and a detailed flight report shall be submitted within 24 hours of the completed mission.

<u>Time of day</u>: If using traditional true color / color infrared (CIR) imagery, images shall be taken when the sun angle is between 30° and 65° above the horizon (approximately 9:30-11:30 a.m. and 2:30-4:30 p.m.) because shadows from trees are important diagnostic characteristics. Imagery obtained outside of this time-frame will have limited usefulness. If using alternative image acquisition, images should be taken at the time of day that maximizes differences in signatures between plant communities.

<u>Flight line orientation</u>: The flight lines shall be oriented in a direction for efficiency of coverage and to minimize bi-directional illumination. Flight lines shall cover the target areas with spacing such that the appropriate overlap is obtained to allow viewing and mapping within required tolerances. Flight lines shall be provided to the District Project Manager at least five business days prior to commencement of flights for review and approval. Final mission details shall be submitted to District staff prior to flying.

Airborne Global Positioning System (ABGPS) and Inertial Measurement Unit (IMU) Data (for aerial and hyperspectral imagery): ABGPS and IMU Data: Data collection will require the use of an Airborne Global Positioning System and an Inertial Measurement Unit. The ABGPS/IMU data shall include ID, x, y, z, phi, kappa, and omega. The x and y coordinates shall be submitted in UTMs (Zone 17N) and the z coordinates shall be submitted in NAVD88. The ABGPS/IMU processing report showing a graphical comparison of forward versus reverse processing shall also be provided with the ABGPS/IMU data. Prior to demobilizing, the Respondent shall check to ensure that there are no gaps or missing values in the ABGPS/IMU data. The Respondent shall be responsible for planning the number and location of GPS base stations that conform to the industry standard for ground-located verification points. Ground control data shall be submitted to the District Project Manager in the Mission Plan prior to the flight. All ABGPS and IMU data are deliverables.

c) Specifications for CIR/True-color Imagery

<u>Sensor</u>: Imagery shall be acquired using a frame-based digital sensor (UltraCamX, UltraCam Eagle, or similar) for CIR or true-color images.

<u>Bands and radiometry</u>: All imagery shall be acquired in a four-band digital format. A four-band stack including blue, green, red, and near-infrared bands shall be delivered. Geometric misalignment between any of the bands shall not be accepted. Raw imagery shall be processed so the images consist of a color- and tone-balanced radiometry.

Ground Sample Distance (GSD): All raw imagery shall have a nominal ground sample distance not to exceed 0.9 feet.

<u>Image resolution:</u> All imagery shall be delivered at a resolution of no less than one pixel per foot.

<u>Coverage</u>: Stereo imagery (or oriented images) shall be suitable for stereo viewing with a photogrammetric workstation and Earth Resources Data Analysis System (ERDAS) Stereo Analyst for ArcGIS. Complete stereoscopic coverage must be available for the entire Project Area including all adjoining levees, canals, and roads. Stereo imagery shall be acquired utilizing a 60% forward overlap and a 30% side overlap. Overlap in the direction of the flight shall average 60%, within five percent. Sidelap between overlapping parallel flight lines of imagery shall average 30%, within ten percent.

<u>Exposure</u>: Exposure shall be calibrated to tree canopy or other vegetation features. Utmost care shall be taken to avoid overexposure of areas dominated by open water – these areas must be exposed for vegetation.

<u>Image quality</u>: The final imagery shall be free of noticeable vignetting and shall have minimal sun spot and washout. Ground features shall not be obscured by clouds, dense cloud shadows, haze, or smoke.

d) Specifications of Spectral Bands and Bandwidths for Hyperspectral Imagery

The Respondent shall utilize an airborne hyperspectral imaging spectrometer capable of:

- > producing the selectable wavelengths of interest to the District,
- > tuning bandwidths,
- > producing a high signal:noise ratio,
- > operating in push-broom mode,
- > attaching to a gyroscopic stabilized mount supplied by the Respondent,
- interfacing with real-time kinematic global positioning systems (RTK GPS),
- collecting inertial measurement units (IMU) and down-welling radiance information, and
- > providing radiometric correction.

e) Imagery Specifications for Satellite Imagery

The Respondent shall acquire satellite imagery with the following features and provide substantiation of the imagery capabilities for meeting the project needs:

- > multispectral (at least blue, green, red, near-infrared) with additional bands as approved by the District Project Manager,
- resampling options that yield a resolution of 2 meters or less,
- large image swath size that maximizes efficiency of data collection and processing, and
- > corrections for radiometric and sensor distortions.

