PEACE RIVER MANASOTA REGIONAL WATER SUPPLY AUTHORITY
BOARD OF DIRECTORS MEETING
April 3, 2024

CONSENT AGENDA
ITEM 8

Professional Services Contract for the Partially Treated Surface Water ASR Project

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Recommended Action - **Motion** to approve the Professional Services Evaluation Committee recommendation and authorize the Executive Director to execute a professional services contract with AECOM for Engineering Design and associated professional services for the Partially Treated Surface Water ASR Project.

In accordance with the Authority's Procurement Policy, Statements of Qualifications (SOQ) were requested from respondents interested in providing Engineering Design and associated professional services for the Partially Treated Surface Water ASR Project. One (1) SOQ was timely received by the February 9, 2024, submittal deadline, the SOQ was deemed responsive and was evaluated in accordance with the Authority's Procurement Policy.

On February 23, 2024, the Authority's Professional Services Evaluation Committee (PSEC) held a Public Meeting and reviewed the SOQ based on the Evaluation Criteria. At the conclusion of this meeting, the PSEC ranked AECOM with the results shown in the table below.

Staff recommends that the Authority Board of Directors approve the PSEC ranking below and authorize the Executive Director to execute a Professional Services contract for with AECOM for Engineering design Services and associated professional services for the partially Treated Surface Water ASR Project. Work orders issued under the proposed contract will be negotiated on an as-needed basis. Funding for design work provided by FDEP Grant No. LP58012.

Rank	Firm	Location
1	AECOM	Fort Myers, FL

Budget Action – No action is required.

Attachments:
Tab A Staff Memorandum including Selection Committee Tabulation and Notice of Intended Decision
Tab B Partially Treated Surface Water ASR Project SOQ Information Package
Tab C AECOM Submittal

TAB A

Staff Memorandum including Selection Committee Tabulation
and Notice of Intended Decision

PEACE RIVER MANASOTA REGIONAL WATER SUPPLY AUTHORITY

Hon. Elton A. Langford, DeSoto County
Hon. Joseph Tiseo, Charlotte County
Hon. Michael A. Moran, Sarasota County
Hon. George Kruse, Manatee County

Mike Coates, P.G., Executive Director

MEMORANDUM

DATE: January 5, 2024

TO: Ann Lee, Finance & Budget Senior Manager

FROM: Mike Coates, Executive Director

RE: Partially Treated Surface Water ASR Project Request for Statements of Qualifications - Professional Services Evaluation Committee

Pursuant to the Authority's procurement policy, Section 5.4, the following individuals are designated to serve on the Professional Services Evaluation Committee (PSEC) for the referenced project:

Mike Knowles	(PRMRWSA)	Chair of the PSEC
Jim Guida	(PRMRWSA)	Committee Member
Doug Morton	(PRMRWSA)	Committee Member
Brian Bates	(PRMRWSA)	Committee Member
Susan Brasefield	(City of North Port)	Committee Member

Any questions concerning this Request for Statements of Qualifications (SOQ) must be presented in writing via email to **procurement@regionalwater.org** no later than 5:00 p.m. Eastern Standard Time on January 19, 2024, using "**SOQ Question: Partially Treated Surface Water ASR Project**" as the subject line. **Consultants are responsible for reviewing the Authority's website for the Authority's responses to any questions timely submitted.** Statements of Qualifications are due from interested parties on February 9, 2024. The PSEC public meeting to review the SOQ submittals will be held at the Authority's Administrative offices located at 9415 Town Center Parkway, Lakewood Ranch, FL 34202 on February 23, 2024. If the PSEC elects to conduct interviews, they will be held at the Authority's Peace River Facility located at 8998 County Road 769, Arcadia, FL 34269 on March 14, 2024.

Peace River Manasota Regional Water Supply Authority
Partially Treated Surface Water ASR Project: Request for SOQ
PSEC Meeting: February 23, 2024 @ 10:00 AM
9415 Town Center Parkway, Lakewood Ranch, FL 34202

	Criteria					Totals
TEAM	1 (20 points)	2 (25 points)	3 (30 points)	4 (40 points)	5 (10 points)	(125 points)
Aecom	20	25	30	39	9	123

Criteria:

1 Project Manager & Management
2 Experience/Qualifications for Assigned Roles of Key Staff
3 Consultant Team Qualifications & Experience on Similar Projects
4 Project Understanding, Approach, and Schedule
5 Team Location & Collaboration (Key Personnel Chart)

Member Signatures:

Mike Knowles, Engineering/Projects Sr. Manager, PRMRWSA (Chair)

Jim Guida, Director of Water Resources & Planning, PRMRWSA

Doug Morton, Laboratory Manager, PRMRWSA

Brian Bates, Project Engineer III, PRMRWSA

Susan Brasefield, Assistant Utility Director, City of North Port

NOTICE OF INTENDED DECISION FOR AWARD OF CONTRACT –
PEACE RIVER MANASOTA REGIONAL WATER SUPPLY AUTHORITY
PROFESSIONAL SERVICES CONTRACT

for the

PARTIALLY TREATED SURFACE WATER ASR PROJECT

Recommended Action - **Motion** to approve Professional Services Evaluation Committee recommendation and authorize the Executive Director to negotiate contract, scope, and fee with AECOM for Engineering Design and associated professional services for the Partially Treated Surface Water ASR Project.

In accordance with the Authority's Procurement Policy, Statements of Qualifications (SOQ) were requested from respondents interested in providing Engineering Design and associated professional services for the Partially Treated Surface Water ASR Project. One (1) SOQ was timely received by the February 9, 2024, submittal deadline, the SOQ was deemed responsive and was evaluated in accordance with the Authority's Procurement Policy.

On February 23, 2024, the Authority's Professional Services Evaluation Committee (PSEC) held a Public Meeting and reviewed the SOQ based on the Evaluation Criteria. At the conclusion of this meeting, the PSEC ranked AECOM with the results shown in the table below.

Staff recommends that the Authority Board of Directors approve the PSEC ranking below and authorize the Executive Director to negotiate a contract, scope, and fee with AECOM for Engineering design Services and associated professional services for the Partially Treated Surface Water ASR Project to be considered at a future Board meeting. Work orders issued under the proposed contract will be negotiated on an as-needed basis. Funding for design work provided by FDEP Grant No.: LP58012.

Rank	Firm	Location
1	AECOM	Fort Myers, FL

Failure to file a protest within the time prescribed in section 120.57(3), Florida Statues, or failure to post the bond or other security requirement by law within the time allowed for filing a bond shall constitute a waiver of proceeding under chapter 120, Florida Statutes.

Posted: 3/11/2024

TAB B

Partially Treated Surface Water ASR Project SOQ Information Package

PEACE RIVER MANASOTA REGIONAL WATER SUPPLY AUTHORITY

INFORMATION PACKAGE

REQUEST FOR STATEMENTS OF QUALIFICATIONS -
PROFESSIONAL SERVICES
for the
PARTIALLY TREATED SURFACE WATER ASR PROJECT

The Peace River Manasota Regional Water Supply Authority (Authority) is requesting '*Statement of Qualifications'* (SOQ) from consultants (Consultant) for the purpose of providing engineering design and associated professional services for the project known as the 'Partially Treated Surface Water ASR Project' (Project).

AUTHORITY BACKGROUND

The Authority is an Independent Special District of the state of Florida, created and existing pursuant to Chapter 373, Florida Statutes and Section 163.01, Florida Statutes. The Authority is comprised of Charlotte, DeSoto, Manatee and Sarasota Counties. The Authority was created for the purpose of developing, storing, and supplying water for county and municipal purposes in such a manner as will give priority to reducing adverse environmental effects of excessive or improper withdrawals from concentrated areas. The Authority is required to acquire, design, secure permits, construct, operate and maintain facilities in locations and at the times necessary to ensure that an adequate water supply will be available to all citizens within the Authority's boundaries.

The Authority owns and operates the Peace River Water Treatment Facility (PRF), a 51 million gallon per day (MGD) conventional surface water treatment facility located on Kings Highway in southwestern DeSoto County (treatment facility). The original 12 MGD treatment facility was constructed in the late 1970's by General Development Utilities and has undergone expansion and rehabilitation projects several times since the Authority acquired the facilities in 1991. The 51 MGD treatment facility is supported by a 120 MGD intake pump station on the Peace River, a 6.5 billion gallon off-stream raw water storage system, and twenty-one (21) aquifer storage and recovery (ASR) wells located within two ASR Wellfields (ASR Wellfields 1 and 2) that are currently used to store fully treated surface water. The Authority's regional distribution system also includes approximately eighty (80) miles of large diameter drinking water transmission system pipelines and associated remote pumping stations and finished water storage tanks in several counties.

ASR Wellfield No. 1 (ASR WF1) includes nine production wells installed incrementally between 1986 and 1996 and ten monitor wells. Eight of the production wells are completed in the Suwannee Limestone while one is completed in the Tampa Formation. ASR Wellfield No. 2 (ASR WF2) was installed in the early 2000's and has been in operation since 2002. ASR WF2 is comprised of 12 ASR wells open to the Suwannee Limestone and includes 14 monitor wells.

As provided in the Background Materials included with this Information Package, over the last 7-years, the Authority has undertaken substantial efforts to investigate the technical, economic, and

regulatory feasibility of injecting partially treated surface water (PTSW) at ASR WF2. The Authority pursued these efforts because the storage and use of water from the ASR system currently involves water being fully treated twice. Water is treated to drinking water standards before injection and storage in ASR, then upon recovery of water from the ASR system the water is discharged and blended in the raw water reservoir system where it requires full treatment again prior to delivery to Authority Customers. This twice through treatment is performed due to low levels of naturally occurring arsenic the supply picks up from the aquifer while in storage. Arsenic is removed through blending in the reservoir and re-treatment. Employing a partial treatment strategy, rather than full treatment prior to injection has the potential to substantially decrease ASR operational costs.

During the past 7 years there has been a significant shift in position of the Florida Department of Environmental Protection (FDEP) Underground Injection Control (UIC) program regarding the efficacy of partially treated water ASR. The Departments current position is provided in the UIC Permit #_0136595-018-038-UO_5SR issued to the Authority in 2023. Disinfection and adherence to drinking water rather than groundwater standards would be required for all water injected into the ASR system (FDEP issuance of a Water Quality Criteria Exemption for secondary standards for aluminum, iron, and color is pending). Requirements for disinfection and the inclusion of these unanticipated water quality parameters in the final permit require further evaluation to determine their effects upon the feasibility and benefits of PTSW ASR.

SCOPE OF SERVICES

The Authority is requesting 'Statement of Qualifications' (SOQ) from consultants (Consultant) for the purpose of providing engineering design and associated professional services for the Authority's 'Partially Treated Surface Water ASR' Project (Project). Elements currently proposed for inclusion in the Project are shown below, which may be revised at the discretion of the Authority.

Implementation of the Project will require multi-disciplinary expertise. The services requested include pilot testing, all design work, permitting, and construction inspection required for project completion. The first phase of the project will involve pilot testing of water treatment options, and evaluation of pertinent regulatory requirements to assist the Authority in determining the technical, economic, and regulatory feasibility of injecting PTSW at the Authority's ASR WF2. Such injection will be required to be continuously compliant with the Authority's September 2023 UIC permit and/or a potential future modification thereof, and associated FDEP and U.S. Environmental Protection Agency (EPA) UIC rules. Subsequent work on the project will depend on results from the pilot testing effort described above.

The Consultant shall demonstrate the engineering, technical, and regulatory expertise necessary to recommend feasible water quality treatment and/or regulatory alternatives necessary to successfully carry out PTSW ASR, including engineering design, hydrogeology, ground and surface water chemistry, and associated treatment alternatives. The Consultant should demonstrate the experience and ability to pursue successful modification of the Authority's current UIC permit to effectuate PTSW should it be determined it is infeasible and/or inadvisable to conduct PTSW under the current permit. To date, the PTSW system is anticipated to treat water from Reservoir

No. 1 and is expected to include a new pump station, pressurized course media filtration, and a side stream chloramine disinfection system. The Consultant will review this preliminary system and recommend any recommended modifications thereto. Injection of PTSW and additional cycle testing is not currently authorized by the UIC permit and is not anticipated in the initial phase(s) of the Project but could potentially be required sometime during further development of the Project.

The initial professional services for the Project will include pilot testing of process to determine the efficacy of partial treatment and preliminary design of facilities required to effect partial treatment meeting all regulatory requirements. The preliminary design must include a Technical Report describing the technical, economic, and regulatory feasibility of implementing the Project, and recommended next steps. The estimated budget for these initial services (pilot testing and preliminary design) is $1,000,000.

Should the Authority, based on the results of these initial services, determine that PTSW ASR is viable in ASR WF2, further design, permitting, bidding and inspection related services may be negotiated and authorized with the successful Consultant. Upon completion of pilot testing and preliminary design, should the Authority decide not to pursue further design, permitting, and/or construction for the Project, the Authority may at its sole discretion terminate the contract for these professional services.

A planning-level schedule for implementation of the Project follows. All activities identified after Pilot Testing and Preliminary Design assume PTSW ASR appears viable, and the Authority has made the decision to move forward on the project.

- Complete Pilot Testing and Preliminary Design - March 2025
- Complete Final Design, Permitting, and Bidding - April 2026
- Begin Construction - June 2026
- Complete Construction - June 2027
- Begin PTSW recharge at ASR WF2 - September 2027

BACKGROUND MATERIALS

The studies and information listed below are included in this Information Packet. These background materials include information about Authority facilities, water supply operations, permits, and past water supply, water quality, and technical, design and permitting efforts pertinent to the Project. Additional information about the regional water supply system including various studies, reports and plan sets are available for review at the Authority's administrative office at 9415 Town Center Parkway, Lakewood Ranch, Florida 34202 (if interested - please contact Rachel Kersten for appointment 941-316-1776 or via e-mail at Rkersten@regionalwater.org).

1. FDEP – Water Quality Criteria Exemption for Arsenic - Final Order – 2-12-13
2. FDEP UIC Permit No. 136595-016-017-UOIM5 - PTSW Pilot Test 12-14-16
3. FDEP Grant Agreement No LP58012 - PTSW 8-2018
4. FDEP -1st Request for Additional Information (RAI) Re: ASR Renewal & PTSW 9-28-18
5. FDEP Grant Agreement No LP58012 - PTSW - Amendment 10-28-20

6. FDEP UIC Renewal Permit 0136595-018-038-UO_5SR - 9-18-23
7. Location Map - ASR WFs 1 & 2 - CY2022 Ann Report - 8-16-23
8. PRMRWSA ASRus CH2M Hill - PTSW ASR Desktop Study - Final 3-24-2016
9. PRMRWSA ASR UIC Operation Permit Renewal Application Final 2-14-2018
10. PRMRWSA, SWFWMD, ASRus, Jacobs - PTSW ASR Pilot Study - Final Report 8-2018
11. PRMRWSA Response to FDEP First RAI - ASR Renewal & PTSW - 10-11-18
12. PRMRWSA Supplemental Info to FDEP Re ASR UIC Renewal & PTSW - 7-30-20
13. PRMRWSA Presentation to FDEP - Disinfection Study 4-12-21
14. PRMRWSA Hazen -Disinfection Study of PTSW ASR @ PRF - Final Report 9-14-21
15. PRMRWSA Letter - M Coates to C Fischler of FDEP 11-15-2021
16. PRMRWSA - PTSW WQCE Petition Package to FDEP 5-24-22
17. PRMRWSA 8-10-22 Response to FDEP 7-18-22 RAI Letter Re WQCE Petition 8-10-22
18. PRMRWSA 10-7-22 Response to FDEP 8-26-22 RAI Letter 2 Re WQCE Petition
19. PRMRWSA ASRus - PRF ASR System 2022 Annual Report to FDEP 8-2023

GENERAL PROJECT SCHEDULE

A summary schedule for this project is presented below. Dates may be changed at the discretion of the Authority.

	Milestone	Expected Completion Date
(1)	Advertise for Consultant SOQ	01/05/2024
(2)	Final Date for Questions	01/19/2024
(3)	SOQ Submittals Due to the Authority	02/09/2024
(4)	PSEC (a) Meeting to Shortlist	02/23/2024
(5)	Presentations and PSEC (a)(b) Meeting	03/14/2024
(6)	Consultant Selection	04/03/2024 (Board Action)
(7)	Contract and Work Order No. 1	06/05/2024 (Board Action)

(a) PSEC = Professional Services Evaluation Committee. All PSEC meetings are publicly noticed. The PSEC meeting location will be the Authority's Lakewood Ranch Office at 9415 Town Center Parkway, Lakewood Ranch, FL 34202.

(b) Presentations will be held at the discretion of the PSEC. PSEC will decide on the need for presentations and how many firms to have present at the PSEC Meeting to Shortlist. Presentations shall be provided to the Authority at the conclusion of the presentation on a USB Drive. Handouts are acceptable but must also be included on the USB Drive. If presentations are held, the location will be the Peace River Facility, Water Quality Training Center at 8998 County Road 769, Arcadia, FL 34269

The Authority reserves the right to delay scheduled dates if determined to be in the best interest of the Authority.

CONSULTANT SELECTION PROCESS

Consultant selection shall be in accordance with Section 287.055, Florida Statutes, and Consultants

Competitive Negotiation Act, and the Authority's Procurement Policy (adopted December 7, 2022, or latest revision). The Authority's Procurement Policy can be viewed in its entirety on the Authority's website at www.regionalwater.org refer to Section 5.4. A copy of the Authority's standard professional services contract form is included in this information package. The professional services contract contains minimum insurance requirements that must be satisfied for the contract to be executed by the Authority. The contents of the SOQ of the successful Consultant will be incorporated into a written agreement in terms acceptable to the Authority at its absolute discretion. **By submitting a SOQ, the Consultant agrees to all the terms and conditions of this Request for SOQ and those included in the Authority's standard professional services contract.** If Consultant desires to propose a change to a term or condition of this Request for SOQ or the Authority's standard professional services contract, Consultant must submit its request by submitting a question as provided below.

After issuance of this Request for SOQ, prospective Consultants or their agents, representatives or persons acting at the request of such Consultant are prohibited from contacting members of the Authority's Board of Directors and Executive Director or any member of a selection or negotiation committee concerning this issue until after the final recommendation is presented to the Board of Directors for approval or when the solicitation has been canceled or terminated. Any questions concerning this Request for Statements of Qualifications must be presented in writing via email to procurement@regionalwater.org no later than 5:00 p.m. Eastern Standard Time on **January 19, 2024, using "SOQ Question: Partially Treated Surface Water ASR Project'** as the subject line. Consultants are responsible for reviewing the Authority's website for the Authority's responses to any questions timely submitted.

STATEMENT OF QUALIFICATION MINIMUM REQUIREMENTS

The SOQ must detail the Consultant's recommended method to accomplish the tasks and requirements for successful completion of the 'Partially Treated Surface Water ASR' Project. In addition, the SOQ must include sufficient information to allow the Authority to evaluate the Consultant's understanding, experience, and qualifications to perform the work.

The SOQ must include the project responsibilities and proposed involvement of key project personnel, as well as their educational background and specific work experience.

Each SOQ must include the following sections:

Section 0 - Background

This section must include the following as a minimum:

1. Legal name, address, phone number of Consultant and e-mail of primary contact;

2. Principal office locations of submitting Consultant and any proposed partners/sub-consultants;

3. Legal form of company, i.e., partnership, corporation, joint venture, (if joint venture, identify the members);

4. Copy of Florida Professional Licenses as applicable (business and/or individual);

5. Disclosure of whether Consultant or partner/subconsultants currently represents Charlotte, DeSoto, Manatee, or Sarasota counties, or the City of North Port (Customers), in any way; and

6. Disclosure of any litigation Consultant or partner/subconsultants is involved in against any of the Authority Customers (listed above), either directly or retained for testimony and expertise on behalf of any other entity in litigation against the Authority or any of its Customers.

Section 1 - Project Manager & Management

This section must include the following as a minimum:

1. Qualifications and professional experience for Consultant's "Project Manager" who is proposed to serve as point of contact for any and all work assigned by the Authority.

2. The Consultant's approach to project management and ensuring that all aspects of the project are effectively completed on time and within the Authority's budget. Provide information relative to specific experience of the proposed Project Manager.

Section 2 - Consultant Team's Engineering and Professional Experience

This section must include the following as a minimum:

1. Resumes of Key Personnel, showing engineering qualifications and professional experience, who will be assigned to conduct project services listed within the Scope of Services, the consultant firm and location of the office to which they are assigned.

2. Project Examples: SOQs shall include descriptions and examples of projects completed by Consultant or partner/subconsultants relating to the project service areas identified herein, including budget and completion, or estimated (if ongoing) completion time information. Project Example may be either firm or personnel experience and will be indicated as such in the project description (Project Examples from Key Personnel while employed outside their current firm can be considered). **Project Examples must be listed on the Key Personnel Chart (Section 4). The Project Example writeups must include the Key Personnel's role on the project as well as a brief statement on the project status**. Include as a minimum:

    A. No less than three Project Examples that illustrate the Consultant Team's engineering and professional experience in conducting design of water treatment plants and water supply transmission systems, conducting technical, economic, and regulatory feasibility studies, and fluency in and securing permits required by applicable Florida Department of Environmental Protection (FDEP). U.S. EPA, and SWFWMD regulatory and permitting requirements.

The Consultant shall provide a project Organizational Chart that shows at a minimum proposed

Key Personnel team members for design, feasibility, and regulatory aspects of the Project, as well as FDEP Grant and SWFWMD cooperative funding opportunities, requirements and considerations. The Consultant shall provide a companion Key Personnel Chart in section 4 that identifies the proposed Key Personnel roles on the Project.

Section 3 - Preliminary Project Understanding, Approach, and Schedule

This section must include the Consultant's Project Understanding, Approach and Schedule. This shall include a description of the respondent's understanding of the Scope of Services for the overall Project and its component elements, and an approach and schedule for completing them. This shall also describe how the respondent's understanding and experience will be applied to ensure effective Project implementation and completion.

Section 4 - Required Forms

The following forms must be included in this section:

- Key Personnel Chart (Attachment A)
- E-Verify Affidavit and Required Evidence
- Signed Sworn Statement under Section 287.133(3)(a), Florida Statutes, on Public Entity Crimes (below); and
- Reference Forms (List of three (3) client staff that the Authority can contact as references with respect to three of the Consultant's Project Examples presented in this SOQ)

Costs shall not be submitted with the SOQ as fee schedules and detailed scope of work will be negotiated after the selection of the Consultant. Two or more consultants may combine for the purpose of responding to this Request for SOQ providing that one consultant is designated as the "Prime" Consultant and the other(s) as subconsultant(s) and that the SOQ was made without collusion and is in all respects, fair and in good faith.

The SOQ must be no more than forty (40) one-sided pages for all requested information described herein with the following exceptions: Front and back covers, table of contents, section dividers, and Required Forms are excluded from the page limit. All pages shall be standardized 8 ½ x 11 inches in size, margins not less than 1-inch, standard black text and minimum 12-point font size unless section indicated that pages 11 x 17 inches in size are allowed. Font on graphics may be reduced to 10-point font size.

Consultants desiring to provide these services to the Authority must submit a single electronic file in searchable PDF format of their statement of qualifications in accordance with the requirements contained in the information package via email to procurement@regionalwater.org, using "Response to SOQ: Partially Treated Surface Water ASR Project" as the subject line.

As a courtesy, the Authority will endeavor to provide an email acknowledgement usually sent within a few days after submission receipt (submissions received on the day of the deadline may not be acknowledged before the deadline or at all). It is the Consultant's responsibility to confirm

its submission (PDF file) has been received. The Authority can receive files up to 100 MB in size.

A Consultant's SOQ must be received no later than **10:00 a.m. Eastern Standard Time on February 9, 2024,** at the above-referenced email address. The Authority will not be responsible for any lost or late arriving statement of qualifications sent electronically. Late submittals will not be opened or considered. SOQs that are incomplete, conditional, obscure, or do not conform to the requirements contained in this Request for Statements of Qualifications may be rejected as nonresponsive at the sole discretion of the Authority. The Authority reserves the right to reject all responses and not grant any award resulting from this Request for Statements of Qualifications. The Authority also reserves the right to waive nonmaterial irregularities and technicalities and to re-advertise for an additional statement of qualifications. If awarded, no contract will be formed between the Consultant and the Authority until an agreement is executed by both parties. Upon submittal of its SOQ, the Consultant agrees to be bound by all terms and conditions of the Request for Statements of Qualifications. Neither the Authority nor its representatives will be liable for any expenses incurred in connection with the preparation of a response to this Request for Statement of Qualifications.

PROPOSAL EVALUATION CRITERIA & PROCESS

The following criteria, with the maximum score for each criterion , will be used to evaluate proposals:

Criteria	Maximum Possible Score
1. Project Manager & Management	20 points
2. Experience/Qualifications for Assigned Roles of Key Staff	25 points
3. Consultant Team Qualifications & Experience on Similar Projects	30 points
4. Project Understanding, Approach, and Schedule	40 points
5. Team Location & Collaboration (Key Personnel Chart)	10 points
TOTAL	125 points

By submitting a SOQ, Consultant and any sub-consultants certify they have sufficient availability with key staff to achieve the Preliminary Engineering schedule submitted and, if selected to do so, can attend the presentation in-person on the scheduled date. Sub-consultants can participate in multiple Consultant proposals.

PRESENTATION/ INTERVIEW EVALUATION CRITERIA

If the PSEC decides to hold presentations, each Consultant will be given up to 30 minutes for oral presentation followed by an interview by PSEC members. The presentation will be limited to speaking only and no additional written materials or slides may be provided other than to reference the written materials provided in the initial proposal. Following the presentations and interviews, each PSEC member will rank the Consultants (for example, 1st, 2nd, and 3rd if three or more Consultants are shortlisted for presentations). The rankings for each Consultant will be tallied and the Consultant with the lowest total score will be recommended for award of the contract. PSEC members will consider the proposals submitted by selected Consultants in conjunction with the presentation in developing their rankings, but the proposal scores will not be used in the

presentation rankings. Only presentation rankings will be used to determine the PSEC's recommended award.

SCRUTINIZED COMPANIES

By submitting a response to this solicitation, respondent certifies that it is in compliance with Section 287.135, Florida Statutes. Respondent certifies that it is not on this list of Scrutinized Companies that Boycott Israel and is not engaged in a boycott of Israel. For contracts for goods or services of $1 million or more, respondent certifies that (1) it is not on any of the following lists: Scrutinized Companies with Activities in Sudan, Scrutinized Companies with Activities in Iran Terrorism Sectors, or Scrutinized Companies that Boycott Israel, and (2) it is not engaged in business operations in Cuba or Syria. Respondent acknowledges the remedies provided in Subsection 287.135(5), Florida Statutes against anyone found to have submitted a false certification including civil penalties.

PUBLIC ENTITY CRIMES

Respondent is informed of the law set forth in Subsection 287.133(2)(a), Florida Statutes, including that a person who has been placed on the convicted vendor list for public entity crimes (maintained by the Florida Department of Management Services) may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity and may not transact business with any public entity for contracts in excess of the threshold amount provided in section 287.017 for category two (currently $35,000) for 36 months after being placed on the list. Respondent must provide with its response a fully executed public entity crimes statement.

E-VERIFY

As required by Section 448.095, Florida Statutes, consultants, contractors, subconsultants, and subcontractors for a public agency must register with and use the E-Verify system to verify the work authorization status of all new employees. By submitting a response, Consultant certifies that it has registered with and uses the E-Verify System. As provided in Seton 3.2.8 of the Authority's Procurement Policy, before entering into a contract with the Authority Consultant will provide an affidavit confirming its compliance with E-Verify laws.

CONFLICT OF INTEREST

All Consultants must disclose in their SOQ the name of any officer, director, or agent who is also an employee of the Authority. Further, all Consultants must disclose the name of any employee of the Authority who owns, directly or indirectly, an interest in the Consultant's firm or any of its subsidiaries.

