



**Data Sheet**  
**Agenda No. 18 A. & B.**

**Meeting Date: August 31, 2018**

**Agenda Item:**

Consider approval of agreements for Tom Harpool Regional Water Treatment Plant:

- A. Task Order No. 3 with Carollo Engineers, Inc. related to design, bidding and construction phase services for additional Membranes, Plant CIP tank, hypochlorite tank and electrical system improvements at the Harpool WTP.
- B. Authorize Executive Director to enter into membrane limited Design Services Agreement with Suez.

<b>Placement:</b> <input type="checkbox"/> Consent <input checked="" type="checkbox"/> Individual Consideration <input type="checkbox"/> Executive Session
<b>Vote:</b> <input type="checkbox"/> Non-Weighted <input checked="" type="checkbox"/> Weighted Capital
<b>Recommending Department: Engineering</b>

**Background:**

- A. The Board received the Facility Implementation Plan for Tom Harpool Regional Water Treatment Plant (Harpool WTP) Improvements at the August 2, 2018 Board meeting. The plan recommended District proceed with a phased approach of improvements to increase the Harpool WTP capacity and efficiency. The first phase improvements include installing additional membranes, clean-in-place (CIP) tank and other plant improvements.

Task Order No. 3 with Carollo Engineers, Inc. includes design, bidding and construction phase services to install additional membrane units in existing process trains, one membrane clean-in-place (CIP) tank, two hypochlorite tanks, plant water improvements and electrical system improvements. In order to minimize membrane lead time this task order includes effort to facilitate pre-purchasing the membranes. Additional membranes are expected to increase the plant's rated capacity by approximate 4 MGD (from 20 to 24 MGD at 29.9°C).

The proposed Task Order No. 3 includes budget amounts of \$581,100 for Basic Services (design, bidding and construction services), \$80,560 for Special Services (membrane pre-purchase package, meetings, surveying, geotechnical testing and project documentation), and \$50,000 Additional Services (contingency for project related unknowns). The total amount of proposed Task Order No. 3 is \$711,660.

- B. The membrane manufacture Suez has provided an agreement to provide engineering services that are required to support design of the additional membranes. The engineering services include limited design of membranes, related piping, permeate pumping, CIP tank programming and instrumentation for a total cost of \$75,000.

**Financial:**

Funding is included in the approved Capital Budget referenced as Harpool RWTP Treatment Expansion, Phase 1 project number 5HO.

**Recommendation:**

- A. Approve proposed Task Order No. 3.
- B. Authorize Executive Director to execute Agreement with Suez.

**Enclosure:**

1. Draft Task Order No. 3. with Carollo Engineers, Inc.
2. Design service Agreement with Suez.

Submitted By: Tom Snyder Date: August 31, 2018  
Tom Snyder, Director of Engineering & Construction

## ATTACHMENT A

### Task Order No. 3

This Task Order is part of the AGREEMENT between *Carollo Engineers, Inc.*, (the "ENGINEER"), and Upper Trinity Regional Water District (UTRWD), (the "OWNER"), for a project generally described as:

#### ***Engineering Services for the District's Regional Treated Water System***

The purpose of this Task Order is as follows:

#### **Engineering Services for the Tom Harpool WTP Additional Membranes, Plant CIP Tank, Hypochlorite Tank and Electrical System Improvements Project**

### ARTICLE I SCOPE OF SERVICES

The ENGINEER agrees to furnish the OWNER the following specific services:

#### **BASIC ENGINEERING SERVICES**

The following scope of work describes the work tasks and activities to be completed by the ENGINEER as part of engineering services related to the Improvements to the Tom Harpool Regional WTP (THRWTP).

#### **Scope of Work:**

#### **Task 100 Preliminary Design**

Task 101 – Project Management: Prepare internal project instructions, work plan, quality control procedures, and meeting procedures. Conduct internal staff coordination; budget and schedule control; and coordination of various tasks being conducted simultaneously. A duration of 3 months is assumed for this Task.