f) Imagery Review

Within seven days of the flight, raw imagery shall be delivered to the District's Project Manager for review. The District's Project Manager will have seven days to determine if

the frames or swaths are of sufficient quality for processing, ortho-rectification, mosaicing, classification, and identification of plant communities. If they are deemed acceptable, the raw imagery shall be approved by the District's Project Manager and the Respondent can begin Task 2. If the raw imagery is not approved by the District's Project Manager, the affected gaps in coverage shall be re-flown as soon as possible to capture imagery within the time-frame identified as optimal (Jan 30th – Mar 1st) at no additional cost to the District. If initial imagery is acquired as late as March 1st, accommodations to the schedule will be made in order to obtain replacement imagery.

2. Orthorectification and Mosaic Compilation

The Respondent shall provide the equipment and personnel necessary to orthorectify, mosaic, aero-triangulate, and post-process the imagery necessary to create mosaics for each Project Area. The Respondent shall create individual orthoimages and two orthoimage mosaics, one true-color mosaic and one infrared mosaic, of each Project Area from the raw digital image data. The ground control used for aerotriangulation shall be obtained by the Respondent and should include the number of ground control points with x, y, and z coordinates that are considered the industry standard. The Florida Baseline specifications indicate that a minimum of 20 independently surveyed image checkpoints will be used for accuracy testing and control acceptance for every 500-square-mile subset of the Project Area. Orthoimagery check points shall be distributed so that points are spaced at intervals of at least ten percent of the diagonal distance across the dataset and so that at least 20% of the points are located in each quadrant of the dataset. Aerotriangulation shall be completed so that all resultant imagery and map products result in a horizontal accuracy as defined by USGS National Map Accuracy Standards (NMAS) for 1:24,000 scale maps (or the industry standard for hyperspectral or satellite imagery). A metadata file shall be prepared that describes the processes used to orthorectify the imagery and to create the digital mosaics. The projection for these files shall be in UTMs for UTM Zone 17 North with a datum of NAD1983HARN (HPGN) and the units shall be in meters.

For hyperspectral imagery, the Respondent shall geo-correct image data to an accuracy of \pm one pixel per foot using ground control points. Consistent swaths, including correction for cross-track effects should be produced. The Respondent shall correct imagery for atmospheric interference using simultaneous down-welling radiance measurements. The Respondent shall specify and apply a standard, widely available and non-proprietary algorithm, or software to calculate reflectance values.

For satellite imagery, the Respondent shall use open systems (non-proprietary) to process the raw data to produce orthorectified imagery and plant community maps. The accuracy of the geometric calibration shall conform to industry standards and shall be approved by the District Project Manager prior to orthorectification.

3. ArcGIS Plant Community Maps and Annual Reports

Create an ArcGIS file geodatabase in ESRI's 10.6 format and an ArcMAP project of the vegetation communities within each of the Project Area boundaries (Figure 1). For each Project Area, the Respondent shall provide a final map of plant communities (i.e., matte laminated, 24 x 36 inch, hard copies; ArcGIS geodatabase; and ArcMAP map package .mpk), a signature/training key, a test plot, an accuracy assessment report that contains an error matrix and associated statistics, and an annual report that shows a high-level analysis of the

distribution of plant communities within each individual Project Area mapped during that year.

4. Final Report

A draft Final Contract Report shall be submitted no later than 30 days prior to contract termination. It shall include collated information from all three years and shall be presented with an Executive Summary. It should be comprehensive and include the background of the project, the methodology utilized for all components of the project, and descriptive summaries of the plant communities mapped in each Project Area. The District Project Manager will return comments within two weeks and the final version will be due upon contract termination.

V. TIMEFRAMES AND DELIVERABLES

Due dates are provided in the list of deliverables and time-frames in Table 2.

