

RESOLUTION NO. 2010- 140

A RESOLUTION BY THE BOARD OF COUNTY COMMISSIONERS OF ST. JOHNS COUNTY, FLORIDA, APPROVING THE TERMS, PROVISIONS, CONDITIONS, AND REQUIREMENTS OF AN AMENDED AND RESTATED MEMORANDUM OF AGREEMENT AMONG THE ST. JOHNS RIVER MANAGEMENT DISTRICT, CITY OF DELAND, CITY OF LEESBURG, CITY OF PALM COAST, AND ST. JOHNS COUNTY FOR THE DEVELOPMENT OF A PRELIMINARY DESIGN REPORT AND ENCUMBRANCE OF FUNDING FOR THE COQUINA COAST SEAWATER DESALINATION ALTERNATIVE WATER SUPPLY PROJECT AND AUTHORIZING THE COUNTY ADMINISTRATOR TO EXECUTE ON BEHALF OF ST. JOHNS COUNTY, ANY DOCUMENTS ASSOCIATED WITH SUCH PROJECT

WHEREAS, the Flagler County 2007 Water Supply Plan identifies the Coquina Coast Seawater Desalination Project as a potential alternative water supply project of regional significance, which is expected to supplement the public water supply of the Suppliers (including St. Johns County) and potentially others through the Suppliers; and

WHEREAS, the Suppliers desire to develop alternative water supply sources in a manner that is protective of the environmental resources of the central and east central Florida region, consistent with SJRWMD'S regional water supply plans, and agree that the Project can be developed in an environmentally sensitive and economically feasible manner; and

WHEREAS, the Parties desire to develop a Preliminary Design Report for the Project, which shall analyze technical data for both a land-based option and an offshore ship-based option and develop the engineering design for the Project option selected by the Suppliers to the point that the Suppliers may proceed with final engineering design and construction of the Project pursuant to a subsequent agreement; and

WHEREAS, the Parties recognize the benefits of regional cooperation and have determined that cost-sharing the preparation and development of the Report is in the public interest and to the economic advantage of the Suppliers; and

WHEREAS, the Suppliers have authority and established funding sources to cost-share the preparation and development of the Report; and

WHEREAS, in order to encumber such funds it will be necessary for the Project to progress toward completion in accordance with the milestones set forth herein and for the Suppliers to establish the governance and funding mechanisms necessary for construction and operation of the Project in accordance with the milestones set forth herein; and

WHEREAS, the Suppliers have drafted an amended and restated Memorandum of Agreement, which sets forth the precise terms, provisions, conditions, and requirements associated with the preparation and development of the Report; and

WHEREAS, a copy of the amended and restated Memorandum of Agreement is attached hereto, and incorporated herein; and

WHEREAS, by participating in this Project now, it will allow the County to better protect the County's future water supply resources; and

WHEREAS, the County has determined that participation in this Project will serve the interests of the County.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF ST. JOHNS COUNTY, FLORIDA, AS FOLLOWS:

Section 1. The above Recitals are hereby incorporated into the body of this Resolution, and are adopted as Findings of Fact.

Section 2. The Board of County Commissioners hereby approves the terms, provisions, conditions, and requirements of an amended and restated Memorandum of Agreement among the St. Johns River Water Management District, City of Deland, City of Leesburg, City of Palm Coast, and St. Johns County for the development of a Preliminary Design Report and encumbrance of funding for the Coquina Coast Seawater Desalination Alternative Water Supply Project and, authorizes the County Administrator, or designee, to execute on behalf of the County, any documents associated with such project.

PASSED AND ADOPTED by the Board of County Commissioners of St. Johns County, Florida, this 20th day of July, 2010.

BOARD OF COUNTY COMMISSIONERS OF
ST. JOHNS COUNTY, FLORIDA

Attest: Cheryl Strickland, Clerk

Ram Haltem
Deputy Clerk

By:

[Signature]
Board Chair

RENDITION DATE

7/21/10

**AMENDED AND RESTATED
MEMORANDUM OF AGREEMENT BETWEEN THE
ST. JOHNS RIVER WATER MANAGEMENT DISTRICT, CITY OF DELAND, CITY
OF LEESBURG, CITY OF PALM COAST, AND ST. JOHNS COUNTY FOR THE
DEVELOPMENT OF A PRELIMINARY DESIGN REPORT
AND ENCUMBRANCE OF FUNDING
FOR THE COQUINA COAST SEAWATER DESALINATION
ALTERNATIVE WATER SUPPLY PROJECT**

This Amended and Restated Memorandum of Agreement (“Agreement”) is made and entered into by and between the St. Johns River Water Management District (“SJRWMD”), and the City of Leesburg and the City of Palm Coast, collectively referred to herein as “Suppliers.” SJRWMD and the Suppliers are collectively referred to herein as “Parties.” The City of DeLand and St. Johns County are included and designated herein as “ex officio” non-voting participants in this Agreement, subject to the terms and conditions contained herein.

WITNESSETH:

WHEREAS, the Flagler County 2007 Water Supply Plan identifies the Coquina Coast Seawater Desalination Project (hereafter “the Project”) as a potential alternative water supply project of regional significance, which is expected to supplement the public water supply of the Suppliers and potentially others through the Suppliers, and

WHEREAS, the Suppliers desire to develop alternative water supply sources in a manner protective of the environmental resources of the central and east central Florida region, consistent with SJRWMD’S regional water supply plans, and agree that the Project can be developed in an environmentally sensitive and economically feasible manner, and

WHEREAS, the Parties desire to develop a Preliminary Design Report for the Project (hereafter “Report”), which analyzes technical data for a land-based option and an offshore ship-based option and develops the engineering design for the Project option selected by the Suppliers to the point that the Suppliers may proceed with final engineering design and construction of the Project pursuant to a subsequent agreement, and

WHEREAS, the Parties recognize the benefits of regional cooperation and have determined that cost-sharing the preparation and development of the Report is in the public interest and to the economic advantage of the Suppliers, and

WHEREAS, the Suppliers have the authority and established funding sources to cost-share the preparation and development of the Report, and

WHEREAS, SJRWMD is in support of the efforts of the Suppliers to address water supply planning on a regional basis and is committed to providing financial and technical assistance for the Report and Project, subject to availability of funding, as further described herein, and

WHEREAS, pursuant to sections 373.196, 373.1961(3) and 403.890, Florida Statutes, the Florida Legislature established the Water Protection and Sustainability Program (“WPSP”) to fund the construction of alternative water supply development projects, and established the Water Protection and Sustainability Trust Fund (“the Fund”), to be administered by the State of Florida Department of Environmental Protection (“FDEP”); and

WHEREAS, pursuant to subsection 373.1961(3)(e), Florida Statutes, WPSP recipients must pay at least 60 percent of construction costs, unless the project is sponsored by a financially disadvantaged small local government, and, pursuant to subsection 373.196(6)(a), Florida Statutes, it is the goal of the Legislature that SJRWMD provide an equal match for all funds appropriated from the Fund; and

WHEREAS, pursuant to subsection 373.1961(3)(l), Florida Statutes, all revenues made available from the Fund must be encumbered annually by the Governing Board of the SJRWMD when it approves projects for WPSP funding; and

WHEREAS, SJRWMD seeks to provide WPSP funding for construction of the Project upon completion of the Report, and encumber WPSP funds for such construction prior to completion of the Report and preparation of the Project for construction; and

WHEREAS, SJRWMD may decide to provide ad valorem funding for the preparation of the Report; and

WHEREAS, the Parties agree that they shall actively pursue federal funding for the Report and Project construction; and

WHEREAS, because the existence of federal funding is undetermined at this point, the Parties are currently planning to prepare a Report that incorporates an Environmental Information Document (EID) that is sufficient to meet federal funding requirements and support preparation of an Environmental Impact Statement (EIS) that meets the requirements of the National Environmental Policy Act, 42 U.S.C. §§ 4321 et seq. (NEPA), if necessary; and

WHEREAS, the EID may be modified or eliminated from the Report in the future if it is determined that NEPA is not applicable to the Project, and

WHEREAS, in order to encumber such funds it will be necessary for the Project to progress toward completion in accordance with the milestones set forth herein and for the Suppliers to establish the governance and funding mechanisms necessary for construction and operation of the Project in accordance with the milestones set forth herein; and

WHEREAS, the Suppliers retained the engineering firm of Malcolm Pirnie, Inc., to prepare the Report (“the Consultant”); and

WHEREAS, the Final Recommended Project Report (Phase 1) was delivered to the Parties on January 20, 2010, and the Parties desire to provide an adequate opportunity for each Party or other interested utility to make an informed decision regarding participation in Phase 2 of the Report; and

WHEREAS, the Parties agree that the Milestones in Paragraph 5 of the Agreement, which are necessary for the encumbrance of WPSP funds, should be adjusted to more accurately reflect the realistic expectations of all Parties.

NOW, THEREFORE, in consideration of the foregoing premises, which are hereby made a part of this Agreement, and the mutual covenants, terms and conditions contained herein, and for other good and valuable consideration, the receipt of which is hereby acknowledged, the Parties, each intending to be legally bound, agree to the following:

1. AUTHORITY. This Agreement is entered under the following authorities:

- (a) SJRWMD enters into this Agreement pursuant to Section 373.083, Florida Statutes, which authorizes each water management district governing board to enter into agreements with other public agencies and private corporations to accomplish the directives and goals of Chapter 373, Florida Statutes.
- (b) St. Johns County enters into this Agreement under the authority of its home rule powers, as well as Sections 125.01(1)(k)1, 125.01(1)(p), 125.01(3)(a), and 153.03(6), Florida Statutes, which authorize counties to enter into agreements with other public agencies and private corporations to accomplish goals for providing water to their customers.
- (c) The municipalities enter into this Agreement under the authority of Sections 166.021(1), 180.02, and 180.06(3), Florida Statutes, which authorize municipalities to enter into agreements to further their efforts to provide water to their residents and customers.

2. REPORT SCOPE OF WORK

- (a) The Report shall be prepared to accomplish the objectives generally set forth in the Summary Scope of Work, attached hereto as Exhibit 1. For Phase 2, the Parties shall develop a "Negotiated Scope of Work" to accomplish the objectives of the Summary Scope of Work, which shall be approved by a majority of the Suppliers. The term "Negotiated Scope of Work" means the final Scope of Work that will be negotiated with the Consultant for the development of Phase 2 of the Report. Phase 1, which has been completed, primarily consisted of an evaluation/comparison of land-based versus ship-based treatment and a determination of land-based treatment as the alternative to pursue in Phase 2. Phase 2 will take the Project to a 35% design stage and will be divided into Phases 2A and 2B. A revised Summary Scope of Work for Phases 2A and 2B is

attached hereto as Exhibit 2. Phase 2B may include Environmental Information Document (EID) and/or Environmental Impact Statement (EIS) tasks if such work is necessary, either to secure federal funds or because of some other federal permit requirement.

- (b) The final Scope of Work for Phase 1 provided that, upon completion of Phase 1, participating Suppliers could opt out and not participate in Phase 2. In addition, it permitted other water suppliers not participating in Phase 1, upon payment of an appropriate cost share, to participate in Phase 2. In addition, ex officio participants in Phase 1 are entitled to opt into Phase 2 upon payment of the full amount that would have been required to become a Supplier in Phase 1, less Phase 1 ex officio payments made.
- (c) The above-stated provisions of the final Scope of Work for Phase I are incorporated in this Agreement. Every Supplier, except ex officio participants, must agree to add a new Supplier to Phase 2.
- (d) Upon completion of Phase 2A, participating Suppliers may opt out and not participate in Phase 2B. In addition, other water suppliers not participating in Phase 2A shall be permitted to opt into Phase 2B upon payment of an appropriate cost share. Ex officio participants in Phase 2A shall be entitled to opt into Phase 2B upon payment of the full amount that would have been required to become a Supplier less Phase 2 ex officio payments made.

3. GOVERNANCE AND MANAGEMENT OF REPORT PREPARATION

- (a) All decisions concerning the Report shall be made by the representatives of the Suppliers.
- (b) Regular meetings of the Parties shall be held on a schedule set by the Parties at a place to be determined by the Parties, with an agenda to be provided to the Parties and ex officio members prior to the meetings. Special meetings may be called at any time by a majority of the Suppliers, with reasonable notice of not less than ten (10) days to all Parties and ex officio members of the matters to be considered at the meeting.
- (c) A majority of the Suppliers' representatives must be present in order to conduct a meeting. All decisions shall be taken by a vote of the Suppliers' representatives present at the meeting. Each Supplier shall have one vote. All decisions shall be made by consensus. "Consensus" means that no Supplier present objects to or opposes the issue under consideration. In the event consensus cannot be reached on an issue, the votes on that issue shall be calculated on a weighted basis, with each Supplier's vote weighted in accordance with the percentage contribution of each Supplier, as set forth in paragraph 4. Ex officio members shall not be entitled to vote, but may participate in discussions at the meetings.

- (d) The Representatives and alternates shall be professional staff employed by the Party or ex officio member. Each Party and ex officio member shall designate its Representative and its alternate by providing written notification to the other Parties and ex officio members. At any time and in its sole discretion, a Party or ex officio member may designate a new Representative or alternate by providing a written notification to the other Parties and ex officio members.
- (e) The City of Palm Coast shall serve as Project Administrator, and shall have overall administrative responsibility for implementing this Agreement. The Project Administrator shall designate a staff member to serve as the Administrative Manager, who shall:
 - (1) Implement the Negotiated Scope of Work under the direction of the Suppliers' representatives;
 - (2) Provide the Parties' and ex officio members' representatives and alternates a monthly report as to the status of each task;
 - (3) Notify the Parties' and ex officio members' Representatives and alternates of the completion of each task within thirty (30) calendar days of completion; and
 - (4) Provide notices, minutes or summaries, and reports to the Parties' and ex officio members' representatives and alternates.
 - (5) Advise SJRWMD of the purpose, time and location of any meetings or coordination activities involving any other state or federal agency.
- (f) Each Representative shall have the responsibility to keep his or her Supplier informed of the work being undertaken on the Report.
- (g) All payments pursuant to this Agreement shall be submitted to the Project Administrator and shall reference this Agreement.
- (h) Ex officio participants shall be entitled to all of the rights and responsibilities of Suppliers under this Agreement, except that an ex officio participant shall not be entitled to vote.

4. FUNDING

- (a) The Suppliers, ex officio members and SJRWMD shall participate financially in the preparation and development of the Report as stated in Exhibit 3. SJRWMD shall contribute thirty percent of costs not specifically prohibited from SJRWMD participation or funding by this paragraph, based upon the total cost negotiated with the Consultant, but not to exceed \$2,518,481. SJRWMD shall pay its

proportionate share of the cost of the Report on a cost reimbursable basis, as more particularly described in Paragraph (7)(i). The funds shall be utilized exclusively for payment to the Consultant to implement the Negotiated Scope of Work for Phase 2 of the Report; provided, however, that SJRWMD funding shall not be utilized to cost-share in any work performed by the Consultant in direct preparation of the consumptive use permit application, including any subsequent work, in obtaining the consumptive use permit. In accordance with section 216.347, Florida Statutes, no funds may be used for lobbying the Florida Legislature, the judicial branch, or a state agency. For the purpose of this Agreement, lobbying includes any activity to influence or attempt to influence legislative or governmental decision-making or funding through written or oral communication. This also includes any support to individuals or firms who directly or indirectly support lobbyists or lobbying-like activities as related to this Agreement, including, but not limited to, administrative, technical and public information materials.

- (b) The Suppliers and ex officio members shall fund the remainder of the costs necessary to prepare the Report. The amount of funding by each Supplier will be based upon: (1) the number of Suppliers, (2) the amount of public supply water each participating Supplier used in 2006, and (3) the amount of public supply water (annual average) from the Project the Supplier reasonably projects to need pursuant to the formula provided in Exhibit 3. Ex officio members shall contribute \$21,300 to participate in the activities set forth in this Agreement for Phase 2A, payable upon receipt of an invoice from the Project Administrator. An ex officio member may pay its invoice in full during either FY 09-10 or FY 10-11, or may elect to split its payment such that a portion is paid in each of those fiscal years. The amount for ex officio participation is calculated based upon maintaining the same ratio to the Suppliers' estimated cost of Phase 2A as the Ten Thousand Dollar (\$10,000) Phase 1 ex officio cost was to the Suppliers' Phase 1 cost. If an ex officio member terminates its participation in the Project, no refund of monies paid shall be due.
- (c) The Suppliers agree to the following estimated contributions (Expected Cost plus 5% Contingency):

<u>Suppliers</u>	<u>Maximum Cost (expected cost plus 5% contingency)</u>	
	<u>Phase 2A</u>	<u>Total Cost (Phase 2A plus Phase 2B)</u>
City of Leesburg	\$483,200	\$1,800,148
City of Palm Coast	\$1,042,591	\$3,884,142
TOTALS:	\$1,525,791	\$5,684,291

- (d) The Project Administrator may receive a credit against its pro rata share of five percent (5%) of the amount of the contract awarded to the Consultant, but not to exceed Twenty-five Thousand Dollars (\$25,000) per year for carrying out its responsibilities hereunder. This maximum credit is incorporated in the overall project budget and the calculation of the financial contribution for all Suppliers. The Project Administrator shall also receive a credit not to exceed \$91,200 annually toward its share for retaining a qualified professional to provide additional administrative and technical support for the Project. This support includes, but is not limited to, meeting notification, preparing meeting agendas, preparing meeting summaries, securing meeting locations, reviewing invoices from the Consultant, making recommendations for payment, and other Project-related tasks, as determined by the Project Administrator.
- (e) The Parties' commitments under this Agreement, either collectively or individually, are contingent upon an availability of funds and annual appropriation by the governing body of each respective Party.
- (f) Upon completion of negotiations with Consultant and determination of the cost of Phase 2A and the total cost of the Phase 2 of the Report, and prior to execution of a contract with Consultant, the Administrative Manager shall advise each Supplier of its share of the cost of Phase 2A of the Report based upon the formula in Exhibit 3, and shall notify SJRWMD of its 30 percent share. Each Supplier shall then request authorization from its governing body to contract for the full amount of its share of the total cost of Phase 2A of the Report. Within sixty (60) days of execution of a contract with Consultant, each Supplier shall remit its cost-share for Phase 2A to the Project Administrator. SJRWMD shall remit its cost-share in accordance with Paragraph 7(i).
- (g) Changes in the Negotiated Scope of Work that will cause Phase 2A or the final cost of Phase 2 of the Report to increase above the estimates in paragraph 4(b) must be approved by consensus or a weighted majority vote of the Suppliers and shall not be undertaken by the Consultant until each Supplier receives authorization from its governing body to pay the increased cost.
- (h) If the estimated cost of the Phase 2A of the Report exceeds the actual cost, each Supplier and SJRWMD shall be reimbursed in proportion to its contribution. If the estimated cost is less than the actual cost, the deficit shall be allocated pro rata to each Supplier in accordance with the formula in Exhibit 2 and a notice of deficit shall be prepared and sent to each Supplier. Each Supplier shall remit its share of the deficit to the Project Administrator no more than ninety (90) days from receipt of notice of deficit from the Administrator Manager.
- (i) The cost of Phase 2A of the Report is estimated not to exceed \$1,903,035. The total cost of the Phase 2 of the Report to the Suppliers and SJRWMD is estimated not to exceed \$7,456,415. The Suppliers' liability to contribute to the Report

shall not exceed their proportionate share of said amounts plus a 5% contingency, as provided in paragraph 4(b), unless the amounts are increased by formal action of the governing body of a majority of the Suppliers. If funds from other sources are received for Phase 2A of the Report, said funds shall be applied to the cost of Phase 2B of the Report to reduce the amounts due from the Suppliers and SJRWMD, and each Supplier and SJRWMD will either be reimbursed in proportion to its contribution or have its remaining contribution balance proportionately reduced.

- (j) Prior to commencement of Phase 2A, each Supplier has the right to terminate its participation in the Report after providing notice by May 28, 2010, to each Supplier, confirmed by a signed acknowledgement of receipt.
- (k) If an ex officio participant in Phase 2A becomes a Supplier in Phase 2B, the difference in the cost between the two levels of participation shall be paid by the ex officio participant and shall be applied to reduce the costs of the remaining Suppliers who participated in Phase 1 and Phase 2A.

5. WPSP FUNDING; ENCUMBRANCE OF FUNDS

- (a) The Suppliers contemplate that work under this Agreement will lead to a further agreement to fund implementation of the Project throughout its duration. The Suppliers intend to seek WPSP funding for the Project, and will cooperate with each other and SJRWMD in order to allow the Suppliers to seek WPSP funds for Fiscal Year (FY) 2007 and future years. In order to set aside WPSP funds in advance of construction, the Suppliers must meet specific milestones (hereafter "Milestones") for completion of the Report, governance for the Project, construction design and engineering, construction contracting, and commencement of construction, and make satisfactory progress toward achieving the Milestones.
- (b) Subject to the conditions and contingencies provided herein, the Suppliers agree to proceed with the design, permitting, construction, and operation of the Project in accordance with the following Milestones:

1/20/10	Consultant to complete Phase 1 of PDR portion of Report
5/28/10	Utilities formally declare to participate in Phase 2A as Suppliers
7/22/10	Suppliers execute Amended and Restated MOA to accomplish Phase 2A.
8/27/10	Suppliers negotiate and execute contract for Phase 2A of Report
10/31/11	Consultant completes Phase 2A of the Report

- 1/31/12 Utilities formally declare to participate in Phase 2B as Suppliers
- 3/31/12 Suppliers execute Amendment to Amended and Restated MOA to accomplish Phase 2B.
- 4/30/12 Suppliers negotiate and execute contract for Phase 2B of PDR portion of Report
- 4/30/14 Consultant completes Phase 2B of PDR Report
- 5/1/14 Suppliers apply for Consumptive Use Permit(s)
- 8/1/14 Suppliers solicit for contracts(s), which may be a design-bid-build, design-build, design-build-operate, design-build-own-operate, design-build-own-operate and transfer, or other type of contract(s)
- 10/1/14 Suppliers receive proposals
- 11/1/14 Interviews (assuming they are necessary)
- 1/1/15 Begin Design
- 5/1/15 Consultant completes consultation with federal agency and NEPA portion of Report, if NEPA applies to project and federal agency issues FONSI
- 1/1/16 Acquisition of Construction Phase Permits and Begin Construction
- (c) The following Milestones apply toward completion of the Suppliers' governance agreement regarding the construction, ownership, operation and maintenance of the Project (hereafter "Governance Agreement"):
- 1/31/10: Suppliers initiate negotiations for development of the Governance Agreement
- 4/16/14: Suppliers execute and record Governance Agreement
- (d) It is anticipated under the current schedule that construction will be completed in 2018. The Parties recognize that circumstances may change and affect the above schedule for completion of the Project. A subsequent cost-sharing agreement for the disbursement of the encumbered funds will be executed by the Parties regarding the construction phase of the Project prior to start of construction.