RESPONSIBLE VENDOR DETERMINATION

Respondent is hereby notified that Section 287.05701 Florida Statutes provides that the District may not request documentation of or consider a vendor's social, political, or ideological interests when determining if the vendor is a responsible vendor.

PROCUREMENT POLICY AND BID PROTESTS

Consultant is hereby placed on notice of the existence of the Authority Procurement Policy, December 2022 (or latest revision) ("Procurement Policy") and is considered to be on constructive notice of all provisions contained therein. A copy is available at the Authority's Administrative

Office at 9415 Town Center Parkway, Lakewood Ranch, Florida 34202 and on the Authority's website at www.regionalwater.org. The Authority shall post the intended decision or Board decision on the Authority's website at www.regionalwater.org. As provided in the Procurement Policy, disputes regarding the bidding process shall be resolved in accordance with Section 120.57(3), Florida Statutes. Failure to file a protest within the time prescribed in Section 120.57(3), Florida Statutes, or failure to post the bond or other security required by law within the time allowed for filing a bond shall constitute a waiver of proceedings under Chapter 120, Florida Statutes.

PUBLIC AVAILABILITY OF RECORDS

Once opened, all SOQ will become the property of the Authority and, at the sole discretion of the Authority, may not be returned to Consultant. Any information, reports, or other materials given to, prepared, or submitted in response to this Request for Statements of Qualifications will be subject to the provisions of the Public Records Act, Chapter 119, Florida Statutes. Any Consultant claiming that its SOQ contains information that is exempt from Chapter 119, Florida Statutes, must clearly segregate and mark that specific information and provide the specific statutory citation for such exemption. Section 119.071(1)(b), Florida Statutes, exempts sealed SOQ from inspection, examination, and duplication until such time as the Authority issues a notice of intended decision pursuant to Section 120.57(3)(a), Florida Statutes, or within thirty (30) days after the SOQ opening, whichever comes first. This exemption is not waived by the public opening of the SOQ. **ANY QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THIS REQUEST FOR STATEMENT OF QUALIFICATIONS CAN BE DIRECTED TO THE AUTHORITY'S PUBLIC RECORDS CUSTODIAN BY TELEPHONE AT (941) 316-1776, OR BY EMAIL AT PEACERIVER@REGIONALWATER.ORG, OR 9415 TOWN CENTER PARKWAY, LAKEWOOD RANCH, FLORIDA 34202.**

KEY PERSONNEL CHART
(SEE ATTACHMENT A)

SWORN STATEMENT PURSUANT TO SECTION 287.133(3)(a),
FLORIDA STATUTES, ON PUBLIC ENTITY CRIMES

THIS FORM MUST BE SIGNED AND SWORN TO IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICIAL AUTHORIZED TO ADMINISTER OATHS.

1. This sworn statement is submitted to PEACE RIVER MANASOTA REGIONAL WATER SUPPLY AUTHORITY by _____
(Print individual's name and title)

for _____
(Print name of entity submitting sworn statement)

whose business address is _____

and (if applicable) its Federal Employer Identification Number (FEIN) is _____
(If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement: _____).

2. I understand that a "public entity crime" as defined in Section 287.133(1)(g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or with the United States, including, but not limited to, any bid, statement of qualifications, proposal, reply, or contract for goods or services, any lease for real property, or any contract for the construction or repair of a public building or public work, involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.

3. I understand that "convicted" or "conviction" as defined in Section 287.133(1)(b), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.

4. I understand that an "affiliate" as defined in Section 287.133(1)(a), Florida Statutes, means:

a) A predecessor or successor of a person convicted of a public entity crime; OR

b) An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.

5. I understand that a "person" as defined in Section 287.133(1)(e), Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which bids or applies to bid on contracts let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members and agents who are active in management of an entity.

6. Based on information and belief, the statement which I have marked below is true in relation to the entity submitting this sworn statement. **(Indicate which statement applies.)**

____ Neither the entity submitting this sworn statement, nor any of its officers, directors, executives,

partners, shareholders, employees, members, or agents who are active in the management of the entity, nor any affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989.

____ The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989.

____ The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989. However, there has been a subsequent proceeding before a Hearing Officer of the State of Florida, Division of Administrative Hearings and the Final Order entered by the Hearing Officer determined that it was not in the public interest to place the entity submitting this sworn statement on the convicted vendor list**. (Attach a copy of the Final Order.)**

I UNDERSTAND THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR THE PUBLIC ENTITY IDENTIFIED IN PARAGRAPH 1 (ONE) ABOVE IS FOR THAT PUBLIC ENTITY ONLY AND THIS FORM IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND I AM REQUIRED TO INFORM THE PUBLIC ENTITY PRIOR TO ENTERING INTO A CONTRACT IN EXCESS OF THE THRESHOLD AMOUNT PROVIDED IN SECTION 287.017, FLORIDA STATUTES, FOR CATEGORY TWO OF ANY CHANGE IN THE INFORMATION CONTAINED IN THIS FORM.

_____
(Signature) (Date)

STATE OF _____

COUNTY OF _____

The foregoing instrument was acknowledged before me by means of ☐ physical presence or ☐ online notarization, this ____ day of _____, 20____ by _____ as _____ of _____, a _____ company organized under the laws of the State of _____, on behalf of the company, who is personally known to me or has produced _____ as identification.

_____
Notary Public

_____
Name typed, printed or stamped

My Commission Expires: _____

REFERENCES

Consultant must provide three (3) references for Example Projects.

Consultant Name:_____

Reference Entity:_____

Reference Contact Person:_____

Reference Address:_____

Reference Email Address:_____

Reference Phone No.:_____

Project Name:_____

Project Location:_____

Consultant Project Manager:_____

Contract Amount:_____

Date Project Commenced:_____

Date of Final Completion:_____

Description of Work Performed:_____

Contract Holder E-Verify Registration and Affidavit

As provided in Section 33 of the Agreement, pursuant to Section 448.095, Florida Statutes, beginning January 1, 2021, Consultant shall register with and use the U.S. Department of Homeland Security's E-Verify system, (https://e-verify.uscis.gov/emp) to verify the work authorization status of all Consultant employees hired on and after January 1, 2021. Additionally, Consultant shall require all subconsultants performing work under this Agreement to use the E-Verify system for any employees hired on and after January 1, 2021. Consultant must provide evidence to the Authority of compliance with Section 448.095, Florida Statutes, prior to entering the Agreement

Affidavit

I hereby certify that _____(Contract holder) does not employ, contract with, or subcontract with any unauthorized aliens, and is otherwise in full compliance with Section 448.095, Florida Statutes.

All employees hired on or ager January 1, 2021, have had their work authorization status verified through the E-Verify system.

A true and correct copy of _____(Contract holder) proof of registration in the E-Verify system is attached to this Affidavit.

_____
Signature Date

_____
Print Name

STATE OF _____

COUNTY OF_____

The foregoing instrument was acknowledged before me by means of □ physical presence or □ online notarization, this _____ day of _____, 20___ by _____ (name of officer or agent, title of officer or agent) of _____(name of Consultant company acknowledging), a _____ (state or place of incorporation) corporation, on behalf of the corporation. He/she is personally known to me or has produced _____ (type of identification) as identification.

_____
Notary Public

_____
Name typed, printed or stamped

My Commission Expires: _____

SAMPLE PROFESSIONAL SERVICES AGREEMENT
(SEE ATTACHMENT)

TAB C
AECOM Submittal

AECOM

Peace River Manasota Regional Water Supply Authority

Qualifications for Professional Services for the Partially Treated Surface Water ASR Project

Due Date: February 9, 2024

Delivering a better world

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AECOM

4415 Metro Parkway
Suite 404
Fort Myers, FL 33916

www.aecom.com
(239) 278-7996 tel
(236) 278-0913 fax

February 9, 2024

Peace River Manasota
Regional Water Supply Authority
9415 Town Center Parkway
Lakewood Ranch, Florida 34202

Request for SOQ:Professional Services for the Partially Treated Surface Water ASR Project

Dear Members of the Selection Committee:

The Peace River Manasota Regional Water Supply Authority (Authority) is seeking a well-qualified firm to provide engineering design and associated professional services for the Authority's Partially Treated Surface Water ASR (PTSW ASR) Project. Implementation of the PTSW ASR will require a multi-disciplinary team of experts. The services will include pilot testing, all design work, permitting, and construction inspection required for project completion. The first phase of the project will specifically focus on pilot testing of partial treatment strategies, preliminary design, and economic evaluations to further determine the technical feasibility, costs, and systemwide impacts of PTSW ASR at the Authority's ASR Wellfield No. 2 (WF2).

AECOM Technical Services, Inc. (AECOM) is a national leader in every aspect of water supply planning and potable water treatment plant planning, design and construction and is uniquely qualified to serve the Authority on this very important multi-disciplinary contract. Selecting AECOM will provide the Authority with:

Strong leadership to deliver a successful project: Ronald Cavalieri, PE, BCEE, will lead the team as AECOM's project manager. He has researched the specific requirements for the project and assembled a team of professionals with outstanding experience and expertise to meet the Authority's every need. Ron has a proven ability to manage complex multidisciplinary projects. He currently is serving as the principal on several treatment facility projects including the PRMRWSA (Authority) Plant #1 Clarifier Upgrades, the Collier County NC Water Reclamation Facility Headworks and the City of Fort Myers Primary Treatment Aeration Improvements. He also is the contract manager for AECOM's current continuing services contract with the Authority.

A team that has significant experience working with the authority specific to the requirements for this project: AECOM/ASRus team member, Mark McNeal, PG has been actively involved with the Peace River ASR System since about 1990. ASRus is under contract to provide hydrogeologic services to the Authority and assisted the Authority in obtaining the FDEP UIC permit to allow PTSW to be recharged in WF2. AECOM/Hazen team member, Stephanie Ishii, PhD, PE, was project manager on the Authority's Disinfection Study of PTSW for ASR, which included desktop and bench-scale evaluations of multiple disinfection strategies to simultaneously achieve microbial and chemical water quality requirements for ASR recharge. She also managed the development of the Authority's OASIS water resources model for systemwide reliability modeling, long-term planning, and operational optimization. By way of their work with the Authority on the Peace River Regional Reservoir No. 3 (PR3) project, Hazen also brings valuable insights to the team for leveraging the Reservoir No. 1 pump station considering current and anticipated uses.

Firm that has proven track record of successfully completing projects with the Authority: Over the past 25 years AECOM has completed many important projects for the Authority, including the Peace River Facility Water Quality Master Plan, Design and Construction of the Peace River Option and the Facility Expansion Program, Preliminary Investigation of Brackish Groundwater Development Opportunities at the Peace River Facility and Conceptual Design of RO Facilities. AECOM is currently assisting the Authority on design and construction of the Plant #1 Clarifier Upgrades at the Peace River Facility under

our Master Services Agreement (MSA). We regularly attend the Authority Board meetings and have an ongoing understanding of the Authority's strategic objectives.

Highest level of technical expertise and experience: The AECOM team of experts are technical leaders in all of the major disciplines that may be needed under this contract, including potable water treatment, pilot testing, pumping systems, chemical feed systems, ASR, FDEP UIC permitting and system reliability modeling. Our local leadership team, combined with regional and national experts, will provide the Authority with outstanding qualifications to complete the engineering services under this contract in a timely and cost-effective manner.

We are proud of the relationship we have established with the Authority and look to continuing our successful partnership. On behalf of our team, we look forward to working with Authority staff on this critically important project. We give you our personal commitments to producing quality work, on time and within budget, and to the Authority's satisfaction. Please do not hesitate to call us if you have any questions or require additional information. We look forward to presenting our qualifications and experience in greater detail.

Sincerely,
AECOM Technical Services, Inc.

Ronald Cavalieri, PE, BCEE, Project Manager
(239) 278-7996 I Ronald.cavalieri@aecom.com

Chris Hill, PE, BCEE, ENV SP, Principal in Charge
(813) 347-3047 I Christopher.Hill@aecom.com

WHY AECOM

- Strong leadership to deliver a successful project.
- Comprehensive understanding of PTSW system and system component relationships with ASR WF2.
- A team that has significant experience working with the authority specific to the requirements for this project.
- Firm that has proven track record of successfully completing projects with the Authority.
- Highest level of technical expertise and experience.

AECOM

Section 0
Background

Section 0 - Background

0.1 Legal Name, Address, Phone Number, Primary Contact E-mail

AECOM Technical Services, Inc.
4415 Metro Pkwy, Suite 404, Fort Myers, FL 33916
C: (239) 278-7996 | Ronald.Cavalieri@aecom.com

Ronald Cavalieri, PE, BCEE, has 40 years of experience and has a broad range of civil/environmental engineering experience including master planning, water and wastewater treatment plant facilities design and construction, computer analysis and design of water transmission and distribution systems, wastewater collection and conveyance system modeling and design, and hydraulic analysis and design of potable water and wastewater pumping stations. He is a Board Certified Environmental Engineer (BCEE) by the American Academy of Environmental Engineers. Ron is AECOM's authorized representative for this contract.

0.2 Principal Office Locations

Provided on the map below are the principal office locations for AECOM, and our proposed subconsultants.

0.3 Legal Form of Company

AECOM Technical Services, Inc., is a California corporation authorized to transact business in Florida.

State of Florida
Department of State

I certify from the records of this office that AECOM TECHNICAL SERVICES, INC. is a California corporation authorized to transact business in the State of Florida, qualified on August 21, 1995.

The document number of this corporation is F95000004014.

I further certify that said corporation has paid all fees due this office through December 31, 2023, that its most recent annual report/uniform business report was filed on February 7, 2023, and that its status is active.

I further certify that said corporation has not filed a Certificate of Withdrawal.

Given under my hand and the Great Seal of the State of Florida at Tallahassee, the Capital, this the Eleventh day of January, 2024

Secretary of State

Hazen & Sawyer, PC.
1000 North Ashley Drive, Suite 1000, Tampa, FL 33602

ASRus, LLC
13329 North Armenia Avenue, Tampa, FL 33613

Hyatt Survey Services, Inc.
2012 Lena Road, Bradenton, FL 34211

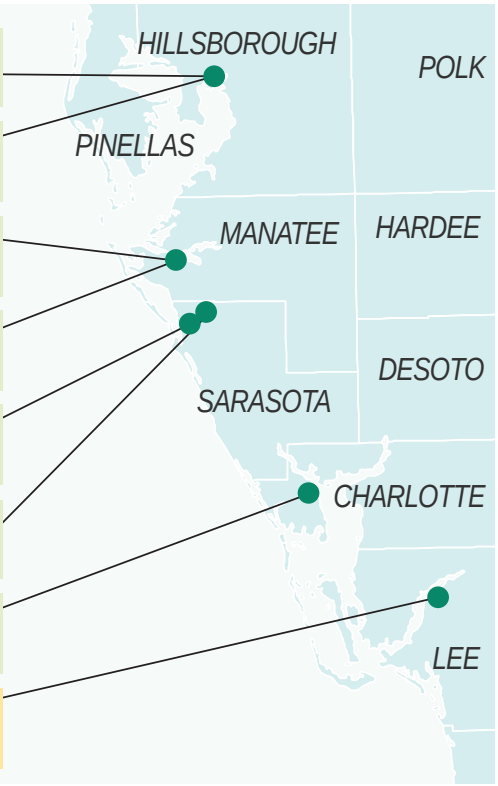
Angie Brewer & Associates, Inc.
4914 Lena Road, Suite 105, Bradenton, FL 34211

Ardaman & Associates, Inc.
1724 Barber Road, Sarasota, FL 34240

Hazen & Sawyer, PC.
7334 Delainey Court, Sarasota, FL 34240

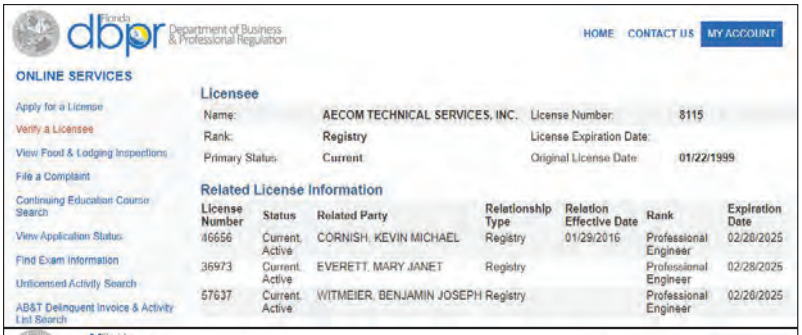
EarthBalance®
2570 Commerce Parkway, North Port, FL 34289

AECOM Technical Services, Inc.
4415 Metro Parkway, Suite 404, Fort Myers, FL 33916



0.4 FL Professional Licenses

Below are all applicable business licenses for AECOM, as well as individual licenses for our team members.



Florida dbpr Department of Business & Professional Regulation

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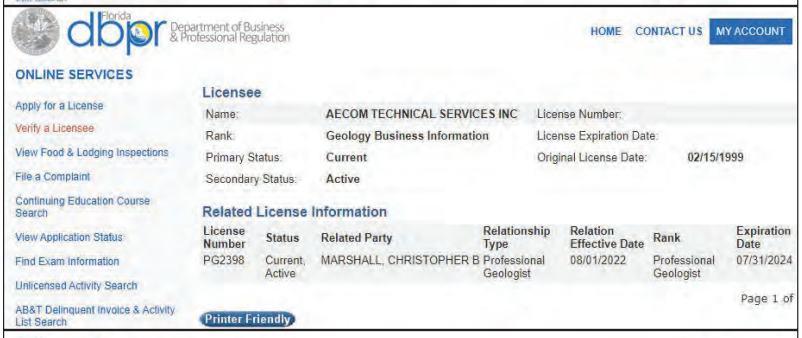
Licensee

Name:	AECOM TECHNICAL SERVICES, INC.	License Number:	8115
Rank:	Registry	License Expiration Date:	
Primary Status:	Current	Original License Date:	01/22/1999

Related License Information

License Number	Status	Related Party	Relationship Type	Relation Effective Date	Rank	Expiration Date
46656	Current, Active	CORNISH, KEVIN MICHAEL	Registry	01/29/2016	Professional Engineer	02/28/2025
36973	Current, Active	EVERETT, MARY JANET	Registry		Professional Engineer	02/28/2025
57637	Current, Active	WITMEIER, BENJAMIN JOSEPH	Registry		Professional Engineer	02/28/2025



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Licensee

Name:	AECOM TECHNICAL SERVICES INC	License Number:	
Rank:	Geology Business Information	License Expiration Date:	
Primary Status:	Current	Original License Date:	02/15/1999
Secondary Status:	Active		

Related License Information

License Number	Status	Related Party	Relationship Type	Relation Effective Date	Rank	Expiration Date
PG2398	Current, Active	MARSHALL, CHRISTOPHER B	Professional Geologist	08/01/2022	Professional Geologist	07/31/2024

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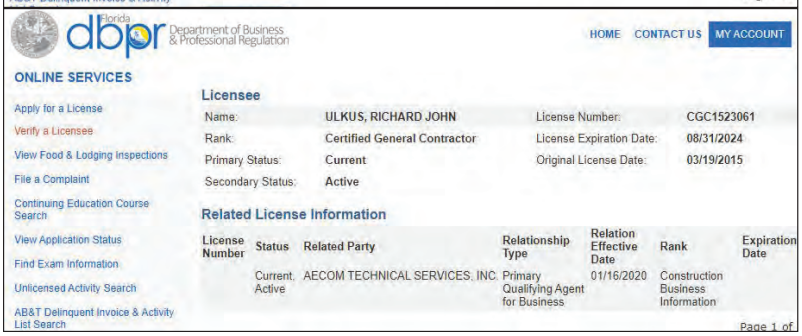
Licensee

Name:	AECOM TECHNICAL SERVICES, INC.	License Number:	
Rank:	Architect Business Information	License Expiration Date:	
Primary Status:	Current	Original License Date:	08/06/2003

Related License Information

License Number	Status	Related Party	Relationship Type	Relation Effective Date	Rank	Expiration Date
AR99442	Current, Active	DINGES, ERIC THOMAS	Responsible Supervisor	08/19/2021	Architect	02/28/2025
AR99442	Current, Active	DINGES, ERIC THOMAS	Qualifying Architect	07/01/2021	Architect	02/28/2025

Page 1 of



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Unlicensed Activity Search
AB&T Delinquent Invoice & Activity List Search

Licensee

Name:	ULKUS, RICHARD JOHN	License Number:	CGC1523061
Rank:	Certified General Contractor	License Expiration Date:	08/31/2024
Primary Status:	Current	Original License Date:	03/19/2015
Secondary Status:	Active		

Related License Information

License Number	Status	Related Party	Relationship Type	Relation Effective Date	Rank	Expiration Date
	Current, Active	AECOM TECHNICAL SERVICES, INC.	Primary Qualifying Agent for Business	01/16/2020	Construction Business Information	

Page 1 of

STATE OF FLORIDA

BOARD OF PROFESSIONAL ENGINEERS

THE PROFESSIONAL ENGINEER HEREIN IS LICENSED UNDER THE PROVISIONS OF CHAPTER 471, FLORIDA STATUTES

HILL, CHRISTOPHER P.

6019 MARTINGLADE PLACE
LITHIA FL 33547

LICENSE NUMBER: PE66933
EXPIRATION DATE: FEBRUARY 28, 2025

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CAVALIERI, RONALD RAYMOND

2903 GILFORD WAY
NAPLES FL 34119

LICENSE NUMBER: PE65850
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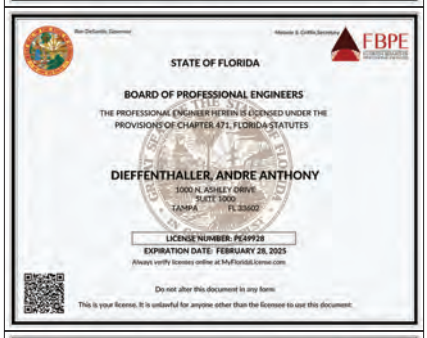

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DIEFFENTHALLER, ANDRE ANTHONY

1000 N ASHLEY DRIVE
SUITE 1000
TAMPA FL 33602

LICENSE NUMBER: PE49928
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BISCARDI, PAUL GRANT

1000 N ASHLEY DRIVE
SUITE 1000
TAMPA FL 33602

LICENSE NUMBER: PE83510
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ISHII, STEPHANIE KINO, LOUISE

499 FREEMAN STREET
LONGWOOD FL 32750

LICENSE NUMBER: PE89527
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HIGGINS, CARLYN JOY

1306 KEY WEST CT
WESLEY CHAPEL FL 33544

LICENSE NUMBER: PE95559
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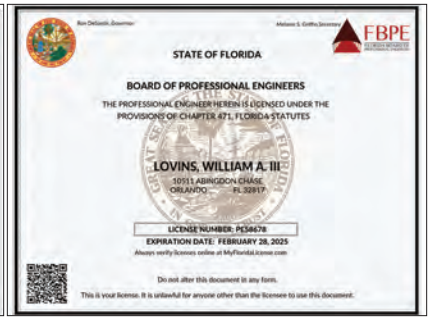

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LOVINS, WILLIAM A. III

10511 ABINGDON CHASE
ORLANDO FL 32817

LICENSE NUMBER: PE58678
EXPIRATION DATE: FEBRUARY 28, 2025

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COLEMAN, ANDREW JON
5717 WATERCOLOR DR
LITHIA FL 33547
LICENSE NUMBER: PE70650
EXPIRATION DATE: FEBRUARY 28, 2025


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ROSMAN, JEFFREY P
15913 COUNTRYBROOK ST
TAMPA FL 33624
LICENSE NUMBER: PE83701
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WILCOX, DAVID ALLEN
11310 CARROLLWOOD DR
TAMPA FL 33618
LICENSE NUMBER: PE34942
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MCNEAL, MARK B
ASRUS, LLC
13329 NORTH ARMENIA AVENUE
TAMPA FL 33613
LICENSE NUMBER: PG1231
EXPIRATION DATE: JULY 31, 2024


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SNOW, WILLIAM PAISLEY
90 S W 11TH AVENUE
BOCA RATON FL 334864564
LICENSE NUMBER: PE42757
EXPIRATION DATE: FEBRUARY 28, 2025


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AHLGRIM, KURT R.
4036 WHITE BIRCH WAY
ORLANDO FL 32817
LICENSE NUMBER: PE64987
EXPIRATION DATE: FEBRUARY 28, 2025


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BOHORQUEZ, FRANCISCO J.
4673 10TH AVE N
SAINT PETERSBURG FL 33710
LICENSE NUMBER: PE63814
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BONAVENTURA, CAROLYN DOWD
INDIVIDUAL
3507 PALM AVE
APOPKA FL 32703
LICENSE NUMBER: CGC1531826
EXPIRATION DATE: AUGUST 31, 2024


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DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
CONSTRUCTION INDUSTRY LICENSING BOARD
THE GENERAL CONTRACTOR HEREIN IS CERTIFIED UNDER THE PROVISIONS OF CHAPTER 489, FLORIDA STATUTES
ULKUS, RICHARD JOHN
AECOM TECHNICAL SERVICES, INC.
110 EAST BROWARD BOULEVARD
SUITE 700
FORT LAUDERDALE FL 33301
LICENSE NUMBER: CGC1523061
EXPIRATION DATE: AUGUST 31, 2024


STATE OF FLORIDA
BOARD OF PROFESSIONAL ENGINEERS
THE PROFESSIONAL ENGINEER HEREIN IS LICENSED UNDER THE PROVISIONS OF CHAPTER 471, FLORIDA STATUTES
BAZOR, STEPHEN WENDELL
150 N ORANGE AVE
SUITE 200
ORLANDO FL 32801
LICENSE NUMBER: PE30112
EXPIRATION DATE: FEBRUARY 28, 2025


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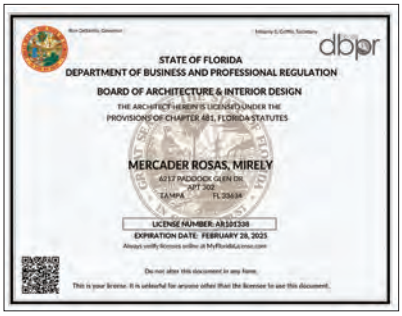
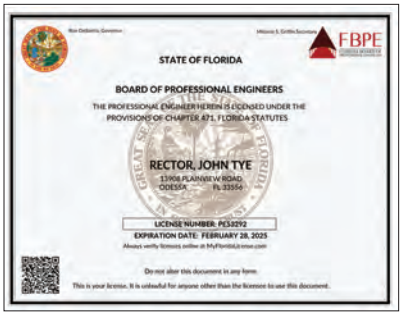
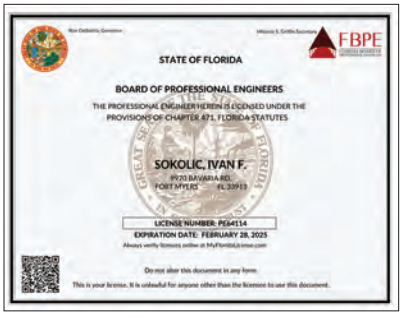
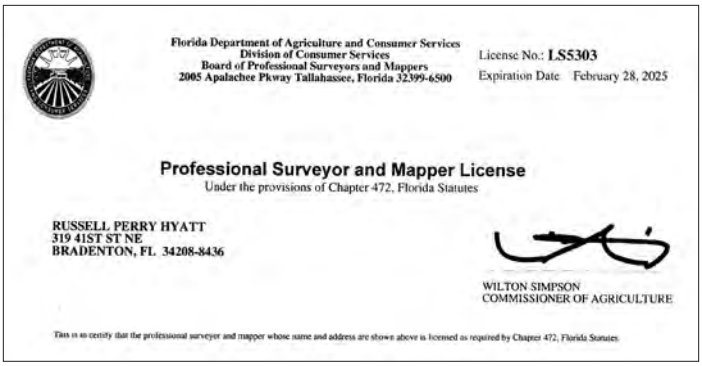
THE PROFESSIONAL ENGINEER HEREIN IS LICENSED UNDER THE PROVISIONS OF CHAPTER 471, FLORIDA STATUTES
OVERBEEK, WILLIAM L
1042 FOGGY BROOK PLACE
LONGWOOD FL 32750
LICENSE NUMBER: PE30998
EXPIRATION DATE: FEBRUARY 28, 2025


STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
BOARD OF ARCHITECTURE & INTERIOR DESIGN
THE ARCHITECT HEREIN IS LICENSED UNDER THE PROVISIONS OF CHAPTER 481, FLORIDA STATUTES
MERCADER ROSAS, MIRELY
4217 PADDOCK GLEN DR
APT 302
TAMPA FL 33634
LICENSE NUMBER: AR101338
EXPIRATION DATE: FEBRUARY 28, 2025


STATE OF FLORIDA
BOARD OF PROFESSIONAL ENGINEERS
THE PROFESSIONAL ENGINEER HEREIN IS LICENSED UNDER THE PROVISIONS OF CHAPTER 471, FLORIDA STATUTES
MOTIWALA, KHALID
101 S EOLA DRIVE
APT 1021
ORLANDO FL 32801
LICENSE NUMBER: PE50633
EXPIRATION DATE: FEBRUARY 28, 2025


STATE OF FLORIDA
BOARD OF PROFESSIONAL ENGINEERS
THE PROFESSIONAL ENGINEER HEREIN IS LICENSED UNDER THE PROVISIONS OF CHAPTER 471, FLORIDA STATUTES
RECTOR, JOHN TYE
13908 PLAINVIEW ROAD
ODESSA FL 33556
LICENSE NUMBER: PE53292
EXPIRATION DATE: FEBRUARY 28, 2025


STATE OF FLORIDA
BOARD OF PROFESSIONAL ENGINEERS
THE PROFESSIONAL ENGINEER HEREIN IS LICENSED UNDER THE PROVISIONS OF CHAPTER 471, FLORIDA STATUTES
SOKOLIC, IVAN F.
9970 BAVARIA RD
FORT MYERS FL 33913
LICENSE NUMBER: PE64114
EXPIRATION DATE: FEBRUARY 28, 2025



Florida Department of Agriculture and Consumer Services
Division of Consumer Services
Board of Professional Surveyors and Mappers
2005 Apalachee Pkway Tallahassee, Florida 32399-6500

License No.: LS5303
Expiration Date: February 28, 2025

Professional Surveyor and Mapper License
Under the provisions of Chapter 472, Florida Statutes

RUSSELL PERRY HYATT
319 41ST ST NE
BRADENTON, FL 34208-8436

WILTON SIMPSON
COMMISSIONER OF AGRICULTURE

This is to certify that the professional surveyor and mapper whose name and address are shown above is licensed as required by Chapter 472, Florida Statutes.