1. Digital Imagery Data

- a. Respondent shall provide a Mission Plan for the flight, that includes specifications on flight lines and ground control points, 24 hours prior to the planned mission.
- b. Respondent shall provide a flight report within 24 hours of imagery acquisition that includes, but is not limited to, the following information: Mission, Job #, Date, Job Name, Job Location, Aircraft, Exposure/filter, Line #'s, Direction, Start and End frame or exposure #, Indication of Header / Footer frames, UTC time, Eastern Time, altitude, and remarks.
- c. Respondent shall deliver all airborne GPS and IMU (inertial measurement unit) data collected during imagery acquisition. Data shall be formatted in UTMs (m) with a NAD83 datum for the GPS/POS file and time of acquisition shall be formatted in Eastern Standard Time (EST).
- d. Respondent shall deliver the manufacturer's camera calibration report for the sensor utilized for acquisition.
- e. Respondent shall deliver an ESRI file geodatabase (V.10.6) containing the following layers:
 - 1) Flight lines (line layer).
 - 2) An image depicting the footprint of each image (polygon layer) with a field containing the image file name.
 - 3) Ground control points (with horizontal and vertical measurements).
- f. Respondent shall deliver georectified, color-balanced, digital images of the Project Areas in uncompressed TIFF file format and compressed JP2 format with valid projection header information. Frames that are considered "leader or starter" images and are outside of the Project Areas, shall be designated as such.

2. Orthophotos and Mosaics

Individual digital orthoimages and orthoimagery mosaics shall include all the imagery from each Project Areas for each year in two mosaics (a true-color mosaic and a color infrared

mosaic). A metadata file that includes information on the processes used to create the orthoimages and the digital mosaics shall be included.

Respondent shall deliver:

- a. Individual georectified, orthoimagery as GeoTiff files (.tiff and .tfw) and compressed files in JP2 format.
- b. Orthoimagery as GeoTiff files (.tiff and .tfw) and compressed files in JP2 format, including two mosaics (a true-color mosaic and an infrared mosaic).
- c. Orthoimagery checkpoint data as an ArcGIS File Geodatabase (.gdb) and coordinating survey and accuracy report on checkpoints (.pdf).
- d. Respondent shall deliver a single metadata file (.xml format) for each year that is compliant with the Federal Geographic Data Committee's (FGDC) Content Standard for Spatial Metadata in an ArcCatalog compatible XML format. At a minimum, the metadata shall include the following information:
 - 1) image collection date and time (Eastern Time),
 - 2) sensor description,
 - 3) processing software and methodology for imagery acquisition,
 - 4) positional accuracy and procedures used to determine accuracy, and
 - 5) processing methodology for rectification of imagery used to create the digital mosaics.

3. Plant Community Maps

The Respondent shall deliver the completed shapefiles and accuracy assessment for each year and Project Area according to Table 1. The District's Project Manager shall examine the shapefiles for positional and thematic accuracy and accept or reject the shapefiles within two weeks of receipt. If the shapefiles do not meet positional and thematic accuracy standards, the District shall return them to the Respondent with comments. The Respondent shall incorporate corrections into the final ArcGIS file geodatabase and the final report within two weeks of receipt.

The Respondent shall deliver:

- a. Signature/Training Key ArcGIS files, Excel spreadsheet with GPS location and plant community notes, and ground images (.jpg).
- b. Test plot data including ArcGIS files, ground-truthing data, accuracy assessment, and ground images.
- c. Ground-truthing ArcGIS files, Excel database and support materials (ground images, copies of the field notebooks).
- d. Plant community ArcGIS file geodatabase (.gdb) with complete metadata in ESRI's 10.6 format and map package (.mpk) for the plant community map.
- e. Three matte laminated, 24 x 36-inch, hard copy maps of each Project Area.
- f. A final annual report for each of the three years detailing the plant community distribution and accuracy assessment for each Project Area.

4. Final Contract Report

A draft Final Contract Report shall be submitted no later than 30 days prior to contract termination. It shall include collated information from all three years and shall be presented with an Executive Summary. It should be comprehensive and include the background of the project, the methodology utilized for all components of the project, and descriptive summaries of the plant communities mapped in each Project Area. The District Project Manager will return comments within two weeks and the final version will be due upon contract termination.

VI. BUDGET

The anticipated overall budget for the entire project (three years) is \$210,000. The budgeted amount for Deliverables 1-4 (i.e., the first year of mapping effort) is \$70,000. Funding for additional years are contingent upon funding availability. The Respondent shall invoice on a deliverable-completed basis according to Table 2.

Table 1. Project Areas and Required Feature Datasets (refer to Figure 1).