- (e) Subject to funding availability and annual appropriation by the SJRWMD Governing Board, SJRWMD intends to encumber both WPSP and SJRWMD funds adequate to meet SJRWMD's goal of cost-sharing in Project construction prior to the commencement of construction, and to maintain the encumbrance of said funds until the commencement of construction in accordance with the then-current "Procedure for Release of Appropriation and Disbursement of Funds" established by FDEP. A copy of the procedure as of April 19, 2006 is attached hereto as Exhibit 4.
- (f) SJRWMD has begun encumbrance of WPSP and SJRWMD funds, and intends to encumber additional WPSP and SJRWMD funds in subsequent years so as to increase its cost-share participation in the Project; provided, however, that nothing herein shall be construed as creating an obligation for SJRWMD to encumber any such funds. This Agreement shall apply to any WPSP and SJRWMD funds that are encumbered by SJRWMD in 2010 and future years without further amendment, and such funds shall be committed for the purposes of this Agreement, subject to the provisions hereof. In the event of encumbrance of any such funds, SJRWMD shall provide the Suppliers with notice thereof, which shall become an attachment to this Agreement.
- (g) SJRWMD intends that any funds encumbered hereunder will remain encumbered, provided the Suppliers continue to meet the milestones set forth herein. Upon request from the Suppliers, SJRWMD may, in its sole judgment and discretion, agree to amend this Agreement to accommodate revised project Milestones, for good cause shown by the Suppliers. SJRWMD may terminate this Agreement, including any fund encumbrances provided for hereunder, if the Suppliers fail to meet the Milestones, as may be amended from time to time.
- (h) In the event the composition of the Suppliers should change as a result of the withdrawal of any Suppliers from this Agreement, addition of new Suppliers, or creation of a new entity to govern implementation of the Project pursuant to the Governance Agreement, SJRWMD shall maintain its funding commitment to the Project provided the remaining Suppliers or the new governance entity have adequate resources to meet the Milestones and successfully complete the Project. The determination in this regard shall be in the sole judgment and discretion of SJRWMD.

6. RESPONSIBILITIES OF SUPPLIERS

Each Supplier, without limitation as to any other duties provided for herein, shall:

- (a) Designate, in writing, a representative to attend all meetings of the Suppliers and an alternate to attend such meetings when the representative is not available.

- (b) Develop solicitation and selection criteria for consultant(s) and participate in the selection process and development of the Negotiated Scope of Work in accordance with the Consultant Procurement Procedure set forth in Exhibit 5.
- (c) Participate as needed in preparation of the contract to retain the consultant(s).
- (d) On an as needed basis, and with reasonable notice, provide SJRWMD, all Parties, and the Consultant access to their lands, facilities, needed records, testing results, and other such cooperation as may be needed for completion of the Report.
- (e) Seek technical assistance, as necessary, from other appropriate sources.
- (f) Participate in meetings as necessary to successfully complete the Report.
- (g) Review, comment on, and approve interim and final deliverables for the Report within the time frame as specified therein.
- (h) Secure additional necessary funds and make their best efforts to obtain governing body approvals prior to approving increased costs for the Report.
- (i) Affirm their ongoing duties of mutual cooperation with each other and agree to assist each other in furtherance of the Agreement's goal of developing the Report.
- (j) Actively pursue federal funding such as is provided in Sec. 5061 of the 2007 Water Resource Development Act.

7. RESPONSIBILITIES OF PROJECT ADMINISTRATOR

In addition to its responsibilities as a Supplier, and without limitation as to any other duties provided for herein, the Project Administrator ("PA") shall:

- (a) Designate, in writing, an Administrative Manager to coordinate its responsibilities under this Agreement.
- (b) At the direction of the Suppliers, procure the services of the consultant(s), utilizing the Project Administrator's procurement policies and procedures.
- (c) Prepare and execute contract(s) with consultant(s).
- (d) Manage the activities of the consultant(s) to assure that contract requirements are met.
- (e) Report on a quarterly basis to the Parties and ex officio members the status of the deliverables and expenditures, including projected schedules and expenditures for the next quarter.

- (f) Manage the review of interim and final deliverables.
- (g) Coordinate regularly with SJRWMD and the Suppliers and ex officio members.
- (h) At the direction of the Suppliers, initiate and process funding requests for the Project from revenue sources which have been made available to SJRWMD by the Florida Legislature, unless a Governance Agreement designates a legal entity capable of timely performing this responsibility. However, nothing herein shall preclude a Supplier or ex officio member from initiating or processing funding requests from revenue sources that have been made available to SJRWMD by the Florida Legislature.
- (i)
 - (1) Receive and account for funds from Suppliers, SJRWMD, and other sources. In submitting invoices to SJRWMD, the PA shall submit monthly itemized invoices by one of the following two methods: (1) by mail to the St. Johns River Water Management District, Director, Division of Financial Management, 4049 Reid Street, Palatka, Florida 32177, or (2) by e-mail to acctpay@sjrwmd.com. Each invoice shall be submitted in detail sufficient for proper pre-audit and post-audit review. If necessary for audit purposes, the District may require and the PA shall provide additional supporting information to document invoices.
 - (2) All invoices shall include the following information: (1) contract number; (2) District encumbrance number; (3) the PA's name and address (include remit address, if necessary); (4) SJRWMD Project Manager; (5) the PA's Project Manager; (6) supporting documentation as to cost and/or project completion. The PA shall bill SJRWMD in accordance with the cost schedule that shall be developed in the contract between the PA and the Consultant ("Cost Schedule"). The Cost Schedule shall require the submittal of itemized monthly or "percentage of task complete" invoices based upon the actual portion of the work performed. The PA shall separately account for the cost of the work performed by the Consultant and the cost of the administrative work performed by the PA. Billing for the PA's administrative expenses shall include adequate documentation as to the nature of the work performed and the time expended. Billing for outside legal services shall include an itemized statement of the nature of the work performed and the time expended. All documentation required for verification of invoices, including approval of payment to Consultant by the PA, shall be received and approved by SJRWMD prior to release of payment. Invoices that do not correspond to the Cost Schedule or other requirements of this paragraph will be returned to the PA without action within twenty (20) business days of receipt and shall state the basis for rejection of the invoice.

- (3) Final Invoice. The final invoice must be submitted no later than 45 days after receipt of the final invoice from the Consultant. **Final invoices submitted after this date are subject to a penalty of 10 percent of the invoice. This penalty may be waived by the District, in its sole judgment and discretion, upon a showing of special circumstances that prevent the timely submittal of the final invoice. The PA must request approval for delayed submittal of the final invoice not later than ten (10) days prior to the due date and state the basis for the delay.**
- (4) End of District Fiscal Year Reporting. The District's fiscal year ends on September 30. Irrespective of the invoicing frequency, the District is required to account for all encumbered funds at that time. When authorized under the Agreement, submittal of an invoice as of September 30 satisfies this requirement. The invoice shall be submitted no later than October 30. If the Agreement does not authorize submittal of an invoice as of September 30, Contractor shall submit, prior to October 30, a description of the additional Work completed between the last invoice and September 30, and an estimate of the additional amount due as of September 30 for such Work. If there have been no prior invoices, Contractor shall submit a description of the Work completed on the project through September 30 and a statement estimating the dollar value of that Work as of September 30.
- (5) SJRWMD may withhold or, on account of subsequently discovered evidence, nullify, in whole or in part, any payment to such an extent as may be necessary to protect SJRWMD from loss as a result of defective Work performed by the Consultant and not remedied. Amounts withheld shall not be considered due and shall not be paid until the ground for withholding payment has been remedied.
- (j) Process and pay invoices from the Consultant.
- (k) Submit documentation to SJRWMD and/or other grant agencies as necessary to secure other funds for payment of invoices.
- (l) Maintain all of the paperwork relevant to this Agreement and provide copies of any and all paperwork requested by Suppliers.
- (m) Within sixty (60) days after the expiration or termination of this Agreement, provide SJRWMD and the Suppliers with an accounting of the expenditure of funds for the Report and reimburse the Suppliers any portion of the funds which have not been expended on the Report.

8. SJRWMD RESPONSIBILITIES

SJRWMD shall, without limitation as to any other duties provided for herein:

- (a) Subject to annual appropriation of funds by the SJRWMD Governing Board, provide technical support and peer review services, if requested by the Suppliers.
- (b) Designate, in writing, a Representative to attend all meetings of the Suppliers and communicate SJRWMD's position on issues, and designate an alternate to attend such meetings when the representative is not available.
- (c) Identify any potential SJRWMD real property which could be utilized for the Project.
- (d) Actively pursue federal funding such as is provided in Sec. 5061 of the 2007 Water Resources Development Act.

9. TERM, AMENDMENT, TERMINATION

- (a) The term of this Agreement shall commence upon its execution by the last of the Parties. Unless earlier terminated pursuant to the terms hereof, this Agreement shall remain in effect until completion of the Milestones.
- (b) This Agreement shall be reviewed annually by the Parties and may be amended upon written agreement of all Parties.
- (c) Any Supplier may terminate its participation in this Agreement with or without cause by giving ninety (90) days written notice to the other Parties. Upon termination of its participation, a Supplier shall be relieved of all obligations and covenants under this Agreement; provided, however, that the obligation of a Supplier to participate in the funding of the Report pursuant to the formula set forth in Exhibit 2 shall survive its termination if a contract for said services has been executed at the time the Supplier gives its written notice of termination. During the period of the Notice of Termination, the terminating party shall not be entitled to vote in any manner.
- (d) A Supplier's participation may be terminated in whole or in part by majority vote of the remaining Suppliers in the event of substantial failure by a Supplier to fulfill its obligations under this Agreement through no fault of the terminating Suppliers, provided that no termination may be effected unless the alleged defaulting Supplier is given: (1) not less than ninety (90) calendar days written notice, delivered by certified mail, return receipt requested, and (2) an opportunity to consult with the other Suppliers and remedy the default prior to termination. If a Supplier's participation in this Agreement is terminated by the other Suppliers, the terminated Supplier shall be relieved of all obligations and covenants

contained in this Agreement, except for the funding obligations, which survive termination as set forth in sub-paragraph (c), above.

- (e) Upon termination of a Supplier pursuant to sub-paragraph (d), above, the remaining Parties may complete the Report without the assistance of the terminated Supplier. The Suppliers completing the Report may fully utilize existing work products in pursuing its completion.
- (f) SJRWMD may terminate its participation in this Agreement, with or without cause, at any time upon ninety (90) calendar days prior written notice to the other Parties. Any such termination shall be effected by delivery to the other Parties of a Notice of Termination specifying the extent to which performance of work under the Agreement is terminated, and the date upon which such termination becomes effective. Notwithstanding the aforesaid, in the event a contract has been entered into with the Consultant, the obligation of SJRWMD to participate in funding the services for which it has, by execution of this Agreement, affirmatively agreed to participate in pursuant to paragraph 4(a), above, shall survive its termination as to all funds appropriated by its Governing Board prior to the effective date of termination.
- (g) In the event of: (1) termination by SJRWMD or one or more Suppliers, and (2) the remaining Parties determine not to complete the Report, the Project Administrator shall conduct an accounting of all actual and outstanding contract payment obligations made or owed by the Project Administrator to the Consultant as of the effective date of termination, and shall return any funding provided by the Parties on a pro rata basis for work which the Project Administrator is not obligated to pay the Consultant.
- (h) Any ex officio member may terminate its participation in this Agreement with or without cause by giving thirty (30) days written notice to the Parties.

10. LIABILITY AND INSURANCE

- (a) Neither this provision nor any other provision in this Agreement shall be construed as a waiver of sovereign immunity by any of the Parties.
- (b) All contracts and subcontracts for any work described in the Negotiated Scope of Work shall require Consultant and subcontractors to include insurance, hold harmless and indemnification provisions to protect all of the Parties in a form acceptable to the Parties. Prior to commencement of work, the Consultant and subcontractors shall provide evidence of insurance acceptable to the Project Administrator.

11. CONSTRUCTION OF AGREEMENT

Nothing in this Agreement shall be construed to:

- (a) Preclude any Supplier from continuing to operate its existing water supply facilities or restrict in any way the ability of a Supplier to retain its existing water supply facilities, expand existing facilities, or develop new water supply facilities in order to meet the existing and future water needs of its water wholesale and retail customers from a dependable, adequate and cost-effective water supply.
- (b) Affect the utility service area of a Supplier, the rights of a Supplier to provide service within its utility service area, or any right or obligation a Supplier may have pursuant to its certificate of authorization or comparable local enabling law.
- (c) Affect, change or modify any existing agreement among the Suppliers or among one or more Suppliers and SJRWMD.
- (d) Impede, interfere with, modify, construe, or waive the private property rights or land ownership rights of SJRWMD, Suppliers, and any entity not a party to this Agreement.
- (e) Impede, interfere with, or supersede the exclusive authority of SJRWMD under Part II, Chapter 373, Florida Statutes, to permit the consumptive use of water. No rights are created as a result of this Agreement, the expenditure of funds provided herein, or any work performed hereunder through which the Suppliers may claim any entitlement or rights to the consumptive use of water.
- (f) Requiring or compel any Supplier to develop the water supply facilities identified in the Report.

12. OWNERSHIP OF DOCUMENTS

Ownership and copyright to all reports and all accompanying data (in all formats) produced pursuant to work done under this Agreement shall be vested in all the Parties. Any source documents or any other documents or materials developed, secured or used in the performance of this Agreement shall be considered property of the Party from which such documents or materials originated.

13. ENTIRE AGREEMENT

This Agreement, including exhibits, constitutes the entire agreement among the Parties pertaining to the subject matter hereof, and there are no warranties, representations or other agreements in connection with the subject matter hereof, except as specifically set forth herein.

14. SEVERABILITY

If any provision of this Agreement is found by a court of competent jurisdiction to be invalid, it shall be considered deleted herefrom and shall not invalidate the remaining provisions. However, this provision shall not apply to the voting mechanism, the funding cap applicable to Suppliers, and the Summary Scope of Work attached as Exhibit 1.

15. ASSIGNMENT

No assignment, delegation, transfer or novation of this Agreement or any part hereof shall be made unless approved in writing by the Parties.

16. DISCLAIMER OF THIRD PARTY BENEFICIARIES

This Agreement is solely for the benefit of the Parties and no right or cause of action shall accrue to or for the benefit of any third party not a formal party hereto. Nothing in this Agreement, expressed or implied, is intended or shall be construed to confer upon or give any person or corporation other than the Parties, any right, remedy, or claim under or by reason of this Agreement or any provisions or conditions hereof; and all of the provisions, representation, covenants and conditions herein contained shall inure to the sole benefit of and shall be binding upon the Parties.

17. INTENT REGARDING FUTURE DEVELOPMENT OF WATER SUPPLY SOURCE

Acknowledging that no specific quantity of water is guaranteed by funding and participating in the development of the Report, the Suppliers express their intent that their funding and participation in the Report allows each Supplier the opportunity to participate in the development of water from one or more water supply sources arising out of the Project as determined by one or more agreements of the Suppliers entered into subsequent to this Agreement, which each Supplier agrees to negotiate in good faith. The Suppliers acknowledge that the development of water resources arising out of the Project is subject to the permitting authority of SJRWMD as described in paragraph 11 (e).

18. CONFLICTS OF INTEREST

Nothing herein shall prevent a Supplier from raising conflict of interest issues in other matters.

19. MISCELLANEOUS PROVISIONS

- (a) This Agreement and the rights and obligations of the parties are to be governed by, construed and interpreted in accordance with the laws of the State of Florida. In the event of any legal proceedings arising from this Agreement, venue for such proceedings, if in state court, shall be in Flagler County, Florida, and if in federal

court, shall be in the Middle District of Florida, Orlando Division. In any such legal proceedings the Parties hereby consent to trial by the court and waive the right to seek a jury trial as to any issues so triable. As used herein, "shall" is always mandatory.

- (b) The Parties, their employees, subcontractors and assigns, shall comply with all applicable federal, state, and local laws and regulations relating to the performance of this Agreement.
- (c) The Parties shall allow public access to all project documents and materials that are subject to the provisions of Chapter 119, Florida Statutes. Should any Party assert any exemption to the requirements of Chapter 119 and related statutes, the burden of establishing such an exemption, by way of injunctive or other relief as provided by law, shall be upon that Party.
- (d) Pursuant to Section 216.347, Florida Statutes, the Parties shall not expend any funds under this Agreement to lobby the Legislature, the judicial branch, or any state agency.
- (e) The Parties hereby assure that no person shall be excluded on the grounds of race, color, creed, national origin, handicap, age, or sex, from participation in, denied the benefits of, or be otherwise subjected to discrimination in any activity under this Agreement. The Parties shall take all measures necessary to effectuate these assurances.

IN WITNESS WHEREOF, the following authorized representatives of the Parties have executed this Agreement on the date signed by each.

ST. JOHNS RIVER WATER
MANAGEMENT DISTRICT

By: _____

Attest: _____

Date: _____

Approved by: _____
Attorney

CITY OF LEESBURG (SUPPLIER)

By: _____

Attest: _____

Date: _____

Approved by: _____
City Attorney

CITY OF PALM COAST (SUPPLIER)

By: _____

Attest: _____

Date: _____

Approved by: _____
City Attorney

CITY OF DELAND (EX OFFICIO)

By: _____

Attest: _____

Date: _____

Approved by: _____
City Attorney

ST. JOHNS COUNTY (EX OFFICIO)

By: _____

Attest: _____

Date: _____

Approved by: _____
County Attorney

EXHIBIT 1 TO THE AMENDED AND RESTATED

MEMORANDUM OF AGREEMENT

SUMMARY OF SCOPE OF WORK

FOR

COQUINA COAST SEAWATER DESALINATION PROJECT PRELIMINARY

DESIGN REPORT

Coquina Coast Seawater Desalination Project Preliminary Design Report

Scope of Services

Phase 2A and 2B
Version 8

June 3, 2010

Prepared for:

**The City of DeLand
The City of Leesburg
The City of Palm Coast
St. Johns County**

By:

Malcolm Pirnie, Inc.

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INTRODUCTION

Throughout Florida, municipalities, regulatory agencies, and various other groups concerned with the impacts of increasing water demands on our environment are seeking alternative water sources and treatment methods to meet those demands. In the Coquina Coast region of Florida, a group of municipalities in partnership with the St. Johns River Water Management District (SJRWMD) have been preparing the Coquina Coast Seawater Desalination Alternative Water Supply Project (“the Project”) as a means to accomplish the goal of meeting water supply demands while continuing to serve as proper stewards of the environment.

Through a Consultant Selection Process in 2008, the Suppliers selected the Malcolm Pirnie Team (“the Consultant”) to assist with the 2-phased determination of the Project components up to and including the preparation of a 35-Percent Preliminary Design Report (PDR).

The Project has, throughout 2009, undergone significant study during Phase 1, Alternatives Evaluation and Conceptual Planning.

The entities included as the leadership (the Suppliers) of the partnership during Phase 1 were:

- The City of Bunnell
- The Dunes Community Development District
- Flagler County
- The City of Leesburg
- The City of Mount Dora
- The City of Palm Coast
- St. Johns County

In addition to the Suppliers, there were several other entities that tracked Phase 1 of this alternative water supply project. These entities, known as “Ex-Officio” members of the partnership during Phase 1, included:

- The City of DeLand
- The City of Flagler Beach
- Marion County
- The Water Authority of Volusia

(Note: During the completion of Phase 1, The Water Authority of Volusia (WAV) disbanded (September 1, 2009). The remaining Suppliers and Ex-Officio members directed the Consultant to continue to consider the previously determined capacity demands and impacts for the entities that were represented by WAV.)

Subsequent to the January 2010 completion of Phase 1, the Phase 1 Suppliers and Ex-Officio members will have the option to remain involved in the Project for Phase 2A, or to drop out of the Project. In addition, there is the potential for other municipalities not involved in Phase 1 to opt to join the Suppliers or Ex-Officio members. Phase 2A will include participation at an Ex Officio level, however, it is anticipated that all eventual Phase 2B participants will be full Suppliers.

The Need for Phase 2A and 2B

Several water supply planning evaluations and/or studies, as well as updated population projections for the region are in process and scheduled to become finalized throughout 2010. The results of these evaluations and projections may underscore the need for current Suppliers to remain involved in the Project for Phase 2, may cause Phase 1 Ex-Officio members to become full Suppliers for Phase 2, or may cause other municipalities not involved in Phase 1 of the Project to become Suppliers for Phase 2. To allow time for the completion of these evaluations/studies, and to complete the assessment of potential impact to these municipalities, and to yet allow the Phase 2 of the Project to begin and proceed as soon as possible, Phase 2 of the Project and this Scope of Services (Scope) is divided into Phase 2A and 2B. Phase 2A (Continued Engineering Investigations) tasks are those that can and should move forward without concern for numbers of Suppliers and their future demand impact on the Project capacity. Phase 2B (Preliminary Engineering Report) tasks are those that must wait until all ultimate Suppliers are identified such that demand impacts can be assessed and Project capacities determined. Certain tasks span both Phase 2A and 2B, and the portion of those tasks are allocated to the calendar time associated with Phase 2 A and 2B, respectively.

Accordingly, for example, because of the likely change in the makeup of the Suppliers partnership for Phase 2, the updating of the water quantity and finished water quality determinations, prepared in Phase 1 for the then-current Suppliers and Ex-Officio members, will be a part of Phase 2B. Work to complete the required engineering field evaluations necessary for the eventual desalination facility, not impacted by capacity, including such investigations as the treatment pilot studies, hydrogeological investigations and geotechnical studies, for example, can proceed and therefore, are included in Phase 2A.

This Scope will summarize the effort necessary during Phase 2A and 2B for the Consultant to successfully complete the Coquina Coast Seawater Desalination Project PDR.