0.5 Disclosure of Representation

AECOM has executed thousands of projects across multiple business lines for clients in Florida, including Charlotte, Manatee and Sarasota counties and the City of North Port. Our business lines include water, transportation, buildings and places, environment and program management. AECOM currently has ongoing contracts through our water and transportation business lines with Manatee and Sarasota Counties.

Angie Brewer & Associates, LC. (ABA), has an open authorization for Manatee County as a subconsultant to McKim & Creed for wastewater. ABA has performed services for Sarasota County in the past. They do not have a relationship with any of the other Cities/ Counties mentioned.

Ardaman & Associates, Inc. (A&A), does not represent Charlotte, DeSoto, Manatee, or Sarasota counties, or the City of North Port (Customers), in any way.

ASRus, LLC (ASRus), currently holds an agreement with Manatee County for the Piney Point injection well project and various subcontracts with multiple engineering firms. ASRus also is currently performing work as a subconsultant with Sarasota County.

EarthBalance® (EB) currently does not represent Charlotte, DeSoto, Manatee, or Sarasota counties, or the City of North Port (Customers), in any way.

Hazen and Sawyer, D.P.C. (Hazen), currently hold ongoing service contracts with Manatee County for Utility Engineering Professional Services, Charlotte County as the Engineer of Record, and Sarasota County for Engineering Library Contracts covering Planning, Utilities, and Treatment. Additionally, they have secured two extra contracts with Sarasota County: one for the Development and Implementation of a Capacity Management, Operations, and Maintenance Program, and the other as a subconsultant for the Capacity Assessment and Assurance Program Framework Development and Pilot Program.

Hyatt Survey Services, Inc. (HSS), does not represent Charlotte, DeSoto, Manatee, or Sarasota counties, or the City of North Port (Customers), in any way.

0.6 Disclosure of Litigation

AECOM Technical Services Inc. is not currently involved in litigation against any of the Authority's customers (Charlotte, DeSoto, Manatee, or Sarasota Counties, or the City of North Port), either directly or retained for testimony and expertise on behalf of any other entity in litigation against the Authority or any of its customers.

The following subconsultants are also not involved in litigation against any of the Authority's customers, either directly or retained for testimony and expertise on behalf of any other entity in litigation against the Authority or any of its customers:

- Angie Brewer & Associates, Inc.
- Ardaman & Associates, Inc.
- ASRus, LLC
- EarthBalance®
- Hyatt Survey Services, Inc.
- Hazen and Sawyer, D.P.C.

AECOM has reviewed Peace River Manasota Regional Water Supply Authority Request for Statements of Qualifications for Professional Services for Partially Treated Surface Water ASR Project. In the event of award, AECOM respectfully reserves the right to negotiate mutually acceptable terms and conditions of the contract, as well as the terms included in the SOQ to the extent same are incorporated into the final contract, in an effort to reach a mutually agreeable contract in line with appropriate industry standards.

AECOM

Section 1

Project Manager & Management

Section 1 - Project Manager & Management

1.1. Meet Our Project Manager: **Ronald Cavalieri, PE, BCEE**

Ron has a broad range of engineering experience including public utility master planning, water and wastewater treatment plant facilities design and construction, computer analysis and design of water transmission and distribution systems, wastewater collection and conveyance system modeling and design, and hydraulic analysis and design of potable water and wastewater pumping stations. He has a proven ability to manage complex multidisciplinary projects. Ron currently is serving as the principal on several treatment facility projects including the Authority Plant #1 Clarifier Upgrades, the Collier County NCWRF Headworks and the City of Fort Myers Primary Treatment Aeration Improvements. He also is the contract manager for AECOM's current continuing services contract with the Authority.

WHY RON?

- 40 years managing engineering teams
- Ron has successfully managed complex, multi-disciplinary projects
- Provide day-to-day management of the project team
- Works and resides locally

AREAS OF EXPERTISE

- Project management
- Treatment facility design
- Pumps/piping systems
- Master planning
- Hydraulic modeling

Firm: AECOM

Assigned Office: Fort Myers

Education: MBA, Bus. Admin.
MS/BS, Civil Engineering

Licenses: PE: FL #65850
Board Certified Env. Eng

PRMRWSA, Continuing Services Contract, FL: Principal in charge on AECOM's existing professional engineering services contract. Currently working on the Plant #1 clarifier upgrades, which includes replacement of the concentric combination dual rake and turbine drive units, full diameter bridge support superstructure, drive platform, reaction well and upper cylinder, center column/recirculation drum, mixer, center rake shaft, two full radius rake arms and local control panel.

Collier County, NCWRF Headworks Facility, FL: Principal in charge responsible for the planning, design and construction of a new 85-mgd headworks facility. The work includes two-stage screening, grit removal, odor control, headworks pump station, flow distribution to treatment trains, plant electrical systems, building design and facility SCADA and I&C system.

City of Fort Myers, Electrical System Upgrade for Regional Advanced Wastewater Treatment Facilities, FL: Project manager responsible for the planning, permitting, design and construction administration services for electrical system upgrades. The work included replacement of 21 motor control centers (MCCs), new main switchgear buildings, and new standby power generators installed in a separate room of the new buildings. The work also included a new state-of-the-art SCADA system and control rooms, which are connected to a local and citywide IT network.

City of Fort Myers, Primary Treatment and Digestor Blower Improvements, FL: Principal in charge on the planning, design, permitting and construction at the City's South and Central AWWTFs. The work includes replacing the existing mixers at the Central AWWTF with larger horsepower mixers to provide the required mixing energy, replacing the existing 150hp surface aerators at both facilities with 250hp surface aerators to maintain required effluent quality at all projected loading scenarios, replacing the reaeration system in the reaeration basin with new blowers and a robust stainless steel coarse bubble diffuser system, providing DO control to tie-in into the VFDs of the new surface aerators, providing weir gates to adjust submergence of the aerator impellers to maintain optimal performance of the equipment, electrical systems and SCADA and I&C.

Collier County, Wastewater Basin Analyses Program (Basin 306), FL: Project director for the comprehensive analysis of 27 County owned duplex wastewater pump stations, three master pump stations and related force main network.

1.2. Project Management Approach

AECOM will serve as the prime consultant for professional services for the Partially Treated Surface Water ASR project. As the lead consultant, AECOM will have overall project accountability to the Authority and will be responsible for all aspects of project delivery. To meet the requirements for this project AECOM has assembled an exceptional team of engineers, environmental scientists and designers that will work diligently to provide all design and construction phase services for the project. We have created a team specifically with the Authority in mind. Our local leadership team combined with AECOM's regional and national experts will provide unmatched capability to complete the work under this contract, in a timely manner.

AECOM has teamed with six highly experienced and specialized firms to assist in the completion of the Authority's contract.

- Angie Brewer & Associates, Inc., has over 30 years of experience with local governments across Florida ensuring they receive the funding they need for their community. They will provide funding services.
- Ardaman & Associates, Inc., will provide geotechnical services.
- ASRus, LLC, has been actively involved with the Authority's ASR system since 2006 when the company was formed, and worked with the Authority on the FDEP/UIC permit modification for the PTSW ASR Project. They will provide UIC/ASR Impacts.
- EarthBalance®, has provided environmental and planning assistance to the Authority for nearly three decades. They will provide environmental studies to support FDEP ERP.
- Hazen & Sawyer, D.P.C., will be responsible for pilot testing and system reliability modeling, and preliminary engineering. Hazen conducted the prior PTSW ASR disinfection study, developed and deployed the Authority's system reliability model (OASIS) and is currently working with the Authority on the Peace River Reservoir No. 3 (PR3) project.
- Hyatt Survey Services, Inc., will provide survey and subsurface utility engineering (SUE).

Our subconsultant partners will be part of an integrated team, allowing the Authority to have a single point of contact through AECOM. AECOM will be responsible for technical consistency and quality throughout the project on all tasks and deliverables.

Communication

One of the most important factors to complete any project is communication. **The key to delivering work that is on schedule and within budget is to communicate to everyone on the project team, and within the organization, on how the project will be executed.** By defining the scope of work, sequence of activities, personnel required to perform each activity and activity duration, the project manager can secure the resources within the firm necessary to complete your project on time.

Team collaboration and communication is essential to maintaining the project delivery schedule through completion. Techniques that we will use to assure project schedules and budget will be met are illustrated in the figure below.

Assigning the Right Technical Resources

AECOM's personnel philosophy is to engage individuals possessing the necessary technical expertise and experience to provide outstanding service to the Authority. However, maintaining that the right technical resources are available at the right time requires effective management. Our Project Manager Ron Cavalieri, will develop a project management plan based on meetings with the Authority's staff and initial site visits with the project team. The purpose of this plan is to identify personnel assignments, project schedule,

milestone dates, interdiscipline and subconsultant coordination, deliverables, assign technical reviewers, and establish protocols for communication with the Authority.

To manage its resources, each AECOM office regularly updates a workload projection database. The workload projection allows each office, and the company as a whole, to assess current staffing needs and to forecast future needs to meet our client's workload and schedules. By regularly monitoring projected workload, AECOM will maintain key project staff through completion of the project.

Team Availability

This project will be a priority for the entire AECOM team. Our team members do not have any current projects that would hinder the successful outcome of services to be provided under this contract.

Prior to the selection of specific staff for our team, we examined the existing and projected workload of each person and confirmed their availability for this assignment. We have determined that they have no obligations, either current or projected, that would prevent them from performing with excellence to meet the requirements for this contract.

The AECOM team has the staffing capacity in place and is firmly committed to completing the Partially Treated Surface Water ASR project on time, within budget, and to the quality standards expected by the Authority.

Ability to Meet Project Schedule

AECOM considers timeliness of service and adherence to schedule as one of the most critical factors in client satisfaction. We firmly believe that a reputation is built on the successful results of each individual project. Our team's ability to meet the required time line for the Peace River Partially Treated Surface Water ASR project is best demonstrated by AECOM's commitment to serving the Authority.

Having completed many important projects and task orders for the Authority over the past 30 years, our team is vested in serving the Authority and its members and dedicated to providing quality work that is on time and within budget, and to the Authority's satisfaction.

AECOM considers the Authority to be a key client and is committed to assigning whatever resources are needed to complete your project.

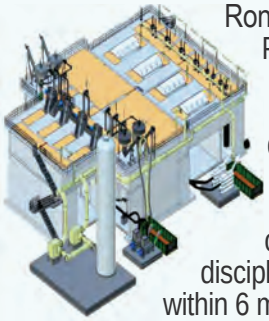
Approach to Management and Project Execution

AECOM's approach is tailored to assure maximum efficiency in completing all project aspects in a timely fashion and to the highest quality standards. It is critical that all our work is closely monitored and that a single source of responsibility is established at the very beginning of the project. Therefore, we have organized all disciplines and functions under the direction of our Project Manager Ron Cavalieri. He will hold overall responsibility for assuring that our services are completed in accordance with the scope of work.

Ron will be assisted in day-to-day supervision of the technical work by our discipline task leads, which have been chosen based upon their professional experience, in particular their experience on assignments similar in size and scope to the Partially Treated Surface Water ASR project.

In interfacing with our subconsultants, their staff members will work directly with the AECOM discipline leads responsible for coordination and review of their work products. Even though our subconsultants may be located in different offices, we have verified common use of equipment and software. Our integrated efforts are expected to be as seamless as being in the same office.

The same philosophy will apply to interfacing with government agencies such as FDEP, SWFWMD, and local permitting agencies. In conjunction with our project manager, experts in the respective disciplines, with approval, will contact and coordinate the required project activities to most effectively reach an acceptable conclusion.



Ron is currently serving as the PM on the Collier County NCWRF Headworks project. AECOM completed the design for the Facility under a very aggressive time schedule. The design on the complex multi-disciplinary project was completed within 6 months of the NTP, 4 months ahead of schedule. The estimated construction cost of the project is $56.4M.

AECOM

Section 2

Consultant Team's Engineering and Professional Experience

Section 2 – Consultant Team's Engineering and Professional Experience

AECOM has assembled an exceptional team of professionals who have the expertise and experience to efficiently and effectively perform the professional engineering services for this project. Our project team **members have been selected specifically for their experience and expertise in providing the services unique to this contract, aiming to deliver the highest level of service possible to the Authority.**

2.1. Resumes of Key Personnel

Brief resumes of our key personnel, including how they will benefit the Authority and help deliver your project successfully, are presented starting below.

Chris Hill, PE, BCEE, ENV SP – *Principal in Charge/ Regulatory Assessment*

Chris brings 32 years of experience in water supply development, process evaluation, preliminary and detailed design, cost estimating and construction management of nearly 2.5-bgd of water supply and treatment. He has helped to plan, permit, design and oversee construction of a number of aquifer recharge and aquifer storage and recovery projects throughout Florida and is familiar with recharge water quality regulations, treatment requirements, and the unique design requirements associated with wells in Florida. His experience includes design and permitting of water supply wells with the Southwest Florida Water Management District (SWFWMD) and SFWMD and treatment facilities, including ASR, water supply and deep injection wells, with the Florida Department of Environmental Protection (FDEP), including several of the Authority members (Sarasota County and Charlotte County).

AREAS OF EXPERTISE

- Water supply planning
- Water treatment
- Water quality and compliance

Firm: AECOM

Assigned Office: Tampa

Education: BS, Chemical Engineering

BA, Business Admin.

Licenses: PE: FL #66933

OH, TX, GA

Board Certified Env. Eng

Envision Sustainability Prof.

City of Sunrise, Sawgrass RO Water Treatment Plant ASR Project, FL: Project manager for design of ASR system to supply 3-mgd of fresh groundwater to the Sawgrass RO WTP, including booster pump station, pipeline, and ASR and monitoring wellhead design.

Hillsborough County, North Hillsborough Aquifer Recharge Program, (NHARP) FL: Engineer of record for this unique aquifer recharge application. The project consisted of the design and construction of the first of several deep injection wells to be used by the County for injection of highly treated reclaimed water. This will serve as a salinity barrier and prevent salinization of coastal wellfields, raise the piezometric head of the freshwater aquifer and increase groundwater supply availability.

Sarasota County, Carlton Water Treatment Facility (WTF) Upgrade and Expansion, FL: Project manager responsible for the preliminary and detailed design of the upgrade and expansion of the 12-mgd Carlton WTF to 15-mgd.

Tampa Bay Water, Lithia Hydrogen Sulfide Removal Facility, FL: Engineer of record for design of a 44-mgd side-stream ozone system to control hydrogen sulfide at the Lithia wellfield and water treatment facility.

Charlotte County, Burnt Store RO Water Treatment Plant, FL: Project engineer for the detailed design and construction of expansion of this brackish groundwater RO facility from 1.1 to 3.6-mgd.

Hillsborough County, Regional Integrated Water Resources Plan, Phases I and II, FL: Project officer for evaluation of regional reclaimed water opportunities amongst the cities of Temple Terrace, Tampa and Plant City as well as Hillsborough County. The feasibility study included beneficial reuse opportunities and aquifer recharge. This program was cooperatively funded by the Southwest Florida Water Management District.

City of Deltona, Upper Floridan Aquifer Wells and WTP #11, FL: Project manager for development of three new supply wells and WTP improvements to protect the Blue Springs springshed. The water supply and transmission elements of the project consist of two new Upper Floridan wells (plus a third future well), approximately 1,000 LF of 16-inch raw water main, and 16-inch finished water main. Improvements to WTP #11 include pretreatment upgrades, chemical feed improvements, and high-service pump upgrades, including associated electrical and controls improvements.

Paul Moulton, PE – *Process Mechanical Advisor*

Paul has 41 years of experience in civil and sanitary engineering, specializing in the design of water and wastewater treatment plants, pumping stations, force mains, and chemical storage and feed and odor control systems. **He is responsible for overseeing the AECOM Design Center of Excellence on design standards, master specifications and design of process mechanical equipment, materials handling systems, and chemical storage and feed systems.** Paul has provided the design, start-up, troubleshooting and commissioning for numerous facilities worldwide.

AREAS OF EXPERTISE

- Water treatment
- Pumping stations
- Force mains
- National recoginized technical advisor

Firm: AECOM

Assigned Office: Pocasset
Education: BS, Civil Eng.
Licenses: PE: NH #04638

Orange County, Eastern WRF – Phase V, Orlando, FL: Process mechanical advisor for the expansion of EWRF from 18-mgd to 24-mgd, which included a new 64-mgd peak capacity headworks, biological process basin upgrades, aeration blower expansion, RAS/WAS pumping upgrades, clarifier improvements, new disc filters, and chlorine contact expansion. Resolved issues with pumps and pretreatment structure during start up.

Collier County, South County Regional WTP, Collier County, FL: Lead mechanical process design engineer for a 24-mgd RO treatment plant expansion, including DIW, odor control and wellfield expansion.

City of Hollywood, Membrane Softening Plant Expansion, Hollywood, FL: Lead mechanical process engineer for a 36-mgd RO and membrane softening water treatment plant, including degasifiers and wet scrubber type off-gas odor control systems.

Andre Dieffenthaller, PE, DBIA – *Quality Control*

Andre has 32 years of experience in the planning, design, permitting, and construction management of water treatment improvements, including water quality and supply master plans, process up- grades, bench- and pilot-scale studies, chemical feed systems, dewatering systems, advanced treatment, and pumping improvements. His experience includes working on several advanced treatment facilities such as ozonation, reverse osmosis, desalination, ultraviolet light, and potable reuse treatment.

AREAS OF EXPERTISE

- WTP design
- Process evaluations
- Master planning
- Condition assessments
- Project management

Firm: Hazen

Assigned Office: Tampa
Education: MS/BS, Civil Eng
Licenses: PE: FL #49928

Peace River Manasota Regional Water Supply Authority, Disinfection of Surface Water for ASR, FL: Project director. Evaluated the feasibility of achieving microbial and chemical water quality standards in partially treated surface water for aquifer recharge. Hazen developed and conducted a testing program involving disinfection via UV, chlorine, chlorine dioxide, chloramines, and ozone, which demonstrated the favor ability of chloramination with respect to disinfection and disinfection byproduct formation.

Tampa Bay Water, Evaluation of Exhibit D Proposed Modifications, FL: Project manager for the Evaluation of Regional Water Quality Requirements and Potential Treatment Options (TOC project). Project evaluated various treatment alternatives to improve water quality within the regional system including ozone, ion exchange, and GAC. Project prioritize potential treatment of source waters based on the most cost-effective and greatest opportunities for distribution system water quality improvement.

Tampa Bay Water, Central Pasco Improvements, FL: Project manager for the planning, design, permitting, and construction administration for the replacement of three existing booster pumping facilities between 15 and 25-mgd, including new high-pressure pumps with a new building; chlorine, ammonia, and caustic feed systems; piping modifications; and electrical, instrumentation, and controls.

Paul Biscardi, PhD, PE – *Pilot Testing/Modeling*

Paul has 12 years experience specializing in drinking water quality and advanced treatment. He has significant experience with pilot testing and process evaluation and has been involved with over ten pilots during the last seven years. Paul also has significant experience with operational support and has led multiple studies focused on chloramine optimization.

AREAS OF EXPERTISE

- Membrane processes
- Water quality/treatment
- Potable reuse
- Pilot study design, operation, and analysis

Firm: Hazen

Assigned Office: Tampa

Education: PhD/MS/BS, Environmental Eng

Licenses: PE: FL #83510

Tampa Bay Water, Water Chloramine Optimization, FL: Paul provided operational support to address chloramine stability challenges faced by Tampa Bay Water. He performed an extensive review of water quality and other operating data and facilitated multiple workshops to identify root causes and provide operational recommendations related to chloramine formation at the Cypress Creek WTP.

City of Sarasota, Verna Water Treatment Plant, FL: Project engineer responsible for leading the drinking water process evaluation and is currently planning the pilot testing component of the project. This work has included detailed evaluation of nanofiltration membrane processes and aeration to provide treatment of sulfide, sulfate, hardness, strontium, and overall TDS.

Pinellas County IWTP Operations Assistance and Capital Improvements Project, FL: Paul led the evaluation and full-scale demonstration of a new chloramination system to an existing industrial water treatment plant (IWTP) that processes a surface water supply. Paul proposed a process control scheme that managed impacts from highly variable influent ammonia and determined a means to avoid organic chloramine formation. He also supported the detailed design of the now permanent chloramination system.

Stephanie Ishii, PhD, PE – *Planning/Operation*

Stephanie has 11 years experience specializing in systems-level evaluations of project options, in which economic, environmental, and community impacts are brought into the decision-making process. She also supports municipalities with water quality assessments that inform source water, treatment, and distribution system management.

AREAS OF EXPERTISE

- Water/wastewater treatment
- Water reuse
- Water supply planning
- Nutrient recovery
- Multi-criteria decision analysis

Firm: Hazen

Assigned Office: Tampa

Education: PhD/MS/BS, Environmental Eng

Licenses: PE: FL #85327

Envision Sustainability Professional (ENV SP)

Peace River Manasota Regional Water Supply Authority, Disinfection of Surface Water for ASR, FL: Project manager. Evaluated the feasibility of achieving microbial and chemical water quality standards in partially treated surface water for aquifer recharge. Developed and conducted a testing program involving disinfection via UV, chlorine, chlorine dioxide, chloramines, and ozone.

Peace River Manasota Regional Water Supply Authority, FL: Project manager developed a mass balance, water resourceOASIS Classic Model Development and Scenario Evaluation, simulation/optimization model using Hazen's OASIS water supply planning software for exploration of the long-term quantity and quality reliability implications of various capital and operational decisions under current and potential future conditions.

City of Plant City, One Water Demonstration Facility, FL: Regulatory lead. Advised treatment technology selection, monitoring approach, and reporting for pilot testing of microfiltration, reverse osmosis, and UV advanced oxidation for advanced treatment reclaimed water for potable reuse applications. Extensive engagement with regulators to ensure that testing protocols and collected data complied with regulations and guidelines in Florida and other states. Conducted presentations, workshops, and tours with various stakeholders to share the City's approach to integrated resource management and the evaluation of potable reuse.

Will Lovins, PhD, PE – *Preliminary Eng Manager/ WTP Process Design/Chemical Feed Systems*

Will has 27 years of engineering experience in water quality and treatment. He specializes in conventional and advanced environmental treatment processes. Will is also adept in tailoring membrane systems to site-specific applications for optimal raw water conversion efficiency (recovery), power consumption, energy recovery, chemical consumption and salt rejection, and permeate mineralization with lime systems.

AREAS OF EXPERTISE

- Membrane processes
- Membrane bioreactor
- Potable reuse
- Pilot study design, operation, and analysis

Firm: AECOM

Assigned Office: Orlando

Education: PhD/MS/BS, Environmental Eng

Licenses: PE: FL #83510

Town of Davie, RO WTP and WWTP Design-Build, FL: Technical lead for preliminary RO WTP design and plant commissioning. Services comprised defining water quality and treatment goals, preparing process flow diagrams, process selection, equipment sizing, and site planning.

City of Oldsmar, RO Water Treatment Plant for Alternative Water Supply, FL: Technical lead for development of alternative potable water supply. Scope included pilot testing, preliminary/final design, construction oversight and plant start-up commissioning. Facility comprised a 3-mgd membrane treatment process with new raw water wellfield, RO membrane skids, post-treatment and storage.

Hialeah RO WTP, Design and Start-up Services,FL: Technical lead for developing and executing a RO water treatment pilot demonstration, design and system start-up. The system included brackish raw water wells, chemical pretreatment, cartridge filtration, RO desalination, chemical post-treatment, storage and high service pumping.

Drew Coleman, PE – *Preliminary Engineering*

Drew has 20 years of experience in water and wastewater treatment design. His work experience includes planning and design of water treatment systems, associated permitting, and construction work. Water supply and treatment project experience includes conceptual design, master planning and CIP development, media filtration, ozone, and nanofiltration pilot study efforts, chemical treatment and storage design, hydraulic modeling, pipeline and flow control design, ozone system design, sidestream ozone injection design, filtration system design, degasification and odor control design, ultrafiltration and RO system design, and electrodialysis reversal design.

AREAS OF EXPERTISE

- WTP/WWTP design
- Hydraulics/pumping sys.
- Chemical storage and feed systems
- Construction mgmt

Firm: Hazen

Assigned Office: Sarasota

Education: BS, Env. Eng

Licenses: PE: FL #70650

Peace River Manasota Regional Water Authority, Water Quality Master Plan, FL: Project manager. The Plan focuses on how the treatment and transmission facilities are performing today with respect to current and potential future regulatory requirements and customer needs. The Plan also identifies and prioritizes potential opportunities to improve water quality. The content of the plan was achieved through historical data and regulatory reviews, bench-scale testing, cost estimation, and collaboration with the Authority and its customers.

Peace River Manasota Regional Water Supply Authority, Peace River **Regional Reservoir (PR3) Detailed Design and Permitting, FL:** Project manager for Hazen's efforts. Overall project included design and permitting of a new 9.0-billion gallons reservoir, a new 258-mgd River pump station, a new 112-mgd Reservoir pump station, and conveyance piping between the facilities (includes pipe diameters up to 84-inches). The project included hydraulic evaluations of the two pump stations, which incorporated hydraulic modeling of a range of operating conditions, CFD modeling for assessment of the pump station intakes, and physical modeling of the River Intake pump station.

Jeffrey Rosman, PE – *Pumping and Hydraulics*

Jeffrey is a water/wastewater engineer with 12 years of experience in planning, design, permitting, bid, procurement and construction phase services for municipal, environmental and industrial clients in both the public and private sectors. He has served as project engineer, task manager, project manager, engineer of record, and quality assurance/quality control lead during the planning and design of a multitude of projects of varying breadth and depth.