			File	
Map Color	County	Name of Project Area	Geodatabase Name	Approx.Area (ac)
		Year 1 (2020)		
		Silver Springs Forest Conservation		
yellow	Marion	Area	ssfca	5,598
yellow	Marion	Ocklawaha Prairie Restoration Area	opra	6,411
	Brevard,			
yellow	Osceola	River Lakes Conservation Area	rlca	42,940
			Total Area	54,949
	1	Year 2 (2021)		1
blue	Putnam, Volusia	Lake George Conservation Area	lgca	11,756
orac	Volusia,	Luke George Conservation rica	igea	11,750
blue	Putnam	Crescent Lake Conservation Area	clca	3,583
	Volusia,			
blue	Flagler	Heart Island Conservation Area	hica	13,645
blue	Lake	Emeralda Marsh Conservation Area	emca	6,578
	Orange,			
blue	Lake	Lake Apopka North Shore	lans	19,950
			Total Area	55,512
Year 3 (2022)				
purple	Indian River	Blue Cypress Marsh Conservation Area	bemea	29,387
purple	Indian River	Blue Cypress Water Management Area	bcwma	11,777
purple	Indian River	Fellsmere Water Management Area	fwma	11,189
purple	Brevard	Sartori West	sartori	1,928
			Total Area	54,281

Table 2. List of Contract Deliverables and Time Frames

(Although the table refers to deliverables for digital aerial imagery, comparable deliverables and timeframes will be expected if satellite imagery is used. Required external hard drives will be purchased by Respondent and supplied to the District. Due dates refer to calendar days.)

Deliver- able #	Item	Delivery Method	Format	Due Date	Year(s)
		Aerial Imag	gery		
1.a	Mission Plan	Emailed and archived on external hard drive	.docx or .pdf	24 hours before flight	2020 2021 2022
1.b	Mission Log	Emailed and archived on external hard drive	.docx or .pdf	24 hours after flight	2020 2021 2022
1.c	Center Coordinates of Frames	Emailed and archived on external hard drive	.txt or .xlsx	Two weeks after flight; no later than March 15 th	2020 2021 2022
1.d	Flight line Map with Center Coordinates, Frame Polygons, and Ground Control Pts	Duplicate (2) hard copies and archived on external hard drive	.shp or .gdb	Two weeks after flight; no later than March 15 th	2020 2021 2022
1.e	Raw Geo-referenced Digital Image Data	Electronic access via shared internet site (ftp, DropBox, etc.) and archived on external hard drive	Uncompressed .tiff and .JP2	One week after flight	2020 2021 2022
		Orthoimages and	l Mosaics		
2.a	Individual Digital Orthoimages	Electronic access via shared internet site (ftp, DropBox, etc.) and external hard drive	.tif, .tfw, .JP2	Three weeks after imagery capture; no later than March 21st	2020 2021 2022
2.b	ABGPS/IMU Data & Processing Report	Emailed and archived on external hard drive; hard copy signed by PSM	.xlsx, .pdf or .docx	Three weeks after imagery capture; no later than March 21st	2020 2021 2022
2.c	Camera Calibration Report	Emailed and archived on external hard drive; hard copy signed by PSM	.pdf or .docx	Three weeks after imagery capture; no later than March 21st	2020 2021 2022
2.d	Imagery Mosaics for Each Project Area with 500m Buffer	Electronic access via shared internet site (ftp, DropBox, etc.) and archive on external hard drive	.tif, .tfw, .JP2	One month after imagery capture; no later than April 1st	2020 2021 2022
2.e	Checkpoint Survey & Report	Electronic access via shared internet site (ftp, DropBox, etc.) and archived on external hard drive; hard copy signed by PSM	ArcGIS File Geodatabase (.gdb) & .pdf	One month after imagery capture; no later than April 1st	2020 2021 2022
2.f	Orthoimage Mosaic Metadata	Electronic access via shared internet site (ftp, DropBox, etc.) and External hard drive	.xml	One month after imagery capture; no later than April 1st	2020 2021 2022
		Plant Communi	ty Maps		