- Phase 2A: Consists of the effort to plan for and complete the detailed engineering field investigations related to the viable intake, treatment, discharge, and other technical components from Phase 1, continuing to advance evaluations through more detailed engineering analysis to complete the reduction of alternatives down to the best selected technical components to be presented in the eventual 35-Percent Preliminary Design Report.

- Phase 2B – Part I: Verify all Phase 1 water quantity and quality determinations based upon the ultimate make-up of the Phase 2B Suppliers and then advance the best technical components that comprise a full desalination facility to the level of 35-percent preliminary design. Once the Phase 2B Suppliers are determined, and future plant capacities verified, all technical and cost evaluations will also be verified in the effort to complete the 35-Percent Preliminary Design Report.
- Phase 2B – Part II: Assumes that an Environmental Information Document (EID) is ultimately necessary for the Project, either to secure federal funds or because of some other Federal or State permit trigger, and the work of this effort should start in Phase 2A. All discussions concerning the preparation of an EID and compliance with National Environmental Policy Act (NEPA) included in this Scope are based upon this assumption. Part II also includes additive tasks to address the requirements for completing an EIS, should one be required.

Although the Phase 2B Scope is presented herein as two distinct parts (it is assumed that an EID will be required), both parts will proceed more or less simultaneously and considerable interdependencies are expected. It is assumed that very early in Phase 2B, clarification regarding the full extent of NEPA requirements will be available. This will determine whether the preparation of an EID will satisfy NEPA requirements, or the expansion of the EID content to support transition to an EIS will be necessary. Coordination between the Project phases and parts will be required to proceed in an effective and efficient manner. For example, the preliminary design alternatives evaluation must consider factors that need to be addressed in the EID, and preliminary design for the initial construction phase must always consider the final or ultimate facilities needs.

As was Phase 1, all work of Phases 2A and 2B will be administered by the City of Palm Coast. However, all key contractual and technical decisions will be made by the Suppliers, as per the final Memorandum of Agreement (MOA) entered into by the Parties prior to beginning the Consultant selection process for Phase 1, and updated and amended based upon Phase 2A and eventually 2B Supplier participation or by future governance agreements entered into by the Parties.

DEFINITIONS

The following definitions of terms are provided to clarify their use and application throughout this Scope of Services document:

1. **Additive Tasks:** Tasks in addition to Base Contract Tasks and Allowance Tasks that both the Parties and Consultant agree might also be required in order to complete the contract and provide the interim and final deliverables. Additive tasks differ from base and allowance tasks in two ways. First, while they are acknowledged as a potential requirement and negotiated, there is sufficient uncertainty as to need, level of effort or costs to prohibit inclusion in the contract. Second, therefore, they are not included in either the base contract amount or the total contract amount. No dollars are obligated by the contract for additive tasks. Additive tasks are not authorized for accomplishment or expenditure of funds under the contract. They simply form a placeholder, providing the Suppliers and Consultant an understanding of the potential work effort/costs. Additive tasks will not be accomplished without re-scoping, re-negotiation and a contract amendment.
2. **Allowance Tasks:** Tasks in addition to base tasks that both the Parties and Consultant agree might be required in order to complete the contract and provide the interim and final deliverables. Allowance tasks are fully negotiated. They are not included in the Base Contract Amount, but are included in the Total Contract Amount. The dollars for allowance tasks are also obligated by the contract. However, allowance tasks are not authorized for accomplishment or expenditure of funds unless specific action is taken by the Suppliers to direct the Consultant to perform those tasks.
3. **Base Contract Amount:** The sum cost of all Base Contract Tasks.
4. **Base Contract Tasks:** All tasks that both the Parties and Consultant agree must be completed in order to complete the contract and provide the interim and final deliverables. Base tasks are fully negotiated and included in the Base Contract Amount. The dollars for base tasks are obligated by the contract.
5. **Consultant:** The professional consulting engineering entity responsible for leading, managing and performing the engineering analyses and related services outlined in this Scope, and referring to Malcolm Pirnie, Inc. or a subconsultant member of the Malcolm Pirnie team.
6. **Contingency:** A preset negotiated amount (either percentage or dollar-based) identified in a contract line item. The contingency is not associated with any task but is available for use at the direction of the Suppliers for unforeseen circumstances.

7. Contract: The agreement executed between the Project Administrator and the Consultant.
8. Desalinated Water: The product of the pretreatment and membrane treatment process prior to further treatment to Project-determined finished water requirements.
9. Ex Officio Member: As listed on Page 1 of this document, Ex-Officio members include the entities observing the Project for the purpose of determining their requirements or desire to participate in future phases of the Project.
10. Finished Water: Finished water is that water leaving the desalination facility. This will be further defined during the Project as water of a certain acceptable and common water quality before pumping and transmission to the Suppliers.
11. Desalination Facility: Accomplishment of the provision of additional finished water and the desired alternative water supply through the construction and use of a completely desalination facility, including pretreatment, membrane treatment, post-treatment, storage and other ancillary facilities and equipment.
12. Memorandum of Agreement (MOA): The MOA refers to the agreement signed by the Suppliers and the SJRWMD prior to the beginning of Phase 2A as to the Parties and their responsibilities for the Project.
13. Parties: The Parties are the entities signed to the MOA. This includes Suppliers and SJRWMD.
14. Post-Treatment: Post-treatment includes the treatment to buffer, chemically adjust, and disinfect the desalinated water, in the production of a common finished water to be distributed to each Supplier's tie-in point.
15. Project Administrator: The City of Palm Coast ("the City") will serve as the Project Administrator for Phase 2A and 2B of this Project. The Consulting Services Agreement for the professional consulting engineering to be completed under this Project will be executed between the City of Palm Coast and the Consultant. The Consultant shall prepare invoices to be submitted for payment by the City of Palm Coast. The City of Palm Coast will appoint an Administrative Manager.
16. Raw Water: Raw water is the untreated source water for delivery to the desalination facility.
17. SJRWMD: The St. Johns River Water Management District. The regulatory entity responsible for managing the water supplies in the northeast region of the State of Florida, including the area known as the Coquina Coast. The SJRWMD has also allocated partial funding for the Project.

18. Subconsultant: Professional engineering consulting, or firms under contract to the Consultant for the performance of specific tasks included in the Project.
19. Supplier Point of Connection: The location that a Supplier will designate as the preferred location for receipt of the finished water from the desalination facility and transmission system.
20. Suppliers: The entities as signatories to the MOA, or as amended, and as primary participants in the Project.
21. Total Contract Amount: The sum cost of all Base Contract Tasks, plus all Allowance Tasks and Contingency amounts.

ACRONYMS

The following is a list of acronyms, not previously defined in the text of this document, and their expanded text, as used in the remainder of this Scope:

ASTM	American Society for Testing and Materials
AACEI	Association for the Advancement of Cost Engineering International
CFR	Code of Federal Regulations
CUP	Consumptive Use Permit
EA	Environmental Assessment
EID	Environmental Information Document
EIS	Environmental Impact Statement
ESA	Environmental Site Assessment
FDEP	Florida Department of Environmental Protection
FDOT	Florida Department of Transportation
FFWCC	Florida Fish and Wildlife Conservation Commission
FONSI	Finding of No Significant Impact
FPL	Florida Power and Light
GIS	Geographic Information System
LOI	Letter of Interest
NPDES	National Pollutant Discharge Elimination System
O&M	Operations and Maintenance
PFD	Process Flow Diagram
QA/QC	Quality Assurance and Quality Control
RFQ	Request for Qualifications
RLI	Request for Letters of Interest
ROW	Right of Way
SOQ	Statement of Qualifications
SPAP	Special Appropriation Project
STAG	State Tribal Assistance Grant
USACE	United States Army Corps of Engineers
USCG	United States Coast Guard
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
VE	Value Engineering
WRDA	Water Resource Development Act

PHASE 2A CONTINUED ENGINEERING INVESTIGATIONS

The selected technical component options remaining as the best technical components of a desalination facility from the evaluations included in Phase 1 will form the basis for beginning the more detailed engineering evaluations in Phase 2A.

Tasks 1 through 5 include the necessary project support tasks, including Project Management, Team Meetings, Public Involvement and Communications, Funding, Financial Planning, and Project Representation Activities.

Tasks 6 through 9 include updated data collection and establishment of the Project requirements for the Phase 2A participants. These tasks also include many of the preliminary field investigations necessary to determine the feasibility of some project alternatives (e.g., beach wells), and planning for more detailed investigation and the pilot-scale treatability study to be conducted in Phase 2B. More detailed field investigations and continued treatability operations are also included in Phase 2B.

Task 10 includes the efforts associated with preparing a shortlist of potential sites for the desalination facility. Land acquisition will take place in Phase 2B.

Task 11 includes the effort to update and finalize all permitting requirements ahead of the Preliminary Design Report preparation in Phase 2B. Permit application preparation, submittal, response to RAIs, permit receipt and filing will be included in Phase 2B once the facilities sizes are determined.

Task 12 includes the compilation of efforts for Tasks 1 through 11 and further defines the project alternatives identified in Phase 1. For example, it discusses the true applicability of well intake alternatives based on the results of the hydrogeologic investigations in Task 7. It also includes preparation of better refined project cost estimates and implementation schedules for the purposes of helping to determine participation in Phase 2B of the project.

Project Work Tasks

Task 1. Project Management and Administration

1.1 Work Plan

Consultant shall develop and periodically update Project Work Plan. The Work Plan will establish communications protocols, and develop, update and control the Project Schedule. The Work Plan will also define and schedule the specific review and coordination activities needed between the Part I Continued Engineering Investigations effort and the development of Part II EID.

1.2 Manage Staff Assignments

The Consultant shall make and manage project staff assignments over the life of the Project. The Consultant shall select contract and manage appropriate Subconsultant firms to assist in the successful completion of the work. Under this task, the

Consultant shall be responsible for managing and controlling consulting cost, and directing and managing Subconsultant activities.

1.3 Invoicing

Consultant shall prepare monthly invoices for submittal to the Project Administrator, including progress reports. Monthly invoices will be submitted as draft invoices to the Project Administrator and the SJRWMD representative, in parallel. Upon review and approval of the draft invoice, the Consultant shall deliver each final monthly invoice to the Project Administrator and SJRWMD. Under this task, the Consultant shall also complete the review of Subconsultant invoices for inclusion in Consultant invoices to the Suppliers and manage the payment of Subconsultant invoices.

1.4 Quality Assurance/Quality Control

The Consultant shall provide, at key points in the Project and for key submittals to the Suppliers, senior and experienced personnel to conduct necessary quality assurance/quality control reviews. Such QA/QC reviews will include the independent review of the documents at a particular stage, to be followed by a meeting of the reviewers with the Project Team. The Suppliers will be notified and invited to participate in the QA/QC review meeting. The following are the anticipated points in the project for which QA/QC efforts are planned:

- Prior to the submittal of each draft Technical Memorandum to be prepared under Phase 2A

1.5 Pre-Work Conference

The Consultant shall attend and lead the Pre-Work Conference (Kick-Off Meeting) and will prepare an agenda for the meeting. The Consultant shall lead a review of the Project scope of services, review the Preliminary Schedule, and review the Draft Work Plan at the meeting.

Task 2. Project Meetings

The Scope includes details under various tasks that define the requirement for various meetings and workshops to be held during the completion of Phase 2A of the Project. Effort to schedule, prepare for, attend and arrange subconsultant attendance, participate in, and draft meeting summaries for those meetings/workshops is included with the meeting/workshop details described in this Scope. Tasks 2.1 through 2.2 include the required planning, attendance and participation at the regular Technical Progress and Governance Development Meetings. The technical progress meetings will coincide with the Suppliers' regular Business Meetings. The Governance Development Meetings will be separate from the monthly Business Meetings, at a time to be determined.

2.1 Technical Progress/Business Meetings

It is assumed that the Suppliers will meet quarterly throughout Phase 2A and that the Consultant shall attend and participate in these meetings. As Phase 2A is expected to last approximately 13 months, four business meetings are planned and budgeted. The Consultant shall assist in the preparation of the agenda for the meeting, will provide

and lead an update discussion of the Project. The Consultant shall assure that appropriate team members are present at each meeting to adequately discuss the current status of the Project. These meetings shall be open to the public and support the NEPA process.

In addition to the quarterly business meetings, the Consultant shall participate in project teleconferences to be held at approximately 6-week intervals between the business meetings. The Consultant shall assist in the preparation of the agenda for these meetings as well, and will provide and lead an update discussion of the Project. The Consultant shall assure that appropriate team members are present for each meeting to adequately discuss the current status of the Project.

2.2 Governance Meetings (ALLOWANCE)

The Suppliers will meet during Phase 2A to discuss and develop the approach to creating the Governance Structure required to successfully implement the project. The Consultant shall attend and participate in these meetings as requested. The Consultant shall assist in the review and comment on the agenda for the meeting, as well as the meeting summaries. As requested, the Consultant shall assure that appropriate technical team members are present at each meeting to adequately discuss the current status of the Project.

An allowance of \$29,742 is included for governance meetings. No work will proceed on this subtask without express authorization from the Project Administrator.

Task 3. Public Involvement and Communications

The Consultant is requested to incorporate energy conservation (green) considerations into each and every effort completed under the public involvement and communications process.

Under this task, the Consultant shall provide the following services:

3.1 Council/Commission Annual Workshops

The Consultant shall prepare and conduct one (1) annual workshop to each Supplier and Ex-Officio council/commission (assume four Suppliers/Ex-Officios) during Phase 2A. These presentations will update the Supplier/Ex-Officio member Councils/Commissions on the progress of the work of Phase 2A.

3.2 Public Meetings

A public information meetings will be needed during the course of Phase 2A to update the public on the status of the project, encourage dialogue with the public, gain public support, and ensure public input is solicited and incorporated into key decision points (e.g. facility siting). Additionally, the EPA recommends public participation in the planning process of a project culminating in a public meeting or hearing that presents the proposed project to the public and includes discussion of both environmental and financial impacts. Records of public participation are required in

the Environmental Information Document (EID) which will be prepared by the Consultant in Phase 2B.

For Phase 2A, a public meeting is planned to coincide with the submittal of the Phase 2A draft report which will include a summary of all key Phase 2A findings. Meetings associated with the EID/EIS will be included as a part of Phase 2B. Each public meeting in Phases 2A and 2B, and the public involvement process in general, will be conducted in a NEPA-compliant manner. All public meetings will be advertised at least 30 days in advance. Public comments will be recorded, and both the record of the meeting and proof of advertising will be retained for inclusion in the EID.

3.2.1 Public Meeting Ad Design, Layout and Placement

A standardized public meeting display ad design, using the Coquina Coast Desalination logo, will be developed for use throughout Phase 2 and Phase 3 of the project. The standard design will be used to ensure consistency throughout the life of the project. This task includes copywriting, layout and camera-ready PDFs of up to two (2) different ads, customized for each paper. Advertising space will be planned and purchased by the consultant. Ad size will be approximately one-fifth page, depending on the length of the ad copy and any graphics to be included. Estimate includes two ad placements per each public meeting in the following newspapers: *Daytona Beach News Journal*, *St. Augustine Record* and the *Leesburg Daily Commercial*.

3.2.2 Project Update Public Meeting

One public meeting will be held to coincide with submittal of the draft Phase 2A report and presentation of key Phase 2A findings and recommendations.

Task includes development of a meeting-specific handout, if needed in addition to project fact sheets, comment form creation, PowerPoint and/or display board development, space rentals, audio-visual equipment rentals, news releases to announce each meeting, directional signage, security, and refreshments.

3.3 Project Web Site and Social Media

The Consultant shall continue to manage content and maintain a project web site for the duration of Phase 2A of the project for posting of project information, meeting summaries, notices, agendas, final deliverables and the like. The web site will be hosted on the Consultant's server and will be structured so that it can continue to be used for project activities after the conclusion of this Contract.

Content will be reviewed and updated monthly or as needed to ensure timely dissemination of project information. If needed, Task 3.4 includes design and programming of up to six (6) pages to be added to the project web site.

This task also includes setting up and maintaining a Facebook fan page linked with a Twitter page for dissemination of project information and public meeting information as well as media and blog monitoring/commenting.

3.4 Public Communications Materials

The Consultant will update key messages developed in Phase 1 and add new messages which will serve as the basis for project communications. Key messages will be updated up to two (2) times in Phase 2A and used to develop the following:

- Questions and Answers – up to two (2) updates to the Questions and Answers developed in Phase 1
- Up to two (2) new fact sheets, on topics such as environmental studies and water quality; pilot plant results and facility siting
- Up to two (2) updates to the project overview fact sheet.

New fact sheets will be designed with assistance from the St. Johns River Water Management District communications staff.

An e-newsletter template will be created under Task 3.5 and a quarterly e-newsletter will be written and distributed, up to three (3) editions, using Constant Contact. Task assumes use of the stakeholder database currently in use by Jerry Salsano and includes quarterly database maintenance.

Also included in Task 3.5 is professional photography to support project communications. A professional photographer will be hired to obtain visually informative shots of the project, such as the pilot plant, water quality sampling or facility siting.

3.5 Media Relations

It is anticipated that local, regional and trade media interest in the project will continue to grow throughout Phase 2. To keep the media and their audiences informed on the project, the Consultant will:

- draft and distribute up to three (3) news releases for the project; task includes updating and maintaining the media contact list developed in Phase 1 and outreach to reporters as needed for each news release;
- develop up to one (1) editorial board briefing documents and attend up to two (2) editorial board meetings (scheduled 2 per day if possible);
- draft, edit and finalize up to two (2) letters to the editor for placement by either the Consultant or the Suppliers; and
- provide background information and coordinate interviews in response to any media inquiries related to the project,

3.6 Public Involvement Activities (ADDITIVE)

At the direction of the Suppliers as the Project develops, the Consultant shall perform additional services related to Public Involvement. Such effort may include but not be limited to discussion of and the preparation of responses to public comment received via phone call, email or otherwise, response to newspaper editorials, additional services related to the web page, or the preparation of additional public notification materials related to the Project and the like that may arise. The Consultant, at the

Request of the Suppliers for performance of the additional services, will prepare an estimate of consulting fees, in accordance with the approved fee calculation, for review and approval by the Suppliers prior to beginning any additional services work.

This is an additive task with a value of \$25,609. No work will proceed on this subtask without express authorization from the Project Administrator.

3.7 Miscellaneous Presentations (ADDITIVE)

At the request of the Suppliers, and as the Project proceeds, the opportunity to make presentations on behalf of the Project and the Suppliers may arise. Under this task, the Consultant will prepare and deliver a presentation as requested. The Consultant, at the Request of the Suppliers for performance of the additional services, will prepare an estimate of consulting fees, in accordance with the approved fee calculation, for review and approval by the Suppliers prior to beginning any additional services work.

This is an additive task with a value of \$12,640. No work will proceed on this subtask without express authorization from the Project Administrator.

Task 4. Funding Program Development

The Consultant will update the Funding Implementation Plan (FIP) prepared in Phase 1 to include recommendations regarding the best way to structure the project, including governance, to support and increase the potential of future funding efforts. Included in this analysis will be a discussion and recommendations regarding the ability to get funding support for Phase 2B. The Consultant will re-evaluate project funding scenarios previously developed based on direction from the Suppliers relative to governance structure preferences, revised project costs, changes in demand and/or population projections, and changes in state and federal funding sources, including but not limited to loans, grants, and appropriations. In updating the FIP, the Consultant will:

- Identify and understand Supplier options for generating local funds and the effects on the cost of water
- Identify revenue sources to be dedicated as leverage
- Develop a proposed timeline of availability
- Outline funding availability, schedule, and critical requirements
- Determine preliminary feasibility of obtaining certain types of funding, such as specific loans, grants, and appropriations
- Investigate water resource funds in both Federal and State programs
- Investigate existing fund allocations and make recommendations for preconstruction and construction
- Investigate intergovernmental coordination for leverage
- Provide analysis of current and future financial demand
- Recommend governance and project structures to best support future funding efforts
- Determine the likely availability of funding availability for Phase 2B.

The Consultant will submit a draft Funding Implementation Plan letter report to the Suppliers for review and comment. Upon receipt of the comments, the Consultant will incorporate the comments and deliver a final Plan in letter report format.

Task 5. Project Representation Activities

This task includes effort to represent the Project to entities outside of the Supplier and regularly involved Project Team.

5.1 Presentations to Non-Supplier Entities

The Consultant will, in coordination with the Suppliers, make periodic outreach and presentations to Phase 2A Non-Supplier entities. The effort will attempt to present the positive regional, alternative water supply, and environmental benefits of the Project while addressing any potentially negative information that may circulate from time to time. These meetings will occur quarterly during the Phase 2A period of time, in the effort to add additional Suppliers for Phase 2B.

5.2 Transition Services – Phase 2A to 2B (ALLOWANCE)

The Consultant will provide assistance to the Suppliers at their request during the transition from Phase 2A to Phase 2B. An allowance of \$50,000 is included for this task. No work will proceed on this subtask without express authorization from the Project Administrator.

An allowance of \$50,000 has been included for transition phase services. No work will proceed on this subtask without express authorization from the Project Administrator.

Task 6. Information Search and Goal Setting

6.1 Assemble Utility Information

All Phase 2A Suppliers and Ex Officio members will provide the Consultant with the necessary information to complete this Task. At a minimum, the requested information will include the following:

- Finished water quality data
- Descriptions and/or summaries of existing treatment practices and facilities
- Descriptions of current water demand management and conservation efforts and a copy of the Conservation Plan, if one exists
- Updated water demand projections through year 2050

As the desalination facility is expected to be a base load facility, each Supplier only provide projected future average day water needs from the Project. Maximum and peak day demands are expected to be met by each Supplier using existing or other sources of supply. Phase 1 Suppliers may only be required to provide verification to the Consultant that their utility water quality and quantity information presented to and used by the Consultant in Phase 1 is applicable for use in Phase 2A.

Consultant shall assemble, catalog and review all Phase 2A Supplier and Ex Officio demand data to complete the Continued Engineering Investigations of Phase 2A.

6.2 Confirm Water Quality and Treatment Process Requirements

The Consultant shall confirm the finished water quality goals and treatment process requirements established in Phase 1, based upon the data provided in Task 6.1. This will include confirmation of water quality adjustments at each Supplier point of connection. Such water quality goals will serve as the basis for the treatment process requirements determination and project cost estimates, the pilot study plan prepared under Task 9, and the treatability studies to be completed in Phase 2B.