AREAS OF EXPERTISE

- WTP planning/design
- WWTP planning/design
- Pumping station planning and design

Firm: Hazen

Assigned Office: Tampa
Education: BS, Civil Eng
Licenses: PE: FL #83701

Peace River Manasota Regional Water Supply Authority, Peace River **Regional Reservoir (PR3) Detailed Design and Permitting, FL:** Project engineer responsible for the detailed design of a new reservoir intake and pump station serving to transport water from the Authority's reservoir system to the head of the water treatment process. Surge and hydraulic modeling were performed to inform the design of the vertical turbine pumping station, which was designed to include provisions to support an ultimate firm pumping capacity of 117.6-mgd.

Peace River Manasota Regional Water Supply Authority, PR3 Siting **and Feasibility, FL:** Project engineer responsible for hydraulic modeling and conceptual engineering to evaluate various piping and pumping system configurations in connection with a conceptual Reservoir No. 3 and an expanded WTP capacity. The evaluation focused on several system improvement alternatives for providing additional river and reservoir pumping capacity, gravity WTP feed functionality, and operational flexibility.

Don DeAngelis – *Pumping,Hydraulics/Pump Station*

Don is a process mechanical technical leader experienced with pump selection and system design using double suction horizontal split case (single & double stage), vertical turbine (single & multi stage), vertical axial flow, vertical turbines in cans, end suction and submersible well pumps. Extensive use of hydraulic analysis to size pumping systems considering water surface elevations and/ or pressure feeds, velocities, friction factors, number of pumps in operation, constant vs variable speed and pipe material for suction and discharge piping.

AREAS OF EXPERTISE

- Pumping systems
- Municipal/industrial treatment
- Piping systems
- Start-up, and operator training

Firm: AECOM

Assigned Office: Ft. Myers
Education: MBA, Eng Mgmt
MS, Environmental Eng
BS, Civil Eng.

Town of Davie, RO WTP and WWTP Design-Build, FL: Lead mechanical engineer for the design-build of a new water and water reclamation facility. Developed the final design of the 6-mgd RO process for treating brackish well water. Designed mechanical systems for cartridge filtration, RO feed pumping and deep well injection pumping system. Developed equipment layouts and piping systems and prepared contract plans and specifications..

City of Fort Myers, Deep Injection Wells, FL: Providing pump selection and piping systems for deep injection wells (4,860 gpm @ 86 psi) and reclaimed water distribution pumps (1,350 gpm @ 86 psi). Pumps take suction from either chlorine contact or above grade storage tanks. Discharge is to deep wells or for reclaimed water distribution. Pumps are multistage vertical turbines in cans with vaned inlet baskets.

South Florida Water Management District, STA 1W Exp. #2, FL: Provided QA/QC and design coordination for the process mechanical design of three stormwater pumping stations with capacities. Pumps are vertical wet pit axial flow driven by diesel engines with right angle gears or 350 HP electric motors. Physical hydraulic model for the inlet channels and pump bays was performed to verify the full-scale design.

Dave Wilcox, PE – *Equipment and Site Layout, Process Mechanical/Filtration*

Dave has experience in the design and construction of water, wastewater, and reclaimed water facilities including process selection, treatment systems, pipeline and pump stations, and the selection of equipment. He's responsible for the design of numerous water treatment facilities.

AREAS OF EXPERTISE

- Pumping systems
- Process mechanical design
- Filtration systems
- Chemical feed systems

Firm: AECOM
Assigned Office: Tampa
Education: MS/BS, Civil Eng
Licenses: PE: FL #34942

Miami-Dade County, Preston Water Treatment Plant EOR Contract, Miami, FL: Technical lead responsible for a series of projects as the 165-mgd facility including; a needs assessment report, evaluation of lime softening process tanks and the design of a 10 ton/day site chlorine generation facility.

PRASA, Villalba Water Treatment Plant, Puerto Rico: Project manager designed a 7.5-mgd, expandable to 15-mgd surface water treatment plant utilizing a 0.1 micro nano-filtration treatment system. The system included pretreatment for iron and taste and odor removal. Sludge dewatering was provided by vacuum assisted drying beds.

Manatee County, Water Treatment Plant, FL: Project manager designed a series of upgrades at the 50-mgd facility. The work included improvements to 40-mgd raw water pump station #1, rehabilitation and modifications to sedimentation Basins B and C, upgrading the emergency generator system with the addition of a 2200 kw emergency generator, and the addition of a second 10-mgal finished water storage tank.

Mark McNeal, PG – *UIC / ASR Impacts*

Mark has 39 years of experience in hydrogeologic investigations including project management of water supply, Aquifer Storage and Recovery (ASR), deep well injection, and reuse projects; design and permitting, well construction inspection; data analysis; geophysical logging and interpretation; aquifer pumping test design and analysis; system startup; well rehabilitation activities, mechanical integrity testing, and operational cycle testing. He is well known with FDEP and EPA Region IV for unique approaches and strategies in UIC permitting.

AREAS OF EXPERTISE

- Hydrogeologic investigations
- ASR
- Aquifer pumping test design
- Water Supply

Firm: ASR US, LLC
Assigned Office: Palm Bch
Education: BS, Geological Engineering
Licenses: PG: FL #1231

Peace River Manasota Regional Water Supply Authority, FL: Mark has been actively involved with the Peace River ASR System since 1990. This is the largest ASR system in the eastern US. He helped the Authority obtain an operation permit for its ASR system, which required an exemption for arsenic concentrations that may occur during use. He is currently leading the effort to modify the system to a partially treated surface water ASR system that will utilize a ZOD for compliance. He is currently part of a team preparing the Authority's water supply master plan for its four-county area.

JEA, Nassau County Exploratory Well, FL: Mark is providing hydrogeologic services to support design, permitting, and construction oversight of an exploratory Underground Injection Control (UIC) well to manage excess reclaimed water for JEA.

City of Tampa, ASR and TAP Programs, FL:Mark has been involved with the City's ASR program since 1989. He continues to provide technical and regulatory support for this ASR system, including obtaining an operations permit in October 2013

Bill Snow, PE – *Detailed Design*

Bill has significant design experience in the field of water treatment, water supply, wastewater treatment, pump stations and utility operations with both private and municipal clients. He specializes in membrane technology and design, including ion exchange, reverse osmosis and membrane softening. Bill also has extensive experience in plant startup and operations.

AREAS OF EXPERTISE

- Water treatment/supply
- Ion exchange
- Membrane softening plants
- Reverse osmosis plants

Firm: AECOM

Assigned Office: Palm Bch

Education: BS, Civil Eng.

Licenses: PE: FL #42757

City of Hialeah, Design-Build, RO WTP Pilot Testing, Design and Start-up Services, FL: Process design manager and engineer of record for a 12.5-mgd RO plant expandable to 20.0-mgd. Services included the design of filtration pretreatment system, chemical pretreatment system and post treatment system using CO2 and Lime mineralization, a degasifier system and biofilter scrubber system, membrane cleaning system, the process building including a membrane room, chemical treatment rooms with bulk chemical storage. The design also included two 5-million-gallon ground storage tanks and a high service pump station.

Town of Davie, RO WTP and WWTP Design-Build, FL: Process start up engineer for the 6.0-mgd RO plant and chemical feed systems including acid, corrosion inhibitor, antiscalant, chlorine disinfection, degasifier system and post treatment system using CO2 and Lime mineralization system.

City of Lake Worth, RO Plant Acid Dilution System, FL: Lead design engineer to replace the full-strength sulfuric acid system with an acid dilution system. The system includes the design of an acid dilution panel for pre and post acid injection to the RO units, booster feed pumps, special piping and a new 20-inch stainless steel static mixer and injection quill. The acid dilution system reduces the strength of the sulfuric acid from 93% to approximately 10% for a safer handling.

2.2 Project Examples

This table illustrates our team's experience and success on projects similar in scope and size to the Peace River Partially Treated Surface Water ASR project.

	Potable Water Treatment	Pilot Testing	Filtration Systems	Pumping Systems	Chemical Feed/Disinfection Systems	SCADA and I&C Design	Electrical/Power Distribution	Civil Site Design/Yard Piping	A/E Design	Aquifer Storage and Recovery (ASR)	FDEP UIC Permitting	Regulatory Compliance	Stormwater Management	Local/State Permitting	Funding Assistance	Operational Startup and Commissioning	Const Mgmt / CEI Srvcs
AECOM PROJECTS																	
TECO RO WTP	●	●	●	●	●	●	●	●	●			●	●	●		●	●
Peace River WTP Exp. Program	●		●	●	●	●	●	●	●			●	●	●		●	●
Davie RO WTP / WRF ★	●	●	●	●	●	●	●	●	●		●	●	●	●		●	●
Oldsmar RO WTP ★	●	●	●	●	●	●	●	●	●		●	●	●	●		●	●
Prineville WTP Ceramic Membrane Pilot Study	●	●	●									●					
MDWASD Hialeah WTP	●		●	●	●	●	●	●	●			●	●	●			●
MDWASD Preston WTP			●				●		●			●		●			●
Hialeah RO WTP ★	●	●	●	●	●	●	●	●	●		●		●	●		●	●
Marco Island RO WTP	●	●	●	●	●	●	●	●			●			●			●
Pinellas County RO WTP	●	●	●	●	●	●	●	●	●			●	●	●		●	●
Palm Beach Couny WTP 3	●	●	●		●	●					●						
Oviedo WTP	●	●		●	●	●	●	●	●		●	●	●	●	●	●	●
Sarasota RO WTP	●	●		●	●	●	●		●		●	●		●			●
Collier County North WTP	●	●	●	●	●	●	●	●	●		●	●	●	●			●
Fort Myers WTP	●	●	●	●	●	●	●	●	●		●	●		●	●		●
HAZEN PROJECTS																	
Disinfection Study of Partially Treated Surface Water for Aquifer Storage and Recovery ASR ★	●		●	●	●					●		●					
PRMRWSA Regional Reservoir No. 3 (PR3) ★	●			●		●	●	●	●			●	●	●			
Pinellas County IWTP Operations Assistance and Capital Improvements Project		●	●	●	●	●	●	●	●					●		●	●
SFWMD Lake Okeechobee Watershed Restoration Project ASR Wells Program	●		●	●	●					●	●	●					●
ASRus PROJECTS																	
PRMRWSA ASR Program ★										●	●	●					
SWFWMD Flatford Swamp Aquifer Recharge ★										●	●	●					

★ Project description provided starting on the following page.

Town of Davie New Water Treatment and WRF Progressive Design-Build, Davie, FL

Firm: AECOM

Client: Town of Davie

Client Contact:
Renuka Mohammed
Utilities Director
T: (954) 327-3768
Renuka_mohammed@
davie-fl.gov

Completion Dates: 2014

Budget: $112M

Key Team Members, Roles:

Will Lovins, *Technical Leader*
Bill Snow, *Process Start-up Eng*
Rich Ulkus, *Construction Mgr.*
Paul Moulton, *Process Mechanical*
Don DeAngelis, *Pumping*

RELEVANCE TO THE AUTHORITY

AECOM provided the following services throughout the project:

- New main switchgear and MCCs
- Civil, structural, architectural, building mechanical design
- New standby power generators
- CEI services
- Electrical engineering
- Regulatory permitting
- SCADA / I&C engineering
- Potable water treatment
- Filtration Systems
- Pumping Systems
- Chemical feed/disinfection systems
- Stormwater management
- FDEP/UIC permitting
- Operational startup and commissioning

Program Description

Expecting significant growth from two redevelopment projects, plus future development, Davie needed to plan for increased demand on its water and wastewater systems in the most environmentally friendly manner possible. With a vision of "Making Davie Clean Through Green," the town contracted AECOM to provide a new facility designed to scale with anticipated growth and demand, while preserving natural resources. The project is a 6-mgd (12-mgd future) brackish water reverse osmosis water treatment plant and a 3.5-mgd (6-mgd future) wastewater treatment plant, using an MBR process, to produce high quality effluent for reclaim water usage. This plant is among the first in Broward County that doesn't discharge treated effluents into the Atlantic Ocean.

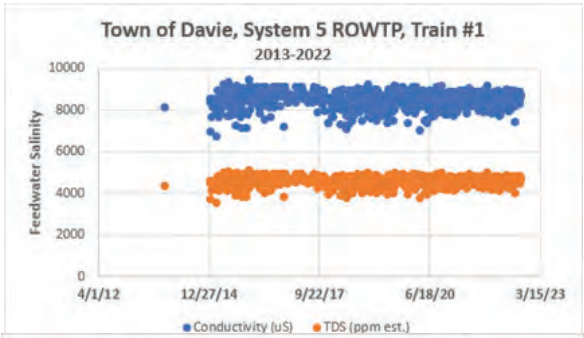
AECOM's scope included developing an alternative water supply from planning through permitting and construction, as well as assisting the town in both selecting and acquiring property for the main facilities and remote sites for raw water wells. AECOM prepared individual design reports for the raw water supply wells, the water treatment facility, the water reclamation facility, the UIC deep injection wells, and the water reclamation distribution network. Working closely with the town, AECOM identified and negotiated reclaimed water use agreements with large users in the vicinity of the plant, as well as completing all permitting, including the CUP, site plan permits, water treatment and water reclamation facility construction/ operation permits, and UIC.

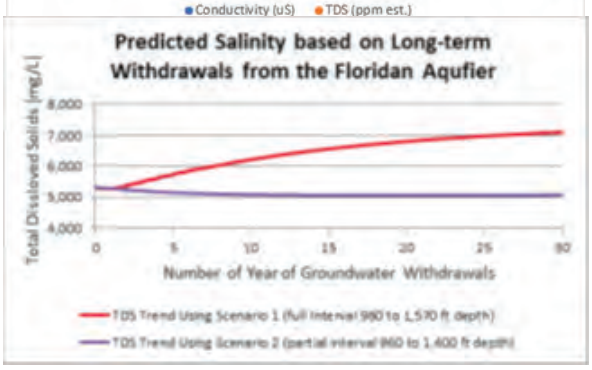
☑ KEY BENEFITS

- ☑ On-site tilt-up construction methods were employed for all exterior walls which shortened the construction schedule
- ☑ Early selection of equipment and vendors ensured that all facilities could be housed on the tight site
- ☑ Three industry awards including DBIA Florida *Project of the Year*

Development of a sustainable brackish water supply was a critical element to the success of the project. AECOM completed the design, permitting, constructing and resident services overseeing construction, testing and operation by a licensed well driller for an exploratory production well for onsite geology and hydrogeology characterization that involved:

- Evaluating well completion depths for balancing well production and control of long-term salinity degradation.
- Use of a calibrated density-dependent groundwater flow model, developed for the South Florida Water Management District, with two variable density and solute transport components over a 30 year simulation period.
- Developing the wells with two different well completion depths to meet the design withdrawal rate of 2.67-mgd per well maintain feed water TDS within the design range of 5,000 to 8,000 mg/L





The design and operation has proven **successful with no salinity degradation through 10 years of wellfield operation.**

Equally critical to the success of the project was a disposal system for membrane concentrate and excess reclaimed effluent. AECOM designed, permitted and oversaw the construction of this Class I Industrial Injection Well System comprising two alternate design Class I injection wells with 11.4-mgd – the largest in Florida at the time. A dual-zone monitoring well was implemented for detection of inject fluid upward migration and early warning for developing operational mitigation measures.

> ***"The future of water conservation is in reuse... The innovations built into our new facility will position the Town of Davie as an industry leader in water conservation and water reclamation. The result will be a more eco-friendly, efficient use of the Town's water resources."***
>
> Susan Starkeye, Town Council Member, Town of Davie

Oldsmar Brackish Water Supply and Treatment Facilities Planning and Construction, Oldsmar, FL

Firm: AECOM

Client: City of Oldsmar

Client Contact:
Johna Jahn, PE
Utilities Administrator
T: (813) 749-1233
JJahn@ci.oldsmar.fl.us

Completion Dates: 2013

Budget: $17M

Key Team Members, Roles:
Will Lovins, *Technical Lead*

RELEVANCE TO THE AUTHORITY

AECOM provided full services throughout the project including:

- Pilot testing
- Feasibility study
- Preliminary and final design
- Process design
- Regulatory permitting
- Construction management
- Start up
- Operations support
- Membrane treatment facilities
- SCADA/I&C engineering
- Electrical engineering
- Civil, structural, architectural, building mechanical design
- Potable water treatment
- Filtration systems
- Pumping systems
- Chemical feed/disinfection Systems
- Stormwater management
- FDEP/UIC permitting
- Operational startup and commissioning

Program Description

For decades, the City of Oldsmar (City) purchased potable water as a wholesale customer of Pinellas County. This regional water supply system serving the Tampa Bay area was projected to grow dramatically by diversifying sources and adding significant new facilities, resulting in increased prices to the City's customers. Desiring to have more control over the quality and cost, the City pursued development of their own potable water supply. The City laid out a phased approach that would begin with evaluating the feasibility of such an endeavor and conclude with the construction and start-up of the new facilities. AECOM was hired by the City in 1996 to assist them with this ambitious program and has been working with them since as they carefully and diligently continue to move forward.

Scope of Work

Phase I included a preliminary feasibility study which reviewed demand, water supply options, and regulations; evaluated water quality, treatment, and potential costs; assessed project feasibility and developed an implementation plan. Existing data and site specific raw water quantity and quality data collected from a test well, supported the cost effectiveness of a 2-mgd annual average brackish water wellfield with a low pressure RO water treatment plant. The Phase I study concluded that the project was technically and economically feasible.

☑ KEY BENEFITS

- ☑ Provided the City with a reliable and cost effective source of potable water supply
- ☑ Freed up water supplies that can be used to meet other regional water demands
- ☑ Supported the City's sustainability goals with a LEED certified water treatment facility
- ☑ Allowed the City to return to free chlorine as the residual disinfectant through the distribution system

Phase II included a wellfield siting analysis, development a field testing program, design and construction of two pilot production wells (and four monitoring wells) to evaluate the capacity and quality of two water supply aquifers, a pilot treatment study using the wells to evaluate treatability and concentrate characteristics, and preliminary engineering of the wellfield, transmission pipelines, treatment, and concentrate disposal. Subsequent analysis and successful water use and concentrate disposal permitting confirmed that the project remained feasible.

Phase III included the preliminary and final design of 12 brackish water wells; 10,500 ft of 8 – 24-inch raw water transmission main; a 3.2-mgd maximum day RO water treatment plant; 8,250 ft of 8-inch concentrate disposal pipeline; and a 1.2-mgd DIW. The project was designed/constructed using four separate construction contracts:

1. Production wells,
2. RO process equipment,
3. WTP building, site, pipelines, and other equipment, and
4. the DIW.

Phase IV was the construction of the new facilities. Working closely with the City, construction was completed in December 2012 resulting in the following key benefits:

- Providing the City with a reliable and cost effective source of potable water supply
- Freeing up water supplies that can be used to meet other regional water demands
- Supporting the City's sustainability goals with a LEED certified water treatment facility
- Allowing the City to return to free chlorine as the residual disinfectant through the distribution system

Performance

AECOM provided full services throughout the project including studies; preliminary and final design; FDEP, ACOE, SWFWMD, and building permitting; SRF and SWFWMD funding support; and bidding and construction phase services for multiple interrelated contracts.

On a reference evaluation we received 10s (representing very satisfied and would hire the firm again on all 10 of the criteria asked.)

Hialeah RO WTP Design and Start-up Services
Hialeah, FL

Firm: AECOM

Client: City of Hialeah

Client Contact:
Ramon Diaz
General/Plant Manager
GS Inima USA Construction
T: (305) 970-3930
Ramon.diaz@inima.com

Completion Dates: 2017

Budget: $58M (construction)

Key Team Members, Roles:
Rich Ulkus, *Construction Mgr*
Bill Snow, *Engineer-of-Record*
Will Lovins, *Testing/Design Mgr*
Paul Moulton, *Process Mechanical*
Don DeAngelis, *Pumping*

☑ KEY BENEFITS

- ☑ Robust desalination process design for future raw water salinity degradation
- ☑ Use of design-build allowed for innovative solutions
- ☑ Focused on reliability and weather hardening
- ☑ Leveraged design-build flexibility to use multiple GMPs to get construction started during design
- ☑ City's sustainability goals were met

RELEVANCE TO THE AUTHORITY

AECOM provided the following services throughout the project:

- Water storage facilities
- SCADA/I&C/electrical/power
- Civil/site/structural, bldg mechanical design, architectural
- Permitting
- Construction mgmt/CEI
- Potable water treatment
- Filtration/pumping systems
- Chemical feed/disinfection sys.
- Stormwater management
- FDEP/UIC permitting
- Op startup/commissioning

Program Description

AECOM designed an innovative, energy-efficient treatment plant following particularly intensive testing, planning and design to develop a desalination treatment facility for a wide range of current and future raw water salinity. Our evaluations led to a brackish water treatment system that achieved optimal balance between life cycle cost and finished water quality.

Scope of Work

Highlights of AECOM's design include membrane skids that readily accommodate modifications for increased salinity degradation of the Upper Floridan Aquifer supply, low pressure membranes for minimal power use, and biofilters rather than chemically intensive scrubbers. To increase reliability, the plant made use of robust materials typical of more demanding seawater RO facilities. AECOM's architects designed the facility with a modern tropical theme in keeping with the relaxed, contemporary feel of the Authority. Sustainability was a key city concern, so AECOM's design for the main treatment building was set for LEED Silver certification.

AECOM's contract also included the detailed (final) design and construction at risk of the project. The scope of services included design of the pretreatment system, chemical pre- and post-treatment systems, degasifier system and biofilter scrubber system, membrane cleaning system, process building including a membrane room, and chemical treatment rooms with bulk chemical storage.

Key Attributes of the Project

In addition to meeting strict finished water quality criteria, AECOM delivered a plant that met all sustainability, operability, constructability, and reliability objectives through process selection, construction methods, redundancy, and site and building layout.

Disinfection Study of Partially Treated Surface Water for Aquifer Storage and Recovery, DeSoto County, FL

Firm: Hazen

Client: PRMRWSA

Client Contact:
Mike Coates, PG
Executive Director
T: (941) 316-1776
mcoates@regionalwater.org

Completion Dates: 2021

Budget: $99,976 (Fee)

Key Team Members, Roles:
Stephanie Ishii, *Project Manager*
Andre Dieffenthaller, *Tech Advisor*
Paul Biscardi, *Project Engineer*
Christine Owen, *Regulatory Compliance*

☑ KEY BENEFITS

- ☑ Evaluated multiple disinfection strategies and engaged with regulators to inform feasibility of partially treated surface water ASR relative to status quo
- ☑ Demonstrated the effectiveness of chloramines for achieving the Florida Class G-II groundwater recharge standard of 4 CFU/100 mL total coliform, while maintaining compliance with primary drinking water standards
- ☑ Developed conceptual cost and footprint estimates for a partial treatment system

RELEVANCE TO THE AUTHORITY

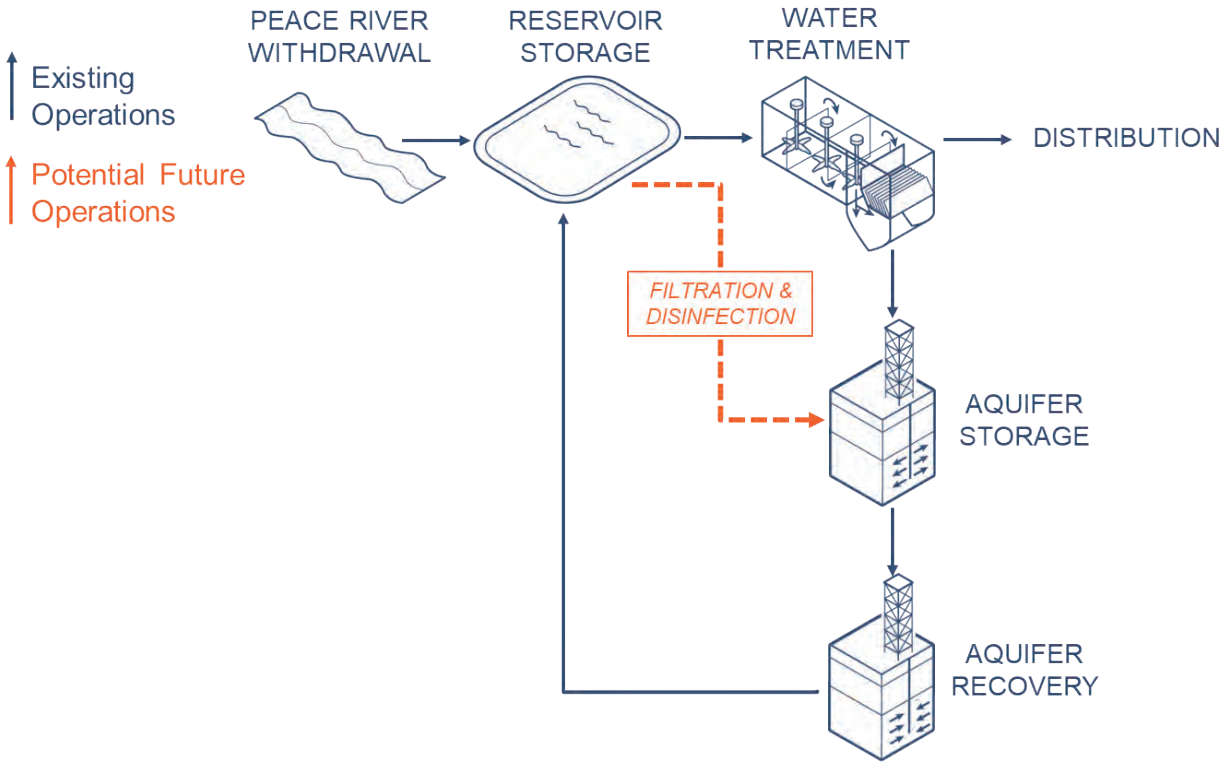
Hazen evaluated multiple disinfection strategies to determine the feasibility, costs, and benefits of practicing aquifer storage and recovery (ASR) with partially treated surface water. Disinfection options were compared in terms of microbial inactivation, secondary water quality impacts, operational complexity, and anticipated costs.

Program Description

The study was motivated by potential benefits related to increased yield and cost savings relative to the current practice of ASR recharge with fully treated water.

The Authority withdraws surface water from the Peace River for storage in its reservoir system, which includes two aboveground reservoirs with a combined storage capacity of 6.5 billion gallons. Treated water is delivered to customers or directed to the ASR system for recharge and later use. Water that is injected into the ASR system is subsequently withdrawn during dry periods for reservoir augmentation and retreatment. The aboveground reservoirs and ASR system are critical for tempering variability in the Peace River and supporting system reliability.

Historically, the ASR system has been solely recharged with treated water. These current operations only allow for the ASR system to be recharged when system demands are less than treatment capacity and excess river flows are available. Additionally, current operations result in ASR water being treated twice, as it is fully treated prior to recharge and then retreated after being blended with reservoir water. This duplicative treatment has a cost implication and doubles the amount of total dissolved solids (TDS) that is added to the water during treatment. The TDS concentration of finished water is important because it is subject to a secondary maximum contaminant level (MCL) of 500 mg/L to minimize aesthetic concerns. Compliance with the TDS MCL can be particularly challenging during dry years when the river water TDS is elevated and/or ASR water must be heavily relied upon.