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Deliver- able #	Item	Delivery Method	Format	Due Date	Year(s)
3.a	Signature/Training Key Photos and Database	Emailed and external hard drive	.xlsx and .jpg	30 days after 2.d; no later than May 1 st	2020 2021 2022
3.b	Test Plot with Associated Ground- truthing and Accuracy Assessment	Electronic access via shared internet site (ftp, DropBox, etc.) and external hard drive	ArcGIS shapefile (.shp) or feature class (.gdb) .xlsx .docx .jpg	within 3 weeks after 3.a; no later than May 22 nd	2020 2021 2022
3.c	Ground-truthing ArcGIS Data, Overall Accuracy Assessment and Support Materials	Electronic access via shared internet site (ftp, DropBox, etc.) and external hard drive	ArcGIS shapefile (.shp) or feature class (.gdb) .xlsx .docx .jpg	Completed within 6 months after imagery capture; no later than September 1 st	2020 2021 2022
3.d.1	Draft ArcGIS Data	External hard drive	ArcGIS File Geodatabase (.gdb)	September 1 st	2020 2021 2022
3.d.2	Final ArcGIS Data	External hard drive	ArcGIS File Geodatabase (.gdb)	September 30 th	2020 2021 2022
3.d.3	Metadata	External hard drive	.xml populated in the .gdb file	September 30 th	2020 2021 2022
3.d.4	Map Package(s)	External hard drive	.mpk	September 30 th	2020 2021 2022
3.e	Map Plots (matte laminated)	Three hard copy plots for each Project Area and external hard drive	24 x 36 inches	September 30 th	2020 2021 2022
3.f.1	Draft Annual Report on Plant Community Analysis and Accuracy Assessment	Hard copy and external hard drive	.docx and .pdf	September 15 th	2020 2021
3.f.2	Final Annual Report on Plant Community Analysis and Accuracy Assessment	Duplicate (2) hard copies and external hard drive	.docx and .pdf	September 30 th	2020 2021
		Final Docur	nents		
4.a	Draft Final Contract Report with Executive Summary	Hard copy and external hard drive	.docx and .pdf	September 30 th	2022
4.b	Final Contract Report with Executive Summary	Duplicate (2) hard copies and external hard drive	.docx and .pdf	September 30 th	2022

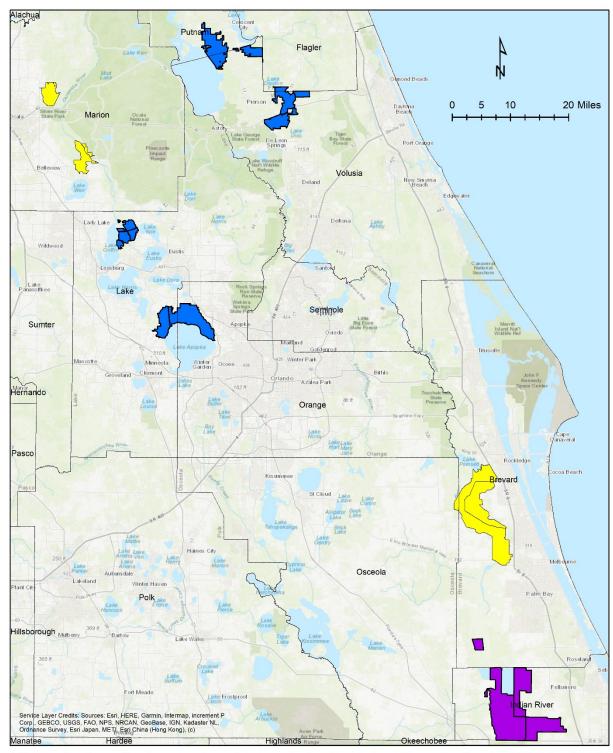


Figure 1. Area for imagery capture and plant community mapping in 2020 (yellow), 2021 (blue) and 2022 (purple).