6.3 Project Requirements Letter Report

The Consultant shall prepare a Letter Report summarizing the evaluation of future water demand and the treatment process requirements, including water quality adjustments at individual points of connection. The Consultant shall deliver a draft letter report in such time to allow the Suppliers a minimum of ten (10) working days and one weekend to adequately review the draft document prior to discussion and review on a project teleconference. The Consultant shall revise the draft letter report and issue a final report to include all applicable Supplier comments received in writing or at the review workshop for delivery to the Suppliers and posting to the web site.

6.4 Project Demand Side Management and Conservation Plan

The Consultant will utilize the water demand management and conservation data provided by each Supplier to prepare a Project Demand Side Management and Conservation Plan. The Plan will summarize the current efforts of the Suppliers, will discuss the impact of conservation on the future water supply needs of each Supplier, the impacts to the Project, and identify additional potential conservation efforts.

The Suppliers and SJRWMD have worked closely to estimate the potential water savings that can be achieved through demand side management and water conservation, as well as the costs associated with those strategies. Those efforts include use and evaluation of the Conserve Florida Guide, the Alliance for Water Efficiency Water Conservation tool, and other tools for calculating the cost effectiveness of implementing conservation measures. The Consultant will utilize that data and benchmarks developed by each of the Suppliers and SJRWMD to investigate the potential impacts of demand side management and water conservation to the Project.

The Consultant shall deliver a draft of the Plan in such time to allow the Suppliers a minimum of ten (10) working days and one weekend to adequately review the draft document prior to discussion and review at one of the Business Meetings. The Consultant will prepare a “final” draft Plan to include all applicable Supplier comments received in writing and/or at the review workshop for delivery to the Suppliers and posting on the web site. This document will remain in draft form until confirmation of Project participation in Phase 2B, at which time the Plan will be updated and finalized as described in Task 22.

Task 7. Water Supply and Quality Investigations

7.1 Water Quality Monitoring and Data Collection Plan

Two potential sources of supply exist for this project, a screened open ocean intake or well configuration (horizontal, vertical, or other). Based on the results of Phase 1, it is known that very little water quality data is available for each of these sources. Water quality data is needed to confirm treatment process requirements, but more importantly to establish a baseline and determine concentrate discharge limitations.

The Consultant shall prepare a Water Quality Monitoring and Data Collection Plan for both the ocean and well sources. The water quality parameters will be coordinated with the hydrodynamic study plan (Task 8.3), pilot-scale treatability study requirements (Task 9) and permitting requirements (Task 11). The Consultant shall determine the sampling locations, determine the frequency of sampling to be completed. Monitoring, sample collection, and the analytical work associated with the different source options will occur in Phase 2B. It is anticipated that monitoring will be required to establish a baseline for future permitting and concentrate discharge monitoring. The Consultant will also collect data from available sources, such as the National Data Buoy Center, National Oceanic and Atmospheric Administration, and others.

7.2 Tier 1 Screening Level Hydrogeological Investigations

Understanding the local hydrogeologic conditions will be a critical factor in determining the feasibility of a possible well-based source of seawater. A tiered evaluation will be conducted to develop this understanding, wherein progression from one tier to the next is only considered after positive results from the prior tier. The first tier of that evaluation – a screening level evaluation of the feasibility of seawater wells in the Project area will be conducted in Phase 2A. Additional tiers of investigation, should Tier 1 indicate wells may be a feasible alternative, will be conducted in Phase 2B.

The initial phase of work in the evaluation of land-based water supply alternatives will be a screening level evaluation of the coastal area in St. Johns, Flagler, and Volusia counties. This screening level evaluation will involve the review of available logs from wells and boring installed along the coastal areas of these counties. Because boring and well logs may not be available via an electronic search, it is anticipated that a review of St. Johns River Water Management District and FDEP offices may be required.

Available hydrologic information will be obtained from the Marineland attraction on the border between St. Johns and Flagler counties. The facility has vertical wells as a source of sea water for their facility. The Consultant will meet with Marineland staff and determine if there is available information on their wells and develop an aquifer performance test utilizing the facility's existing well. The Consultant will be responsible for hiring the contractor to perform the testing and coordinating testing with SJRWMD. This testing will be used as part of the first step in determining if the coastal aquifer system is capable of producing the desired yield.

The available published data, boring logs, and well logs along with any test data from the Marineland facility will be used to develop a conceptual hydrogeologic model of the area. As part of the conceptual hydrogeologic model, cross sections of the underlying geologic conditions will be produced. If sufficient data exists, isopach maps of the overburden thickness and aquifer thickness will be developed. The conceptual model will be used to identify the areas that appear promising for the installation of large capacity horizontal collector wells.

The results from the conceptual hydrogeologic model will be incorporated into a GIS-based site selection matrix (Task 10). Information and available parcel maps will be utilized in identifying potential testing sites. Site selection criteria will be developed for each area and a site ranking matrix will be developed to aid the test site selection. Criteria such as proximity to the proposed plant location, size of the parcel, proximity to environmentally sensitive areas, piping configurations, constructability, as well as criteria identified by the client will be included in the site ranking matrix. The results of the site selection matrix will be used to identify the top ranked site or sites for conducting further investigations.

7.3 Hydrogeological Investigation Letter Report

The Consultant shall prepare a Letter Report to document the findings of the Tier 1 hydrogeological investigation, as well the applicability and potential yield of a groundwater supply.

The Consultant shall provide one draft and one final version of the letter report. The first draft of the report shall be provided in such time to allow the Suppliers a minimum of ten (10) working days and one weekend to adequately review the draft document prior to discussion and review during a project teleconference. The Consultant shall revise the draft report and issue the final report to include all applicable Supplier comments for delivery to the Suppliers and posting on the web site.

Task 8. Preliminary Field Studies and Investigations

For Phase 2A, the Consultant shall gather the minimum amount of data necessary to make an informed decision regarding the viability and/or requirements for various Project alternatives, such as intake type, conveyance system, and location. It shall be the Consultant's responsibility at the end of Phase 2A to provide the Suppliers and potential future Suppliers with the additional information necessary, including more refined Engineer's Opinions of Probable Construction Costs (EOPCC) and operations cost estimates, to make an informed decision to participate in Phase 2B and the subsequent design, construction and operation of a seawater desalination facility.

As such, it is necessary to conduct preliminary field investigations to better define the Project and determine the most probable project alternatives, such as intake and concentrate discharge method. This data, in conjunction with preliminary pilot-scale

demonstration testing, will be used to prepare capital and operations costs estimates (Task 12), as well as conduct initial NEPA activities in Phase 2B.

In addition to the tasks listed below, the Consultant shall consider the following impacts when evaluating project alternatives:

- Noise
- Traffic
- Light and Visual
- Economic Impact
- Alternative/Renewable Energy
- Demand Management

Formal studies of each of the above, as well as more detailed, final investigations of the items discussed below will be completed as identified and required during Phase 2B.

8.1 Bathymetry Survey

This task will determine ocean depths in the general region of the desalination facility such that the best and most favorable location of the required water depth can be identified for the location of a possible intake and concentrate discharge. This study will employ single-beam electronic sounding equipment and GPS to map the ocean bottom topography and surface characteristics of the marine environment. Higher definition technologies, such as multi-beam, will be utilized in Phase 2B.

Data will be collected for an approximate 5 mile distance (north to south), on 6 stations spaced approximately 1 mile apart, beginning east of the surf zone and extending offshore for approximately 7 miles to a depth of 70 feet Mean Lower Low Water. Horizontal control will be based on sub-meter Differential GPS, North American Datum of 1983 (NAD83). Vertical control will be based Mean Lower Low Water, [National Geodetic Vertical Datum of 1929 (NGVD29) or North American Vertical Datum of 1988 (NAVD88)] depending on available benchmarks. Benchmark and Mean Lower Low Water information will be as per the elevation published by the Department of Environmental Protection Land Boundary Information System). Survey will be conducted using a Single Beam Odom Echo sounder with a 200 kHz transducer.

Upon completion of the survey, the Consultant will provide a plan view drawing showing sounding information, including ocean depth, Mean Lower Low Water, and approximate shoreline, as well as all electronic data in a format acceptable to the Suppliers.

8.2 Geotechnical Studies

The Consultant will prepare a geotechnical testing plan for the ocean environment and potential future desalination facility sites to determine the suitability of the coastal and local geology for various intake, concentrate discharge, and construction

methods. The plan will be coordinated with the results of the bathymetry survey and other siting considerations. The plan will be implemented in Phase 2B.

8.3 Hydrodynamic Studies

The Consultant shall prepare a Hydrodynamic Study Plan in Phase 2A. The plan will be coordinated with FDEP and SJRWMD permitting requirements, as well as future intake and concentrate discharge structure design requirements, and will detail the scope of the hydrodynamic study to be completed in Phase 2B. The Plan will be submitted in a letter report format to the Suppliers for review and comment. Upon receipt of comments, the Consultant will modify and finalize the plan.

8.4 Ecological Studies

8.4.1 Marine Studies

The Consultant shall conduct preliminary marine ecological studies utilizing existing local knowledge, databases, and by collecting in-situ samples of plankton, fish and marine benthos, and identification of possible sea grass beds, shellfish harvest areas, and coral reefs, if necessary. The studies will be coordinated with permitting requirements and siting analysis to identify potential fatal flaws associated with Project intake or concentrate discharge alternatives. Detailed studies, such as sea grass bed mapping, and other required investigations will be conducted during Phase 2B.

8.4.2 Desalination Facility Preliminary Ecological Survey

The Consultant shall conduct a preliminary ecological survey of potential desalination and ancillary facilities sites as identified in Task 10 to identify wildlife use, presence of threatened or endangered species and/or suitable habitat, vegetation surveys, and possible presence of tidal or freshwater wetlands. The studies will be coordinated with permitting requirements to identify potential fatal flaws associated with any specific site. Detailed threatened and endangered species surveys, tree surveys, and other required investigations of the final selected site(s) will be conducted during Phase 2B.

8.5 Facility Power and Renewable Energy Investigations

Power supply will strongly impact site location, project cost, and community acceptance of the Project. The Consultant will continue discussions with the primary power source company for the region (FPL) that were initiated in Phase 1. Options for site location to minimize costs will be part of these discussions. Options for partnering in alternative (“green”) power generation or co-generation will be included as part of the preliminary discussions.

Task 9. Pilot Study Plan and Permitting

9.1 Pilot Study Plan

The Consultant shall prepare a Pilot Study Plan for the completion of treatment process piloting at the selected best-potential raw water sources. The Consultant shall coordinate the Plan requirements with SJRWMD and other permitting agencies based

on the results of Task 11. Any permits necessary will be identified by the Consultant and obtained under Task 9.2. Construction and operation of the pilot plant will be conducted in Phase 2B.

The Consultant shall deliver a draft Pilot Study Plan in such time to allow the Suppliers a minimum of ten (10) working days and one weekend to adequately review the draft document prior to discussion and review at a Monthly Business Meeting. The Consultant shall revise the draft Plan and issue a Plan to include all applicable Supplier comments received in writing or at the review workshop for delivery to the Suppliers and posting to the web site. The Consultant will submit that Plan to FDEP for review and acceptance as the basis for pilot-scale treatability studies to be completed in Phase 2B.

9.2 Pilot Study Permitting (ADDITIVE)

The treatability studies may require the Consultant to acquire certain permits, e.g., a Temporary Consumptive Use Permit. The efforts and costs associated with the acquisition of certain permits may not be supported or reimbursed by SJRWMD. As such, an additive task is provided for acquiring such permits should it become necessary and to allow the Consultant to specifically identify the costs associated with those permits for which SJRWMD funding shall not be utilized. In preparation of the Pilot Study Plan, the Consultant will meet with multiple state and local agencies to determine permitting and plan approval requirements for both the pilot-scale and full-scale desalination facility. The Consultant will notify the Partners and SJRWMD of any permits required before proceeding with acquiring those permits. If it is determined that additional effort beyond the scope contained in Task 9.1 is required, or if those efforts cannot be funded by the SJRWMD, this task will be used for those efforts. No cost is currently provided for these efforts and no work on this task is to proceed without the express approval of the Project Administrator.

Task 10. Site Selection and Land Acquisition Assistance

The Consultant shall provide assistance to the Suppliers to begin the identifying potential locations (i.e., a site “shortlist”) for a future seawater desalination facility. Efforts in Phase 2A are limited to determination of siting criteria, Phase 1 Environmental Site Assessments, if requested, and preparation of list of potential facility sites. Land acquisition activities, including selection of the land parcel to serve as the treatment plant site, associate appraisal and legal activities, will not occur until Phase 2B.

10.1 Site Selection Criteria Development Workshops

In Phase 1, the Consultant led both a Sustainability Workshop and Project Evaluation Criteria Workshop. Those workshops established the fundamental goals, objectives, and criteria by which Project alternatives will be considered. The Consultant shall plan and lead a workshop with the Suppliers to determine the criteria that will be used in the desalination facility and ancillary facilities, including potential well locations, siting process. Phase 2A does not include siting of transmission facilities (e.g., pipelines, storage, or booster pumping facilities); however, such facilities should be

considered when developing criteria as these criteria are expected to be utilized in Phase 2B when transmission facility siting will be done. The Consultant will use the criteria established in Phase 1 as a basis for the siting criteria development. The Consultant shall document the proceedings of the workshop for issuance as a draft meeting summary to be published on the web site.

The Consultant will lead a second siting criteria development workshop, in which the previously defined criteria will be reviewed and weighted for the purposes of selecting the shortlist of possible locations for the desalination and ancillary facilities. The Consultant shall document the proceedings of the workshop for issuance as a final meeting summary and to be published on the web site.

The Consultant shall include in the Project Update Public Meeting (Task 3.2.2) an overview of the siting criteria and solicit public input for consideration before selection of a final project site in Phase 2B.

10.2 Preparation of Site Shortlist

The Consultant will update and utilize the geographical information system (GIS) database developed in Phase 1, as needed, to manage and process key data elements that are critical for identification of potential desalination and ancillary facility locations in Flagler, St. Johns, and Volusia Counties.

The Consultant will utilize the GIS database and site evaluation criteria developed above to rank potential locations for the desalination and ancillary facilities. The Consultant and real estate experts will coordinate to seek available sites, determine preliminary real estate land costs, assess any difficulty of acquisition of preferred parcels, estimate the time to acquire selected parcels, and provide comment on any other issues affecting acquisition. This will require an analysis of each of the proposed sites. Other issues such as corridor or transmission line considerations will be conceptual only, providing for general real estate expertise with regards to pluses and minuses of each corridor alternative.

The Consultant and real estate experts will determine a shortlist of potential sites for further consideration in Phase 2B. Real Estate Consultant will determine preliminary acquisition costs for real estate values for the desalination facility. Preliminary appraisal reports of each of the shortlisted sites with a determination of a total acquisition to consider its future expansion or a partial acquisition for immediate use will be conducted in Phase 2B upon consideration of public comments and determination of final project land requirements.

The Consultant will present the analyses to the Suppliers during a Business Meeting.

10.3 Environmental Assessments of Potential Facility Sites

10.3.1 Phase I Environmental Site Assessment (ALLOWANCE)

The Consultant will perform a Phase I Environmental Site Assessment (ESA) at up to 5 of the potential desalination and/or ancillary facility locations in general accordance with ASTM E1527 (or current standard), *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* and the USEPA “All Appropriate Inquiry Rule” (40 CFR Part 312). The objective of the Phase I ESA is to identify material recognized environmental conditions (RECs) using an appropriate, but not exhaustive, assessment through inquiries and observations of property conditions and of readily available information. To accomplish the Phase I ESA, the Consultant will conduct the activities described below:

- Identify the presence, or likely presence, of hazardous substances and petroleum on the property under conditions which would indicate an existing release, a past release, or a material threat of a release, of such hazardous substances or petroleum into the soils, groundwater or surface water of the property.
- Conduct a site reconnaissance and review pertinent environmental records at the site, including existing Phase I ESA reports, if available.
- View site conditions and adjacent properties in accordance with ASTM Standard 1527 for Phase I ESAs with the objective of identifying RECs, if any, resulting from on-going facility operations.
- Interview individuals, as appropriate.
- Obtain government databases records for the sites, if available, in accordance with ASTM 1527. On an as-available basis, the Consultant will obtain historical land use records such as aerial photographs; fire insurance maps, and City Directory abstracts. Note that Fire insurance maps and City Directories may not be available for all sites.
- It is assumed that the locations to be considered for evaluation consist of undeveloped, unimproved land; therefore, this scope does not include an assessment of asbestos, lead-based paint, radon, or PCBs.

The Consultant will prepare a written Phase I ESA report in ASTM 1527 format for each site briefly documenting methods utilized, the date and time of the site visit and records reviewed. The reports will also summarize the identified recognized environmental conditions. Any findings uncovered during the Phase I ESA will also be incorporated into the siting evaluation.

An allowance of \$20,958 is included for Phase I ESA. No work will proceed on this subtask without express authorization from the Project Administrator.

10.4 Final Site Shortlist Letter Report

The Consultant shall prepare a Letter Report to document the development and weighting of the site evaluation criteria, as well as the findings of the siting evaluations. Should a Phase I ESA be conducted, those findings will be included in the memorandum as appendices in support of the recommended sites. The Consultant shall provide one draft and a final version of the report. The draft of the report shall be provided in such time to allow the Suppliers a minimum of ten (10) working days and one weekend to adequately review the draft document prior to discussion and review at a project teleconference. The Consultant shall revise the draft report and prepare the final report to include all applicable Supplier comments and posting on the web site.

Task 11. Permitting Requirements Determinations

Based on the permitting investigations performed in Phase 1, the Consultant shall develop a preliminary permitting approach for the project concept in Phase 2A. The permitting approach will focus on addressing at the earliest possible time in the Project, those items determined to require a long lead-time or those issues that are determined to be on the “critical path”. The approaches will also identify opportunities to consolidate permitting efforts, where possible, to reduce the overall permitting effort, shorten the schedule requirements, or both. The Consultant shall prepare an implementation schedule for the application and securing of permits required for the project. The schedule for project permitting will be prepared in Microsoft Project.

11.1 Agency Meetings

The Consultant shall arrange and attend meetings with permitting agencies having involvement in the final permitting of the Project. Key to this task will be an initial meeting with the USEPA to scope and plan the level of project documentation and assessment (EA vs. EIS) necessary to satisfy NEPA as well as surface any technical, procedural or funding issues sooner rather than later in the EID process. Subsequent meetings with other involved agencies are anticipated to take place during the initial months of Phase 2A of the Project to adequately understand and prepare the remaining work of Phase 2A and 2B for the permitting effort. The Consultant shall prepare and make a presentation of the Project the permitting agency at each meeting. The presentation will review the goals for the Project, the anticipated timeline for completion of Phase 2A and 2B. The Consultant will endeavor to gain agreement from permitting and commenting agencies to participate in regularly scheduled periodic joint meetings to speed dissemination of technical information and reduce the overall number of meetings required with agency staffs during the permitting process. The Consultant shall record all meeting summaries and will issue the summaries to the Suppliers. The Consultant shall coordinate with the Suppliers during the scheduling of each meeting to allow the Suppliers to attend.

The agencies that are anticipated to require meetings include:

- FDEP
- SJRWMD

- USEPA (NEPA, EID, funding)
- USACE
- NMFS (coastal fisheries, coastal marine sanctuaries)
- USCG (navigation constraints)
- USFWS/ FFWCC (endangered species, significant habitats of concern)
- SHPO (historic and cultural resources)

These discussions will also confirm the schedule requirements for the various permit application submittals and any supporting documentation required by the agencies. In addition, other agencies identified as having either a consultation or approval role will be consulted, such as the State Historic Preservation Officer (cultural/historic resources) and US National Marine Fisheries Service.

Meetings with USEPA and USACE at this stage will also provide a forum for initial discussions as to whether an EIS might ultimately be required in Phase 2 (namely, an EIS that may be triggered as an expansion of the EID, or one triggered by the need for a major federal permit), and to help identify the specific aspects of the project that could potentially trigger the need for an EIS as opposed to an EID.

11.2 Permit Requirements Technical Memorandum

The Consultant shall prepare and submit a technical memorandum outlining the specific requirements, including the associated permit fees, necessary for the formal submittal of the permit applications at the appropriate percent completion of the future design documents. As part of this task, the form of the CUP(s) for the Project (e.g., one CUP or multiple CUPs for each Supplier) will also be determined based on input from the regulatory agencies and consultation with the Suppliers.

Task 12. Phase 2A Project Report

Under this task, the Consultant will summarize the results of the Phase 2A activities, and will conduct all remaining engineering analysis to better define the Coquina Coast project and associated costs to assist the Phase 2A Suppliers, Ex Officio members, and potential future project partners in making a determination regarding participation in Phase 2B and beyond.

The Consultant shall revise the project alternatives analysis conducted in Phase 1, including refining project component alternative feasibility based on the results of the Phase 2A field and other investigations. For example, if the results of Task 7 indicate that beach wells are not possible, those options will be eliminated.

The Consultant shall determine the impact of revised Supplier and Ex Officio water supply needs on the project size, implementation, and cost. The Consultant will revise the preliminary sizing and implementation assumptions from Phase 1 to better reflect the project requirements. The Consultant will update the previously prepared capital and O&M costs estimates for each of the complete Project alternatives. Costs for transmission facilities, according to the use of the facilities by a particular Supplier and

will largely be based on Phase 1 efforts; however, portions of the transmission system serving partners no longer involved in the project will be removed and transmission main sizes will be adjusted accordingly. No additional analysis of the transmission system will occur in Phase 2A. The capital and O&M costs will be aggregated into a present worth cost and each present worth cost will be converted into a dollar per thousand gallon cost to be provided to the individual Suppliers.

The Consultant will prepare a Phase 2A Project Report that will provide a complete summary of comparative costs and benefits for derived options. The report will provide a summary of all preliminary field studies and investigations identified in Task 8, with special attention to power supply and alternative/renewable energy options. The report will include an assessment of the alternative projects based on engineering, regulatory, and environmental factors, a discussion of the various screening criteria, and a recommendation for the preferred project(s), taking into account input received from the Suppliers, involved and interested agencies, and the public.