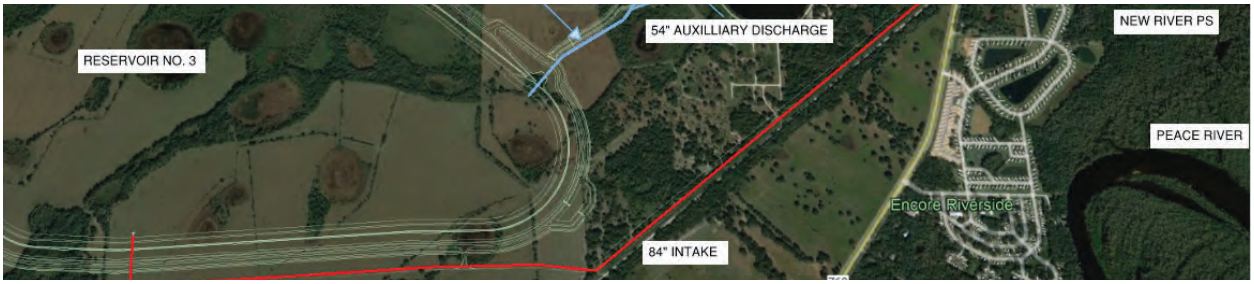


To avoid the cost of retreatment, minimize TDS loading to finished water, and maximize ASR storage potential, the Authority has been evaluating the technical feasibility and cost implications of ASR recharge with partially treated surface water. Initial investigations showed that partial treatment must include disinfection to achieve the groundwater recharge requirement for total coliforms. Accordingly, Hazen evaluated multiple disinfection strategies through desktop and bench-scale analyses to determine the feasibility and cost implications of achieving compliance with the total coliform standard prior to recharge while maintaining compliance with other water quality standards. The evaluated strategies included ultraviolet radiation, ozonation, chlorine dioxide, sodium hypochlorite, and chloramines.

Chloramination proved to be an effective disinfection method for partial treatment of surface water, as total coliform, disinfection byproduct, and other groundwater recharge standards were achieved at reasonable doses and contact times. The study demonstrated the importance of the chloramine formation process because minimal contact between surface water and free chlorine is critical for compliance with disinfection byproduct limits. Hazen led regulatory discussions and prepared preliminary cost and footprint estimates for a partial treatment system including chloramination and filtration to inform future improvements.

PRMRWSA Regional Reservoir No. 3 (PR3)

DeSoto County, FL



Firm: Hazen

Client: PRMRWSA

Client Contact
Terri Holcomb, PE
Director of Engineering
T: (941) 316-1776
tholcomb@regionalwater.org

Completion Dates:
01/2021 (feasibility)
03/2022-12/2024 (design)
01/2025-07/2027 (constr. est.)

Budget: $1.5M (feasibility)
$15M (design); $559M (constr)

Key Team Members, Roles
Andre Dieffenthaller, *PM*
Andrew Coleman, *Lead Eng*
Jeffrey Rosman, *Project Eng*
Stephanie Ishii, *Water Quality*

☑ KEY BENEFITS

- ☑ Familiar with site layout, and the condition and projected use of the Reservoir No. 1 Pump Station
- ☑ Previously conducted hydraulic analysis and environmental assessments will inform infrastructure integration and siting
- ☑ Developed and applied multi-criteria decision analysis framework with the Authority

RELEVANCE TO THE AUTHORITY

- Includes the design of a new Reservoir No. 1 Pump Station for conveying water to the Peace River Facility (PRF).
- Familiar with the site around Reservoir No. 1 and the type of intake and structure required to draw water from Reservoir No. 1.
- Developed a hydraulic model that includes the existing and proposed Reservoir No. 1 PS. The model can easily be modified to include the ASR WF2 and the proposed PTSW ASR treatment systems to identify required pump sizing and quantity for a retrofit of the existing reservoir pump station.

Program Description

At the request of Authority members, additional water supply capacity is required to be online by 2028. As identified in the Southwest Florida Water Management District's RWSP, the PR3 project coupled with the Peace River Facility Expansion, is the next alternative water supply source to be developed to meet the member's demand needs.

The PR3 project will increase the Authority's pumping capacity on the Peace River consistent with their water use permit and provide a third off-stream raw water storage reservoir.

The overall PR3 project includes design and permitting of a new 9-billion-gallon reservoir, a new 160-mgd river intake and pump station, a new 21-mgd reservoir intake and pump station, over 15,000 linear feet of 84-inch piping, and over 12,000 linear feet of 54-inch piping. Hazen's role for the project includes the process mechanical, civil, and instrumentation design efforts for the river pump station, reservoir pump station, and the conveyance piping systems.

Feasibility efforts included evaluation of multiple approaches for conveyance system connectivity between the river pump station, raw water storage reservoirs, reservoir pump station, ASR wellfields, and treatment plant with a focus on operational flexibility and water quality. Hazen led the development of a river water quality model to quantify the system reliability benefits of different River intake siting locations considering the temporally and geographically variable tidal

influence under current and potential future sea level conditions. In addition, a conceptual design of the river intake and pump station were developed at this stage of the project.

Design efforts included the development of a hydraulic model for the conveyance piping system and the river and reservoir pump stations to evaluate the following:

- Pressure system flow capacities and pipe sizing
- Gravity system flow capacities and pipe sizing
- System curve development, pump sizing and operation
- Potential surge conditions and mitigation measures

A preliminary evaluation of pipe materials through a current market assessment was performed to determine the most cost-effective material at different diameters for the project. In addition, the pipeline design included a constructability review that helped to guide the design in several areas, including confirm pipeline installation techniques, pipe joints and deflection capabilities, and dewatering impacts and mitigation techniques.

The pipeline design also included evaluation of trenchless installation approaches for the 84-inch and 54-inch crossings underneath Kings Highway. This evaluation explored open cut, microtunneling, and jack and bore approaches to identify the most cost-effective method, while accounting for ancillary impacts such as traffic and construction risk.

The river pump station includes a new concrete intake structure designed immediately south of the existing river pump station, combined with a new rectangular pump station. The concrete intake and pump station structure is designed for a build out capacity of 258-mgd with the initial installation of six 700-hp pumps capable of conveying 160-mgd and designed to operate in combination with the existing river pump station.

The initially proposed reservoir pump station included a submerged intake extending into Reservoir 1, intake piping, and new reservoir pump station east of the existing reservoir pump station. The new intake and pump station structure were designed for a build-out capacity of 112-mgd with the initial installation of three 200-hp pumps capable of conveying 21-mgd and designed to operate in combination with the existing reservoir pump station. Evaluations and collaborative discussions with the Authority are ongoing to confirm reservoir pump station design considering projected demands on the pump station and potential future uses of the existing pump station, such as for the delivery of water from Reservoir No. 1 to a new Partially Treated Surface Water Aquifer Storage and Recovery (ASR) system.

Regional Water Supply Authority ASR Program
Bradenton, FL

Firm: ASRus, LLC

Client: PRMRWSA

Client Contact:
Mike Coates, PG
Executive Director
T: (941) 316-1776
mcoates@regionalwater.org

Completion Date: Ongoing

Budget: $36K

Key Team Members, Roles
Mark McNeal, *Principal in charge*
Pete Larkin, *Project Manager*

☑ KEY BENEFITS

- ☑ Largest ASR program in eastern United States
- ☑ Worked on system since 1990
- ☑ ASR has helped develop a more resilient water supply
- ☑ System includes 21 ASR wells
- ☑ FDEP approval for two PTW cycle tests

RELEVANCE TO THE AUTHORITY

ASRus provided the following services throughout the project:

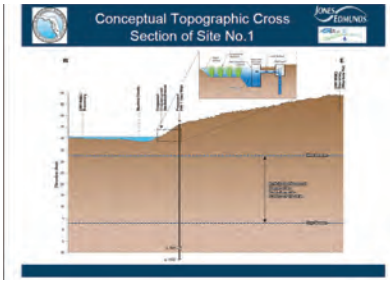
- Permitting support
- ASR wells
- FDEP UIC permitting
- Actively involved with the Authority's ASR system since 2006
- Worked with the Authority on the FDEP/UIC permit modification for the PTSW ASR Project over the last 7 years

Program Description

Mark McNeal has been actively involved with the Peace River ASR System since about 1990. Mark prepared a report analyzing the operational history of the Authority's 9-well ASR system. The report was used to help the Authority prepare for expansion of their ASR program, which is currently the largest in the eastern United States. Mark and Pete Larkin have provided technical and permitting support on a deep, high capacity (3-mgd) test ASR well. They were also instrumental in the installation of an additional 13 monitoring wells to better understand the geochemical reactions that occur during ASR operations.

ASRus is under contract to continue providing senior hydrogeologic services to the Authority. ASRus was part of a team that petitioned FDEP to waive arsenic as a standard at the site. Obtaining this variance allowed the Authority to apply for and receive on Operation Permit for its two ASR wellfields. ASRus was also the hydrogeologist on a team that permitted select wells from Wellfield No. 2 to allow partially treated (non-disinfected) surface water from Reservoir No,. 1 to be injected for two cycle tests, a project that unequivocally demonstrated that coliform die-off occurs rapidly during storage events. ASRus is currently assisting the Authority with permitting activities to reduce the level of treatment necessary in the recharge water. Difficult permit conditions have been negotiated between the Authority and FDEP with assistance from ASRus to allow partially treated surface water to be recharged in Wellfield No. 2.

Flatford Swamp Aquifer Recharge
Manatee County, FL



RELEVANCE TO THE AUTHORITY

ASRus provided the following services throughout the project:

- Managed Aquifer Recharge (MAR) Permitting
- MAR Well Design
- MAR Well Construction
- MAR Surface Facilities Design and Construction
- MAR Operational Testing

Firm: ASRUS, LLC

Client: Southwest Florida Water Management District

Client Contact:
Jennette M. Seachrist, PE
Director, Resource Management
T: (813) 467-7186
Jennette.seachrist@swfwmd.state.fl.us

Completion Date: Ongoing

Budget: $432K

Key Team Members, Roles
Mark McNeal, *Principal in charge*
Pete Larkin, *Sr.* Hydrogeologist

Program Description

Flatford Swamp is a forested wetland in east Manatee County that has received excess water during the dry season due to nearby agricultural practices. This has resulted in significant tree mortality and encroachment of several invasive herbaceous and shrub species. Jones Edmunds, with ASRus as a subconsultant, completed the design of a surface water aquifer recharge project at Flatford Swamp. The goal of this project was to evaluate the feasibility of using recharge wells to restore the hydrologic period and at the same time use the water to recharge the most impacted area (MIA) of the Upper Floridan Aquifer in the Southern Water Use Caution Area (SWUCA). The Jones Edmunds team evaluated the required facilities, costs, and permitting requirements for the proposed diversion. Jones Edmunds also worked with ASRus to permit, design, bid, and construct the initial recharge well and associated monitoring well system. The recharge well is extremely productive, designed to allow up to 18-mgd to be recharged in a single well. The initial operational testing will be conducted at a much lower rate (between 1 and 2mgd); however, to monitor water quality changes occurring in the aquifer during recharge.

The surface facilities construction is complete and operational testing has commenced. This system is unique in that FDEP issued a permit with a zone of discharge (ZOD) to allow coliform bacteria to die-off naturally in the subsurface. FDEP is not currently allowing similar permits to be issued; therefore, the operational testing that will be conducted under this project would be important to demonstrate microbiological attenuation in the subsurface in these type of recharge systems. Unfortunately, FDEP did not honor the conditions of the permit issued by the agency and disinfection was required and installed, missing out on an excellent opportunity to further document coliform die-off in the subsurface. It is hopeful that the disinfection system can be turned off at develop a dataset for this Aquifer Recharge system that will further quantify the rate of die-off to persuade FDEP to re-consider its position on issuing a ZOD with these aquifer recharge systems when institutional controls are in place to prevent other groundwater users to be affected for the few weeks to months that it may require for the untreated surface water to be disinfected naturally in the subsurface.

AECOM

Section 3

Preliminary Project Understanding, Approach, and Schedule

Section 3 - Preliminary Project Understanding, Approach, and Schedule

3.1 Understanding the Authority's Needs

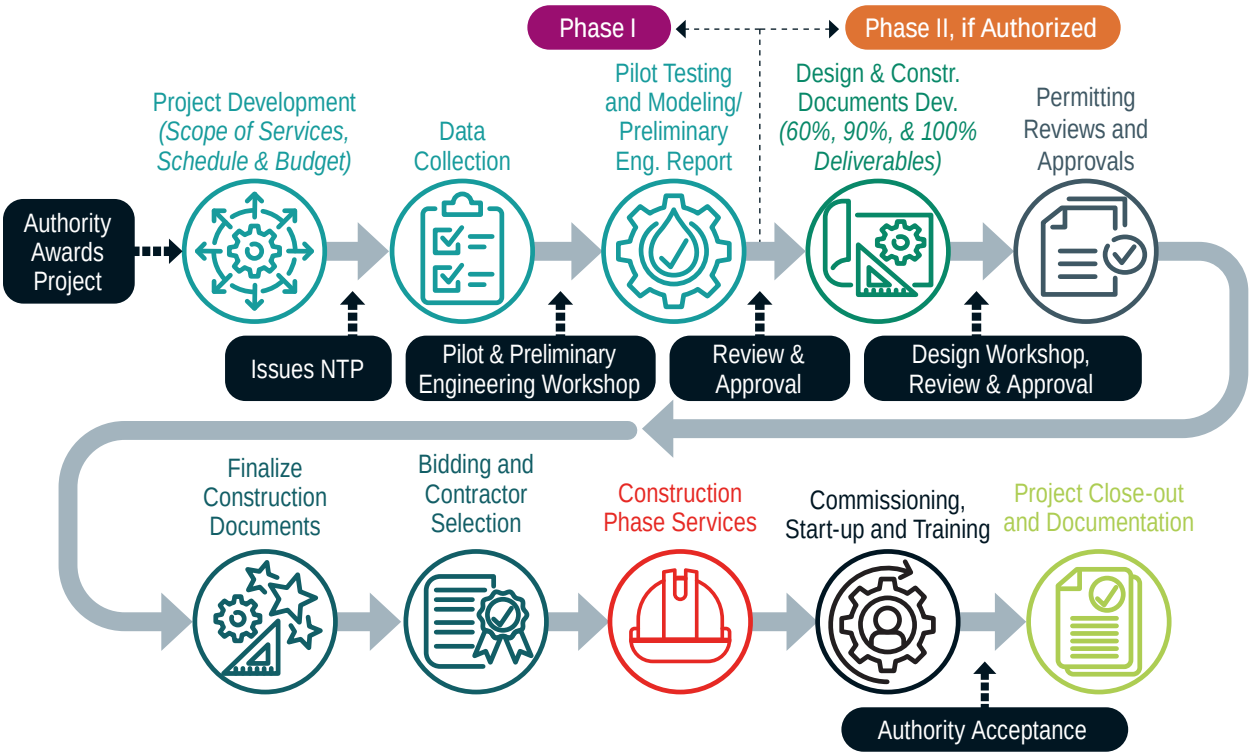
The AECOM team understands that the overall purpose of this project is to provide engineering design and associated professional services for the Authority's Partially Treated Surface Water ASR (PTSW ASR) Project. Our team is thoroughly familiar with the requirements for this project. We conducted the prior PTSW ASR disinfection study, developed and deployed the Authority's system reliability model (OASIS), have met with Authority staff on several occasions, reviewed project background materials and previous reports and presentations, examined existing operating permits and are very familiar with the Authority's utility infrastructure and Peace River Facility.

The AECOM team has significant experience working with the Authority specific to the requirements for this project. AECOM/ASRus team member, Mark McNeal, PG has been actively involved with the Peace River ASR System since about 1990. ASRus is under contract to continue providing senior hydrogeologic services to the Authority and assisted the Authority in obtaining the FDEP UIC permit to allow PTSW to be recharged in Wellfield No. 2 (WF2). AECOM/Hazen team member, Stephanie Ishii, PhD, PE, was project manager on the Authority's Disinfection Study of PTSW for ASR, which evaluated the feasibility of achieving microbial and chemical water quality standards in PTSW for aquifer re- charge. She also was PM on development of a simulation/ optimization model (OASIS) for use by the Authority in water supply planning. Hazen is currently working with the Authority/HDR on the Peace River Reservoir No. 3 (PR3) project, which includes a new Reservoir No. 1 pump station.

Evaluating the system-wide benefits and burdens of PTSW ASR relative to its costs, and ultimate implementation of the PTSW ASR benefit-to-cost ratio is favorable, requires a multi-disciplinary team of experts. The services will include pilot testing, all design work, permitting, and construction inspection required for project completion. However, the first phase of the project will involve pilot testing of water treatment options, and evaluation of pertinent regulatory requirements to assist the Authority in determining the technical, economic, and regulatory feasibility of injecting PTSW at the Authority's ASR WF2. A key objective of pilot testing is to determine the treatment required to meet FDEP UIC permit limits for ASR recharge to WF2 throughout the year. Such injection will be required to be continuously compliant with the Authority's September 2023 UIC permit and/or a potential future modification thereof, and associated FDEP and U.S. Environmental Protection Agency (EPA) UIC rules. A key water quality question for the PTSW ASR is: Can acceptable microbial water quality be achieved (e.g., 4 CFU total coliform/100 mL) while maintaining compliance with primary MCLs (e.g., DBPs)?

The first phase of the project will also include preliminary engineering to identify the recommended improvements and cost of the PTSW ASR Project. Currently, the PTSW system is anticipated to treat water from Reservoir No. 1 and include a new (or repurposed) pump station, pressurized coarse media filtration, and a side stream chloramine disinfection system. Also included would be necessary yard piping, civil/site improvements and electrical and SCADA/I&C. The AECOM team will review the preliminary system and identify any recommended modifications. The preliminary engineering will include a Preliminary Engineering Report (PER) describing the technical, economic, and regulatory feasibility of implementing the PTSW ASR Project, and recommended next steps. A key objective of the preliminary engineering is to determine the economic feasibility and overall **cost/benefit of the PTSW ASR Project and whether** the project should advance further.

Subsequent work on the project will depend on results from the pilot testing and preliminary engineering. Should the Authority, based on the results of these initial services, determine that PTSW ASR is viable in ASR WF2, then further design, permitting, bidding and inspection related services may be authorized. However, should the Authority decide not to pursue further design, permitting, and/or construction for the Project, the Authority may at its sole discretion terminate the contract at the conclusion of the Phase I services.



3.2 Detailed Plan of Approach

The project approach that the AECOM team will follow to successfully complete the PTSW ASR Project is illustrated in the graphic above.

The scope of services will be completed under the following tasks:

Phase I Services:

- Project Management
- Data Collection
- Pilot Testing/Modeling
- Preliminary Engineering

Phase II Services:

- Survey/SUE Services and Geotechnical Investigation
- Detailed Design
- Regulatory Permitting
- Bidding Phase Services
- Construction Phase Services

Task 1: Project Management

A Project Management Plan for the development and execution of the PTSW ASR Project will be developed and submitted to the Authority for review and approval. The Plan will communicate essential information to the project team and most importantly will document the Authority's goals and objectives for the project. The Plan will address the following:

- Vision, mission, general guidelines, project goals and objectives
- Work breakdown structure
- Communication protocol, which includes identification of the project delivery team and project stakeholders.
- Documents management system
- Budget and project schedule
- Monitoring and reporting plan
- Deliverable submittal and review process plan, including definition of all project deliverables.
- QA/QC plan, including requirements for creating consistent deliverable documents that will meet the high-quality standards necessary to make your project a success.

Task 2: Data Collection

AECOM will summarize existing information that is available, establish a documents management system in accordance with the Project Management Plan, and meet with the Authority to identify and review critical existing information and identify any data gaps. This is an important first step to ensure that critical information is collected for the development of the PTSW ASR Project. AECOM will maintain a log of existing information. Information that will be collected includes previous studies and reports, presentations, record drawings for existing infrastructure, permits, and water quality data and test reports. If data gaps are identified, our team will develop a plan to address those gaps and gather the information needed.

Our team has already received and organized several datasets to inform the PTSW ASR Project, thus reducing the time and effort required for project initiation; these datasets would only require an update to present day if desired by the Authority, including the following:

- Historical Peace River flows and allowable withdrawals in accordance with WUP conditions
- Historical regional demands
- Historical use of the ASR system
- Historical water quality in the Peace River and Reservoir No. 1

Additional data types to consider include:

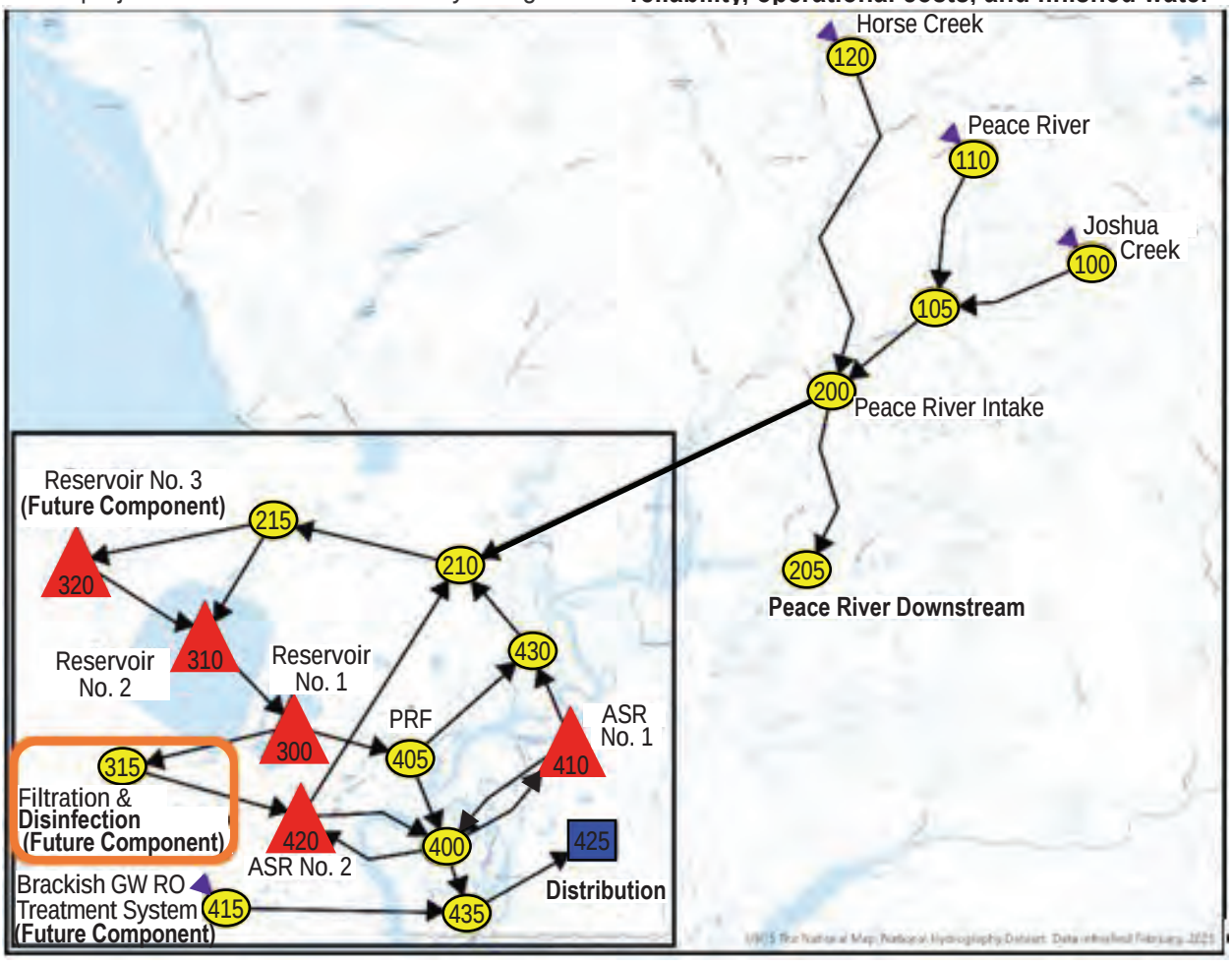
- PFAS results (reservoir water, finished water)
- Microbial data for Reservoir No. 1 (if collected after the completion of the disinfection study)

Task 3: Pilot Testing and System Reliability Modeling

System Reliability Modeling: The extent to which PTSW ASR benefits the Authority's system depends on the projected interactions between hydrologic conditions, the Authority's existing and anticipated infrastructure, and regional demands. Our team proposes to use the Authority's OASIS model to **characterize these interactions with and without** PTSW ASR, therefore identifying the potential **operational cost and reliability impacts of PTSW** ASR.

Our Team recently developed and deployed a water resources system model for the Authority using the OASIS platform to inform safe yield estimates, operational decisions, and the prioritization of capital investments. This model will be used to further evaluate the PTSW ASR benefits. The objective is for the OASIS model to operate the system consistent with the Authority's current operational strategies; however, model flexibility allows the user to develop alternative operating strategies and system scenarios for evaluation, including PTSW ASR.

Our team's familiarity with the Authority's system and the OASIS model will enable a comprehensive and fast-track evaluation of the potential role of PTSW ASR, spanning system **reliability, operational costs, and finished water**



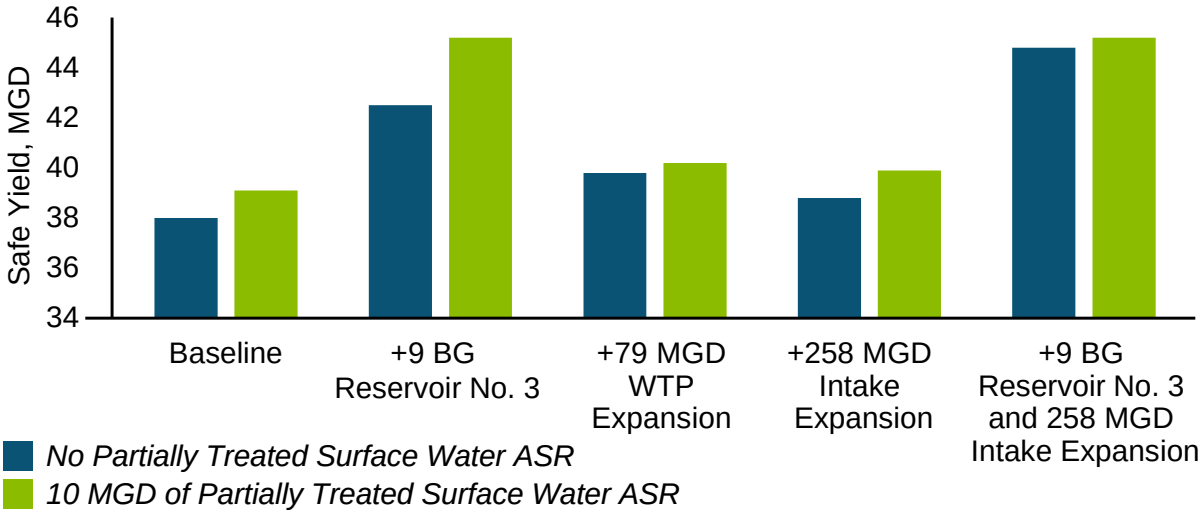
quality. Key questions that will be addressed using the OASIS modeling include the following:

- Does PTSW ASR increase the Authority's ability to take advantage of high river flows?
- Does PTSW ASR increase the Authority's ability to meet regional demands?
- How variable are projected flows to the partial treatment system?
- How dependent is the safe yield benefit of PTSW ASR on the assumed capacity of partial treatment and ASR recovery?
- To what extent can partial treatment improve the TDS concentration of distributed water and reduce treatment costs?
- To what extent does partial treatment reduce recycle flows (i.e., aluminum, algae, nutrients) to the reservoirs without negatively impacting yield?

Preliminary OASIS results related to the system's safe yield with and without 10-mgd of PTSW ASR are shown in the bar graph below. The addition of PTSW ASR increases the safe yield of the system under baseline conditions and under potential future conditions in which various capital improvements are brought online. The safe yield benefit of 10-mgd of PTSW ASR is 1.1-mgd under baseline conditions and increases to 2.7-mgd when Reservoir No. 3 is brought online. The safe yield benefit of 10-mgd of PTSW ASR is less notable if the water treatment plant is expanded to 79-mgd because the plant becomes less of a limiting factor with or without the ASR modification. Overall, *the preliminary OASIS results shown in the bar graph below* demonstrate the increased ability to withdraw and store Peace River water with the addition of PTSW ASR to the system, thus increasing the Authority's ability to meet regional demands. In addition to reliability impacts, OASIS will be used to estimate the long-term operational costs savings of partial treatment relative to the status quo considering the projected extent to which PTSW ASR could be practiced and updated treatment costs from the pilot evaluation.