Task 102 – Meetings: ENGINEER will attend the following meetings. Engineer will prepare meeting agendas, meeting handouts and meeting notes.

- Kickoff Meeting – One (1) meeting will be held to kickoff the project.
- Progress Meeting - ENGINEER will attend one (1) meeting via conference call with OWNER to keep District staff updated on Preliminary Design status and to provide a venue to receive input and feedback on design related Preliminary Design issues.
- Draft BDM Review Meeting – ENGINEER will attend one (1) meeting with OWNER to discuss the OWNER's review comments on the draft Basis of Design Memorandum (BDM).

Task 103 – Membrane System Capacity Increase: ENGINEER will review and evaluate the addition of membrane modules in the existing membrane cassettes to increase the capacity of the membrane system. This task will include review of the sizing of impacted facilities including permeate pump and pipe sizing, VFDs, electrical gear, rotating band screens, and chemical storage and feed. ENGINEER will coordinate with membrane system manufacturer for design input and procurement of required new equipment. Preparation of prepurchase documents for membrane system equipment is included in Task 402.

The proposed plant updates follow recommendations in the Facility Implementation Plan developed by Carollo in February 2018. The plan assumes that additional membranes will increase in instantaneous flow through the plant from 22.9 mgd to 27.7 mgd at 29.9°C. The net permeate production will increase from 16.0 mgd to 19.1 mgd at 20°C.

Task 104 – CIP Tank Addition: ENGINEER will coordinate with membrane system manufacturer for design input for the addition of a new CIP waste tank. This task will include evaluation of location and sizing of tank, piping modifications and potential pumping required to implement a CIP waste tank.

Task 105 – Sodium Hypochlorite Tank Replacement: ENGINEER will review and evaluate the replacement of the existing indoor sodium hypochlorite tanks with new tanks.

**Task 106 – Plant Water Improvements:** ENGINEER will coordinate with membrane system manufacturer to investigate possible programming changes to minimize the volume of plant water used for the membrane system. ENGINEER will also review and evaluate the installation of a bypass around the existing plant water system fire valve to increase the capacity of the plant water system beyond that provided by the existing hydropneumatic tank.

**Task 107 – Schedule/Construction Sequencing:** ENGINEER will prepare a preliminary project schedule and construction sequencing plan for the above tasks.

**Task 108 – Opinion of Probable Construction Cost (OPCC):** ENGINEER will develop a preliminary level OPCC for the alternatives developed in Tasks 103 - 106.

**Task 109 – Basis of Design Memorandum (BDM):** Prepare a summary of the project elements, proposed improvements, design criteria, and conclusions from the above Tasks. BDM will not include evaluations or analysis of alternatives. BDM will include limited text and schematic level figures. Draft BDM will be submitted to OWNER for review. Upon receipt of Owner's comments, BDM will be finalized.

- Deliver three (3) hard copies and one (1) electronic copy of the draft BDM to the OWNER.
- Deliver three (3) hard copies and one (1) electronic copy of the final sealed BDM to the OWNER.

**Task 110 – Quality Management:** The draft BDM will be submitted to the ENGINEER's quality management team for review. Comments will be incorporated into final BDM.

## **Task 200 Design Phase Services**

**Task 201 – Project Management:** Prepare internal project instructions, work plan, quality control procedures, and meeting procedures. Conduct internal staff coordination; budget and schedule control; and coordination of various tasks being conducted simultaneously. A duration of 12 months is assumed for this Task.

**Task 202 – Meetings:** ENGINEER will attend the following meetings. Engineer will prepare meeting agendas, meeting handouts and meeting notes.

- 60% Design Review Meeting: ENGINEER will attend one (1) meeting with OWNER to discuss the OWNER's review comments on the 60 percent submittal. ENGINEER will prepare handouts, meeting agendas and meeting minutes.
- 90% Design Review Meeting: ENGINEER will attend one (1) meetings with OWNER to discuss the OWNER's review comments on the 90 percent submittal. ENGINEER will prepare handouts, meeting agendas and meeting minutes.
- Progress Meetings: ENGINEER will attend up to three (3) progress meetings with the Owner to keep District staff updated on final design status and to provide a venue to receive input and feedback on design related issues. Two (2) of these meetings will be held via conference call.