The Consultant shall provide two drafts and a final version of the Report. The first draft shall be provided in such time to allow the Suppliers a minimum of ten (10) working days and one weekend to adequately review the draft document prior to discussion and review at a Monthly Business Meeting. Following receipt of comments from the Suppliers, the Consultant shall revise the draft report and issue a second draft report, this time allowing a minimum of five (5) business days and one weekend for review, prior to discussion at a Monthly Business Meeting. The Consultant will prepare the final report to include all applicable Supplier comments received at both the first and second review meetings or in writing for delivery to the Suppliers and posting on the web site.

PHASE 2B – PART I PRELIMINARY DESIGN REPORT

As discussed previously in this Scope of Services, the Phase 1 partners agreed to split Phase 2 into a Phase 2A and a Phase 2B component to allow additional calendar time for Phase 1 Suppliers and Ex-Officio members, as well as potentially other local municipalities that were not engaged in Phase 1 to complete other alternative water supply studies and make the determination to become a Phase 2 Supplier. Therefore, Phase 2A was designed to segment all engineering analyses and field investigations that were determined necessary after the completion of Phase 1 and are not impacted by the number of Suppliers and water quantity, such that they and Phase 2 of the project can move forward. For example, treatability studies that focus more on raw water and finished water quality data can go forward in Phase 2A, however tasks that rely upon water quantity, such as the Preliminary Design of the facilities, must wait until the final Suppliers and their water demands are known at the beginning of Phase 2B. There will be no Ex-Officio level of involvement in Phase 2B

Tasks 13 through 17 include the necessary Phase 2B Project Support tasks, Meetings, Public Involvement and Communications, Funding, and Project Representation Activities.

Tasks 18 through 21 include the efforts to define the project objectives, once and for all, and identify the final water demand and quality requirements, conduct more detailed field studies and investigations, and conduct the pilot-scale treatability study.

Task 22 includes the effort to acquire the land for the desalination facility.

Task 23 includes environmental impacts modeling related to the intake and outfall, using field data gathered in other tasks, and the preliminary designs of the intake and outfall.

Tasks 24 and 25 describe the additional field efforts and the effort to complete the 35-Percent Preliminary Design Report for the Project.

Task 26 includes the effort to complete the 35-Percent Preliminary Design Report for the transmission system.

Task 27 describes the effort to complete project cost analyses, including capital and operations and maintenance cost estimates for the project.

Task 28 includes the effort to review alternative delivery methods and develop the project implementation plan.

Task 29 describes the effort required to review the recommended project phasing and scheduling of the various project components.

Task 30 includes the preparation of a project financial plan that will tie together the project financial implementation plan and successful funding efforts to date with remaining funding efforts, and complete a rate impact analysis for the Suppliers.

Task 31 includes effort set aside for the potential to participate in a value engineering (VE) study at the close of Phase 2B, as an Allowance Task.

Task 32 includes the finalization of all environmental and other permitting required for the project, and the preparation and submittal of all listed permits.

Tasks 33 through 35 include the effort to complete the initial analyses necessary for preparation of the preliminary draft EID.

Task 36 includes the effort to prepare the EID, based upon the research, field data collection and analyses completed in earlier tasks.

Tasks 37 through 41 include the estimation of the preliminary effort to prepare an EIS document, if necessary, as Allowance tasks.

Task 13. Project Management and Administration

13.1 Work Plan

Consultant shall develop and periodically update Project Work Plan. The Work Plan will establish communications protocols, and develop, update and control the Project Schedule.

13.2 Manage Staff Assignments

The Consultant shall make and manage project staff assignments over the life of the Project. The Consultant shall select contract and manage appropriate Subconsultant firms to assist in the successful completion of the work. Under this task, the Consultant shall be responsible for managing and controlling consulting cost, and directing and managing Subconsultant activities.

13.3 Invoicing

Consultant shall prepare monthly invoices for submittal to the Project Administrator, including progress reports. Monthly invoices will be submitted as draft invoices to the Project Administrator and the SJRWMD representative, in parallel. Upon review and approval of the draft invoice, the Consultant shall deliver each final monthly invoice to the Project Administrator and SJRWMD. Under this task, the Consultant shall also complete the review of Subconsultant invoices for inclusion in Consultant invoices to the Suppliers and manage the payment of Subconsultant invoices.

13.4 Quality Assurance/Quality Control

The Consultant shall provide, at key points in the Project and for key submittals to the Suppliers, senior and experienced personnel to conduct necessary quality assurance/quality control reviews. Such QA/QC reviews will include the independent review of the documents at a particular stage, to be followed by a meeting of the

reviewers with the Project Team. The Suppliers will be notified and invited to participate in the QA/QC review meeting. The following are the anticipated points in the project for which QA/QC efforts are planned:

- Prior to the submittal of each draft Technical Memorandum to be prepared under Phase 2B

13.5 Pre-Work Conference

The Consultant shall attend and lead the Pre-Work Conference (Kick-Off Meeting) and will prepare an agenda for the meeting. The Consultant shall lead a review of the Project scope of services, review the Preliminary Schedule, and review the Draft Work Plan at the meeting.

Task 14. Project Meetings

The Scope includes details under various tasks that define the requirement for various meetings and workshops to be held during the completion of Phase 2B of the Project. Effort to schedule, prepare for, attend and arrange subconsultant attendance, participate in, and draft meeting summaries for those meetings/workshops is included with the meeting/workshop details described in this Scope. Tasks 18.1 through 18.3 include the required planning, attendance and participation at the regular monthly Technical Progress, Governance Development and Legal Development Meetings. The technical progress meetings will coincide with the Suppliers regular Business Meetings. The Governance Development and Legal Development Meetings will be separate from the monthly Business Meetings, at a time to be determined.

14.1 Technical Progress/Business Meetings

It is assumed that the Suppliers will meet at least quarterly throughout Phase 2B and that the Consultant shall attend and participate in these meetings. The Consultant shall assist in the preparation of the agenda for the meeting, will provide and lead an update discussion of the Project, as well as prepare the meeting summaries. The Consultant shall assure that appropriate team members are present at each meeting to adequately discuss the current status of the Project.

14.2 Governance Development Meetings (ALLOWANCE)

It is assumed that the “final” Suppliers for Phase 2B will meet during the initial months of Phase 2B to review and modify as necessary the Governance Structure developed in Phase 2A to successfully incorporate any new Phase 2B Suppliers and as required to implement the project. The Consultant shall attend and participate in these monthly meetings. The Consultant shall assist in the review and comment on the agenda for the monthly meeting, as well as the meeting summaries. The Consultant shall assure that appropriate technical team members are present at each meeting to adequately discuss the current status of the Project.

14.3 Quarterly Legal Development Meetings

Due to the “cutting edge” nature of this project and for the benefit of the project, it is expected that certain legislative and legal activities will be required for the purpose of

identifying and making change to existing local and/or state policy. These meetings will combine the project technical team with the project permitting, legal, and representation teams to discuss the current technical issues and progress, to identify and potential issues or concerns, and to coordinate the overall approach. It is anticipated that these meetings will be held on a quarterly basis. This activity does not include lobbying of State or federal agencies to make changes to regulation and policy. It only includes identification of potential project hurdles.

Task 15. Public Involvement and Communications

The Consultant is requested to incorporate energy conservation (green) considerations into each and every effort completed under the public involvement and communications process.

Under this task, the Consultant shall provide the following services:

15.1 Council/Commission Annual Workshops

The Consultant shall prepare and conduct one (1) annual workshop to each Supplier council/commission (assume 5 Suppliers) during Phase 2B. These presentations will update the Supplier Councils/Commissions on the progress of the work of Phase 2A.

15.2 Public Meetings

Public meetings will be needed during the course of Phase 2B to keep the public and interested stakeholders apprised of the Project and its status. EPA's guidance on the EID, which the Consultant shall be preparing as part of Phase 2, requires public participation at two specific points: one 30-day public review period for the EID itself, another for the Finding of No Significant Impact (FONSI) assuming EPA can issue one at this stage and not require an EIS. It also recommends a third public meeting (actually prior to the two required ones) during the planning process that presents the proposed project to the public and includes discussion of both environmental and financial impacts. Because of the length of Phase 2B, public meetings to present the current planning of the Project are recommended at 6-month intervals.

These public meeting and the public involvement process in general, will be conducted in a NEPA-compliant manner. All public meetings will be advertised at least 30 days in advance. Public comments will be recorded, and both the record of the public meeting and proof of advertising will retained for inclusion in the EID.

15.3 Project Web Site

The Consultant shall continue to maintain a project web site for the duration of Phase 2B of the project for posting of project information, meeting summaries, notices, agendas, final deliverables and the like. The web site will be hosted on the Consultant's server and will be structured so that it can continue to be used for project activities after the conclusion of this Contract.

15.4 Mail/Phone/On-Line Public Involvement Survey

An online public involvement survey will be annually developed and administered by the Consultant during Phase 2B (on 1 occasion) to obtain citizen input on the project. The Consultant will develop a draft of the Survey and present the draft and the approach to the Suppliers prior to the issuance of the online survey. The annual survey will be adjusted subsequent to Supplier input. Data from the survey will be assembled by the Consultant into a Survey Report, to be presented in draft form to the Suppliers for review. Subsequent to Supplier review, the annual Survey Report will be finalized.

15.5 Press Releases

The Consultant shall prepare and distribute for review and approval by the Suppliers a press release after each monthly Project Technical Progress Meeting. Upon approval of the press release, or an edited version of the press release based upon Supplier comment, the Consultant shall arrange for the posting of the release in regional media (newspapers).

15.6 Public Involvement Activities (ADDITIVE)

At the direction of the Suppliers as the Project develops, the Consultant shall perform additional services related to Public Involvement. Such effort may include but not be limited to discussion of and the preparation of responses to public comment received via phone call, email or otherwise, response to newspaper editorials, additional services related to the web page, or the preparation of additional public notification materials related to the Project and the like that may arise. The Consultant, at the Request of the Suppliers for performance of the additional services, will prepare an estimate of consulting fees, in accordance with the approved fee calculation, for review and approval by the Suppliers prior to beginning any additional services work.

15.7 Miscellaneous Presentations (ADDITIVE)

At the request of the Suppliers, and as the Project proceeds, the opportunity to make presentations on behalf of the Project and the Suppliers may arise. Under this task, the Consultant will prepare and deliver a presentation as requested. The Consultant, at the Request of the Suppliers for performance of the additional services, will prepare an estimate of consulting fees, in accordance with the approved fee calculation, for review and approval by the Suppliers prior to beginning any additional services work.

Task 16. Funding Program Development

The Consultant will continue to update the Funding Implementation Plan (FIP). The Consultant will re-evaluate project funding scenarios previously developed based on direction from the Suppliers relative to governance structure preferences, revised project costs, changes in demand and/or population projections, and changes in state and federal funding sources, including but not limited to loans, grants, and appropriations. In updating the FIP, the Consultant will:

- Identify and understand Supplier options for generating local funds and the effects on the cost of water

- Identify revenue sources to be dedicated as leverage
- Develop a proposed timeline of availability
- Outline funding availability, schedule, and critical requirements
- Determine preliminary feasibility of obtaining certain types of funding, such as specific loans, grants, and appropriations
- Investigate water resource funds in both Federal and State programs
- Investigate existing fund allocations and make recommendations for preconstruction and construction
- Investigate intergovernmental coordination for leverage
- Provide analysis of current and future financial demand

The Consultant will submit a draft Funding Implementation Plan to the Suppliers for review and comment. Upon receipt of the comments, the Consultant will incorporate the comments and deliver a final Plan.

Task 17. Project Representation Activities

This task includes effort to represent the Project to entities outside of the Supplier and regularly involved Project Team.

17.1 Presentations to Non-Supplier Entities

The Consultant will, in coordination with the Suppliers, make periodic outreach and presentations to Phase 2B Non-Supplier entities. The effort will attempt to present the positive regional, alternative water supply, and environmental benefits of the Project while addressing any potentially negative information that may circulate from time to time. These meetings will occur quarterly during the Phase 2B period of time, in the effort to add additional demands for water from the Project that could be provided by any of the Phase 2B Suppliers.

Task 18. Information Search and Goal Setting

18.1 Assemble Utility Information

All Phase 2B Suppliers will provide the Consultant with the necessary information to complete this Task. At a minimum, this will include the following information:

- Finished water quality data
- Descriptions and/or summaries of existing treatment practices and facilities
- Descriptions of current water conservation efforts and a copy of the Conservation Plan, if one exists
- Updated water demand projections through year 2050

As the desalination facility is expected to be a base load facility, each Supplier need only provide projected future average day water needs from the Project. Maximum and peak day demands are expected to be met by each Supplier member using existing or other sources of supply. Suppliers, or Ex-Officios deciding to join the Project as a Supplier, may only be required to provide verification to the Consultant

that their utility water quality and quantity information previously provided to the Consultant in Phase 1 is applicable for use in Phase 2B.

Consultant shall assemble, catalog and review all Phase 2B Supplier data to complete the Continued Engineering Investigations of Phase 2B. There will be no Ex Officio consideration in Phase 2B.

18.2 Confirm Water Quality and Treatment Process Requirements

The Consultant shall confirm the finished water quality goals and treatment process requirements previously defined for the Project based on the final group of Suppliers participating in the Project. This will include confirmation of water quality adjustments at each Supplier point of connection.

18.3 Project Requirements Technical Memorandum

The Consultant shall prepare a Technical Memorandum to documenting the evaluation of future water demand and the treatment process requirements, including water quality adjustments at individual points of connection. This memorandum will be a critical component of the basis of design, as a result it will require two drafts and review periods prior to finalization. The first draft shall be provided in such time to allow the Suppliers a minimum of ten (10) working days and one weekend to adequately review the draft document prior to discussion and review at a Monthly Business Meeting. Following receipt of comments from the Suppliers, the Consultant shall revise the draft report and issue a second draft report, this time allowing a minimum of five (5) business days and one weekend for review, prior to discussion at a Monthly Business Meeting. The Consultant will prepare the final report to include all applicable Supplier comments received at both the first and second review meetings or in writing for delivery to the Suppliers and posting on the web site.

18.4 Project Conservation Plan

The Consultant will update the Project Conservation Plan developed in Phase 2A to include any new Suppliers and remove any Supplier from previous phases no longer included in the Project. The Plan will summarize the current efforts of the Suppliers, will discuss the impact of conservation on the future water supply needs of each Supplier, the impacts to the Project, and identify additional potential conservation efforts.

The Consultant shall deliver a draft of the Plan in such time to allow the Suppliers a minimum of ten (10) working days and one weekend to adequately review the draft document prior to discussion and review at one of the Monthly Business Meetings. The Consultant will prepare the final Plan to include all applicable Supplier comments received in writing and/or at the review workshop for delivery to the Suppliers and posting on the web site. .

Task 19. Water Supply and Quality Investigations

19.1 Water Quality Database Maintenance

The Consultant shall receive and compile all source water quality data, including any usable data from Phase 1, into a Water Quality Database. The Consultant will conduct a comprehensive statistical analysis of the data to identify seasonal, tidal, or other water quality trends (e.g., minimum, maximum, average, median, 90th and 95th percentile), as well as treatment, intake, concentrate disposal, water quality or other impacts.

19.2 Water Quality Monitoring

The Consultant shall conduct water quality monitoring in accordance with the Water Quality Monitoring and Data Collection Plan developed in Phase 2A. The Consultant will be responsible for assuring that all analyses are conducted by an appropriately certified laboratory as necessary to ensure data quality and compliance with existing or future permit requirements. The Consultant is responsible for all laboratory analytical costs. The cost for the contract laboratory sampling and analysis is an estimated lump sum cost that may need to be supplemented based upon the ultimately required sampling locations, numbers of samples and duration of the sampling period.

19.3 Water Quality Data Analysis

The Consultant shall review and compile ocean and groundwater quality data collected in Phase 2. The Consultant shall analyze the data to identify seasonal water quality trends, and water quality conditions that will influence treatment process selection, intake, or concentrate disposal requirements. The Consultant shall summarize all of the collected data and prepare a statistical evaluation of the data (minimum, maximum, average, median, 90th and 95th percentile).

19.4 Hydrogeology Investigations

If the Tier 1 investigation in Phase 2A indicates seawater wells are likely to be feasible, additional tiers of hydrogeological investigations will be required to determine the ultimate capacity and well design.

19.4.1 Tier 2 Exploratory Drilling and Interval Sampling Program (ALLOWANCE)

Utilizing the results from the Tier 1 Screening Level Evaluation, an exploratory drilling and interval sampling program will be developed. For cost estimating purposes, it is assumed that 10 soil borings will be advanced as part of the Tier 2 investigation. At this time, it is assumed that soil borings will be advanced only at the top two ranked site (five borings per site). It is anticipated that these borings will be installed approximately 1000 feet apart along the beach ridge parallel to the Atlantic Ocean at the selected site. Because of the location of these soil borings, it is anticipated that the permitting process could be relatively involved.

Soil brings will be advanced using rotosonic drilling technology. Rotosonic drilling technology allows the collection of a continuous sample of the

subsurface material, which provides for a more accurate interpretation of subsurface conditions. Drilling mud is not used with this drilling technology so a smaller footprint is needed for the drill rig and the chances of an unwanted release of drilling fluids are significantly reduced. It is anticipated that each soil boring will be approximately 120 feet deep. Once the test boring is completed, a short-term specific capacity testing will be conducted on a selected interval within the boring to obtain hydrogeologic data and to provide an estimate of aquifer coefficients. For cost estimating purposes, it is estimated that one interval test will be conducted on each borehole. Once drilling is completed, each borehole will be abandoned and the site restored to original condition.

Once the exploratory drilling and interval testing program is completed, the data will be analyzed and a technical memo developed outlining the findings of the investigation. A geologic cross-section will be developed along the line of borings utilizing the detailed geologic description prepared from the rotosonic cores. The data from the interval testing will be evaluated and estimates of transmissivity for each test interval will be developed. This information will be included on the geologic cross-sections and correlation between transmissive units will be made. Once the information obtained from the Tier 2 investigation has been evaluated, the conceptual hydrogeologic model developed during the Tier 1 investigation will be updated with the site specific data. If the results of the Tier 2 investigation are promising, sites for the large capacity aquifer performance tests will be selected.

19.4.2 Tier 3 Aquifer Performance Testing (ALLOWANCE)

19.4.2.1 Permitting

Because of the anticipated location of the test borings and test pumping wells along the beach ridge adjacent to the Atlantic Ocean, obtaining drilling permits and right-of-entry agreements may be involved. Drilling permits will need to be obtained from FDEP and depending on the county, the county health department. Based on past experience, additional documentation and design criteria will be required indicating how drilling fluids are to be contained and handled, where discharge water will be conveyed, and additional requirements in terms of monitoring water quality of the discharge water. Because the permitting process may be involved and Malcolm Pirnie will work closely with the drilling contractor to obtain the drilling permit. It is also anticipated that a detailed abandonment plan will need to be developed and attached to the drilling permit.

At this time, the test drilling sites are unknown. It is anticipated that the selected sites will be state, county, or city owned land. Obtaining right-of-entry agreements for the installation of test borings and test pumping wells could be involved and require some negotiation. Malcolm Pirnie will take the lead in the development of these right-of-

entry agreements. It will be important that a well defined site restoration plan be developed prior to negotiating right-of-entry agreements for the installation of test borings and test pumping wells. In addition, it is assumed that the anticipated drilling procedures will need to be defined as part of the right-of-entry agreements and that closed circulation drilling will be required.

19.4.2.2 Well Construction and Testing

Utilizing data collected during the Tier 1 and 2 investigations, sites will be selected for the conducting of large capacity aquifer performance testing. It is anticipated that three sites will be selected for further investigation, which will include the installation of a temporary test pumping well and up to six observation wells. The selected depth of the test pumping wells will be based on data collected in Tier 2; however, for cost estimating purposes it is assumed that each well will be approximately 120 feet deep. Each test pumping well will be completed with 24-inch diameter steel casing and 30 feet of wire-wrapped stainless steel screen. The six observation wells will be constructed with 4-inch diameter PVC screen and riser completed to a similar depth as the test pumping well. Each well will be developed until the discharge water is clean and clear of sediment. The top of casing at each well will be surveyed for elevation and location so that hydrographs and water table maps can be produced. Once all the testing is completed, each well including the test pumping well will be abandon and the test site restored to original condition.

Once the test pumping well and observation wells are completed, an aquifer performance test will be conducted. Water level data will be collected via pressure transducers and hand measurement at all observation wells and the test pumping well prior to the star of any pumping test. To provide sufficient data on water level variations, approximately 14 days of pre-test background water level monitoring well occur before any pumping test begins.

Initial pumping tests at each test site will consist of a step test and a constant rate pumping test. The step drawdown test will consist of four steps approximately one hour in length. The pumping rate will be increased for each step. Water levels level data will be collected from all wells during this testing. The purpose of this test is to aid in determining the well efficiency but primarily to determine the sustainable pumping rate for the constant rate test.

Once the step test is completed and the aquifer has recovered to pre-test levels (a minimum of 24 hours recovery period), a five day constant rate test will be performed. At this time, it is anticipated that the pumping rate will be held at a pumping rate somewhere between 2,500 to 3,500 gallons per minute (gpm) or approximately 3.6 to 5

MGD. Water level data will be collected via pressure transducers and hand measurement at all observation wells and the test pumping well. It is assumed that water generated during testing can be discharged directly to the ocean.

19.4.2.3 Aquifer Performance Test Report and Data Analysis
Boring logs and as-built diagrams will be prepared for each test pumping well and each observation well. In addition, documentation of abandonment procedures and site restoration activities will be provided in the aquifer testing report. Geologic cross-sections and the conceptual hydrogeologic model prepared during Phase I and II will be updated. In addition, a narrative outlining the aquifer testing procedures for each test will be provided in the report.

The pumping test data collected during the aquifer performance tests will be evaluated and water table maps and hydrographs of water levels will be prepared. The constant rate test data will be corrected for dewatering affects, ambient trends, barometric pressure affects, and tidal affects. Once the data is corrected, aquifer coefficients will be calculated and the distance to the affective line source of recharge will be determined. Based on these data, an estimate of the yield of a horizontal collector well installed in the area will be developed and a conceptual design for each collector well will be prepared and included in the aquifer testing report.

It is anticipated that once the aquifer testing program is complete and promising sites are identified, the development of a three-dimensional groundwater flow model will be needed to evaluate the long term pumping affects on the salt water front. This modeling effort, however, will not be conducted as part of this phase of work but will be included in Phase 2B if required.