Pilot testing: In addition to understanding the yield, additional questions related to the systemwide utility of PTSW ASR will be answered using a pilot study of the anticipated treatment system. **A key objective is to demonstrate that the PTSW will satisfy the FDEP water quality requirements for injection to the ASR and determine the technical, economic, and regulatory feasibility of injecting the PTSW into the ASR WF2.** As noted in the RFP *"Disinfection and adherence to drinking water rather than groundwater standards would be required for all water injected into the ASR system (FDEP issuance of a Water Quality Criteria Exemption for secondary standards for aluminum, iron, and color is pending)."* Requirements for disinfection and the inclusion of these unanticipated water quality parameters in the final permit will be evaluated to determine their effects upon the feasibility and benefits of PTSW ASR.

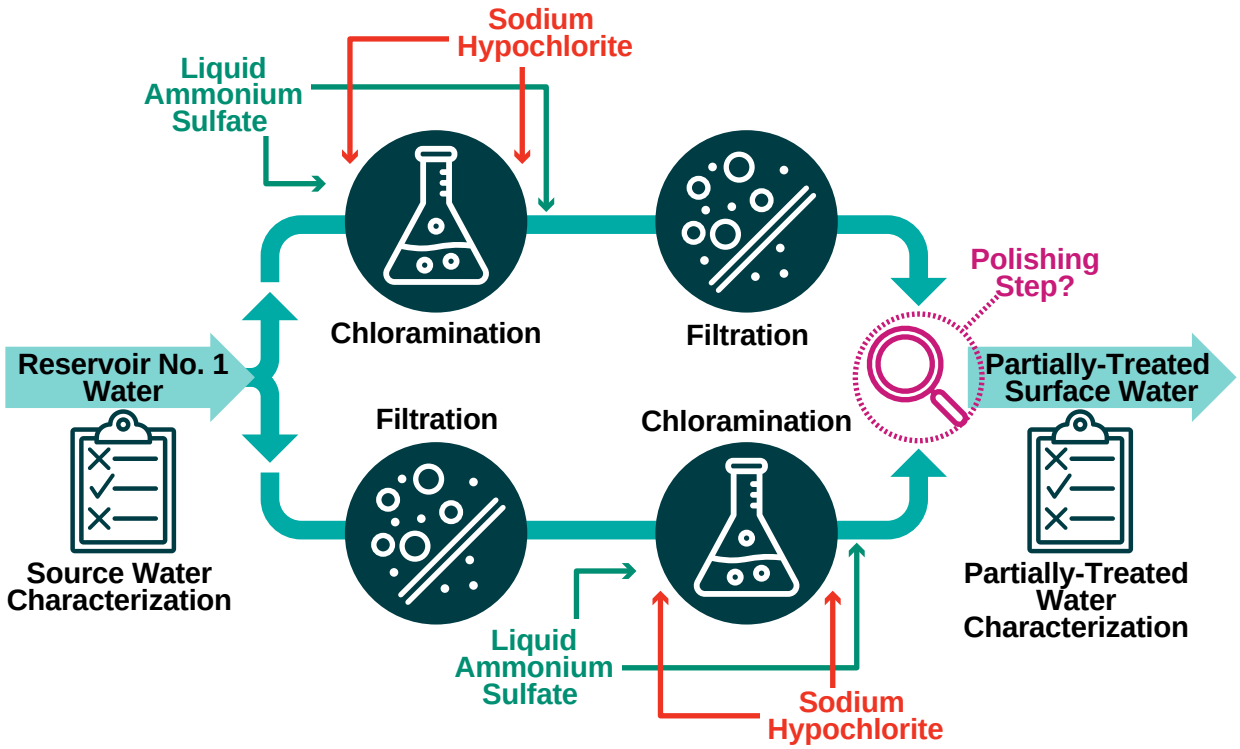
Our Team, working with the Authority, previously demonstrated at a bench-scale, the ability to disinfect raw water while controlling disinfection byproduct formation with chloramination; however, a pilot-scale investigation of disinfection and filtration is needed to confirm the feasibility, operational complexity, and cost of achieving the water quality required for ASR recharge. *The table on the following page* summarizes key pilot variables and questions to be answered that impact our team's approach to the pilot study.



Key Pilot Variables and Metrics	Key Questions To Be Answered By Pilot Study
Source water quality Chemical dose Order of chemical inputs Mixing strategy Contact time Sequence of chloramination and filtration Filtration media type, depth, loading rate	To what extent do ammonia, total organic carbon, total coliform, and other microbial parameters vary in Reservoir No. 1 water throughout the year? What is the effectiveness of chloramination at different chemical doses and relative ratios, mixing rates, and contact times? Is sidestream or mainstream chloramine formation more favorable for Reservoir No. 1 water quality? To what extent are disinfection and disinfection byproduct formation impacted by the order of chemical input? Are suspended and colloidal solids in Reservoir No. 1 water a concern for ASR well operation? What filter conditions (e.g., media type, media depth, loading rate) are needed to achieve reliable filter operation and water quality targets (e.g., chlorophyll a, TOC, turbidity) for ASR well maintenance? To what extent are the performance of chloramination and filtration dependent on the order of these treatment steps? Can chlorination of backwash water benefit filter operation without negatively impacting reservoir water quality?

The proposed pilot study will answer the questions from the above table to help identify a more certain capital and operational cost for the PTSW. Our team will evaluate the following during the pilot:

- **Priority of chloramination and filtration:** The pilot will involve the delivery of water from Reservoir No. 1 to either chloramination or filtration as the first treatment step; pre-chloramination has the potential to achieve disinfection requirements and minimize biological fouling of downstream filtration, while pre-filtration may reduce chemical demand and improve chemical effectiveness in downstream chloramination. The relevance of treatment sequence to operational inputs, partially treated water quality, and maintenance requirements will be evaluated. Additionally, the potential need for a post filtration polishing step, such as granular activated carbon, will be evaluated based on the observed water quality relative to existing and potential future per requirements for ASR recharge (e.g. PFAS).
- Optimum chemical dosages, ratios, contact time, and mixing at the application points: The chloramination setup will be to explore different doses/ratios of liquid ammonium sulfate and sodium hypochlorite, as well as the order in which these chemicals are injected into the influent flow. Disinfectants may be directly injected into the full influent flow for mainstream chloramination or into a sidestream for concentrated sidestream chloramine formation prior to blending with the remaining influent flow. Initial chemical dose and contact time settings will be identified using the previously conduced bench-scale disinfection study, which concluded that chloramines were effective for total coliform inactivation at doses and contact times as low as 10 mg/L as Cl2 and 10 minutes, respectively. Pilot data will be used to develop relationships between microbial log-removal results and disinfection byproduct formation as a function of chemical dose, contact time, temperature, and other operational factors under seasonally variable source water conditions.
- Filtration type: Our team will review filtration requirements based on source water quality and water quality targets for minimizing physical, chemical, and biological clogging of ASR wells. Based on data collected to date, our proposed pilot filtration process allows the Authority to compare a Ten States Standards media configuration (6 gpm/SF) to a high-rate coarse media pressure filter running at a higher loading rate (10+ gpm/SF) in terms of ability to operate reliably and meet water quality targets. Filtration water quality targets will include turbidity, chlorophyll a, and total organic carbon thresholds to support sustainable ASR well operation and maintenance.



For each chloramination and filtration test condition, the PTSW will be characterized with respect to existing and potential future permit requirements for ASR recharge. This characterization will identify the need for additional test conditions, such as modified chemical doses, filter loading rates, and/or contact times, as well as the potential need for a polishing step after chloramination and filtration. **The proposed pilot study will enable refined determination of required chemical inputs, mixing strategies, and filtration requirements that were previously estimated for the Authority at the bench-scale.** A schematic of the pilot treatment configurations is *presented above.*

Pilot Plan Review and Approval: Our team will prepare a pilot plan for review and approval by the Authority. The Plan will describe the proposed alternative treatment technologies that will be evaluated to meet the required treatment objectives. We will discuss those alternatives with the Authority and select the final treatment technology(ies) that will be piloted. Before our team begins piloting, the pilot study plan needs to be approved by FDEP. We will meet with FDEP immediately following notice to proceed to confirm pilot testing requirements (it is presumed requirements will be like those currently contained in F.A.C. 62-610). This will be critical to meeting the project schedule and having approval from FDEP before proceeding with Phase II of the project.

Regulatory Assessment: The U.S. Environmental Protection Agency will issue a final drinking water PFAS regulation in March/April of this year. Our team will evaluate the potential impacts of the new rule on the treatment requirements for ASR recharge. We will meet with FDEP during preparation of the pilot study plan to discuss the impacts and strategies to avoid excessive treatment (such as capital or improvements to the Peace River Facility). We will also consider other future regulations (e.g., more stringent disinfection byproduct requirements, including byproducts of chloramine disinfection) and possible impacts to future PTSW ASR. The conceptual design will provide the flexibility needed to address both current and future treatment requirements.

Task 4: Preliminary Engineering Pumping and Hydraulics Assessment

It is anticipated that a new pump station will be part of the PTSW ASR Project to convey water from Reservoir No. 1 to the new PTSW treatment system. Our Team has been engaged in the PR3 project, which includes the design of a new Reservoir No. 1 Pump Station for conveying water to the Peace River Facility (PRF). **Therefore, we are familiar with the site around Reservoir No. 1 and the type of intake and structure required to draw water from Reservoir No. 1. Our team also has already built a hydraulic model for the Reservoir PS for the PR3**

project, allowing us to efficiently evaluate and design a new pump station for this project.

Design considerations for a new pump station for ASR Partial Treatment are as follows:

- Type of intake and location in Reservoir No. 1
- Impact on Reservoir No. 1 bathymetry
- Type of pumps – most likely vertical turbine

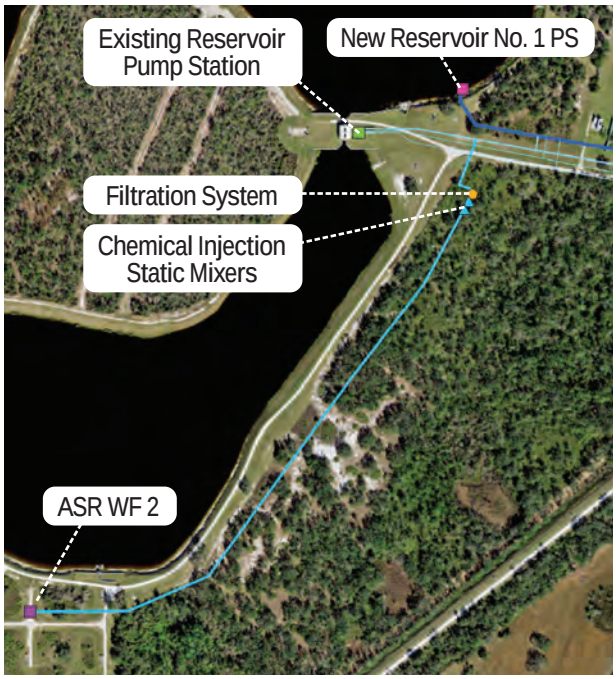
Construction of a new pump station dedicated to the PTSW ASR treatment system would be costly and on the critical path of the overall construction schedule due to the anticipated duration of offshore construction work within the Reservoir. The Authority and our Team have had discussions to instead repurpose the existing Reservoir Pump Station for use as the PTSW ASR pump station **after the new Reservoir No. 1 Pump Station is built and on-line. Given our Team's recent work on the PR3 project, including the new Reservoir No.1 Pump Station in particular, we are well** positioned to quickly evaluate this alternative, **verify its hydraulic capability, and identify cost** considerations for the Authority.

Another option that our team could quickly evaluate is expanding the new reservoir pump station to include additional pumps that would serve to convey water to the ASR Partial Treatment System.

The AECOM/Hazen team has already developed a hydraulic model that includes the existing and proposed Reservoir No. 1 PS. This tool can easily be modified, as shown below, to include the ASR WF2 and the proposed PTSW ASR treatment systems. The updated model could then be used to determine the size and quantity of pumping units necessary for the repurposing of the existing reservoir pump station to be viable.

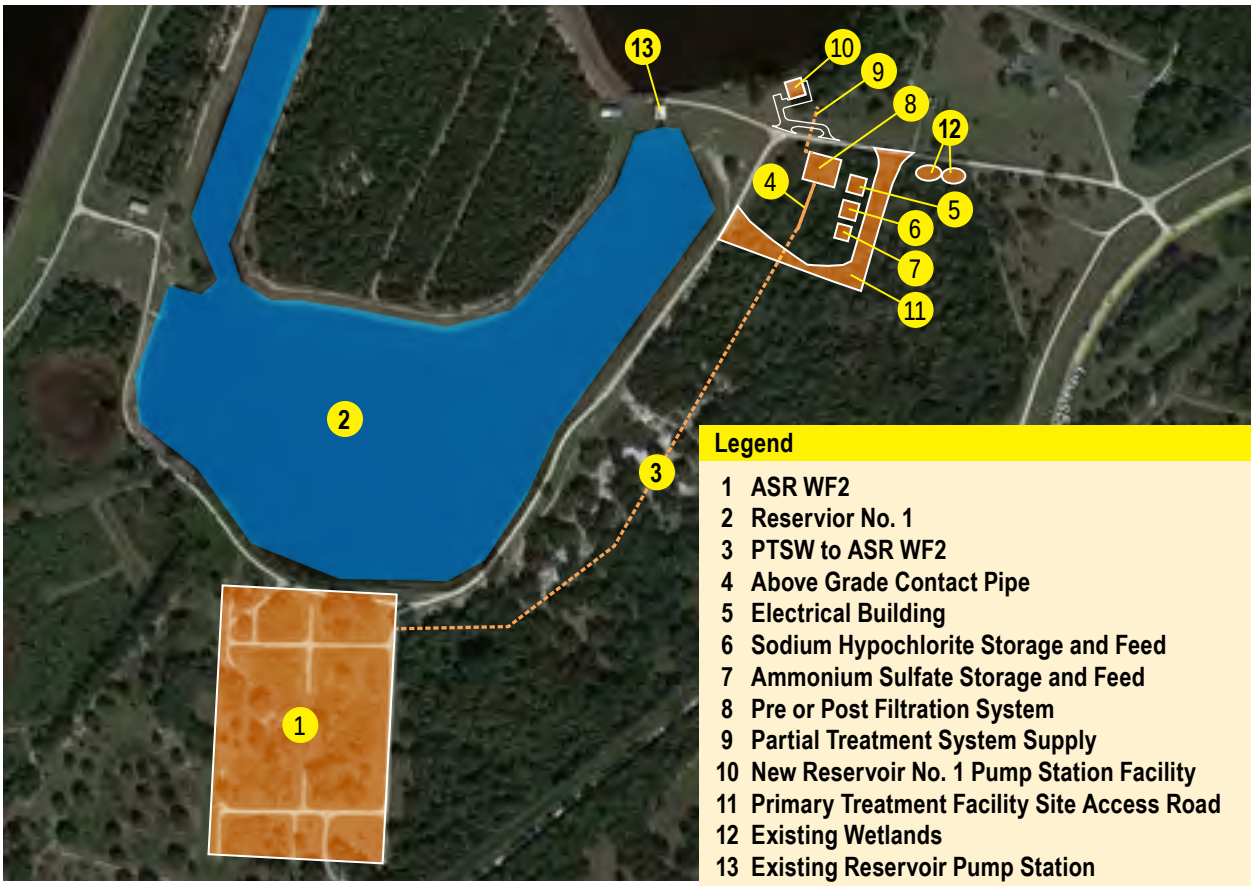
Design considerations for repurposing of the existing reservoir pump station for ASR Partial Treatment:

- Footprint and electrical impact of new pumps
- Condition of the existing Reservoir Pump Station structure and required rehabilitation:
  - Two previous condition assessments performed in 2012 and 2013 showed the existing reservoir pump station structure and sheet wall system required rehabilitation.
  - If the repurposing of the existing Reservoir Pump Station appears feasible for hydraulics, our Team would propose a follow up condition assessment to verify the extent of rehabilitation required to provide a long-term solution for the Authority.



Equipment and Site Layout Assessment: Our team has developed a conceptual layout based on the treatment recommendations from the Disinfection Study of PTSW for ASR technical memorandum. *The layout on the following page* is a starting point for our Team and the Authority to create an operationally efficient and well-coordinated system, which addresses the following considerations:

- Minimizes impacts to wetlands and environmentally sensitive areas.
- Avoids significant service interruptions through up front planning of shutdowns and tie-ins with existing piping.
- Coordinates site layout and access roads with the New Reservoir No.1 pump station.
- Provides a cost-effective source of filter backwash supply and an efficient strategy for backwash waste management.
- Supports ease of equipment access and chemical delivery logistics.
- Provides ease of chemical injector and pipeline maintenance.



Legend

1 ASR WF2
2 Reservior No. 1
3 PTSW to ASR WF2
4 Above Grade Contact Pipe
5 Electrical Building
6 Sodium Hypochlorite Storage and Feed
7 Ammonium Sulfate Storage and Feed
8 Pre or Post Filtration System
9 Partial Treatment System Supply
10 New Reservoir No. 1 Pump Station Facility
11 Primary Treatment Facility Site Access Road
12 Existing Wetlands
13 Existing Reservoir Pump Station

Our Team will be able to leverage the significant survey, geotechnical, and SUE information obtained during the PR3 project in an efficient manner, giving us a head start in the design process.

Environmental Assessment: Team member EarthBalance will be responsible for completing an environmental assessment of the PTSW ASR Project site location and identify any potential impacts to existing wetlands and threatened and endangered species. EarthBalance has provided environmental and planning assistance to the Authority for nearly three decades and has extensive knowledge on the environmental conditions of the Peace River Facility.

Cost Estimating/Economic Assessment: Our team understands how important cost estimates are in the decision-making process. We will prepare a Class 4 cost estimate and O&M cost to evaluate the economic feasibility of the PTSW ASR Project. The Class 4 estimate will be prepared in accordance with AACE Recommended Practice No. 18R – 97 guidelines. AECOM's Cost Estimating Group is staffed with seasoned professional estimators who possess the experience and capability to develop estimates throughout the AACE range of estimate levels from Rough Order of Magnitude (Class 5) to Hard Bid (Class 1) estimates, supporting all levels of design. The cost estimating staff is experienced in all relevant trades including civil, structural, architectural, process mechanical, electrical, SCADA and I&C and building mechanical work. The O&M cost of PTSW ASR and existing fully treated SW ASR will be inputted into OASIS to estimate the long-term annual cost difference and payback period of the change.

Funding Assessment: Team member Angie Brewer and Associates will be responsible for identifying potential additional funding sources through local, state and federal loan/grant programs. The Authority already has FDEP grant funding in place for the PTSW ASR Project. **The overall approach will be to maximize outside funding through grants and low-cost loans as well as utilize best management practices and lessons learned to mitigate the financial impact on the Authority and its customers.** Our team's funding strategists have helped clients to secure grants and

outside funding involving Community Development Block Grants (CDBGs), SWFWMD alternative funding programs, FDEP SRF loan administration/ grants, providing Davis-Bacon Act compliance where required, and the SWFWMD grant programs. The recently enacted Infrastructure Investment and Jobs Act (Act) also provides significant funding for the nation's critical water infrastructure.

UIC/ASR Assessment: Team member ASRus will be responsible for assessing the PTSW ASR treatment system improvements for compliance with the FDEP UIC permit. Should it be determined it is infeasible and/or inadvisable to conduct PTSW under the current permit, then our team will provide recommendations for proposed modifications to effectuate the PTSW ASR. In addition, our team will identify potential modifications of the permit to fully optimize the PTSW ASR operations.

Our Team is uniquely qualified to pursue successful modification of the Authority's current UIC permit to support and optimize the PTSW ASR concept for WF2. **Team member ASRus has worked closely with the Authority to support the regulatory conversion of its ASR wellfield from potable water to PTSW over the past 7 years.** There has been considerable turnover in FDEP's UIC program recently and our team believes that many of the decisions made by FDEP could be re-visited to fully optimize the PTSW ASR operations. For example, FDEP has suggested that both High Level Disinfection standards and the Revised Total Coliform Rule should apply to the recharge water. Our Team believes the groundwater discharge standard of 4 colony forming units/100 mL should apply worst-case, and the Authority should be allowed to operate the ASR system without any disinfection required.

For the City of West Palm Beach, Team Member ASRus was successful in working with FDEP to grant a Water Quality Criteria Exemption to waive the groundwater standard for coliform bacteria, which allowed the City to operate its large ASR system without water being disinfected from Clear Lake. This allowed cycle testing to resume with non-disinfected water and the results of the cycle testing demonstrated tremendous coliform die-off as close as 75 feet away from the ASR well in the Upper Floridan aquifer. In addition, for the Southwest Florida Water Management District's Flatford Swamp project, ASRus was instrumental in obtaining a permit to construct and operate an aquifer recharge well using non-disinfected water from the Myakka River.

Multi-criteria decision analysis and Preliminary Engineering Report: Our team understands that the Authority is committed to transparent decision-making processes that consider impacts across economic, environmental, and community factors. As such, our team proposes the use of a multi-criteria decision analysis process for **comparing the benefits and costs of the PTSW ASR to baseline conditions and other capital improvement options**. Benefit and cost criteria will be scored using outputs from OASIS modeling, pilot testing, and preliminary engineering. Altogether, the Authority will be empowered to answer if the safe yield, finished water quality, and operational cost benefits of PTSW ASR warrant its implementation when compared with its capital cost and operational complexity, as well as other capital improvement options.

The results of the assessments described above and multi criteria decision analysis will be summarized in a Preliminary Engineering Report, including the results of the pilot testing and system reliability modeling. **The report will identify the economic feasibility and overall cost/benefit** of the project and provide recommendations **on whether the project should advance further. Should the PTSW ASR Project be deemed viable, the PER will include recommended next** steps for implementation.

Phase II services, if authorized by the Authority are as follows:

Task 5: Field Survey and SUE Services (as needed) and Geotechnical Investigations

Our team will prepare a site location plan for the proposed PTSW plant improvements and plan and profile drawings for proposed yard piping. Soil borings will be obtained for new structures and pipelines. AECOM will retain Hyatt Survey Services, Inc. for field survey and SUE and Ardaman and Associates, Inc. for geotechnical investigations.

Task 6: Detailed Design

The first step is AECOM's approach to developing construction documents for the PTSW ASR Project is to prepare a Basis of Design Report (BODR), which would be considered a 30% design submittal. The BODR would incorporate the results of the Preliminary Engineering Report and include additional information necessary for the basis of design.

Detailed design will include review submittals at the 60%, 90% and 100% design stages. Each submittal will include a construction cost estimate. After each submittal, AECOM will conduct a review meeting with the Authority staff to discuss the construction documents and to obtain the Authority's comments. Once all Authority comments have been addressed, the documents will be finalized and will be submitted to the Authority for bidding

Task 7: Regulatory Permitting

Timely acquisition of permits is critical to the success of your project and failure to do so can cause delays and additional cost. Our team will provide full support of the permit process, which includes pre-application meetings with the Authority and regulatory agencies, completing the applications, assembling technical support documentation, certifying as the engineer of-record, answering requests for information, and reviewing the issued permits. Anticipated permitting that will be needed is as follows:

- FDEP Construction Permit
- FDEP UIC Permit, if modifications needed
- Environmental Resource Permit (ERP) Modification
- Local Site Plan Approval
- Local Building Department (initial comments)

Task 8: Bidding Phase Services

AECOM will provide the Authority with technical assistance during the bidding phase component of the PTSW ASR Project. Services to be provided include:

- Attendance at preconstruction conferences
- Prepare responses to technical questions submitted by bidders
- Assist the Authority with preparing Addendum as needed
- Review bids and provide recommendation for award
- Prepare conformed drawings for submittal to the Authority and selected contractor

Task 9: Construction Phase Services

AECOM provides a full complement of engineering services during construction. To meet the needs of the PTSW ASR Project, we can customize these construction services to provide the level of engineering/administration desired by the Authority. The spectrum of our involvement ranges from office administration and resident engineering to construction management and design build. Among the services we typically provide are:

- Contract administration
- Bid advertisement and evaluation.
- Evaluation of contractor's qualifications
- Attend preconstruction conference
- Shop drawing review
- Cost estimation
- Evaluation of alternative materials and equipment
- Early procurement of equipment
- Review of contractor's payment requests
- Attendance at monthly construction meetings
- Construction observation/inspection
- Periodic site visits
- Maintenance of record data
- Respond to contractor's request for information
- Request for proposed change (RPC) processing
- Preparation of record drawings
- Final acceptance testing
- Start-up assistance and commissioning
- Operation and maintenance (O&M) Manuals
- Project closeout

3.3 Preliminary Project Schedule

The project schedule for completion of your PTSW ASR Project is presented on the following page. The overall duration of the project is projected to be about 40 months based on a NTP in June 2024. The Phase I services, which includes pilot testing, system reliability modeling and the Preliminary Engineering Report are expected to be completed by April 1, 2025. The PER will identify the economic feasibility and overall cost/benefit of the PTSW ASR Project and provide recommendations on whether the project should advance further.

Should the PTSW ASR Project be deemed viable, then further design, permitting, bidding and construction phase services may be authorized by the Authority under Phase II. The detailed design is expected to be completed within 1 year, by April 1, 2026. Following bid and award, the construction phase services are projected to start in June 2026 and be completed within 1 year, by June 2027. Our team will consider owner direct purchase (ODP) of equipment and early works packages to help achieve the aggressive construction schedule. It is anticipated that the PTSW ASR operation would begin in September 2027.

AECOM

Section 4
Required Forms

Contract Holder E-Verify Registration and Affidavit

As provided in Section 33 of the Agreement, pursuant to Section 448.095, Florida Statutes, beginning January 1, 2021, Consultant shall register with and use the U.S. Department of Homeland Security's E-Verify system, (https://e-verify.uscis.gov/emp) to verify the work authorization status of all Consultant employees hired on and after January 1, 2021. Additionally, Consultant shall require all subconsultants performing work under this Agreement to use the E-Verify system for any employees hired on and after January 1, 2021. Consultant must provide evidence to the Authority of compliance with Section 448.095, Florida Statutes, prior to entering the Agreement

Affidavit

I hereby certify that **AECOM Technical Services, Inc.** (Contract holder) does not employ, contract with, or subcontract with any unauthorized aliens, and is otherwise in full compliance with Section 448.095, Florida Statutes.

All employees hired on or ager January 1, 2021, have had their work authorization status verified through the E-Verify system.

A true and correct copy of **AECOM Technical Services, Inc.** (Contract holder) proof of registration in the E-Verify system is attached to this Affidavit.

R. Cavalieri **January 17, 2024**
Signature Date

Ronald Cavalieri, PE, BCEE
Print Name

STATE OF **Florida**

COUNTY OF **Lee**

The foregoing instrument was acknowledged before me by means of □ physical presence or □ online notarization, this **17th** day of **January**, 20**24** by **Ronald Cavalieri, Associate VP** (name of officer or agent, title of officer or agent) of **AECOM Technical Services, Inc** (name of Consultant company acknowledging), a **California** (state or place of incorporation) corporation, on behalf of the corporation. He/she is personally known to me or has produced **N/A (personally known)** (type of identification) as identification.

Cherie C. Wolter Cherie C Wolter
Notary Public

CHERIE C. WOLTER
Notary Public - State of Florida
Commission # HH 061153
My Comm. Expires Nov 16, 2024
Bonded through National Notary Assn.

Cherie C. Wolter
Name typed, printed or stamped

My Commission Expires: **November 16, 2024**

E-Verify – Proof of Verification

E-Verify

Company ID Number: 1349701

THE E-VERIFY
MEMORANDUM OF UNDERSTANDING
FOR WEB SERVICES EMPLOYERS

ARTICLE I
PURPOSE AND AUTHORITY

The parties to this Agreement are the Department of Homeland Security (DHS) and AECOM (Web Services Employer). The purpose of this agreement is to set forth terms and conditions which the Web Services Employer will follow while participating in E-Verify.

A Web Services Employer is an Employer who verifies employment authorization for its newly hired employees using a Web Services interface.