EXHIBIT I. PLANT COMMUNITY CLASSIFICATIONS AND DEFINITIONS

Community Type	Plant Community	Definition
Other (O)	Anthropogenic (AN)	Areas of agricultural land (including orchards, groves, and row crops, but NOT pasture or pine plantations), and buildings, parking lots, spoil piles, development, etc. Includes bare areas associated with anthropogenic disturbance.
	Levee/Road (LR)	Paved or unpaved roads or levees with grassed, gravel, limerock or dirt roads at their apex; levees without roads should be classified based on the vegetation they support.
	Bare Soil (BS)	Open areas with > 70% cover of bare soil with no vegetation (e.g., shoreline, beach, mudflats, barrens); not associated with anthropogenic disturbance or salt flats.
Water (W)	Water (OW)	Areas such as lakes, impoundments, rivers, canals, ditches, and other areas of open water which may support free-floating plant species (e.g., <i>Eichhornia, Pistia, Salvinia, Lemna</i>).
	Submerged Aquatic Beds (SAB)	Areas containing rooted aquatic plants with photosynthetic tissues below the water surface (e.g., <i>Vallisneria, Najas, Hydrilla, Potamogeton</i>).
Herbaceous Wetland	Salt Marsh/Salt flat (SM)	Areas where salty groundwater seeps to the surface and supports salt-tolerant plants (e.g., <i>Spartina, Sesuvium, Salicornia, Iva, Juncus roemarinus</i> , and small <i>Baccharis</i> shrubs); bare soil is often a significant part of this community and should not be mapped separately.
	Deep Marsh (DM)	Areas containing ≥ 40% cover of bottom-rooted species with floating leaves (e.g., Nymphaea, Nuphar, Nelumbo, Brasenia, Nymphoides) or deep -water emergent species (e.g., Schoenoplectus); may also include Utricularia spp and may occur as a littoral zone around lakes.
	Grass/Sedge Marsh (GS)	Areas containing \geq 70% cover of obligate or facultative-wet grass or sedge spp. (e.g., <i>Panicum, Sacciolepsis, Eleocharis, Rhynchospora, Cyperus</i>); other non-graminoid species, such as <i>Typha</i> and small shrubs may be present.
	Mixed Herbaceous Marsh (HM)	Areas containing a mixture of broadleaf emergents, grasses, sedges, and other spp. (e.g., <i>Pontederia, Sagittaria, Hydrocotyle, Persicaria)</i> ; small shrubs may be included as a small part of the community (e.g., <i>Cephalanthus, Kosteletzkya, Hibiscus</i>).
	Cattail (CT)	Areas containing $\geq 70\%$ cover of <i>Typha</i> spp.
	Phragmites (PH)	Areas containing ≥ 70% cover of <i>Phagmites berlandieri</i> .
	Sawgrass (SG)	Areas containing $\geq 70\%$ cover of <i>Cladium jamaicense</i> .
	Spartina (SP)	Areas containing ≥ 70% cover of Spartina bakeri.
	Wet prairie/wet pasture (WP)	Areas containing a mixture of grasses, sedges, rushes, and forbs (e.g., <i>Spartina, Juncus, Panicum</i>) typically classified as facultative-wet or facultative; long-hydroperiod species (e.g., <i>Typha</i> , water lilies) should not be present; category should also be used for reflooded pastures and wet, unimproved pastures.
Shrub Wetland	Shrub Swamp (SS)	Areas containing ≥ 70% cover of mixed shrub species (e.g., Salix, Morella, Baccharis, Sambucus, Ludwigia, Cephalanthus, Kosteletzkya, Hibiscus); may include small trees (e.g., Acer, Gordonia, Persea, Ilex, Sabal, Schinus).
	Willow Swamp (WS)	Areas containing \geq 70% cover of <i>Salix caroliniana</i> .
Forested Wetland	Cypress (CY)	Areas containing \geq 70% cover of <i>Taxodium</i> spp. (bald or pond cypress); includes cypress domes, swamps, strands and lakeshore variants.
	Hardwood Swamp (HS)	Areas containing \geq 70% mixed wetland tree species (e.g., <i>Acer, Taxodium, Fraxinus, Nyssa, Ulmus, Annona</i>), cypress may be a significant component, but < 70%; includes swamps and communities lying in the floodplain of rivers and streams; understory typically doesn't include <i>Serenoa repens</i> (saw palmetto).
Community Type	Plant Community	Definition