19.5 Water Quality and Availability Technical Memorandum

The Consultant shall prepare a Technical Memorandum to document the findings of the above evaluations for both ocean and groundwater quality, dictated by the Project.

The Consultant shall provide one draft and a final version of the technical memorandum. The draft technical memorandum shall be provided in such time to allow the Suppliers a minimum of ten (10) working days and one weekend to adequately review the draft document prior to discussion and review at a Monthly Business Meeting. The Consultant shall revise the draft technical memorandum and issue the final technical memorandum to include all applicable Supplier comments received at both the first and second review meetings or in writing for delivery to the Suppliers and posting on the web site.

Task 20. Field Studies and Investigations**20.1 Bathymetry Survey****20.1.1 Bathymetry Survey**

The Consultant will conduct multi-beam sonic testing in the area of the proposed intake and concentrate disposal. This task will define ocean depths and contours in the in location of the intake and concentrate disposal to the level required to complete preliminary design of the intake and disposal options.

Upon completion of the survey, the Consultant will provide a plan view drawing showing sounding information, including ocean depth, Mean Lower Low Water, and approximate shoreline.

20.2 Geotechnical Studies**20.2.1 Marine-based Geotechnical Investigations**

The Consultant will conduct detailed geotechnical investigations in the ocean environment as required for preliminary design and determination of construction methods for the selected intake and concentrate discharge.

Consultant will provide bore logs and a written geotechnical report summarizing the results of the geotechnical investigation.

20.2.2 Desalination Facility Site Geotechnical Investigations

The Consultant will conduct detailed geotechnical investigations at the site identified for the desalination facility as needed for preliminary design.

Consultant will provide bore logs and a written geotechnical report summarizing the results of the geotechnical investigation.

20.2.3 Transmission Route Geotechnical Investigations

The Consultant will conduct detailed geotechnical investigations on the transmission system route as needed for preliminary design.

Consultant will provide bore logs and a written geotechnical report summarizing the results of the geotechnical investigation.

20.3 Hydrodynamic Studies

The Consultant will conduct a local hydrodynamic study in accordance with the Plan developed in Phase 2A. This includes hydrodynamic studies as required for preliminary design and permitting efforts. Results will be used for modeling of the concentrate outfall, determine dilution requirements, and establish limits of a mixing zone.

The Consultant will collect and manage the data from the current monitors for the purposes of intake and concentrate discharge siting, modeling, and preliminary design.

20.4 Ecological Studies

20.4.1 Marine Studies

The Consultant shall conduct preliminary marine ecological studies collecting in-situ samples of plankton, fish and marine benthos, and identification of possible sea grass beds, shellfish harvest areas, and coral reefs. The studies will be coordinated with permitting requirements to identify potential fatal flaws associated with Project intake or concentrate discharge alternatives. Detailed studies, such as sea grass bed mapping, and other required investigations will be conducted during Phase 2B.

20.4.2 Desalination Facility Ecological Survey

The Consultant shall conduct a detailed ecological survey of the final desalination and ancillary facilities site(s) as identified in Phase 2A to identify wildlife use, presence of threatened or endangered species and/or suitable habitat, vegetation surveys, and possible presence of tidal or freshwater wetlands. The studies will be coordinated with permitting requirements to identify potential fatal flaws associated with any specific site.

20.4.3 Transmission System Facility Preliminary Ecological Survey

The Consultant shall conduct a preliminary ecological survey of the proposed transmission system route to identify wildlife use, presence of threatened or endangered species and/or suitable habitat, vegetation surveys, and possible presence of tidal or freshwater wetlands. The studies will be coordinated with permitting requirements to identify potential fatal flaws associated with any specific site.

20.5 Cultural Resource Studies

20.5.1 Marine Cultural Resources Study

The Consultant shall conduct detailed marine cultural resources studies along the route of the proposed intake and concentrate disposal option.

20.5.2 Desalination Facility Cultural Resources Study

The Consultant shall conduct a detailed cultural resources study of the proposed desalination and ancillary facilities sites to identify wildlife use, presence of threatened or endangered species and/or suitable habitat, vegetation surveys, and possible presence of tidal or freshwater wetlands. The studies will be coordinated with permitting requirements to identify potential fatal flaws associated with any specific site.

20.5.3 Transmission System Route Cultural Resources Study

The Consultant shall conduct a detailed cultural resources study of the proposed desalination and ancillary facilities sites to identify wildlife use,

presence of threatened or endangered species and/or suitable habitat, vegetation surveys, and possible presence of tidal or freshwater wetlands. The studies will be coordinated with permitting requirements to identify potential fatal flaws associated with any specific site.

20.6 Noise Study

The Consultant will conduct a noise study to gather data on ambient noise conditions at and in the vicinity of the project site. The Consultant will model future noise levels during facility construction and operation and gauge noise affects on surrounding receptors (e.g., schools, hospitals, parks, historic sites).

20.7 Traffic Study

The Consultant will conduct a traffic study at key intersections and on roads affected by the Project during construction and operation. Data will be compared to existing levels of service and an assessment made as to possible changes (deterioration) in levels of service.

20.8 Light and Visual Study

The Consultant will conduct a lighting and visual study to inventory of sensitive receptors in the vicinity of the facility that may view the facility along specific lines of sight during both daytime and nighttime lighting conditions.

20.9 Economic Impact Study

The Consultant will conduct an economic impact study to determine the costs/benefits of the project during design, construction, and long-term operation.

20.10 Alternative/Renewable Energy Evaluation

The Consultant will conduct an evaluation of the ability to incorporate renewable energy (e.g., solar, wind, etc.) into the Project, with a focus on the use of renewable energy supplies at the desalination facility, e.g., use of solar panels to provide site lighting and some treatment process power.

20.11 Demand Management Evaluation

The Consultant will utilize the Project Conservation Plan developed in Task 18 to conduct a demand management evaluation. The evaluation will focus on the conservation efforts of the Suppliers, the impacts of those efforts to future water needs, and their impacts to the size and need for this Project.

Task 21. Pilot-Scale Treatability Study

21.1 Pilot Study Construction, Delivery, Set-Up and Start-Up

The pilot study will be performed at a site in close proximity to the proposed land side regional desalination facility. The study site will be located close to the coastal ocean to facilitate intake and discharge. The site will be suitable for placing either skid-mounted treatment equipment or trailer-fitted equipment at the site, along with all necessary temporary structures and appurtenances, depending on the type of study selected. The Consultant shall coordinate and arrange to have utilities available to serve the pilot plant's needs.

21.2 Pilot Study Operations and Management

This task includes the effort to operate and manage the pilot study facilities for the calendar duration of Phase 2A. Additional effort is anticipated in the calendar time of Phase 2B, and a task is included therein for that effort. Water quality characterizations will include raw sea water at the pilot plant intake, pre-treated water prior to reverse osmosis, final product water, and demineralization concentrate. Laboratory work will include sampling, testing, and analysis both on site and outsourced to a National Environmental Laboratory Accreditation Conference (NELAC) facility. On site analytical work that is in the nature of process control will be in compliance with Standard Methods. Additional analytical work will be performed by a NELAC facility. All chain of custody, lab data, lab notebooks and lab reports will be NELAC compliant.

21.3 Pilot Study Report

A Report of findings of the pilot-scale demonstration study efforts will be prepared to include engineering analysis and evaluation of pretreatment methods, reverse osmosis membrane performance, water quality characterizations, and recommendations concerning a basis of design for the regional land side plant. The Consultant shall distribute the Draft Report to interested parties for review and comment. The review and comment period will be fourteen (14) calendar days, to be culminated with a Review Meeting. The Consultant shall then revise the report. Additional pilot effort is included in the calendar time of Phase 2B, and the Phase 2A draft report will be updated and then finalized in Phase 2B to include any findings of that pilot plant operation effort.

Task 22. Land Acquisition Assistance

The Consultant shall narrow the shortlist of sites to the preferred site(s) for the desalination facility and ancillary facilities, including transmission facilities and assist with the final real estate acquisition of the selected site. The Consultant shall acquire all title commitments from the title company and contact all property owners. The Consultant shall participate in all final appraisals and negotiations including a settlement or a condemnation process, if necessary. The Consultant shall assure that the closing is properly arranged, attended and completed and that all recording of deeds and easements is properly completed.

Task 23. Environmental Impacts Modeling

The purpose of this task is to validate the engineering design and anticipated environmental impacts of the proposed intake and outfall or other concentrate disposal option. This is necessary to complete the 35-Percent preliminary design and satisfy pre-construction permitting requirements, as well as ensure the final intake and outfall design will be able to meet the necessary engineering and environmental approval criteria. The Consultant shall validate the proposed intake and outfall design concepts through computer modeling and bench-scale evaluation, including both near-field (i.e., at the intake or outfall structure) and far-field (i.e., upstream and downstream/current) impacts.

23.1 Finalize Intake and Outfall Design Concepts

Based on the Phase 1 intake and outfall concepts evaluation, the anticipated permitting requirements, and preliminary design efforts in Task 9.0, the Consultant shall finalize the preliminary intake and outfall (or other concentrate disposal option) designs for the purposes of evaluating those designs and their ability to meet the required engineering and environmental criteria. The Consultant shall evaluate up to three different intake alternatives (e.g., subsurface, surface, and infiltration gallery), and three different outfall alternatives (e.g., deep ocean outfall, ocean dispersion field, and inlet dispersion). The Consultant shall utilize the modeling process to optimize the design of each of the intake and outfall alternatives and recommend a final intake and outfall design solution to be incorporated into the 35-Percent preliminary design conducted in Task 24.

23.2 Model Construction

23.2.1 Near-Field Model

The Consultant shall construct a 3-dimensional scale computer model of up to three different intake and three different outfall design configurations for the purposes of modeling the “near-field” environmental impacts, validating and optimizing the engineering design of the final proposed intake and outfall design.

23.2.2 Far-Field Model

The Consultant shall construct a far-field dispersion computer model to evaluate the environmental impacts of up to three intake and three outfall design concepts. The Consultant shall utilize existing bathymetry, geomorphology, tidal influence, current, water quality and other data available from existing sources and collected as a part of these efforts to characterize to the best extent possible the resulting change in water quality and potential environmental impacts. Tidal and current influences may be excluded from some modeling scenarios if it is determined that the most conservative approach is to assume no dispersion of concentrate as a result of tidal or current influences.

23.2.3 Bench-Scale Model

The Consultant shall construct a bench-scale model of one outlet port/nozzle for up to three different outfall designs to validate computer-modeled concentrate dispersal results. The results of the bench-scale modeling will be documented on video in a format agreed upon by the Consultant and Suppliers.

23.3 Intake Design Modeling

23.3.1 Near-Field Modeling

Utilizing the models constructed above, the Consultant shall evaluate the near-field impacts of up to three different intake designs. Near-field modeling will include the following parameters, at a minimum and as applicable, intake

velocity, downstream or tunnel velocity, infiltration rate, and other engineering or environmental criteria identified by the responsible or appropriate permitting agency.

23.3.2 Far-Field Modeling

Utilizing the models constructed above, the Consultant shall evaluate the far-field impacts of up to three different intake designs. Far-field modeling will include water quality and potential environmental impacts of the intake design and withdrawal of seawater upstream and downstream bodies of water, drawdown and impacts to neighboring wellfields (for beach wells or Ranney wells), and other engineering or environmental criteria identified by the responsible or appropriate permitting agency.

23.3.3 Intake Design Optimization

Based on the near-field and far-field modeling results and anticipated permit requirements, the Consultant shall optimize each of the possible intake options to reduce the possible marine and environmental impacts (e.g., reduce intake velocities to minimize potential for entrainment or impingement of marine life). The optimized designs will be evaluated using the near- and far-field models and the results of each iteration, including changes to the initial design concept, will be documented.

23.4 Outfall Design Modeling

23.4.1 Near-Field Modeling

Utilizing the models constructed above, the Consultant shall evaluate the near-field impacts of up to three different outfall designs. Near-field modeling will include the following parameters, at a minimum and as applicable, changes in salinity, pH, temperature, TDS or other water quality parameters and other engineering or environmental criteria identified by the responsible or appropriate permitting agency.

23.4.2 Far-Field Modeling

Utilizing the models constructed above, the Consultant shall evaluate the far-field impacts of up to three different outfall designs. Far-field modeling will include water quality and potential environmental impacts of the outfall design and discharge of concentrated seawater to upstream and downstream bodies of water, including changes in salinity and other water quality parameters and their potential impacts to the biological environment, and other engineering or environmental criteria identified by the responsible or appropriate permitting agency.

23.4.3 Bench-Scale Modeling

Using the models constructed in above, the Consultant shall evaluate up to three different outfall designs at bench-scale. The Consultant shall evaluate one of the outlet ports/nozzles for each of the up to three designs and will modify those models and evaluate the impacts of changes in port/nozzle

design based on the outfall design optimization efforts. The Consultant shall document the modeling results of each of the port/nozzle designs, including the optimized designs, using video in a format agreed upon by the Suppliers.

23.4.4 Biological Impacts Modeling

The Consultant shall conduct biological impacts modeling to document the anticipated biological impacts of any change in ambient water quality resulting from concentrate disposal to the marine environment. The Consultant shall identify an acceptable, representative biological species that can be considered a good indicator species of the potential marine impacts of concentrate discharge and changes in water quality. The Consultant shall evaluate multiple changes in ambient water quality (i.e., various degrees of change in salinity and other water quality parameters) to fully characterize the anticipated biological impacts of concentrate disposal.

23.4.5 Outfall Design Optimization

Based on the modeling results and anticipated permit requirements, the Consultant shall optimize each of the possible outfall options to reduce the possible marine and environmental impacts. The optimized designs will be evaluated using the near-field, far-field, and bench-scale models and the results of each iteration, including changes to the initial design concept, will be documented.

23.5 Coordination with Permit Requirements and Permitting Support

The Consultant shall coordinate evaluation of the proposed intake and outfall design with the appropriate permitting agencies and work with those agencies to identify engineering design or environmental constraints that must be satisfied to successfully permit the future intake and outfall. These efforts will be conducted in conjunction with efforts completed in Phase 2A.

23.6 Intake and Outfall Design and Modeling Technical Memorandum

The Consultant shall prepare a Technical Memorandum to document the findings of this evaluation. The Technical Memorandum will include an aggregation of all permit requirements, engineering design criteria, environmental and water quality criteria, proposed intake and outfall design concepts, and modeling and bench-scale modeling results. The Consultant shall deliver this draft technical memorandum in such time to allow the Suppliers five (5) working days and one weekend to adequately review the draft document. The Consultant shall schedule the first draft technical memorandum review workshop to provide this review period. This technical memorandum will require two review workshops. The Consultant shall revise the draft technical memorandum and issue a second draft memorandum to meet a similar Supplier review period as described for the first draft. The Consultant shall schedule a second draft review workshop and will prepare the final technical memorandum to include all applicable Supplier comments received at both the first and second review workshop for delivery to the Suppliers and posting on the web site.

Task 24. Desalination Facility 35-Percent Design Report Activities

The Consultant shall complete the following activities in the preparation of the 35-Percent Preliminary Design Report for the Desalination Facilities and associated equipment:

24.1 Site Survey Investigation

The Consultant shall coordinate with a Professional Surveyor Subconsultant to complete an overall site boundary survey and detailed plot survey of the selected site. The survey will include a topographical survey and set and establish the coordinates and elevation of three (3) permanent reference monuments to be located on the project site. From the established monuments, all design elevations and dimensions will be referenced. The Construction Contractor will use the monuments for layout of the planned facility during the construction phase. Coordinates will be based on the State Plane Coordinate System and elevation will be referenced to NGVD 1929 datum. The location and reference tie for these reference monuments will be reviewed with the Suppliers prior to installation. The survey effort will include a tree survey, to identify and size all trees on the site for clearance and permitting if clearance is required. The survey will also include the survey of any wetland or other environmental concern found on the site.

24.2 Geotechnical Investigation

If such historic data exists for the selected site, the Suppliers will provide any available previous geotechnical studies completed at the site to the Consultant for review. The Consultant shall coordinate with a Subconsultant geotechnical engineering firm to complete a geotechnical investigation for the completion of the design of the Project. This effort will include the review of any Supplier-provided, existing geotechnical information obtained previously by others at the site, as available from the Suppliers. It is anticipated that up to 30 borings, at depths up to alternately 30-feet, 50-feet or 70-feet, will be required. These borings will be required for the geotechnical investigation associated with new structures of the ultimately designed Project.

Task 25. Preliminary Design Report Preparation

Definition of 35-Percent Preliminary Design Report: The Consultant shall provide a 35-Percent Preliminary Design Report utilizing the design concepts developed and approved by the Suppliers throughout the Project. The 35-Percent submittal will include the following:

- Preliminary list of drawings required for the complete design
- Conceptual drawings for Site, Demolition (if required), Civil/Sanitary, Architectural, Structural, Geotechnical, and Instrumentation and Electrical components of the entire design, resulting in a representation of a 35-Percent Design
- Preliminary plant hydraulic profile
- Preliminary single line power riser

- Preliminary equipment/material recommendation listing, including suggested manufacturers, if applicable, and preliminary equipment horsepower requirements
- Preliminary functional plant control descriptions
- Index of technical specifications anticipated to be required for the complete design
- Preliminary Engineer's Opinion of Probable Construction Cost estimate, broken down by major equipment items, structures and disciplines
- Preliminary project implementation schedule.

25.1 Process/Mechanical 35-Percent Preliminary Design

The 35-Percent Preliminary Design Process/Mechanical components will include:

- Preliminary list of drawings required for the complete design
- Conceptual drawings for Process/Mechanical components of the entire design, resulting in a representation of a 35-Percent Design
- Preliminary plant hydraulic profile
- Preliminary equipment/material recommendation listing, including preferred manufacturer and coordination with the Electrical Engineer to determine preliminary equipment horsepower requirements
- Coordination with the Project Instrumentation and Controls Engineer to determine preliminary functional plant control descriptions
- Index of technical specifications anticipated to be required for the complete design.

The Consultant shall prepare the 35-Percent Preliminary Design for the following major process/mechanical areas of the Desalination Facility:

25.1.1 Seawater Receiving Facilities

The Consultant shall complete a technical review of intake concepts and equipment for use in the desalination facility. The Consultant shall review the various process and equipment alternatives, based upon the state of the art for desalination process design, for the purpose of determining the preferred alternative. Based on the preferred alternative, the Consultant shall preliminarily design the appropriate receiving facility. The Consultant shall provide the 35-Percent design of the intake facilities. This scope of services assumes the requirement to design an ocean floor, surface mounted intake and intake tunnel.

25.1.2 Receiving Pump Station

The Consultant shall preliminarily design the pump station facilities required to pump the received product to the desalination treatment facilities, depending on the Phase 1 selected seawater water delivery method.

25.1.3 Seawater Pretreatment Facilities

Based upon the selected seawater delivery method, the Consultant shall preliminarily design the facilities required to pretreat the received product to the quality required for seawater reverse osmosis (SWRO) membrane treatment to be effective.

25.1.4 Membrane Treatment Facilities

The Consultant shall complete the preliminary study and evaluation of the potential membrane treatment technology alternatives for application in the land-based desalination facility. The evaluation will include a review of the various membrane vendors, relative application of each vendor's equipment in the marketplace, operational success and cost, among other factors. The Consultant shall review the various membrane process and equipment alternatives, based upon the state of the art for desalination process design and the preliminary raw water quality data collected and finished water requirements determined to this point in the Project, for the purpose of determining the preferred alternative. Based upon the selected alternative, the Consultant shall preliminarily design the membrane treatment facilities required to effectively desalinate the pretreated seawater.

25.1.5 Storage and Post-Treatment Facilities

The Consultant shall build upon storage requirements conceptually determined in Phase 1 and provide a determination and a design of the required storage facilities for Phase 2. In addition, the Consultant shall preliminarily design the post-treatment facilities for the further treatment of the desalinated water for the production of finished water.

25.1.6 Miscellaneous Facility and Site Concepts

Based on the required receiving and treatment facilities determined as part of this task, the Consultant shall identify, the requirements these facilities will place upon the plant site. These will include required land area and general arrangements, to be used in developing the civil/site preliminary design described in Task 25.2.

25.1.7 Concentrated Seawater Discharge Facilities

The Consultant shall complete a technical review of concentrate discharge concepts and equipment for use in the desalination facility. The Consultant shall review the various process and equipment alternatives, based upon the state of the art for desalination process design, for the purpose of determining the preferred alternative. Based on the preferred alternative, the Consultant shall preliminarily design the facilities required to discharge concentrated seawater resulting from the membrane treatment process.

25.1.8 Transmission Pumping Station(s)

Working in tandem with the team determining the 35-percent design of the finished water transmission system routing and hydraulic requirements, and using the Phase 2 finished water demand data provided by the Suppliers, the

Consultant shall review various pumping equipment alternatives, and prepare the 35-percent transmission pumping station(s) design needs to deliver the finished water from the site of the desalination facility to the Suppliers individual points of connection, including consideration for the future expansion of pumping capacity.

25.2 Civil/Site 35-Percent Preliminary Design

The Consultant shall prepare the 35-Percent Preliminary Design for the Civil/Site/Demolition components of the Project. In general, this effort will include setting the basic civil, site and demolition requirements for the various components to be incorporated into the Project. The Consultant shall coordinate with the other Engineering disciplines to determine all preliminary building and structure locations on the site, all yard piping layout, roadway and sidewalk requirements, fencing and site security, drainage and storm water management, landscaping, and required (if any) demolition to be completed during this phase of the work.

The 35-Percent Preliminary Design Civil/Site/Demolition components will include:

- Preliminary list of drawings required for the complete design
- Conceptual drawings for Civil, Site, and Demolition (if required), components of the entire design, resulting in a representation of a 35-Percent Design
- Preliminary equipment/material recommendation listing, including preferred manufacturer
- Index of technical specifications anticipated to be required for the complete design
- Preliminary Engineer's Opinion of Probable Construction Cost estimate, broken down by major equipment item and structure
- Input on the preliminary project implementation schedule.

25.3 Structural 35-Percent Preliminary Design

The Consultant shall prepare the 35-Percent Preliminary Design for the structural components of the Project. In general, this effort will include setting the basic structural requirements for the various structures and buildings to be incorporated into the Project. The Consultant shall coordinate with the Geotechnical Engineer on the final location, number and type of soils investigations to be completed during this phase of the work, and from this effort, preliminary foundation requirements for all buildings and structures will be determined. Coordination with pre-fabricated building manufacturers and prestressed concrete storage tanks, if to be used, will be completed.