**Task 203 – Final Design:** The ENGINEER will complete the final design of the recommended facilities and prepare biddable Plans and Specifications. Construction drawings will include general, mechanical, structural, civil, electrical and instrumentation drawings, and all other disciplines necessary for a complete and biddable document. The ENGINEER will prepare General Conditions, Special Conditions, and final Technical Specifications for bidding package from ENGINEER's Standard Specifications. Specifications, Bid Forms and Contract Documents shall be reviewed by the OWNER.

- 60 Percent Submittal: The plans and specifications will be completed to the 60 percent level under this task. Specifications for this submittal will include only select technical sections. Three (3) copies of the plans and specifications (11x17 format) will be submitted to the OWNER for review and comment.
- 90 Percent Submittal: The comments received from the OWNER and ENGINEER's 60% QA/QC efforts will be incorporated and the plans and specifications will be completed to the 90 percent level under this task. Three (3) copies of the plans and specifications (11x17 format) will be submitted to the OWNER for review and comment.
- Final Submittal: The plans and specifications will be finalized based on the comments received from the OWNER and ENGINEER's 90% QA/QC efforts. Three (3) copies of the sealed and signed final plans (11x17 format) and specifications will be submitted to the OWNER. ENGINEER will submit final Bid Documents to TCEQ.

**Task 204 – Opinion of Probable Construction Cost:** The opinion of probable construction costs developed by the ENGINEER during the preliminary design will be updated at the 60 percent, 90 percent, and final submittal design stages.

**Task 205 – Quality Management:** The 60 and 90 percent plans and specifications will be submitted to the ENGINEER's quality management team for review. This review will include constructability, coordination between disciplines, and coordination between plans and specifications. The constructability review will examine adequacy of the detail for construction.

**Task 206 – Regulatory Assistance:** This task includes the following:

- TCEQ Coordination: ENGINEER will interface with TCEQ personnel over the course of the project to obtain clarification on TCEQ requirements if required. ENGINEER will submit Preliminary Design Technical Memorandum and final bid-ready plans and specifications to TCEQ for review and acceptance. ENGINEER will respond to TCEQ comments. TCEQ approval will be required for changes in:
  - Plant capacity
  - LRV Calculations
  - Flocculation time
  - Disinfection strategy

**Task 207 – Bid Phase Services:** The ENGINEER will provide the following assistance to the OWNER during the period of time between advertisement and receipt of bids:

- Maintain and update a Planholder's list.
- Printing and mailing of plans, specifications, and addenda. The Bid Document set format will be specifications and 11x17 drawings. Both the Bid Documents and full-sized drawing sets will be made available to the Contractor's and Suppliers.
- Interpretation of intent of plans and specifications, and providing clarifications to bidders.
- Preparation of addenda to plans and specifications, and mailing of the same during bid period.
- Assistance to the OWNER during pre-bid meeting, opening of bids, and recommendation of award.

### **Task 300 Engineering Services During Construction (ESDC)**

**Task 301 – Project Management:** Prepare internal project instructions, work plan, quality control procedures, and meeting procedures. Conduct internal staff coordination; budget and schedule control; and coordination of various tasks being conducted simultaneously. A 10 month construction period has been estimated.

**Task 302 – Meetings and Site Visits:** ENGINEER will attend the following meetings:

- Pre-Construction Meeting: ENGINEER will attend one (1) pre-construction meeting with the OWNER and CONTRACTOR. ENGINEER will prepare meeting agenda for the meeting and assist the OWNER in presenting materials and/or responding to questions. ENGINEER will prepare meeting minutes.
- Construction Progress Meetings & Site Visits: ENGINEER will attend up to ten (10) monthly construction progress meetings with the CONTRACTOR and OWNER.
- Construction Coordination Meetings / Site Visits: ENGINEER will attend non-periodic coordination meetings and site visits to discuss specific project issues. The basis for this task is attendance at two (2) coordination meetings/site visits.