E-Verify is a program that electronically confirms a newly hired employee's authorization to work in the United States after completion of the Form I-9, Employment Eligibility Verification (Form I-9). This MOU explains certain features of the E-Verify program and describes specific responsibilities of the Web Services Employer, DHS, and the Social Security Administration (SSA).

For purposes of this MOU, the "E-Verify browser" refers to the website that provides direct access to the E-Verify system: https://e-verify.uscis.gov/emp/. You may access E-Verify directly free of charge via the E-Verify browser.

Authority for the E-Verify program is found in Title IV, Subtitle A, of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (IIRIRA), Pub. L. 104-208, 110 Stat. 3009, as amended (8 U.S.C. § 1324a note). The Federal Acquisition Regulation (FAR) Subpart 22.18, "Employment Eligibility Verification" and Executive Order 12989, as amended, provide authority for Federal contractors and subcontractors (Federal contractor) to use E-Verify to verify the employment eligibility of certain employees working on Federal contracts.

Before accessing E-Verify using Web Services access, the Web Services Employer must meet certain technical requirements. This will require the investment of significant amounts of resources and time. If the Web Services Employer is required to use E-Verify prior to completion and acceptance of its Web Services interface, then it must use the E-Verify browser until it is able to use its Web Services interface. The Web Services Employer must also maintain ongoing technical compatibility with E-Verify.

DHS accepts no liability relating to the Web Services Employer's development or maintenance of any Web Services access system.

E-Verify

Company ID Number: 1349701

ARTICLE II
RESPONSIBILITIES

A. RESPONSIBILITIES OF THE WEB SERVICES EMPLOYER

1. By enrolling in E-Verify and signing the applicable MOU, the Web Services Employer asserts that it is a legitimate company which intends to use E-Verify for legitimate purposes only and in accordance with the laws, regulations, and DHS policies and procedures relating to the use of E-Verify.

2. The Web Services Employer agrees to display the following notices supplied by DHS in a prominent place that is clearly visible to prospective employees and all employees who are to be verified through the system:

   a. Notice of E-Verify Participation

   b. Notice of Right to Work

3. The Web Services Employer agrees to provide to the SSA and DHS the names, titles, addresses, and telephone numbers of the Web Services Employer representatives to be contacted about E-Verify. The Web Services Employer also agrees to keep such information current by providing updated information to SSA and DHS whenever the representatives' contact information changes.

4. The Web Services Employer agrees to grant E-Verify access only to current employees who need E-Verify access. Web Services Employers must promptly terminate an employee's E-Verify access if the employer is separated from the company or no longer needs access to E-Verify.

5. The Web Services Employer agrees to become familiar with and comply with the most recent version of the E-Verify User Manual. The Web Services Employer will ensure that outdated manuals are promptly replaced with the new version of the E-Verify User Manual when it becomes available.

6. The Web Services Employer agrees that any person accessing E-Verify on its behalf is trained on the most recent E-Verify policy and procedures.

7. The Web Services Employer agrees that any of its representatives who will create E-Verify cases will complete the E-Verify Tutorial before creating any cases.

   a. The Web Services Employer agrees that all of its representatives will take the refresher tutorials when prompted by E-Verify in order to continue using E-Verify. Failure to complete a refresher tutorial will prevent the Employer Representative from continued use of E-Verify.

8. The Web Services E-Verify Employer Agent agrees to obtain the necessary equipment to use E- Verify as required by the E-Verify rules and regulations as modified from time to time.

9. The Web Services E-Verify Employer Agent agrees to, consistent with applicable laws, regulations, and policies, commit sufficient personnel and resources to meet the requirements of this MOU.

10. The Web Services Employer agrees to comply with current Form I-9 procedures, with two

E-Verify

Company ID Number: 1349701

exceptions:

   a. If an employee presents a "List B" identity document, the Web Services Employer agrees to only accept "List B" documents that contain a photo. (List B documents identified in 8 C.F.R. § 274a.2(b)(1)(B)) can be presented during the Form I-9 process to establish identity.) If an employee objects to the photo requirement for religious reasons, the Web Services Employer should contact E-Verify at 888-464-4218.

   b. If an employee presents a DHS Form I-551 (Permanent Resident Card), Form I-766 (Employment Authorization Document), or U.S. Passport or Passport Card to complete Form I-9, the Web Services Employer agrees to make a photocopy of the document and to retain the photocopy with the employee's Form I-9. The Web Services Employer will use the photocopy to verify the photo and to assist DHS with its review of photo mismatches that employees contest. DHS may in the future designate other documents that activate the photo screening tool.

Note: Subject only to the exceptions noted previously in this paragraph, employees still retain the right to present any List A, or List B and List C, document(s) to complete the Form I-9.

11. The Web Services Employer agrees to record the case verification number on the employee's Form I-9 or to print the screen containing the case verification number and attach it to the employee's Form I-9.

12. The Web Services Employer agrees that, although it participates in E-Verify, the Web Services Employer has a responsibility to complete, retain, and make available for inspection Forms I-9 that relate to its employees, or from other requirements of applicable regulations or laws, including the obligation to comply with the antidiscrimination requirements of section 274B of the INA with respect to Form I-9 procedures.

   a. The following modified requirements are the only exceptions to a Web Services Employer's obligation to not employ unauthorized workers and comply with the anti-discrimination provision of the INA: (1) List B identity documents must have photos, as described in paragraph 6 above; (2) When a Web Services Employer confirms the identity and employment eligibility of newly hired employee using E-Verify procedures, it establishes a rebuttable presumption that it has not violated section 274A(a)(1)(A) of the Immigration and Nationality Act (INA) with respect to the hiring of that employee; (3) If the Web Services Employer receives a final nonconfirmation for an employee, but continues to employ that person, the Web Services Employer must notify DHS and the Web Services Employer is subject to a civil money penalty between $550 and $1,100 for each failure to notify DHS of continued employment following a final nonconfirmation; (4) If the Web Services Employer continues to employ an employee after receiving a final nonconfirmation, then the Web Services Employer is subject to a rebuttable presumption that it has knowingly employed an unauthorized alien in violation of section 274A(a)(1)(A); and (5) no E-Verify participant is civilly or criminally liable under any law for any action taken in good faith based on information provided through the E-Verify.

   b. DHS reserves the right to conduct Form I-9 compliance inspections, as well as any other enforcement or compliance activity authorized by law, including site visits, to ensure proper use of

E-Verify

Company ID Number: 1349701

E-Verify.

13. The Web Services Employer is strictly prohibited from creating an E-Verify case before the employee has been hired, meaning that a firm offer of employment was extended and accepted and Form I-9 was completed. The Employer agrees to create an E-Verify case for new employees within three Employer business days after each employee has been hired (after both Sections 1 and 2 of Form I-9 have been completed), and to complete as many steps of the E-Verify process as are necessary according to the E-Verify User Manual. If E-Verify is temporarily unavailable, the three-day time period will be extended until it is again operational in order to accommodate the Employer's attempting, in good faith, to make inquiries during the period of unavailability. If, however, the Web Services interface is unavailable due to no fault of E-Verify, then the three day time period is not extended. In such a case, the Web Services Employer must use the E-Verify browser during the outage.

14. The Web Services Employer agrees not to use E-Verify for pre-employment screening of job applicants, in support of any unlawful employment practice, or for any other use that this MOU or the E-Verify User Manual does not authorize.

15. The Web Services Employer must use E-Verify for all new employees. The Web Services Employer will not verify selectively and will not verify employees hired before the effective date of this MOU. Employers who are Federal contractors may qualify for exceptions to this requirement as described in Article II.B of this MOU.

16. The Web Services Employer agrees to follow appropriate procedures (see Article III below) regarding tentative nonconfirmations. The Web Services Employer must promptly notify employees in private of the finding and provide them with the notice and letter containing information specific to the employee's E-Verify case. The Web Services Employer agrees to provide both the English and the translated notice and letter for employees with limited English proficiency to employees. The Web Services Employer agrees to provide written referral instructions to employees and instruct affected employees to bring the English copy of the letter to the SSA. The Web Services Employer must allow employees to contest the finding, and not take adverse action against employees if they choose to contest the finding, while their case is still pending. Further, when employees contest a tentative nonconfirmation based upon a photo mismatch, the Employer must take additional steps (see Article III.B below) to contact DHS with information necessary to resolve the challenge.

17. The Web Services Employer agrees not to take any adverse action against an employee based upon the employee's perceived employment eligibility status while SSA or DHS is processing the verification request unless the Employer obtains knowledge (as defined in 8 C.F.R. § 274a.1(l)) that the employee is not work authorized. The Web Services Employer understands that an initial inability of the SSA or DHS automated verification system to verify work authorization, a tentative nonconfirmation, a case in continuance (indicating the need for additional time for the government to resolve a case), or the finding of a photo mismatch, does not establish, and should not be interpreted as, evidence that the employee is not work authorized. In any of such cases, the employee must be provided a full and fair opportunity to contest the finding, and if he or she does so, the employee may not be terminated or suffer any adverse employment consequences based upon the employee's perceived employment

eligibility status (including denying, reducing, or extending work hours, delaying or preventing training, requiring an employee to work in poorer conditions, withholding pay, refusing to assign the employee to a Federal contract or other assignment, or otherwise assuming that he or she is unauthorized to work) until and unless secondary verification by SSA or DHS has been completed and a final nonconfirmation has been issued. If the employee does not choose to contest a tentative nonconfirmation or a photo mismatch or if a secondary verification is completed and a final nonconfirmation is issued, then the Web Services Employer can find the employee is not work authorized and terminate the employee's employment. Employers or employees with questions about a final nonconfirmation may call E-Verify at 1-888-464-4218 (customer service) or 1-888-897-7781 (worker hotline).

18. The Web Services Employer agrees to comply with Title VII of the Civil Rights Act of 1964 and section 274B of the INA as applicable by not discriminating unlawfully against any individual in hiring, firing, employment eligibility verification, or recruitment or referral practices because of his or her national origin or citizenship status, or by committing discriminatory documentary practices. The Web Services Employer understands that such illegal practices can include selective verification or use of E-Verify except as provided in part D below, or discharging or refusing to hire employees because they appear or sound "foreign" or have received tentative nonconfirmations. The Web Services Employer further understands that any violation of the immigration-related unfair employment practices provisions in section 274B of the INA could subject the Web Services Employer to civil penalties, back pay awards, and other sanctions, and violations of Title VII could subject the Web Services Employer to back pay awards, compensatory and punitive damages. Violations of either section 274B of the INA or Title VII may also lead to the termination of its participation in E-Verify. If the Web Services Employer has any questions relating to the anti-discrimination provision, it should contact OSC at 1-800-255-8155 or 1-800-237-2515 (TDD).

19. The Web Services Employer agrees that it will use the information it receives from E-Verify only to confirm the employment eligibility of employees as authorized by this MOU. The Web Services Employer agrees that it will safeguard this information, and means of access to it (such as PINS and passwords), to ensure that it is not used for any other purpose and as necessary to protect its confidentiality, including ensuring that it is not disseminated to any person other than employees of the Web Services Employer who are authorized to perform the Web Services Employer's responsibilities under this MOU, except for such dissemination as may be authorized in advance by SSA or DHS for legitimate purposes.

20. The Web Services Employer agrees to notify DHS immediately in the event of a breach of personal information. Breaches are defined as loss of control or unauthorized access to E-Verify personal data. All suspected or confirmed breaches should be reported by calling 1-888-464-4218 or via email at E-Verify@dhs.gov. Please use "Privacy Incident – Password" in the subject line of your email when sending a breach report to E-Verify.

21. The Web Services Employer acknowledges that the information it receives from SSA is governed by the Privacy Act (5 U.S.C. § 552a(i)(1) and (3)) and the Social Security Act (42 U.S.C. 1306(a)). Any person who obtains this information under false pretenses or uses it for any purpose other than as provided for in this MOU may be subject to criminal penalties.

22. The Web Services Employer agrees to cooperate with DHS and SSA in their compliance monitoring and evaluation of E-Verify, which includes permitting DHS, SSA, their contractors and other agents, upon reasonable notice, to review Forms I-9 and other employment records and to interview it and its employees regarding the Employer's use of E-Verify, and to respond in a prompt and accurate manner to DHS requests for information relating to their participation in E-Verify.

a. The Web Services Employer agrees to cooperate with DHS if DHS requests information about the Web Services Employer's interface, including requests by DHS to view the actual interface operated by the Web Services Employer as well as related business documents. The Web Services Employer agrees to demonstrate for DHS the functionality of its interface to E-Verify upon request.

23. The Web Services Employer shall not make any false or unauthorized claims or references about its participation in E-Verify on its website, in advertising materials, or other media. The Employer shall not describe its services as federally-approved, federally-certified, or federally-recognized, or use language with a similar intent on its website or other materials provided to the public. Entering into this MOU does not mean that E-Verify endorses or authorizes your E-Verify services and any claim to that effect is false.

24. The Web Services Employer shall not state in its website or other public documents that any language used therein has been provided or approved by DHS, USCIS or the Verification Division, without first obtaining the prior written consent of DHS.

25. The Web Services Employer agrees that E-Verify trademarks and logos may be used only under license by DHS/USCIS (see M-795 (Web)) and, other than pursuant to the specific terms of such license, may not be used in any manner that might imply that the Employer's services, products, websites, or publications are sponsored by, endorsed by, licensed by, or affiliated with DHS, USCIS, or E-Verify.

26. The Web Services Employer agrees to complete its Web Services interface no later than six months after the date the Web Services Employer signs this MOU. E-Verify considers the interface to be complete once it has been built pursuant to the Interface Control Agreement (ICA), submitted to E-Verify for testing, and approved for system access.

27. The Web Services Employer agrees to perform sufficient maintenance on the Web Services interface in accordance with the requirements listed in the ICA. These requirements include, but are not limited to, updating the Web Services interface to ensure that any updates or enhancements are incorporated no later than six months after the issuance of an ICA. Web Services Employers should be aware that this will require the investment of time and resources. Compliance with the requirements of the ICA must be carried out to the satisfaction of DHS and or its assignees.

28. The Web Services Employer agrees that any system or interface it develops will follow the steps for creating E-Verify cases and processing tentative nonconfirmations, as laid out in the ICA, this MOU and the User Manual, including but not limited to allowing an employer to close an invalid case where appropriate, allowing an employer to refer a tentative nonconfirmation only when an employee chooses to contest a tentative nonconfirmation (no automatic referrals), and referring a tentative nonconfirmation

to the appropriate agency at the time the employer prints the referral letter and provides the letter to the employee. The Web Services Employer understands that any failure to make its system or interface consistent with proper E-Verify procedures can result in DHS terminating the Web Services Employer's agreement and access.

29. The Web Services Employer understands that if it uses E-Verify procedures for any purpose other than as authorized by this MOU, the Web Services Employer may be subject to appropriate legal action and termination of its participation in E-Verify according to this MOU.

B. EMPLOYERS THAT ARE FEDERAL CONTRACTORS WITH THE FAR E-VERIFY CLAUSE

NOTE: If you do not have any Federal contracts at this time, this section does not apply to your company. In the future, if you are awarded a Federal contract that contains the FAR E-Verify clause, then you must comply with each provision in this Section. See 48 C.F.R. 52.222.54 for the text of the FAR E-Verify clause and the E-Verify Supplemental Guide for Federal Contractors for complete information.

1. If the Web Services Employer is a Federal contractor with the FAR E-Verify clause subject to the employment verification terms in Subpart 22.18 of the FAR, it will become familiar with and comply with the most current version of the E-Verify User Manual for Federal Contractors as well as the E-Verify Supplemental Guide for Federal Contractors.

2. In addition to the responsibilities of every employer outlined in this MOU, the Web Services Employer understands that if it is a Federal contractor subject to the employment verification terms in Subpart 22.18 of the FAR it must verify the employment eligibility of any "employee assigned to the contract" (as defined in FAR 22.1801). Once an employee has been verified through E-Verify by the Web Services Employer, the Employer may not create a second case for the employee through E-Verify.

a. A Web Services Employer that is not enrolled in E-Verify as a Federal contractor at the time of a contract award must enroll as a Federal contractor in the E-Verify program within 30 calendar days of contract award and, within 90 days of enrollment, begin to verify employment eligibility of new hires using E-Verify. The Web Services Employer must verify those employees who are working in the United States, whether or not they are assigned to the contract. Once the Web Services Employer begins verifying new hires, such verification of new hires must be initiated within three business days after the hire date. Once enrolled in E-Verify as a Federal contractor, the Web Services Employer must begin verification of employees assigned to the contract within 90 calendar days after the date of enrollment or within 30 days of an employee's assignment to the contract, whichever date is later.

b. Web Services Employers enrolled in E-Verify as a Federal contractor for 90 days or more at the time of a contract award must use E-Verify to begin verification of employment eligibility for new hires of the Employer who are working in the United States, whether or not assigned to the contract, within three business days after the date of hire. If the Web Services Employer is enrolled in E-Verify as a Federal contractor for 90 calendar days or less at the time of contract award, the Web Services Employer must, within 90 days of enrollment, begin to use E-Verify to initiate

verification of new hires of the contractor who are working in the United States, whether or not assigned to the contract. Such verification of new hires must be initiated within three business days after the date of hire. A Web Services Employer enrolled as a Federal contractor in E-Verify must begin verification of each employee assigned to the contract within 90 calendar days after date of contract award or within 30 days after assignment to the contract, whichever is later.

c. Federal contractors that are institutions of higher education (as defined at 20 U.S.C. 1001(a)), state or local governments, governments of Federally recognized Indian tribes, or sureties performing under a takeover agreement entered into with a Federal agency under a performance bond may choose to only verify new and existing employees assigned to the Federal contract. Such Federal contractors may, however, elect to verify all new hires, and/or all existing employees hired after November 6, 1986. Web Services Employers in this category must begin verification of employees assigned to the contract within 90 calendar days after the date of enrollment or within 30 days of an employee's assignment to the contract, whichever date is later.

d. Upon enrollment, Web Services Employers who are Federal contractors may elect to verify employment eligibility of all existing employees working in the United States who were hired after November 6, 1986, instead of verifying only those employees assigned to a covered Federal contract. After enrollment, Web Services Employers must elect to verify existing staff following DHS procedures and begin E-Verify verification of all existing employees within 180 days after the election.

e. The Web Services Employer may use a previously completed Form I-9 as the basis for creating an E-Verify case for an employee assigned to a contract as long as:

i. That Form I-9 is complete (including the SSN) and complies with Article II.A.6,

ii. The employee's work authorization has not expired, and

iii. The Web Services Employer has reviewed the Form I-9 information either in person or in communications with the employee to ensure that the employee's Section 1, Form I-9 attestation has not changed (including, but not limited to, a lawful permanent resident alien having become a naturalized U.S. citizen).

f. The Web Services Employer shall complete a new Form I-9 consistent with Article II.A.10 or update the previous Form I-9 to provide the necessary information if:

i. The Web Services Employer cannot determine that Form I-9 complies with Article II.A.10,

ii. The employee's basis for work authorization as attested in Section 1 has expired or changed, or

iii. The Form I-9 contains no SSN or is otherwise incomplete.

Note: If Section 1 of Form I-9 is otherwise valid and up-to-date and the form otherwise complies with Article II.A.10, but reflects documentation (such as a U.S. passport or Form I-551) that expired after completing Form I-9, the Web Services Employer shall not require the production of additional documentation, or use the photo screening tool described in Article II.A.5, subject to any additional or superseding instructions that may be provided on this subject in the E-Verify User Manual.

g. The Web Services Employer agrees not to require a second verification using E-Verify of any assigned employee who has previously been verified as a newly hired employee under this MOU or to authorize verification of any existing employee by any Web Services Employer that is not a Federal contractor based on this Article.

3. The Web Services Employer understands that if it is a Federal contractor, its compliance with this MOU is a performance requirement under the terms of the Federal contract or subcontract, and the Web Services Employer consents to the release of information relating to compliance with its verification responsibilities under this MOU to contracting officers or other officials authorized to review the Employer's compliance with Federal contracting requirements.

C. RESPONSIBILITIES OF SSA

1. SSA agrees to allow DHS to compare data provided by the Web Services Employer against SSA's database. SSA sends DHS confirmation that the data sent either matches or does not match the information in SSA's database.

2. SSA agrees to safeguard the information the Web Services Employer provides through E-Verify procedures. SSA also agrees to limit access to such information, as is appropriate by law, to individuals responsible for the verification of Social Security numbers or responsible for evaluation of E-Verify or such other persons or entities who may be authorized by SSA as governed by the Privacy Act (5 U.S.C. § 552a), the Social Security Act (42 U.S.C. 1306(a)), and SSA regulations (20 CFR Part 401).

3. SSA agrees to provide case results from its database within three Federal Government work days of the initial inquiry. E-Verify provides the information to the Web Services Employer.

4. SSA agrees to update SSA records as necessary if the employee who contests the SSA tentative nonconfirmation visits an SSA field office and provides the required evidence. If the employee visits an SSA field office within the eight Federal Government work days from the date of referral to SSA, SSA agrees to update SSA records, if appropriate, within the eight-day period unless SSA determines that more than eight days may be necessary. In such cases, SSA will provide additional instructions to the employee. If the employee does not visit SSA in the time allowed, E-Verify may provide a final nonconfirmation to the employer.

Note: If a Web Services Employer experiences technical problems, or has a policy question, the Web Services Employer should contact E-Verify at 1-888-464-4218.

D. RESPONSIBILITIES OF DHS

1. After SSA verifies the accuracy of SSA records for employees through E-Verify, DHS agrees to provide the Web Services Employer access to selected data from DHS databases to enable the Web Services Employer to conduct, to the extent authorized by this MOU:

a. Automated verification checks on employees by electronic means, and

b. Photo verification checks (when available) on employees.

2. DHS agrees to provide to the Web Services Employer appropriate assistance with operational problems that may arise during the Web Services Employer's participation in the E-Verify program. DHS agrees to provide the Web Services Employer names, titles, addresses, and telephone numbers of DHS representatives to be contacted during the E-Verify process.

3. DHS agrees to make available to the Web Services Employer at the E-Verify Web site (www.dhs.gov/E-Verify) and on the E-Verify Web browser (https://e-verify.uscis.gov/emp/), instructional materials on E-Verify policies, procedures and requirements for both SSA and DHS, including restrictions on the use of E-Verify. DHS agrees to provide training materials on E-Verify.

4. DHS agrees to provide to the Web Services Employer a notice that indicates the Web Services Employer's participation in the E-Verify program. DHS also agrees to provide to the Web Services Employer anti-discrimination notices issued by the Office of Special Counsel for Immigration-Related Unfair Employment Practices (OSC), Civil Rights Division, U.S. Department of Justice.

5. DHS agrees to issue the Web Services Employer a user identification number and password that permits the Employer to verify information provided by its employees with DHS.

6. DHS agrees to safeguard the information provided to DHS by the Web Services Employer, and to limit access to such information to individuals responsible for the verification of employees' employment eligibility and for evaluation of the E-Verify program, or to such other persons or entities as may be authorized by applicable law. Information will be used only to verify the accuracy of Social Security Numbers and employment eligibility, to enforce the Immigration and Nationality Act (INA) and Federal criminal or anti-discrimination laws, and to administer Federal contracting requirements.

7. DHS agrees to provide a means of automated verification that is designed (in conjunction with SSA verification procedures) to provide confirmation or tentative nonconfirmation of employees' employment eligibility within three Federal Government work days of the initial inquiry.

8. DHS agrees to provide a means of secondary verification (including updating DHS records as necessary) for employees who contest DHS tentative nonconfirmations and photo non-match tentative nonconfirmations that is designed to provide final confirmation or nonconfirmation of the employees' employment eligibility within 10 Federal Government work days of the date of referral to DHS, unless DHS determines that more than 10 days may be necessary. In such cases, DHS will provide additional verification instructions.

9. DHS agrees to provide the Web Services Employer with an Interface Control Agreement (ICA). This document will provide technical requirements that the Web Services Employer must meet to create and maintain a Web Services interface to the Verification Information System (VIS). VIS is a composite information system that provides immigration status verification for government agencies and verification of employment authorization for employers participating in E-Verify.

10. DHS agrees to provide periodic system enhancements to improve the ease and accuracy of E-Verify, as needed. DHS will also provide E-Verify enhancements to comply with applicable laws and regulations. As enhancements occur, Web Services Employers must update their Web Services

interface to reflect system changes within the timelines specified in Article V.A.1. DHS will provide the Web Services Employer with an ICA to support the E-Verify release whenever system enhancements are required.

11. DHS agrees to provide to the Web Services Employer guidance on breach notification and a means by which the Web Services Employer can report any and all suspected or confirmed breaches of owned or used systems or data spills related to E-Verify cases. At this time, if the Employer encounters a suspected or confirmed breach or data spill, it should contact E-Verify at 1-888-464-4218.

12. In the event the Web Services Employer is subject to penalties, DHS will issue a Notice of Adverse Action that describes the specific violations if it intends to suspend or terminate the employer's Web Services interface access. The Web Services Employer agrees that DHS shall not be liable for any financial losses to the Web Services Employer, its employees, or any other party as a result of your account suspension or termination and agrees to hold DHS harmless from any such claims.

ARTICLE III

REFERRAL OF INDIVIDUALS TO SSA AND DHS

A. REFERRAL TO SSA

1. If the Web Services Employer receives a tentative nonconfirmation issued by SSA, the Web Services Employer must print the notice and promptly provide it to the employee so that the employee may determine whether he or she will contest the tentative nonconfirmation. The Web Services Employer must review the tentative nonconfirmation with the employee in private. After the notice has been signed, the Web Services Employer must give a copy of the signed notice to the employee and attach a copy to the employee's Form I-9.

2. The Web Services Employer will refer employees to SSA field offices only as directed by the automated system based on a tentative nonconfirmation, and only after the Web Services Employer records the case verification number, reviews the input to detect any transaction errors, and determines that the employee contests the tentative nonconfirmation. The Web Services Employer will transmit the Social Security Number to SSA for verification again if this review indicates a need to do so. The Web Services Employer will determine whether the employee contests the tentative nonconfirmation as soon as possible after the Employer receives it.

3. If the employee contests an SSA tentative nonconfirmation, the Web Services Employer will provide the employee with a system-generated referral letter and instruct the employee to visit an SSA office within eight Federal Government work days. SSA will electronically transmit the result of the referral to the Web Services Employer within 10 Federal Government work days of the referral unless it determines that more than 10 days is necessary. The Employer agrees to check the E-Verify system regularly for case updates.

4. The Web Services Employer agrees not to ask the employee to obtain a printout from the Social Security Number database (the Numident) or other written verification of the Social Security Number from the SSA.

B. REFERRAL TO DHS

1. If the Web Services Employer receives a tentative nonconfirmation issued by DHS, the Web Services Employer must promptly notify employees in private of the finding and provide them with the notice and letter containing information specific to the employee's E-Verify case. The Web Services Employer also agrees to provide both the English and the translated notice and letter for employees with limited English proficiency to employees. The Web Services Employer must allow employees to contest the finding, and not take adverse action against employees if they choose to contest the finding, while their case is still pending.

2. The Web Services Employer agrees to obtain the employee's response about whether he or she will contest the tentative nonconfirmation as soon as possible after the Web Services Employer receives the tentative nonconfirmation. Only the employee may determine whether he or she will contest the tentative nonconfirmation.

3. The Web Services Employer agrees to refer individuals to DHS only when the employee chooses to contest a tentative nonconfirmation.

4. If the employee contests a tentative nonconfirmation issued by DHS, the Web Services Employer will instruct the employee to contact DHS through its toll-free hotline (as found on the referral letter) within eight Federal Government work days.

5. If the Web Services Employer finds a photo mismatch, the Web Services Employer must provide the photo mismatch tentative nonconfirmation notice and follow the instructions outlined in paragraph 1 of this section for tentative nonconfirmations, generally.

6. The Web Services Employer agrees that if an employee contests a tentative nonconfirmation based upon a photo mismatch, the Web Services Employer will send a copy of the employee's Form I-551, Form I-766, U.S. Passport, or passport card to DHS for review by:

a. Scanning and uploading the document, or

b. Sending a photocopy of the document by express mail (furnished and paid for by the employer).