The 35-Percent Preliminary Design Structural components will include:

- Preliminary list of drawings required for the complete design
- Conceptual drawings for Structural components of the entire design, resulting in a representation of a 35-Percent Design

- Preliminary equipment/material recommendation listing, including preferred manufacturer and preliminary concrete and reinforcing steel material requirements
- Index of technical specifications anticipated to be required for the complete design
- Preliminary Engineer's Opinion of Probable Construction Cost estimate, broken down by major equipment item, structure and discipline
- Input on the preliminary project implementation schedule.

25.4 Architectural 35-Percent Preliminary Design (Conceptual Renderings, Building Code, Green Building Design Opportunities)

The Consultant shall prepare the 35-Percent Preliminary Design for the Architectural components of the Project. In general, this effort will include setting the basic architectural requirements for the various components to be incorporated into the Project. The Consultant shall coordinate with the other Engineering disciplines to determine all preliminary building locations, functional and aesthetic requirements on the site to be completed during this phase of the work.

The 35-Percent Preliminary Design Architectural components will include:

- Preliminary list of drawings required for the complete design
- Conceptual drawings for Architectural components of the entire design, resulting in a representation of a 35-Percent Design
- Preliminary listing of all Building Code and local jurisdiction architectural code requirements and the agencies governing those codes.
- Preliminary equipment/material recommendation listing, including preferred manufacturer
- Index of technical specifications anticipated to be required for the complete design
- Preliminary Engineer's Opinion of Probable Construction Cost estimate, broken down by major equipment item and structure
- Input on the preliminary project implementation schedule.

25.5 Electrical 35-Percent Preliminary Design (Green Power Opportunities)

The Consultant shall prepare the 35-Percent Preliminary Design Electrical components for the landside receiving facility. Under this task, the Consultant shall finalize and preliminarily design the selected alternative for powering the land-based desalination facilities of the Project.

This task will explore the various alternatives for powering the facilities of the Project, including the land-based desalination facility or the landside receiving facility, and booster pumping stations within the transmission system. Consideration will be given to main stream and alternative ("green") power sources; their possible impacts on environmental and public perceptions, with estimated footprint and costs.

The 35-Percent Preliminary Design electrical components will include:

- Facility load calculations
- Backup power supply requirements and plan
- Preliminary list of drawings required for the complete electrical design
- Conceptual drawings for the Electrical components of the Project including a preliminary single line power riser
- Preliminary electrical equipment/material recommendation listing, including preferred manufacturer
- Index of electrical technical specifications anticipated to be required for the complete design
- Preliminary Engineer's Opinion of Probable Construction Cost estimate, broken down by major equipment item and structure
- Input on the preliminary project implementation schedule.

25.6 Instrumentation and Controls 35-Percent Preliminary Design

The Consultant shall prepare the 35-Percent Preliminary Design for the instrumentation and controls components of the Project. In general, this effort will include setting the basic control requirements for the various equipment and treatment processes to be incorporated into the Project. The Consultant shall coordinate with the Process/Mechanical Engineer to determine the preliminary control schemes to be required for the operation of the treatment process.

The 35-Percent Preliminary Design Instrumentation and Controls components will include:

- Preliminary list of drawings required for the complete design
- Conceptual drawings for Instrumentation and Controls components of the entire design, resulting in a representation of a 35-Percent Design
- Preliminary equipment/material recommendation listing, including preferred manufacturer
- Preliminary functional plant control descriptions
- Index of technical specifications anticipated to be required for the complete design
- Preliminary Engineer's Opinion of Probable Construction Cost estimate, broken down by major equipment item and structure
- Input on the preliminary project implementation schedule.

Task 26. Transmission System Basis of Design Report

Under this task, the Consultant shall prepare a Basis of Design Report (BODR) for the selected pipeline route alternatives to the various Supplier points of connection.

26.1 Detailed Route Assessment

Based on the results of Phase 1, the Phase 2B Supplier needs, and direction for future supply capacity planning by the Suppliers, the Consultant shall conduct a detailed route assessment to determine the transmission pipeline route to the various Supplier points of connection. The Consultant shall coordinate and conduct meetings with

various regulatory and permitting agencies to include County agencies for use of pipeline alignment in roadway ROWs, the FDOT related to the use of FDOT ROW for pipeline alignment, regional power companies related to the use of existing electric power transmission corridors, and the appropriate agencies for the use of drainage canal ROW, or other potential ROWs for use as transmission corridors.

26.2 Route Design Investigations

The Consultant shall perform the land surveying services and geotechnical investigations necessary to finalize the selected pipeline route alternatives to the various Supplier points of connection and identify any potential route fatal flaws. Aerial photogrammetry will not be used, but the overlay of the acquired land survey with available GIS aerial photograph information will be prepared as the pipeline design background file.

26.3 Survey Investigations

The Consultant shall perform topographic survey along the proposed transmission main routes to the degree necessary to complete the BODR. The survey will note any locatable survey monuments and locate all necessary surface features. The Consultant will obtain title information, as necessary, pertaining to existing easements and/or deeded ROWs and related pertinent ROW maps, maintenance maps, plats, and similar documents. The Consultant will coordinate with existing underground utility owners to have any existing buried utilities flagged by the respective owners prior to the performance of the surveying activity and all underground utilities. Similarly, the Consultant will identify any relevant overhead utilities that may impact the design and/or construction. The survey will also locate trees of relevant size and type, or protected vegetation that may impact the design and/or construction. All relevant features located by the survey field effort will be shown on the topographic survey.

26.4 Geotechnical Investigations

The Consultant shall perform a geotechnical investigation along the proposed pipeline transmission routes to the Supplier points of connection as required to complete the BODR. The results of the investigation will be summarized in a report, and will include:

- Soil boring logs listing soil classifications;
- Existing groundwater levels and estimated seasonal high water levels;
- Recommendations for pipe trench preparation and backfill; and,
- Other concerns, as determined appropriate by the geotechnical investigation.

The Consultant shall submit copies of the geotechnical report to the Suppliers upon receipt from the geotechnical engineer.

26.5 Route Finalization

Based on a review of the results of the activities listed above, the Consultant shall finalize the routes for the transmission pipelines to the Suppliers' various points of connection.

26.6 Hydraulic Evaluation/Modeling

Based on the selected finalized route alternatives for the transmission system to the various Suppliers' points of connection, a final hydraulic model run will be performed to confirm the sizing of the individual transmission mains. The Consultant shall prepare and submit three copies of the technical memorandum for the hydraulic evaluation/modeling.

26.7 Booster Pumping Station Requirements

Based on the transmission pipeline routing and hydraulic as well as water quality requirements, consultant will identify the booster pumping station requirements and will prepare 35-percent preliminary design documents for required booster pumping stations.

26.8 Supplier Receiving Facility Determinations

The Consultant shall determine the requirements for each Supplier's receiving facility, which shall include both storage and additional treatment/blending considerations.

26.9 Transmission System Basis of Design Report

The Consultant will prepare a BODR documenting the routing investigation and identifying the basis of design for future detailed transmission system and Supplier point of connection design activities.

Task 27. Project Cost Analyses

27.1 Engineer's Opinion of Probable Construction Cost

The Consultant shall prepare the Preliminary Engineer's Opinion of Probable Construction Cost (EOPCC) estimate for the entire Project, for inclusion into the 35-Percent Preliminary Engineering Report. The Consultant shall coordinate with all engineering disciplines to construct the EOPCC and the EOPCC will be broken down by major equipment items, structures and disciplines across the work for the components of the work. The Preliminary EOPCC will include a 30-Percent contingency on all preliminarily determined costs to account for the preliminary nature of the design and fluctuations in market pricing that occur over time. The Preliminary EOPCC will also include a 5-percent contingency to account for construction phase changes to the Project. The Suppliers should budget the Project based on the Preliminary EOPCC, including all contingencies.

27.2 Engineer's Opinion of Probable Operations and Maintenance Cost

The Consultant shall prepare estimates for the 20-year operation and maintenance (O&M) of the desalination facility, ancillary facilities, and transmission system. The O&M estimates will include operations labor, power, chemicals and other process consumables, maintenance labor, maintenance materials and consumables, and equipment and facility rehabilitation and replacement requirements anticipated or expected over a 20-year period for the facility.

27.3 Project Cost Technical Memorandum

The Consultant shall prepare a Technical Memorandum to document the findings of this evaluation. The Consultant shall deliver this draft technical memorandum in such time to allow the Suppliers five (5) working days and one weekend to adequately review the draft document. The Consultant shall schedule the draft technical memorandum review workshop to provide this review period. This technical memorandum will require only one review workshop and the Consultant shall prepare the final technical memorandum to include all applicable Supplier comments for delivery to the Suppliers and posting on the web site.

Task 28. Delivery Methods/Implementation

28.1 Project Delivery Methods Evaluation Criteria Development Workshops

In Phase 1, the Consultant led both a Sustainability Workshop and Project Evaluation Criteria Workshop. Those workshops established the fundamental goals, objectives, and criteria by which Project alternatives will be considered. The Consultant shall plan and lead a workshop with the Suppliers to determine the criteria that will be used to evaluate and determine the most appropriate delivery method for each of the project components (e.g., intake, treatment plant, and transmission system). The Consultant will use the evaluation criteria established in Phase 1 as a basis for the delivery methods criteria development. The Consultant shall document the proceedings of the workshop for issuance as a draft meeting summary.

The Consultant will lead a second criteria development workshop in which the previously defined criteria will be reviewed and weighted for the purposes of finalizing the delivery methods evaluation criteria and for future use in establishing the delivery method to be utilized for each project component. The Consultant shall document the proceedings of the workshop for issuance as a final meeting summary and to be published on the web site.

28.2 Project Delivery Options Assessment

The Consultant shall prepare a summary of the various methods that can be applied for the delivery of the desalination Project. Each alternate delivery method will be summarized and the impacts, including any benefits and any drawbacks to cost, implementation schedule and risk to the Suppliers will be noted. The Consultant will then lead the Suppliers through an evaluation and determination of the most appropriate delivery method for each project component.

28.3 Project Delivery Options and Recommendations Technical Memorandum

The Consultant shall prepare a Technical Memorandum to document the findings of this evaluation. The Consultant shall deliver this draft technical memorandum in such time to allow the Suppliers five (5) working days and one weekend to adequately review the draft document. The Consultant shall schedule the draft technical memorandum review workshop to provide this review period. This technical memorandum will require only one review workshop and the Consultant shall prepare the final technical memorandum to include all applicable Supplier comments for delivery to the Suppliers and posting on the web site.

Task 29. Project Phasing and Implementation Schedule

29.1 Phasing Alternatives and Schedule Assessment

The Consultant will lead a workshop to evaluate project phasing and implementation alternatives. The Consultant shall document the proceedings of the workshop for issuance as a final meeting summary and to be published on the web site.

29.2 Project Phasing and Implementation Schedule Technical Memorandum

The Consultant shall prepare a project phasing and master implementation schedule technical memorandum for the implementation, delivery and start-up of the desalination facility. The master implementation schedule for the desalination facility will be prepared in Microsoft Project.

The Consultant shall provide one draft and one final version of the technical memorandum. The first draft of the technical memorandum shall be provided in such time to allow the Suppliers a minimum of ten (10) working days and one weekend to adequately review the draft document prior to discussion and review at a Monthly Business Meeting. The Consultant shall revise the draft technical memorandum and issue a second draft memorandum, this time allowing a minimum of five (5) business days and one weekend for review, prior to discussion at a Monthly Business Meeting. The Consultant will prepare the final technical memorandum to include all applicable Supplier comments received at both the first and second review meetings or in writing for delivery to the Suppliers and posting on the web site.

Task 30. Project Financial Planning

This task includes the financial planning aspects of determining rate impacts to each Supplier, once PDR costs are determined and alternative funding is clearer.

Task 31. Value Engineering Participation (ADDITIVE)

This task is an Additive Task, to be activated should the need for a Value Engineering Study be required either through a funding requirement or a permitting requirement, due to estimated capital costs exceeding budgeted costs, or any other cause, as approved by the Suppliers. Should the effort of this task become necessary, it is assumed that the Suppliers will have selected and contracted with an independent engineering consulting team, to serve as the VE team, and has retained a certified Value Engineering Specialist to facilitate the VE process.

An additive amount of \$50,000 has been included for this task and its subtasks in the budget estimate. No work will proceed on this task or its subtasks without express authorization from the Project Administrator.

31.1 Value Engineering Presentation Meeting

The Consultant shall prepare for this meeting by assembling the required information to be presented by the Consultant to the VE Team in this meeting. The Consultant shall conduct the meeting and present the Project to the VE Team. The presentation

will review the initial goals of the Project, the engineering and other assessments and evaluations completed in the preparation of the 35-Percent Preliminary Design Report, and the results and recommendations prepared to date, all as included in or supporting the Draft 35-Percent Preliminary Design Report.

31.2 Value Engineering Workshop

Subsequent to the VE Presentation Meeting, the VE Team will be given fourteen (14) calendar days to review the applicable engineering and other materials prepared to date in the completion of the work of the Project. The Consultant shall attend a workshop with the VE Team and the Suppliers to receive comment on the Project, alternative concepts for accomplishing the goals of the Project, and similar input from the VE Team.

31.3 Value Engineering Comment Review

The Consultant shall be provided fourteen (14) working days to review the input received from the VE Team at the VE Workshop, and will prepare a written response to each item of input received, for presentation to the Suppliers.

31.4 Value Engineering Finalization Meeting

31.4.1 Modifications to 35-Percent Preliminary Design Report

Based upon the accepted recommendations of the VE Team, the Consultant shall modify the Draft 35-Percent Preliminary Design Report for reissuance to the Suppliers.

Task 32. Permitting

32.1 Consumptive Use Permitting

32.1.1 Conjunctive Use Study

The preliminary conjunctive use study developed as part of a previous task will be updated with actual Supplier demands, infrastructure, and CUP requirements to assess the potential conjunctive use need associated with the selected Project configuration as follows:

- 1) The extent to which additional groundwater infrastructure is required for implementation of the Project.
- 2) Costs for the additional required groundwater infrastructure.
- 3) Changes required to current groundwater CUPs in order to implement the Project.

These results will be used to provide the Suppliers with information on the potential impact of the Project on existing supplies and infrastructure, including costs. If the SUPPLIERS need to update their individual CUPs as part of the implementation of the project, then this information also provides a basis for that process.

32.1.2 CUP Application Preparation

A consumptive use permit (CUP) for the withdrawal of seawater will be required to implement the project. This could consist of a single CUP for the proposed withdrawal submitted collectively by the Suppliers, or multiple CUPs submitted by subgroups of Suppliers or each individual Supplier. Modifications to Suppliers' existing groundwater CUPs may also be required to accommodate the implementation of the conjunctive use of groundwater and desalinated seawater. The Consultant shall develop a CUP application(s) package(s) for use of water from the Project. As part of this application, the Consultant will be responsible for developing information related to the potential for impacts associated with the withdrawal and for information related to the conjunctive use of Project withdrawals with existing Supplier water supplies. The Suppliers will provide the Consultant with the other supporting documentation necessary to meet the permitting requirements such as projected water demands, historic water use, land-use plans, zoning maps, comprehensive plan elements, conservation plans, and non-potable and reclaimed water plans. Demonstration of need and of efficient utilization will be the responsibility of the Suppliers.

Using the supporting information provided by the Suppliers, the Consultant may prepare a single CUP application or multiple CUP applications for the Project on behalf of the Suppliers.

32.1.3 CUP Application Submittal and Processing

In the event the Consultant is authorized by the Suppliers to submit the CUP(s) application(s), upon their submittal, the Consultant shall be the permitting agent for the Suppliers and lead all permitting activities associated with the permitting process including, but not limited to, development of responses to Requests for Additional Information (RAIs), preparing for and facilitating meetings with the District, and permit negotiations. The Consultant will perform additional impact, water resource, and environmental assessments or evaluations as required by the District in support of the CUP(s). Additional analyses required in support of the Suppliers' CUP(s) as a result of District studies shall be incorporated, as appropriate. Additional information not related to modeling or impacts that may be required will be the responsibility of the Suppliers.

32.2 Concentrate Management Permitting

A permit related to concentrate management is likely to be required for the project and to secure the CUP(s). This task includes all work required for issuance of the concentrate management permit.

In order to secure a concentrate management permit, the Consultant may be required to perform additional design or evaluations to further characterize the water quality of the concentrate. Furthermore, additional modeling and/or impact evaluations may be required to be completed by the Consultant. Using the information developed, the Consultant shall prepare a concentrate management application for the Project on

behalf of the Suppliers for submission to the appropriate regulatory agency, if authorized to do so by the Suppliers. Modeling will initially be based on the dispersion modeling prepared as part of previous tasks.

The Consultant shall be the permitting agent for the Suppliers and lead all permitting activities associated with the permitting process including, but not limited to, development of responses to Requests for Additional Information, preparing for and facilitating meetings, and permit negotiations.

PHASE 2B – PART II NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) DOCUMENTATION

The purpose of Phase 2B - Part II is to comply with the applicable requirements of the National Environmental Policy Act. NEPA applies to Special Appropriations Projects (SPAPs) of the federal government, including those funded through State and Tribal Assistance Grants (STAG) and Water Resource Development Act (WRDA) grants. The U.S. Environmental Protection Agency reviews all SPAPs to ensure compliance with NEPA and other environmental laws and regulations, such as the Endangered Species Act. Each grantee must complete an Environmental Information Document that describes and evaluates the environmental impacts of a project's feasible alternatives. Based on the intent of the Parties and Consultant to pursue federal funding to assist with the development of the Project, it is assumed that, at a minimum, an EID will be prepared that must conform to the NEPA process.

NEPA also applies to federal action agencies, such as the U.S. Army Corps of Engineers, when issuing 404 and Section 10 permits, so consideration should be given to the requirements of all potential federal funding or action agencies, including the potential for any or all of these agencies to be cooperating in an EIS (if necessary), in the preparation of any necessary NEPA documentation.

By its nature, an EID is intended to be a summary document based upon readily available information. Much of the information that needs to be collected and evaluated for inclusion in the EID will be done through the performance of other tasks, including many of the tasks the Consultant performed during Phase 1. (It was identified in the description of those Phase 1 tasks how that work applied to and supported the EID process.). During Phase 2B, the Consultant shall perform the services required to complete the EID based upon the treatment concept selected as a result of Phase 1 efforts.

The Environmental Protection Agency (EPA) will review the EID and make a determination as to the environmental effects of the proposed project. If the project is found to have no significant effect, then the EPA will document their findings with the preparation of an Environmental Assessment (EA) and issue a Finding of No Significant Impact (FONSI). If the EPA review cannot support a FONSI, then an Environmental Impact Statement (EIS) will have to be prepared. Although the exact scope required for the Consultant to prepare the Environmental Impact Statement cannot be defined until EPA completes its review of the EID, Phase 2B includes an additive set of tasks to describe the magnitude of effort that will likely be needed to prepare the EIS, should it be required. This additional effort is described in Tasks 37 through 41.

Task 33. NEPA Initial Data Collection

This effort will focus on development and evaluation of the alternatives to closely conform to the NEPA process. Representatives of the Consultant's EID team will participate in each workshop conducted with the Suppliers during development and optimization of alternatives. The Consultant will help guide the identification and evaluation of alternatives taking into account the expressed purpose and need for the

project, in accordance with NEPA requirements. Under NEPA, the purpose and need for the project determines the alternatives under consideration and drives the analysis of impacts. NEPA requires that the range of alternatives should constitute a reasonable span of options that are practicable (capable of being done) while satisfying the applicant's purpose and need for the action. Although other factors such as cost and engineering practicability weigh in during the consideration of alternatives, NEPA seeks to identify the “environmentally preferred alternative”. Early consideration of the various environmental attributes of the alternatives is therefore very important. We propose to construct an assessment of the No Action Alternative (required by NEPA) to be included in the EID, as well as to disclose those reasonable non-desalination alternatives (if any) that could obviate the need for a desalination facility. Our data gathering effort will focus on available natural resource, cultural resource, physical resource and socio-economic data gained through access to published public and agency repositories.

33.1 Initial Data Needs Assessment and Gap Analysis

The Consultant will conduct an initial data needs assessment to identify information and data needed to develop and do an initial screening of alternatives and their respective component facilities. Some of the data needed to develop and screen an initial list of alternatives was already collected during the course of Phase 1. Based on the data needs assessment, the Consultant will perform a gap analysis to identify the additional data that needs to be acquired.

33.2 Additional Data Collection

The additional data and information needs identified under Task 33.1 are expected to be available from the Suppliers, SJRWMD, FDEP, and other local or federal agencies. These agencies will be contacted to secure the needed information and databases. Once acquired, all data sources will be reviewed to verify that they meet the needs of the project. Additional follow up as needed will be done to complete data acquisition. Key to this effort will be exploiting databases that can be exported to GIS or other electronic forms.

33.3 Field Verification

It is anticipated that part of the verification process will require infield verification of physical conditions such as land use and habitat, soils, protected species, other pertinent environmental data, and presence of existing facilities (residential, government, commercial, industrial, transportation, etc.). This task will be limited to field reconnaissance consisting of general observation for the purpose of confirming or verifying the accuracy of existing data already collected.

Task 34. Initial Environmental Screening

The initial environmental analysis will be a screening process to eliminate unfeasible options for both individual project components and potential alternatives. The initial components to be evaluated may include:

- Intake structure and pumping station
- Raw water transmission pipeline

- Seawater treatment plant
- Concentrated Seawater Disposal
- Treated water storage facilities
- Treated water pumping station(s)
- Treated water transmission pipeline(s) and appurtenances
- Final Finished Water Blending Facilities

Component options will be screened for general facility characteristics related to construction and operation as well as location specific issues. The screening review will include the potential impacts to the following:

- Noise
- Air quality
- Geology, topography, and soils
- Surface water and groundwater (quality and quantity)
- Storm water and drainage
- Rivers, streams and floodplains
- Land use
- Biological resources—vegetation, wildlife, protected species, wetlands
- Cultural resources—historical and archaeological resources
- Socioeconomic resources—population, employment, schools, recreation, social justice
- Visual/Aesthetic Character
- Transportation, traffic and safety
- Utilities
- Solid Waste
- Hazardous materials and waste
- Other

Following the screening analysis, the list of additional data and information will be revised and the additional data will be obtained.