**Task 303 - Submittals:**

- ENGINEER will review CONTRACTOR's submittals for conformance with the Contract Documents, drawings, specifications, and design intent. The ENGINEER will document all comments for a submittal and submit draft comments to the OWNER for review. The ENGINEER will submit final comments to the CONTRACTOR in electronic format by e-mail.
- The ENGINEER will track and log all submittals.

- This task is based on a total of up to 75 overall submittals, in addition to the membrane system submittal. The term 'submittal' as used in this proposal applies to each CONTRACTOR's submittal that requires substantial review. Resubmittals requiring substantial review are considered to be a new submittal. Reviews in excess of 75 submittals or in excess of the initial review and one resubmittal may require additional budget.

Task 304 - Requests for Information: ENGINEER will research the CONTRACTOR-generated RFIs, prepare a response and coordinate with the OWNER and CONTRACTOR as required. ENGINEER will submit draft comments to the OWNER for review. The ENGINEER will submit responses to RFIs electronically via e-mail. The ENGINEER will track and log RFIs. The work associated with this task is based on an overall total of thirty five (35) RFIs. Additional RFIs may require additional budget.

Task 305 - Change Order Assistance: As requested by Owner, ENGINEER will research CONTRACTOR-generated change order requests, prepare responses and coordinate with the OWNER and CONTRACTOR. The OWNER may also request the ENGINEER to prepare documentation for OWNER-initiated change orders to the contract. As directed by the OWNER, this work may include reviewing or preparing change orders, reviewing or preparing opinion of probable cost for change orders, and reviewing or preparing sketches or CAD drawings for change orders. The ENGINEER will track and log all change orders. The work associated with this task is based on an overall total of three (3) change orders. Additional change orders may require additional budget.

Task 306 - Review Pay Requests: As requested by Owner, ENGINEER will monitor the progress of the work, and review and recommend OWNER action of Contractor progress payments. This task is based on an overall total of ten (10) pay requests.

Task 307 - Startup and Testing: ENGINEER will attend up to two (2) three-day site visits by a membrane specialist to witness startup and field testing of equipment. Engineer will not prepare testing protocol or forms to be used to record testing data. ENGINEER will develop jointly with the OWNER's field representatives and issue to the CONTRACTOR a list of incomplete work and testing deficiencies.

Task 308 - Punchlist/Final Inspection: ENGINEER will conduct jointly with the OWNER and the CONTRACTOR one (1) inspection for Substantial Completion and one (1) inspection for Final Completion. The ENGINEER will develop jointly with the OWNER's field representatives and issue to the CONTRACTOR a punchlist of incomplete work.

## SPECIAL SERVICES

Special Services are those services known to be required for completion of the project that the OWNER agrees are to be furnished by the ENGINEER or by a subconsultant that cannot be defined sufficiently at this time to establish the maximum compensation. The services are not included in the scope of work of Basic Services or the amount of compensation for Basic Services. The Special Services for this assignment are described as follows:

Task 401 – Meeting Assistance: This task includes the following:

- CAC Meeting Assistance: ENGINEER will attend two (2) CAC meetings associated with this project. At the request of the OWNER, the ENGINEER will assist in preparing materials for the CAC meeting and assist in presenting materials and/or responding to questions.
- UTRWD Board Meeting Assistance: ENGINEER will attend two (2) UTRWD Board meetings associated with this project. At the request of the OWNER, the ENGINEER will assist in preparing materials for the Board meeting and assist in responding to questions.