7. The Web Services Employer understands that if it cannot determine whether there is a photo match/mismatch, the Employer must forward the employee's documentation to DHS as described in the preceding paragraph. The Employer agrees to resolve the case as specified by the DHS representative who will determine the photo match or mismatch.

8. DHS will electronically transmit the result of the referral to the Web Services Employer within 10 Federal Government work days of the referral unless it determines that more than 10 days is necessary.

9. While waiting for case results, the Web Services Employer agrees to check the E-Verify system regularly for case updates.

10. DHS agrees to provide the Web Services Employer with an Interface Control Agreement (ICA).

This document will provide technical requirements that the Web Services Employer must meet to create and maintain a Web Services interface to the Verification Information System (VIS). VIS is a composite information system that provides immigration status verification for government agencies and verification of employment authorization for employers participating in E-Verify.

11. DHS agrees to provide periodic system enhancements to improve the ease and accuracy of E-Verify, as needed. DHS will also provide E-Verify enhancements to comply with applicable laws and regulations. As enhancements occur, Web Services Employers must update their Web Services interface to reflect system changes within the timelines specified in Article V.A.1. DHS will provide the Web Services Employer with an ICA to support the E-Verify release whenever system enhancements are required.

ARTICLE IV
SERVICE PROVISIONS

A. NO SERVICE FEES

1. SSA and DHS will not charge the Employer or the Web Services E-Verify Employer Agent for verification services performed under this MOU. The Employer is responsible for providing equipment needed to make inquiries. To access E-Verify, an Employer will need a personal computer with Internet access.

ARTICLE V
SYSTEM SECURITY AND MAINTENANCE

A. DEVELOPMENT REQUIREMENTS

1. Software developed by Web Services Employers must comply with federally-mandated information security policies and industry security standards to include but not limited to:

a. Public Law 107-347, "E-Government Act of 2002, Title III, Federal Information Security Management Act (FISMA)," December 2002.

b. Office of Management and Budget (OMB) Memorandum (M-10-15), "FY 2010 Reporting Instructions for the Federal Information Security Management Act and Agency Privacy Management," April 2010.

c. National Institute of Standards and Technology (NIST) Special Publication (SP) and Federal Information Processing Standards Publication (FIPS).

d. International Organization for Standardization/International Electrotechnical Commission (ISO/IEC) 27002, Information Technology — Security Techniques — Code of Practice for Information Security Management.

2. The Web Services Employer agrees to update its Web Services interface to the satisfaction of DHS or its assignees to reflect system enhancements within six months from the date DHS notifies the Web Services User of the system update. The Web Services User will receive notice from DHS in the form

of an Interface Control Agreement (ICA). The Web Services Employer agrees to institute changes to its interface as identified in the ICA, including all functionality identified and all data elements detailed therein.

3. The Web Services Employer agrees to demonstrate progress of its efforts to update its Web Services interface if and when DHS requests such progress reports.

4. The Web Services Employer acknowledges that if its system enhancements are not completed to the satisfaction of DHS or its assignees within six months from the date DHS notifies the Web Services Employer of the system update, then the Web Services Employer's E-Verify account may be suspended, and support for previous releases of E-Verify may no longer be available to the Web Services Employer. The Web Services Employer also acknowledges that DHS may suspend its account after the six-month period has elapsed.

5. The Web Services Employer agrees to incorporate error handling logic into its development or software to accommodate and act in a timely fashion should an error code be returned.

6. The Web Services Employer agrees to complete the technical requirements testing which is confirmed upon receiving approval of test data and connectivity between the Web Services Employer and DHS.

7. DHS will not reimburse any Web Services Employer or software developer who has expended resources in the development or maintenance of a Web Services interface if that party is unable, or becomes unable, to meet any of the requirements set forth in this MOU.

8. Housing, development, infrastructure, maintenance, and testing of the Web Services applications may take place outside the United States and its territories, but testing must be conducted to ensure that the code is correct and secure.

9. Tf the Web Services Employer includes an electronic Form I-9 as part of its interface, then it must comply with the standards for electronic retention of Form I-9 found in 8 CFR 274a.2(e).

B. INFORMATION SECURITY REQUIREMENTS

Web Services Employers performing verification services under this MOU must ensure that information that is shared between the Web Services Employer and DHS is appropriately protected comparable to the protection provided when the information is within the DHS environment [OMB Circular A-130 Appendix III].

To achieve this level of information security, the Web Services Employer agrees to institute the following procedures:

1. Conduct periodic assessments of risk, including the magnitude of harm that could result from the unauthorized access, use, disclosure, disruption, modification, or destruction of information and information systems that support the operations and assets of the DHS, SSA, and the Web Services Employer;

2. Develop policies and procedures that are based on risk assessments, cost-effectively reduce information security risks to an acceptable level, and ensure that information security is addressed throughout the life cycle of each organizational information system;

3. Implement subordinate plans for providing adequate information security for networks, facilities, information systems, or groups of information systems, as appropriate;

4. Conduct security awareness training to inform the Web Services Employer's personnel (including contractors and other users of information systems that support the operations and assets of the organization) of the information security risks associated with their activities and their responsibilities in complying with organizational policies and procedures designed to reduce these risks;

5. Develop periodic testing and evaluation of the effectiveness of information security policies, procedures, practices, and security controls to be performed with a frequency depending on risk, but no less than once per year;

6. Develop a process for planning, implementing, evaluating, and documenting remedial actions to address any deficiencies in the information security policies, procedures, and practices of the organization;

7. Implement procedures for detecting, reporting, and responding to security incidents;

8. Create plans and procedures to ensure continuity of operations for information systems that support the operations and assets of the organization;

9. In information-sharing environments, the information owner is responsible for establishing the rules for appropriate use and protection of the subject information and retains that responsibility even when the information is shared with or provided to other organizations [NIST SP 800-37].

10. DHS reserves the right to restrict Web Services calls from certain IP addresses.

11. DHS reserves the right to audit the Web Services Employer's application.

12. Web Services Employers agree to cooperate willingly with the DHS assessment of information security and privacy practices used by the company to develop and maintain the software.

C. DATA PROTECTION AND PRIVACY REQUIREMENTS

1. Web Services Employers must practice proper Internet security; this means using HTTP over SSL/TLS (also known as HTTPS) when accessing DHS information resources such as E-Verify [NIST SP 800-95]. Internet security practices like this are necessary because Simple Object Access Protocol (SOAP), which provides a basic messaging framework on which Web Services can be built, allows messages to be viewed or modified by attackers as messages traverse the Internet and is not independently designed with all the necessary security protocols for E-Verify use.

2. In accordance with DHS standards, the Web Services Employer agrees to maintain physical, electronic, and procedural safeguards to appropriately protect the information shared under this MOU

against loss, theft, misuse, unauthorized access, and improper disclosure, copying use, modification or deletion.

3. Any data transmission requiring encryption shall comply with the following standards:

- Products using FIPS 197 Advanced Encryption Standard (AES) algorithms with at least 256-bit encryption that has been validated under FIPS 140-2.
- NSA Type 2 or Type 1 encryption.

4. User ID Management (Set Standard): All information exchanged between the parties under this MOU will be done only through authorized Web Services Employer representatives identified above.

5. The Web Services Employer agrees to use the E-Verify browser instead of its own interface if it has not yet upgraded its interface to comply with the Federal Acquisition Regulation (FAR) system changes. In addition, Web Services Employers whose interfaces do not support the Form I-9 from 2/2/2009 or 8/7/2009 agree to use the E-Verify browser until the system upgrade is completed.

6. The Web Services Employer agrees to use the E-Verify browser instead of its own interface if it has not completed updates to its system to the satisfaction of DHS or its assignees within six months from the date DHS notifies the Web Services Employer of the system update. The Web Services Employer can resume use of its interface once it is up-to-date, unless the Web Services Employer has been suspended or terminated from continued use of the system.

D. COMMUNICATIONS

1. The Web Services Employer agrees to develop an electronic system that is not subject to any agreement or other requirement that would restrict access and use by an agency of the United States.

2. The Web Services Employer agrees to develop effective controls to ensure the integrity, accuracy and reliability of its electronic system.

3. The Web Services Employer agrees to develop an inspection and quality assurance program that regularly (at least once per year) evaluates the electronic system, and includes periodic checks of electronically stored information. The Web Services Employer agrees to share the results of its regular inspection and quality assurance program with DHS upon request.

4. The Web Services Employer agrees to develop an electronic system with the ability to produce legible copies of applicable notices, letters, and other written, photographic and graphic materials.

5. All information exchanged between the parties under this MOU will be in accordance with applicable laws, regulations, and policies, including but not limited to, information security guidelines of the sending party with respect to any information that is deemed Personally Identifiable Information (PII), including but not limited to the employee or applicant's Social Security number, alien number, date of birth, or other information that may be used to identify the individual.

6. Suspected and confirmed information security breaches must be reported to DHS according to Article V.C.1. Reporting such breaches does not relieve the Web Services Employer from further

requirements as directed by state and local law. The Web Services Employer is subject to applicable state laws regarding data protection and incident reporting in addition to the requirements herein.

E. SOFTWARE DEVELOPMENT RESTRICTIONS

1. DHS reserves the right to terminate the access of any software developer with or without notice who creates or uses an interface that does not comply with E-Verify procedures.

2. Employers are prohibited from Web Services Software development unless they also create cases in E-Verify to verify their new hires' work authorization. Those pursuing software development without intending to use E-Verify are not eligible to receive an ICA. At this time, E-Verify does not permit Web Services software development without also being a Web Services Employer or Web Services E-Verify Employer Agent.

F. PENALTIES

1. The Web Services Employer agrees that any failure on its part to comply with the terms of the MOU may result in account suspension, termination, or other adverse action.

2. DHS is not liable for any financial losses to Web Services Employer, its clients, or any other party as a result of account suspension or termination.

ARTICLE VI
MODIFICATION AND TERMINATION

A. MODIFICATION

1. This MOU is effective upon the signature of all parties and shall continue in effect for as long as the SSA and DHS operates the E-Verify program unless modified in writing by the mutual consent of all parties.

2. Any and all E-Verify system enhancements by DHS or SSA, including but not limited to E-Verify checking against additional data sources and instituting new verification policies or procedures, will be covered under this MOU and will not cause the need for a supplemental MOU that outlines these changes.

B. TERMINATION

1. The Web Services Employer may terminate this MOU and its participation in E-Verify at any time upon 30 days prior written notice to the other parties.

2. Notwithstanding Article V, part A of this MOU, DHS may terminate this MOU, and thereby the Web Services Employer's participation in E-Verify, with or without notice at any time if deemed necessary because of the requirements of law or policy, or upon a determination by SSA or DHS that there has been a breach of system integrity or security by the Web Services Employer, or a failure on the part of either party to comply with established E-Verify procedures and/or legal requirements. The Web Services Employer understands that if it is a Federal contractor, termination of this MOU by any party

for any reason may negatively affect the performance of its contractual responsibilities. Similarly, the Web Services Employer understands that if it is in a state where E-Verify is mandatory, termination of this by any party MOU may negatively affect the Web Services Employer's business.

3. A Web Services Employer that is a Federal contractor may terminate this MOU when the Federal contract that requires its participation in E-Verify is terminated or completed. In such cases, the Web Services Employer must provide written notice to DHS. If the Web Services Employer fails to provide such notice, then that Web Services Employer will remain an E-Verify participant, will remain bound by the terms of this MOU that apply to non-Federal contractor participants, and will be required to use the E-Verify procedures to verify the employment eligibility of all newly hired employees.

4. The Web Services Employer agrees that E-Verify is not liable for any losses, financial or otherwise, if the Web Services Employer or the Employer is terminated from E-Verify.

ARTICLE VII
PARTIES

A. Some or all SSA and DHS responsibilities under this MOU may be performed by contractor(s), and SSA and DHS may adjust verification responsibilities between each other as necessary. By separate agreement with DHS, SSA has agreed to perform its responsibilities as described in this MOU.

B. Nothing in this MOU is intended, or should be construed, to create any right or benefit, substantive or procedural, enforceable at law by any third party against the United States, its agencies, officers, or employees, or against the Web Services Employer, its agents, officers, or employees.

C. The Web Services Employer may not assign, directly or indirectly, whether by operation of law, change of control or merger, all or any part of its rights or obligations under this MOU without the prior written consent of DHS, which consent shall not be unreasonably withheld or delayed. Any attempt to sublicense, assign, or transfer any of the rights, duties, or obligations herein is void.

D. Each party shall be solely responsible for defending any claim or action against it arising out of or related to E-Verify or this MOU, whether civil or criminal, and for any liability wherefrom, including (but not limited to) any dispute between the Web Services Employer and any other person or entity regarding the applicability of Section 403(d) of IIRIRA to any action taken or allegedly taken by the Web Services Employer.

E. The Web Services Employer understands that its participation in E-Verify is not confidential information and may be disclosed as authorized or required by law and DHS or SSA policy, including but not limited to, Congressional oversight, E-Verify publicity and media inquiries, determinations of compliance with Federal contractual requirements, and responses to inquiries under the Freedom of Information Act (FOIA).

F. The individuals whose signatures appear below represent that they are authorized to enter into this MOU on behalf of the Web Services Employer and DHS respectively. The Web Services Employer understands that any inaccurate statement, representation, data or other information provided to DHS

may subject the Web Services Employer, its subcontractors, its employees, or its representatives to: (1) prosecution for false statements pursuant to 18 U.S.C. 1001 and/or; (2) immediate termination of its MOU and/or; (3) possible debarment or suspension.

G. The foregoing constitutes the full agreement on this subject between DHS and the Web Services Employer.

Approved by:

Web Services Employer	
AECOM	
Name (Please Type or Print) Gilda Malek	Title
Signature Electronically Signed	Date 10/11/2018
Department of Homeland Security – Verification Division	
Name (Please Type or Print) USCIS Verification Division	Title
Signature Electronically Signed	Date 10/11/2018

Information Required for the E-Verify Program **Information relating to your Company:**	
Company Name	AECOM
Company Facility Address	1999 Avenue of the Stars, Suite 2600 Los Angeles, CA 90067
Company Alternate Address	
County or Parish	LOS ANGELES
Employer Identification Number	611088522
North American Industry Classification Systems Code	236
Parent Company	
Number of Employees	10,000 and over
Number of Sites Verified for	347

E-Verify

Company ID Number: 1349701

Are you verifying for more than 1 site? If yes, please provide the number of sites verified for in each State:

ALASKA	1 site(s)
ALABAMA	5 site(s)
ARIZONA	10 site(s)
CALIFORNIA	34 site(s)
COLORADO	12 site(s)
CONNECTICUT	5 site(s)
DIST OF COL	4 site(s)
DELAWARE	2 site(s)
FLORIDA	28 site(s)
GEORGIA	6 site(s)
HAWAII	2 site(s)
IOWA	3 site(s)
IDAHO	2 site(s)
ILLINOIS	5 site(s)
INDIANA	10 site(s)
KANSAS	3 site(s)
KENTUCKY	5 site(s)
LOUISIANA	4 site(s)
MASSACHUSETTS	5 site(s)
MARYLAND	12 site(s)
MAINE	5 site(s)
MICHIGAN	8 site(s)
MINNESOTA	2 site(s)
MISSOURI	3 site(s)
MISSISSIPPI	1 site(s)
MONTANA	1 site(s)
NORTH CAROLINA	7 site(s)
NORTH DAKOTA	1 site(s)
NEBRASKA	1 site(s)
NEW HAMPSHIRE	1 site(s)
NEW JERSEY	13 site(s)
NEW MEXICO	3 site(s)
NEVADA	6 site(s)
NEW YORK	51 site(s)
OHIO	7 site(s)
OREGON	1 site(s)
PENNSYLVANIA	14 site(s)
RHODE ISLAND	1 site(s)
SOUTH CAROLINA	5 site(s)
TENNESSEE	4 site(s)
TEXAS	29 site(s)
UTAH	2 site(s)
VIRGINIA	13 site(s)
VIRGIN ISLANDS	1 site(s)
WASHINGTON	2 site(s)
WISCONSIN	5 site(s)
WEST VIRGINIA	2 site(s)

E-Verify

Company ID Number: 1349701

Information relating to the Program Administrator(s) for your Company on policy questions or operational problems:

Name	JoAnn Jett
Phone Number	(410) 891 - 9462
Fax Number	
Email Address	joann.jett@aecom.com

Name	Christina Herinckx
Phone Number	(720) 244 - 4021
Fax Number	
Email Address	tina.herinckx@aecom.com

E-Verify

Company ID Number: 1349701

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SWORN STATEMENT PURSUANT TO SECTION 287.133(3)(a),
FLORIDA STATUTES, ON PUBLIC ENTITY CRIMES

THIS FORM MUST BE SIGNED AND SWORN TO IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICIAL AUTHORIZED TO ADMINISTER OATHS.

1. This sworn statement is submitted to PEACE RIVER MANASOTA REGIONAL WATER SUPPLY AUTHORITY by Ronald Cavalieri, PE, BCEE, Associate Vice President
(Print individual's name and title)

for AECOM Technical Services, Inc.
(Print name of entity submitting sworn statement)

whose business address is 4415 Metro Parkway, Suite 404, Fort Myers, FL 33916

and (if applicable) its Federal Employer Identification Number (FEIN) is 95-2661922
(If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement: N/A).

2. I understand that a "public entity crime" as defined in Section 287.133(1)(g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or with the United States, including, but not limited to, any bid, statement of qualifications, proposal, reply, or contract for goods or services, any lease for real property, or any contract for the construction or repair of a public building or public work, involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.

3. I understand that "convicted" or "conviction" as defined in Section 287.133(1)(b), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.

4. I understand that an "affiliate" as defined in Section 287.133(1)(a), Florida Statutes, means:

   a) A predecessor or successor of a person convicted of a public entity crime; OR

   b) An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.

5. I understand that a "person" as defined in Section 287.133(1)(e), Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which bids or applies to bid on contracts let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members and agents who are active in management of an entity.

6. Based on information and belief, the statement which I have marked below is true in relation to the entity submitting this sworn statement. **(Indicate which statement applies.)**

   X Neither the entity submitting this sworn statement, nor any of its officers, directors, executives,

partners, shareholders, employees, members, or agents who are active in the management of the entity, nor any affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989.

___ The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989.

___ The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989. However, there has been a subsequent proceeding before a Hearing Officer of the State of Florida, Division of Administrative Hearings and the Final Order entered by the Hearing Officer determined that it was not in the public interest to place the entity submitting this sworn statement on the convicted vendor list. **(Attach a copy of the Final Order.)**

I UNDERSTAND THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR THE PUBLIC ENTITY IDENTIFIED IN PARAGRAPH 1 (ONE) ABOVE IS FOR THAT PUBLIC ENTITY ONLY AND THIS FORM IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND I AM REQUIRED TO INFORM THE PUBLIC ENTITY PRIOR TO ENTERING INTO A CONTRACT IN EXCESS OF THE THRESHOLD AMOUNT PROVIDED IN SECTION 287.017, FLORIDA STATUTES, FOR CATEGORY TWO OF ANY CHANGE IN THE INFORMATION CONTAINED IN THIS FORM.

R. Cavalieri **January 17, 2024**
(Signature) (Date)

STATE OF **Florida**

COUNTY OF **Lee**

The foregoing instrument was acknowledged before me by means of ☑ physical presence or ☐ online notarization, this **17th** day of **January**, 20**24** by **Ronald Cavalieri** as **Associate Vice President** of **AECOM Technical Serv**, a **private** company organized under the laws of the State of **California**, on behalf of the company, who is personally known to me or has produced **N/A (personally known)** as identification.

Cherie C. Wolter Cherie C. Wolter
Notary Public

Cherie C. Wolter
Name typed, printed or stamped

My Commission Expires: **November 16, 2024**

CHERIE C. WOLTER
Notary Public - State of Florida
Commission # HH 061153
My Comm. Expires Nov 16, 2024
Bonded through National Notary Assn.

REFERENCES

Consultant must provide three (3) references for Example Projects.

Consultant Name: AECOM Technical Services, Inc.

Reference Entity: Town of Davie

Reference Contact Person: Renuka Mohammed, Utilities Director

Reference Address: 6591 Orange Drive, Town of Davie, FL 33314

Reference Email Address: Renuka_Mohammed@davie-fl.gov

Reference Phone No.: (954) 327-3742

Project Name: New Water Treatment and WRF Progressive Design-Build

Project Location: 3790 Davie Boulevard, Davie, FL 33312

Consultant Project Manager: Brian Stitt, PEng, CBC, DBIA

Contract Amount: $112M

Date Project Commenced: 2004

Date of Final Completion: August 2014

Description of Work Performed: AECOM provided a progressive design-build services for the Town of Davie in to meet demands for both potable and wastewater services. At the heart of the project are a new 6-mgd water treatment plant (expandable to 12-mgd) and a 3.5-mgd (expandable to 7-mgd) water reclamation plant. The reclamation plant utilized membrane biological reactors (MBR) for compact footprint and higher effluent quality effluent. UV is used as the primary disinfection.

Development of a sustainable brackish water supply and DIW of process waste streams was a crucial component of the success of the project. Serving as the Engineer of Record, AECOM provided direct procurement and oversight of permitting, well drilling construction, operation and testing. A Floridan Aquifer exploratory-production well characterized the site geology and hydrogeology, which was then modeled using a calibrated density-dependent groundwater flow model to facilitate well field design for managing the long-term changes of water quality in the wellfield. Following 10 years of operation, the wellfield has remained productive and free of salinity degradation. AECOM also designed, permitted and oversaw the construction of this Class I Industrial Injection Well System for two 11.4-mgd Class I injection wells with dual-zone monitoring wells.

As the prime contractor, AECOM provided schedule, safety, and financial control of 16 trade subcontractors and 23 vendors. More than 20 separate permits were obtained to enable the construction and operation of the new facilities, including a consumptive use permit, UIC permits, site plan permits and a reuse application that meets the equivalent of Title 22 Reuse standards. AECOM was also responsible for the training of Davie's operations staff, and for the provision of O&M manuals and operating procedures.

REFERENCES

Consultant must provide three (3) references for Example Projects.

Consultant Name: AECOM Technical Services, Inc.

Reference Entity: City of Hialeah

Reference Contact Person: Ramon Diaz, General/Plant Manager (GS Inima USA Construction)

Reference Address: 3700 W. 4th Avenue, Hialeah, FL 33012

Reference Email Address: Ramon.diaz@inima.com

Reference Phone No.: (305) 970-3930

Project Name: Hialeah RO WTP Pilot Testing, Design and Start-up Services

Project Location: Hialeah, FL

Consultant Project Manager: Bill Snow, PE

Contract Amount: $6M (Engineering) / $58M (Construction)

Date Project Commenced: 2011

Date of Final Completion: 2017

Description of Work Performed: AECOM designed an innovative, energy- efficient treatment plant following particularly intensive testing, planning and design to develop a desalination treatment facility for a wide range of current and future raw water salinity. In particular, AECOM's evaluations led to a brackish water treatment system that achieved optimal balance between life cycle cost and finished water quality. Highlights of AECOM's design include membrane skids that easily accommodate modifications to handle increased salinity due anticipated degradation of the Upper Floridan Aquifer supply, LE 440i membranes to minimize energy consumption, and biofilters rather than chemical scrubbers to reduce carbon footprint and avoid the use of three truckloads of chemicals each month.

To increase reliability, the plant made use of robust materials typically seen in more demanding seawater RO facilities. AECOM's architects designed the facility with a modern tropical theme in keeping with the relaxed, contemporary feel of the City itself. Sustainability was a key City concern, so AECOM's design for the main treatment building was geared toward achieving LEED Silver certification.

AECOM's contract also included the detailed (final) design and construction at risk of the project. The scope of services included design of the pretreatment system, chemical pre- and post-treatment systems, degasifier system and biofilter scrubber system, membrane cleaning system, process building including a membrane room, and chemical treatment rooms with bulk chemical storage. The design also included two 5-mgd storage tanks and a high service pump station.

REFERENCES

Consultant must provide three (3) references for Example Projects.

Consultant Name: AECOM Technical Services, Inc.

Reference Entity: City of Oldsmar

Reference Contact Person: Johna Jahn, PE, Assistant Public Works Director

Reference Address: 100 State St West, Oldsmar, FL 34677

Reference Email Address: jjahn@myoldsmar.com

Reference Phone No.: (813) 749-1233

Project Name: Oldsmar Brackish Water Supply and Treatment Facilities Planning and Construction

Project Location: Oldsmar, FL

Consultant Project Manager: Tim Curran, PE

Contract Amount: $17M

Date Project Commenced: 1996

Date of Final Completion: 2013

Description of Work Performed: AECOM was hired by the City in 1996 to assist them with this ambitious program. Phase I included a preliminary feasibility study that reviewed demand, water supply options, and regulations; evaluated water quality, treatment, and potential costs; assessed project feasibility; and developed an implementation plan. Existing data, and site specific raw water quantity and quality data collected from a test well, supported the cost effectiveness of a 2-mgd annual average brackish water wellfield with a low pressure RO water treatment plant. The Phase I study concluded that the project was technically and economically feasible.

Phase II included a wellfield siting analysis, development of a field testing program, design and construction of two pilot production wells (and four monitor wells) to evaluate the capacity and quality of two water supply aquifers, a pilot treatment study using the wells to evaluate treatability and concentrate characteristics, and preliminary engineering of the wellfield, transmission pipelines, treatment, and concentrate disposal. Subsequent analysis and successful water use and concentrate disposal permitting confirmed that the project remained feasible.

Phase III included the preliminary and final design of 12 brackish water wells; 10,500 ft of 8 – 24-inch raw water transmission main; a 3.2-mgd maximum day RO water treatment plant; 8,250 ft of 8-inch concentrate disposal pipeline; and a 1.2-mgd DIW. The project was designed and constructed using four separate construction contracts: 1) production wells, 2) RO process equipment, 3) WTP building, site, pipelines, and other equipment, and 4) the DIW.

Phase IV was the construction of the new facilities.

Acknowledgment of Addendum #1

PEACE RIVER MANASOTA REGIONAL WATER SUPPLY AUTHORITY

Hon. Elton A. Langford, DeSoto County
Hon. Joseph Tiseo, Charlotte County
Hon. Michael A. Moran, Sarasota County
Hon. Jason Bearden, Manatee County

Mike Coates, P.G., Executive Director

Request for Statements of Qualifications –
Professional Services
for the
Partially Treated Surface Water ASR Project

Addendum 1
January 24, 2024

Responses to Questions:

1. Question: Please confirm that it will be acceptable to use an 11x17 for the schedule? If yes, will the 11x17 be counted as two pages?

Response: Pursuant to page 7 of the SOQ, all pages shall be standardized 8 ½ x 11 inches in size, margins not less than 1-inch, standard black text and minimum 12-point font size unless section indicates that pages 11 x 17 inches in size are allowed. For this effort, the sections do not include any pages of 11 x 17 that are allowed.

2. Question: Can we use 11x17s for additional graphics?

Response: Pursuant to page 7 of the SOQ, all pages shall be standardized 8 ½ x 11 inches in size, margins not less than 1-inch, standard black text and minimum 12-point font size unless section indicates that pages 11 x 17 inches in size are allowed. For this effort, the sections do not include any pages of 11 x 17 that are allowed.

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About AECOM

AECOM is the world's trusted infrastructure consulting firm, delivering professional services throughout the project lifecycle – from advisory, planning, design and engineering to program and construction management. On projects spanning transportation, buildings, water, new energy, and the environment, our public- and private-sector clients trust us to solve their most complex challenges. Our teams are driven by a common purpose to deliver a better world through our unrivaled technical and digital expertise, a culture of equity, diversity and inclusion, and a commitment to environmental, social and governance priorities. AECOM is a Fortune 500 firm and its Professional Services business had revenue of $14.4 billion in fiscal year 2023. See how we are delivering sustainable legacies for generations to come at aecom.com and @AECOM.