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	Bayhead/gall (BG)	Areas containing > 50% cover by one or more evergreen bay trees (e.g., <i>Gordonia</i> , <i>Persea</i> , <i>Magnolia</i>); may be in combination with <i>Pinus</i> , typically <i>Pinus serotina</i> . Ilex cassine may also be present. Subcanopy and understory may be dominated by <i>Serenoa repens</i> or bays. Ferns (e.g., <i>Osmunda cinnamomea</i> , <i>Woodwardia virginica</i> , <i>Thelypteris</i> spp.) may also be common.
	Hydric Hammock (HH)	Areas containing ≥ 70% canopy cover of <i>Quercus laurifolia</i> , <i>Sabal palmetto</i> , <i>Magnolia virginiana</i> , <i>Juniperus</i> , <i>Celtis</i> , <i>Liquidamber</i> , and/or <i>Ulmus spp</i> . and having shorter hydroperiods than Hardwood Swamp; tree canopy may commonly include <i>Pinus</i> , but will rarely include <i>Taxodium</i> spp.; understory may include <i>Serenoa repens</i> , <i>Callicarpa americana</i> and <i>Psychotria nervosa</i> or ferns
	Cabbage Palm Hammock (CP)	Areas similar in species composition to Hydric Hammocks, but containing ≥ 70% cover of <i>Sabal palmetto</i>
	Forested Flatwood Depressions (FD)	Areas containing mixed communities of <i>Taxodium, Pinus, Sabal</i> , bays or deciduous hardwoods in shallow depressions; may be located within areas of mesic hardwoods or pine flatwoods.
Herbaceous Upland	Dry Prairie (DP)	Areas containing > 50% cover of mixed upland grasses and other herbaceous species (e.g., Aristida, Andropogon, Xyris, Rhexia) with < 50% cover of low shrubs (e.g., Serenoa, Ilex glabra, Lyonia, Vaccinium, Quercus minima) and few trees.
	Pasture (PA)	Areas similar in composition to Dry Prairie, but with recent evidence of pasture/cattle management (e.g., fencing, feeding or water troughs) and the presence of exotic forage grasses (<i>Paspalum notatum, Hemarthria, Panicum repens, Cynodon</i>).
Shrub Upland	Palmetto Prairie (PP)	Areas containing > 50% cover of <i>Serenoa repens</i> and low shrubs (e.g., <i>Ilex glabra, Lyonia, Quercus minima, Vaccinium</i>) with few to no trees; < 50% cover of mixed upland grasses and herbs.
	Scrub (SC)	Areas containing \geq 70% cover of scrub species (e.g., Ceratiola ericoides, Garberia fruticosa, Sabal etonia) and scrub oak species (e.g., Quercus geminata, Q. chapmanii, Q. inopina), withor without an overstory of Pinus clausa; areas of bare white sand may be visible and should be included as part of the community.
Forested Upland	Sandhill (SH)	Areas containing < 50% cover of mixed upland grasses and forbs (e.g., Aristida spp., Garberia, Licania, Pityopsis) with widely spaced Pinus palustris, Quercus laevis, Q. incana, and/or Q. stellata; areas of bare sand may be visible and should be included as part of the community.
	Pine Flatwoods (PF)	Areas typically containing > 40% cover of <i>Pinus</i> spp. with an understory of low shrubs (e.g., <i>Serenoa repens, Ilex glabra</i>), grasses (e.g., <i>Aristida, Andropogon</i>) and forbs; where intensive burns have occurred, trees may be defoliated and understory vegetation may dominate.
	Pine Plantation (PI)	Areas where rows of planted pines (<i>Pinus elliottii</i> , <i>P. palustris</i> , <i>P. taeda</i> , <i>P. clausa</i> , etc.) are visible. Understory vegetation is variable.
	Upland Hardwood (UH)	Areas containing a mixture of hardwood species with pines < 40% and palms < 70%; may be dominated by mesic oak species (e.g., <i>Quercus virginiana</i> , <i>Q. laurifolia</i>).

$ATTACHMENT\ B - DISTRICT'S\ SUPPLEMENTAL\ INSTRUCTIONS\ (sample)$

DISTRICT SUPPLEMENTAL INSTRUCTIONS

DATE:		
TO:		_
		_
	,	-
FROM:	Dianne Ha	ll, Project Manager
CONTRACT N	IUMBER:	35112
CONTRACT T	TTLE:	Remote Sensing and Mapping of Plant Communities for the Preservation of Natural Systems
accordance with proceeding in a adjustments to the Manager. Consul DESCE	tant'S SUPF	ut in accordance with the following supplemental instruction issued in et Documents without change in the Contract Sum or Contract Time. Prior to ith these instructions, indicate your acceptance of these instructions for minor consistent with the Contract Documents and return to the District's Project PLEMENTAL INSTRUCTIONS: F WORK TO BE CHANGED: FION OF SUPPLEMENTAL INSTRUCTION REQUIREMENTS: Choose one of the items below):
Approved:		Date:
(It is agreed that Date.)	t these instru	ictions shall not result in a change in the Total Compensation or the Completion
Approved:		Date:
	•	ement the Supplemental Instructions as requested, but reserves the right to cordance with the requirements of the Agreement.)
Approved:	Dianne Hall,	District Project Manager
Acknowledged:	A I	Date: District Procurement Specialist
	Amy Lucey,	District Procurement Specialist

c: Contract file

Financial Services