Task 35. Preliminary Draft EID

The Consultant's EID Project Team will prepare a preliminary draft of the Environmental Information Document (EID) that describes and evaluates the environmental impacts of the following alternatives: No Action, Other Surface Water, Land-Based Desalination, and Vessel-Based Desalination. This document will be the basis for what is ultimately submitted to EPA and the U.S. Army Corps of Engineers for review. The EID content and scope will be determined through consultation with the EPA as soon as possible in the process. The alternatives analysis, along with any field studies advanced in 2A, will form the basis of the EID. The general content of the EID will be as follows:

- Executive summary
- Purpose and Need for the Action

- Description of the Proposed Action
- Alternatives including the Proposed Action
- Affected Environment
- Environmental Consequences
- List of Preparers
- List of Agencies and Persons Consulted
- References
- List of Acronyms and Abbreviations
- Appendices—Agency coordination, Others as needed

A detailed outline of the EID is provided with this Scope as Attachment B.

35.1 Alternatives Identification

The Consultant's EID team members will facilitate the development and evaluation of the list of alternatives that emerge from the preliminary screening in Phase 1. This screening effort will focus on ensuring that the development and evaluation of alternatives conforms as closely as possible to the NEPA process. The Consultant's EID team members will participate in up to two workshops with project staff, Suppliers and stakeholders during the evaluation and optimization of alternatives.

35.2 Facilitate Development of Alternatives Shortlist

The Consultant's EID team members will participate in the development of the alternatives shortlist. It is expected that up to four (4) alternatives will be selected for further review and evaluation: one No Action alternative, one Surface Water alternative, one Land-Based Desalination Alternative, and one Vessel-Based Desalination alternative. These alternatives would be those most likely to be presented in the EID and subsequent EA/EIS if necessary. This effort will focus on ensuring that the development and evaluation of alternatives conform to the NEPA process. EID team will participate in up to two workshops with project staff and the Suppliers during the development of the short list of alternatives. The alternatives analysis will consider, to the extent possible, the impact of issues pertaining to crosscutting agencies, such as the State's Historical Commission, the US Fish and Wildlife Service, the US Army Corps of Engineers (wetlands, Section 404 permits, dredge and fill, structures placed in navigable waterways). The list of agencies and their respective jurisdictions are included in Attachment A.

35.3 Prepare Preliminary Draft EID Document

Once the initial screening and sorting of alternatives is completed, the Consultant's EID Project Team will assemble the results into a Preliminary Draft EID complete with maps, comparative matrices and conclusions. Additional studies necessary will also be identified. The Consultant's efforts will focus on ensuring that the environmental assessment of the alternatives will facilitate the ultimate identification and selection of a preferred alternative.

The Preliminary Draft will be submitted to the Suppliers and stakeholders for their review. Subsequent to their review, a workshop will be held in which the Consultant will discuss how the Suppliers' review comments will be addressed.

Task 36. Finalize EID Documents

The Consultant's EID Project Team will prepare a final draft of the Environmental Information Document (EID) that describes and evaluates the environmental impacts of the feasible alternatives, based on the preliminary draft prepared under Task 16 in Phase 2A.

The Consultant's EID Project Team members will prepare the draft EID document in two stages: a preliminary draft to the Client (described under Task 16) and then a final draft to the EPA (described below). Once the EPA reviews the Final Draft EID, the Consultant will respond to comments, revise the EID and produce a Final EID for their processing of the funding request.

36.1 Finalize and Submit EID Documents

Comments regarding the Preliminary Draft will be addressed resulting in the Final Draft EID. The Final Draft EID will be submitted to EPA for review. EPA's comments will be addressed as the Final EID. The finalized EID will be submitted to EPA and will be noticed and made available for a 30 day public comment period. The EPA will review the EID and make a determination as to the environmental effects of the proposed project. If the project is found to have no significant effect, then EPA documents their findings with the preparation of an Environmental Assessment (EA) and issues a Finding of No Significant Impact (FONSI) for a 30-day comment period. Completion of the 30-day comment period without significant adverse opposition will complete the environmental review process. If the EPA cannot support a FONSI, the applicant will be required to take part in an Environmental Impact Statement.

36.2 Requests for Additional Information

Specific request for additional information from the stakeholders and the public will be handled to the extent possible during the course of the project. These requests are expected to come via meetings, workshops and other points of contact with the public and regulatory agencies.

36.3 Regulatory Meetings

Numerous contacts and meeting with the federal, state and local agencies will be needed to develop, screen, rank and select alternatives, and then develop the EID. It is anticipated that up to six agency meetings meeting will be required during the performance of this task.

Prior to preparation of the EID, and to the extent possible, the Consultant shall obtain concurrence with the proposed project from crosscutting agencies, such as the State's Historical Commission, the US Fish and Wildlife Service, the US Army Corps of Engineers (wetlands, Section 404 permits, dredge and fill, structures placed in

navigable waterways). The full list of agencies issues that must be addressed are provided in Attachment A.

36.4 Preparation of Environmental Impact Statement

It is unknown at this time if an EIS will be ultimately be required for the Project, but this scope must anticipate that possibility. The previous sections outline the tasks required to complete the EID process, which will provide the basis for the preparation of the EIS. If an EIS needs to be prepared, alternatives to mitigate impacts to affected environmental resources will need to be further examined and additional consultation may need to occur with other federal and state agencies that have jurisdiction over specific environmental resources. Additional and more detailed field studies such as those described under Phase 2A will also be required as this point.

An EIS may be required, either as a result of an EPA review of the EID that determines that the project will cause significant impacts to one or more resources, or because some physical component of the project (e.g., the seawater intake or concentrate disposal structures) trigger an EIS as part of the permitting process. While it is difficult determine the precise effort needed to prepare the Environmental Impact Statement cannot be defined until EPA completes its review of the EID, this Part II presents a set of allowance tasks (Tasks 27 through 31) outlining the likely magnitude of effort that will be required to prepare the EIS, based on the following assumptions:

- The task structure is the same but the EID is largely (but not exclusively) a desktop evaluation, while an EIS involves more intense field work and a more detailed analysis of alternatives.
- The EIS requires preparation of a public scoping document, a scoping hearing, publication of a Draft EIS for public review, a public comment period including a hearing, response to public comments received on the Draft EIS, publication of a Final EIS, assembly of an administrative record, and assistance to the lead federal agency in the preparation of a findings statement/Record of Decision. All of these components are not required for an EID and substantially reduced for an EA.
- The EIS will include an assessment of measures to avoid, minimize and/or mitigate unavoidable adverse impacts identified resulting from the preferred alternative.
- Expect the level of effort to be, at a minimum, between 75% and 100% greater for an EIS than an EID.
- The EIS may include some additional data collection, surveys or investigations.

Task 37. Preparation of Scoping Documents and Public Scoping Meetings (ALLOWANCE)

An allowance of \$278,000 has been included for this task in the budget. No work will proceed on this task without express authorization from the Project Administrator.

This will include the following tasks:

- Prepare Draft Scope of Work for EIS
- Public Hearing (to receive comments on the scope of study/issues to be addressed in the EIS)
- Revise Scoping Document (based on comments)
- Prepare Final Scope of Work for Preparation of EIS

Task 38. Preparation of Draft EIS (ALLOWANCE)

An allowance of \$750,000 has been included for this task in the budget. No work will proceed on this task without express authorization from the Project Administrator.

This will include the following tasks:

- Description of the Proposed Action
- Purpose & Need
- Identification of Alternatives Including “No Action”
- Description of Existing Environmental Conditions
- Impacts to the Environment (by Alternative; direct, indirect and cumulative impacts)
- Comparison of Alternatives
- Mitigation Measures
- Involved/Interested Agency Consultation

Task 39. Publication of and Revisions to Draft EIS (ALLOWANCE)

An allowance of \$350,000 has been included for this task in the budget. No work will proceed on this task without express authorization from the Project Administrator.

This will include the following tasks:

- Publication of Preliminary DEIS (Suppliers & Lead Agency Review)
- Revisions to Preliminary DEIS (based on internal comments)
- Publication of Draft EIS (public notices, web site posting, placement in local repositories)
- Public Review
- Public Hearing
- Response to Comments on DEIS (could involve additional studies)

Task 40. Publication of Preliminary Final EIS – 2B (ALLOWANCE)

An allowance of \$125,000 has been included for this task in the budget. No work will proceed on this task without express authorization from the Project Administrator.

This will include the following tasks:

- Publication of Preliminary Final EIS (based on Suppliers & Lead Agency Review; final EIS must declare a preferred project alternative)
- Revisions to Preliminary Final EIS (based on internal comments)

Task 41. Final EIS – 2B (ALLOWANCE)

An allowance of \$65,000 has been included for this task in the budget. No work will proceed on this task without express authorization from the Project Administrator.

This will include the following tasks:

- Publication of Final EIS (public notices, web site posting, placement in local repositories)
- Assist Lead Agency with Assembly of Administrative Record
- Assist Lead Agency with Findings Statement/Record of Decision (if required as this is Lead Agency responsibility)

RESPONSIBILITIES OF SUPPLIERS

Each Supplier, without limitation as to any other duties provided for herein, will:

- (a) Designate, in writing, a representative to attend all meetings of the Suppliers and an alternate to attend such meetings when the representative is not available.
- (b) Develop solicitation and selection criteria for the Consultant(s) and participate in the selection process and development of the Negotiated Scope of Work in accordance with the Consultant Procurement Procedure set forth in Exhibit 4.
- (c) Participate as needed in preparation of the contract to retain the Consultant(s).
- (d) On an as needed basis, and with reasonable notice, provide SJRWMD, all Parties, and the Consultant(s) access to their lands, facilities, needed records, testing results, and other such cooperation as may be needed for completion of the Report.
- (e) Seek technical assistance, as necessary, from other appropriate sources.
- (f) Participate in meetings as necessary to successfully complete the Report.
- (g) Review, comment on, and approve interim and final deliverables for the Report within the time frame as specified therein.
- (h) Secure additional necessary funds and make their best efforts to obtain governing body approvals prior to approving increased costs for the Report.
- (i) Affirm their ongoing duties of mutual cooperation with each other and agree to assist each other in furtherance of the Agreement's goal of developing the Report.
- (j) Actively pursue federal funding such as is provided in Sec. 5061 of the 2007 Water Resource Development Act.
- (k) Provide data and information in support of water demands through Phase I of the Project in support of their water needs for the planning period of the Project.

RESPONSIBILITIES OF PROJECT ADMINISTRATOR

In addition to its responsibilities as a Supplier, and without limitation as to any other duties provided for herein, the Project Administrator will:

- (a) Designate, in writing, an Administrative Manager to coordinate its responsibilities under this Agreement.
- (b) At the direction of the Suppliers, procure the services of the Consultant(s), utilizing the Project Administrator's procurement policies and procedures.
- (c) Prepare and execute contract(s) with the Consultant(s).
- (d) Manage the activities of the Consultant(s) to assure that contract requirements are met.
- (e) Report on a quarterly basis to the Parties and ex officio members the status of the deliverables and expenditures, including projected schedules and expenditures for the next quarter.
- (f) Manage the review of interim and final deliverables.
- (g) Coordinate regularly with SJRWMD and the Suppliers and ex officio members.
- (h) At the direction of the Suppliers, initiate and process funding requests for the Project from revenue sources which have been made available to SJRWMD by the Florida Legislature, unless a Governance Agreement designates a legal entity capable of timely performing this responsibility. However, nothing herein will preclude a Supplier or ex officio member from initiating or processing funding requests from revenue sources that have been made available to SJRWMD by the Florida Legislature.
- (i) Receive and account for funds from Suppliers, SJRWMD, and other sources.
- (j) Process and pay invoices from the Consultant(s).
- (k) Submit documentation to SJRWMD and/or other grant agencies as necessary to secure other funds for payment of invoices.
- (l) Maintain all of the paperwork relevant to this Agreement and provide copies of any and all paperwork requested by Suppliers.
- (m) Within sixty (60) days after the expiration or termination of this Agreement, provide SJRWMD and the Suppliers with an accounting of

the expenditure of funds for the Report and reimburse the Suppliers any portion of the funds which have not been expended on the Report.

RESPONSIBILITIES OF SJRWMD

SJRWMD will, without limitation as to any other duties provided for herein:

- (a) Subject to annual appropriation of funds by the SJRWMD Governing Board, provide administrative support, as necessary, to assist the Project Administrator in carrying out its duties, and technical support and peer review services, if requested by the Suppliers.
- (b) Designate, in writing, a Representative to attend all meetings of the Suppliers and communicate SJRWMD's position on issues and an alternate to attend such meetings when the representative is not available.
- (c) Identify any potential SJRWMD real property which could be utilized for the Project.
- (d) Actively pursue federal funding such as is provided in Sec. 5061 of the 2007 Water Resources Development Act.

RESPONSIBILITIES OF CONSULTANTS

Consultant shall meet the responsibilities of the Scope described above, as well as the following:

- (a) For certain Tasks described above, the requirement is for the preparation of a Technical Memorandum. The Consultant shall prepare a Draft Technical Memorandum for review by the Suppliers. The Consultant shall provide for a review period by the Suppliers to include five (5) working days and one weekend will provide for one or two review workshops with the Suppliers to receive Supplier comments on the Draft Memorandum. Subsequent to these review workshops, the Consultant shall issue a Final Technical Memorandum.

PROJECT SCHEDULE

The anticipated Project Schedule for Phase 1 is provided in Attachment C.

CONSULTANT COMPENSATION

For the satisfactory performance of this scope of work, the Consultant's shall be compensated the following not-to-exceed amounts, on an hourly rate basis plus expenses:

	Phase 1	Phase 2A	Phase 2B
Base Tasks	\$778,028	\$1,663,505	\$3,230,836
Allowances	\$172,423	\$110,659	\$1,568,000
TOTAL	\$950,451	\$1,774,165	\$4,798,836
Additive Tasks	\$0	\$38,249	\$50,000

As the scope for Phase 2 is highly dependent upon the results of Phase 1, it is understood by the Parties and the Consultant that both the scope and fee for Phase 2 will be renegotiated after the completion of Phase 1.

Labor charges shall be invoiced based on the actual hours expended, at the billing rates shown below for each labor category. Expenses shall be billed based on actual expenses incurred.

Labor Category	Base Rate	Billing Rate (at 3.0 multiplier)
Officer	\$80.00	\$240.00
Senior Associate	\$74.00	\$222.00
Associate	\$63.00	\$189.00
Engineer/Scientist 6	\$54.00	\$162.00
Engineer/Scientist 5	\$45.00	\$135.00
Engineer/Scientist 4	\$38.00	\$114.00
Engineer/Scientist 3	\$35.00	\$105.00
Engineer/Scientist 2	\$31.00	\$93.00
Engineer/Scientist 1	\$29.00	\$87.00
Senior GIS Analyst	\$44.50	\$133.50
Junior GIS Analyst	\$35.00	\$105.00
Senior Designer	\$45.00	\$135.00
Junior Designer	\$33.00	\$99.00
Senior Clerical	\$34.50	\$103.50
Junior Clerical	\$25.50	\$76.50
Billing Representative	\$33.00	\$99.00

Expert Witness Rates

Although not included in the base contract, in the event that expert witness testimony is required, such services will be provided using the following rate schedule. These rates will only be utilized in the event expert witness testimony is required, and will be utilized in accordance with a negotiated Scope of Services for expert witness testimony and with the provisions of the Engineering Services Agreement.

Labor Category	Base Rate	Expert Witness Billing Rate (at 4.5 multiplier)
Officer	\$80.00	\$360.00
Senior Associate	\$74.00	\$333.00
Associate	\$63.00	\$283.50
Engineer/Scientist 6	\$54.00	\$243.00
Engineer/Scientist 5	\$45.00	\$202.50
Engineer/Scientist 4	\$38.00	\$171.00
Engineer/Scientist 3	\$35.00	\$157.50
Engineer/Scientist 2	\$31.00	\$139.50
Engineer/Scientist 1	\$29.00	\$130.50

ATTACHMENT A – CROSSCUTTING AGENCY REVIEWS

Special Appropriations Projects (SPAPs) Crosscutters

Environmental Authorities	Procedure	Responsible Agency
Archeological and Historic Preservation Act of 1974, Pub. L. 86-523, as amended	Obtain review for all projects	State Historic Preservation Office
Clean Air Act, Pub. L. 84-159, as amended	Coordinate to assure project conforms with state implementation plan (SIP)	State Air Program
Coastal Barrier Resources Act, Pub. L. 97-348	Obtain review if project is located on a coastal barrier island	State Coastal Zone Management Agency
Coastal Zone Management Act, Pub. L. 92-583, as amended	Obtain review if project is located in coastal zone	State Coastal Zone Management Agency
Endangered Species Act, Pub. L. 93-205, as amended	Obtain review by USFWS for all projects	U.S. Fish and Wildlife Service (USFWS)
Environmental Justice, Executive Order (EO) 12898 or contact EPA project officer)	Discuss in EID per EPA instructions (see Section 19 in workbook)	USEPA
Floodplain Management, Executive Order 11988 as amended by EO 12148	Obtain review if project is located in or affects 100-year flood plain	Federal Emergency Management Agency
Protection of Wetlands, Executive Order 11990	Obtain review if project area contains wetlands	US Army Corps of Engineers
Farmland Protection Policy Act, Pub. L. 97-98	Obtain review if project area contains prime farmland	Natural Resources Conservation Service - State Conservationist
Fish and Wildlife Coordination Act, Pub. L. 85-624, as amended	Obtain review for all projects	USFWS
National Historic Preservation Act of 1966, PL 89-665, as amended	Obtain review for all projects	State Historic Preservation Office
Safe Drinking Water Act, Pub. L. 93-523, as amended	Obtain review if project could affect sole source aquifer	EPA, Region 4 - Project Officer
Wild and Scenic Rivers Act, Pub. L. 90-542, as amended	Obtain review if project located in area with Wild and Scenic Rivers	National Park Service

ATTACHMENT B – EID OUTLINE**Proposed Outline of Environmental Information Document****A. Proposed Project**

1. Project Purpose and Need (specify)
 - a. Water Quality /Water Quantity Problems and
 - b. Public Health Concerns
 - c. Inadequate System or System Components
 - d. More Stringent Regulations
 - e. Other (specify)
2. Project Description
 - a. Project Summary
 - b. Planning Area Description (including a map with facilities)
 - c. Planning Period (time period)
 - d. Description of Project Construction Phases
 - e. Owner and Operator of the Facilities
 - f. Location of the Facilities
 - g. 8.5 X 11 B&W Project Map Suitable for Distribution
3. Relevant Design Parameters
 - a. Description of Major Unit Processes
 - b. Flow Diagram
 - c. Pipe Lengths, Sizes, and Locations
 - d. Basic Design Criteria
4. Project Cost
 - a. Proposed Total Project Cost
 - b. Portion of Total Project Cost Funded by EPA
 - c. List of Amount, Sources, and Status of All Funding Sources

B. Existing Environment As Pertains to Project

1. Public Health Problems Due to Water Quality
2. Water Quality Problems, algae
3. Surface & Groundwater Hydrology
4. Drinking Water Sources and Supply
5. Physiography, Topography, Geology & Soils
6. Federally Endangered & Threatened Species
7. Air Quality (Non-attainment Area Needs State Sign-off)

8. Environmental Justice Information
 - a. Conditions, Minority & Low Income Areas (include Median Family Income)
 - b. Census Maps
9. Land Use & Development
10. Identification of Floodplains and Wetlands
- C. Existing Drinking Water System**
 1. Existing Drinking Water System (DW only)
 - a. Description of Treatment and Distribution System
 - b. Water Demand: Average, Peak
 - c. Surface Water Source (Intake Locations, Permitted and Actual Withdrawal)
 - d. Groundwater Source (Wells & Well Fields)
 - e. Water Storage
 - f. Raw Water Characteristics
 - g. Residuals (sludge) and Backwash Disposal
 - h. Service Area
 2. Existing System Performance
 - a. Safe Drinking Water Act Violations
 - b. Other System Problems
- D. Need for Proposed Project**
 1. Expanded Description of Need Identified in Section A.1.
 2. Land Use Projections
 3. Population Forecast
 4. Calculations and Assumptions for Forecasted Flow and Residuals
 5. Future Environment Without the Project
- E. Analysis of Alternatives**
 1. Development of Alternatives
 - a. No-action
 - b. Optimum Utilization of existing facility
 - 1) Flow Reduction
 - 2) Water Conservation
 - c. New Construction Alternatives
 2. Alternative Screening (Discussion for each alternative)
 - a. Present Worth or Equivalent Annual Cost
 - b. Reliability

- c. Complexity
 - d. Environmental Factors
 - e. Feasibility
- 3. Identification of Selected Alternative
- F. Environmental Consequences and Mitigative Measures for Selected Alternative**
 - 1. Direct
 - 2. Secondary Impacts of Future Growth and Development
 - 3. Mitigation
 - 4. Cross-Cutting Environmental Laws and Sources Consulted
 - a. Archeological and Historic Preservation Act of 1974, Pub. L. 86-523, as amended
 - b. Clean Air Act, Pub. L. 84-159, as amended
 - c. Coastal Barrier Resources Act, Pub. L. 97-348
 - d. Coastal Zone Management Act, Pub. L. 92-583, as amended
 - e. Endangered Species Act, Pub. L. 93-205, as amended
 - f. Environmental Justice, Executive Order 12898
 - g. Floodplain Management, Executive Order 11988 as amended by EO 12148
 - h. Protection of Wetlands, Executive Order 11990
 - i. Farmland Protection Policy Act, Pub. L. 97-98
 - j. Fish and Wildlife Coordination Act, Pub. L. 85-624, as amended
 - k. National Historic Preservation Act of 1966, PL 89-665, as amended
 - l. Safe Drinking Water Act, Pub. L. 93-523, as amended
 - m. Wild and Scenic Rivers Act, Pub. L. 90-542, as amended
 - 5. State Clearing House
 - 6. Necessary Permits (NPDES, 404, etc.) Issued
 - 7. Necessary Inter-local Agreements Executed
- G. Public Participation**
 - 1. Summary of Public Participation
 - 2. Required Documentation
 - a. Public Meeting Date
 - b. Public Meeting Record
 - c. Proof of Publication /Copy of Newspaper Advertisement

ATTACHMENT C – PROJECT SCHEDULE

See following pages for the Phase 2 project schedule.