Task 402 – Equipment Prepurchase Packages: Prepurchase documents will be provided for the following:

- Coordination with Suez: ENGINEER will work with Suez to develop the Suez's scope of supply for the project. It is assumed that Suez's scope will include the following
  - Piping/valves
  - Permeate pumps
  - Programming of CIP system
  - Membranes

- Development of Prepurchase Documents: Develop specifications and drawings (mechanical and instrumentation) for the sole source procurement of the membrane modules and ancillary equipment furnished by Suez

Task 403 – Conformed Documents: After bidding is complete, the ENGINEER will prepare a conformed set of drawings and specifications that incorporates the addenda items pertaining to those drawings and specification sections. ENGINEER will submit three (3) copies of conformed drawings (11x17) and specifications to OWNER, along with pdf files (22x34) of the documents. ENGINEER will provide Contractor with one (1) copy of conformed drawings (11x17) and specifications, along with pdf files of the documents.

Task 404 – Record Drawings: Based on redlines provided by the CONTRACTOR and OWNER, the ENGINEER will prepare Record Drawings for review by the OWNER. The ENGINEER will submit one (1) set of half-size (11x17) draft Record Drawings to the OWNER for review. Two (2) sets of final half-size (11x17) signed Record Drawings on bond paper will then be submitted to the OWNER. Electronic .pdf files (22x34) and native CAD files will also be provided to the OWNER on a CD.

Task 405 - Land Surveying: A limited on-site land survey required for the existing areas and areas of new facilities to be included in this project. A complete plant site survey will not be performed.

Task 406 - Geotechnical Analysis: Perform up to four (4) geotechnical borings and analysis of the substrate in the location of the new CIP waste tank and ne plant water system fire valve bypass valve.

#### ADDITIONAL SERVICES

Additional services to be performed by the ENGINEER, if authorized by the OWNER, which are not included in the above-described Basic Engineering Services, are described as follows:

- A. Preparing applications and supporting documents for government grants, loans, or planning advances and providing data for detailed applications.
- B. Revisions and changes required after approval by the OWNER of the preliminary layouts or other project components.
- C. Appearing before regulatory agencies or courts as an expert witness in any litigation with third parties or condemnation proceedings arising from the development or construction of the Project, including the preparation of engineering data and reports for assistance to the OWNER.
- D. Assisting the OWNER in the defense or prosecution of litigation in connection with or in addition to those services contemplated by this Agreement. Such services, if any, will be furnished by the ENGINEER on a fee basis negotiated by the respective parties outside of and in addition to this Agreement.
- E. Attending meetings and developing data and information required for zoning and/or plat approvals for the construction site, except as specifically included in the Special Services.
- F. Attending additional meetings beyond those identified in Basic or Special Services.
- G. Preparation of construction cost estimates or schedules not otherwise provided in the Basic Services.
- H. Providing additional copies of reports and studies.
- I. Providing review of submittals and RFI's in excess of those assumed in Basic Services
- J. Additional considerations and effort related to membrane system modifications in excess of those assumed in Basic Services.
- K. Consultation or other services not otherwise provided in this Agreement.

**ASSUMPTIONS:**

The following assumptions have been made in the preparation of the scope and fee for this project:

1. Notice to proceed will be received in September 2018. Total project duration will be 25 months from NTP.
2. Suez will provide engineering design support services related to the membrane system improvements. ENGINEER will not be responsible for any costs incurred by Suez.
3. Membrane system equipment will be prepurchased from Suez. Type and extent of equipment provided by Suez will be similar to that provided by Zenon for the original plant.
4. Membrane system programming modifications will be provided by Suez.
5. Suez will provide I&C design drawings for membrane system components to be incorporated with the ENGINEER's design drawings. ENGINEER will not prepare I&C drawings for membrane system components.
6. Membrane chemical system changes will be limited to potential upsizing of existing metering pumps in the membrane building.
7. There will be no modifications to the membrane system other than those included in this scope of work. Implementation or ENGINEER's evaluation/review of additional modifications will require authorization of Additional Services.
8. ENGINEER will provide technical assistance to OWNER in the preparation of the membrane system prepurchase documents. OWNER will be responsible for coordinating and preparing prepurchase documents.
9. There will be no membrane system pilot testing.
10. Suez will provide O&M manual updates related to membrane system changes. ENGINEER will review. ENGINEER will not provide new or updated O&M Manual information.
11. With the exception of the replacement of the sodium hypochlorite bulk storage tanks, no other chemical system modifications will be made outside the membrane building.
12. Sodium hypochlorite bulk storage tanks will be replaced in kind, with no changes or replacement of electrical, instrumentation or piping/appurtenances.
13. The roof of the hypochlorite building will be temporarily removed and replaced. Existing roof panels will be reused and no changes to roof will be made.
14. The new Sodium Hypochlorite tanks will not be prepurchased.
15. OWNER will provide construction manager and field inspection for construction projects.
16. This proposal does not include legal assistance or fees associated with resolving construction disputes and formal claims.
17. All material testing will be performed by others.
18. There will be no formal partnering arrangement between the OWNER, ENGINEER, and General Contractor. Informal partnering will be encouraged.
19. Labor rates may be subject to an annual increase of up to four (4) percent starting in January 2019.

**Article II  
Compensation**

**Basic Services**

Compensation by the OWNER to the ENGINEER for all Basic Services enumerated in Task Order No. 3 will be based on the hourly fee schedule and costs in accordance with Exhibit A, with the totals not to exceed \$ 581,100. Basic Services are broken down into the following major items of work:

A. Task 100	<u>\$ 70,500</u>
B. Task 200	<u>\$ 367,000</u>



C. Task 300 \$ 143,600

### Special Services

For all Special Services enumerated in Task Order No. 3, compensation will be based on the actual cost times a multiplier in accordance with Exhibit A. The total amount will not exceed \$ 80,560 without prior written authorization from the OWNER. Special Services are broken down into the following major items of work:

#### A. Special Services

- Task 401 \$ 13,200
- Task 402 \$ 8,310
- Task 403 \$ 14,750
- Task 404 \$ 14,300
- Task 405 \$ 15,000
- Task 406 \$ 15,000

### Additional Services

Additional Services which may be required by the OWNER will be based on the actual hours and costs in accordance with Exhibit A. A budget allowance of \$ 50,000.00 has been established for this item and will not be exceeded without specific written authorization of the OWNER. No work will be undertaken without specific written authorization from the OWNER

### Total Compensation Summary

Basic Services:	<u>\$ 581,100</u>
Special Services:	<u>\$ 80,560</u>
Additional Services:	<u>\$ 50,000</u>
<b>Estimated Total Task Order No. 3:</b>	<b><u>\$ 711,660</u></b>

**Other Provisions**

The following provisions will apply to this Task Order:

The ENGINEER's compensation is based on immediate authorization to proceed and timely completion of the PROJECT. If the PROJECT timing deviates from the assumed schedule for causes beyond the ENGINEER's control, the ENGINEER reserves the right to request renegotiation of those portions of the compensation affected by the time change.

This Task Order No. 3 will become part of the referenced AGREEMENT when executed by both parties.

IN WITNESS WHEREOF, the parties execute below:

For the OWNER, Upper Trinity Regional Water District dated this \_\_\_\_\_ day of \_\_\_\_\_, 2018.

By: \_\_\_\_\_

By: \_\_\_\_\_  
Name Title

For the ENGINEER, Carollo Engineers, Inc. dated this \_\_\_\_\_ day of \_\_\_\_\_, 2018.

By: \_\_\_\_\_

By: \_\_\_\_\_  
Name Title

By: \_\_\_\_\_

By: \_\_\_\_\_  
Name Title

DRAFT



**Water Technologies & Solutions**

Mr. Larry Patterson  
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August 28, 2018

**RE: Tom Harpool Membrane Surface Water Treatment Plant Expansion**

Dear Mr. Patterson:

We understand that the District intends to work with Carollo Engineers, Inc. (Carollo) to consider options for expanding the plant capacity beyond the current 20 mgd at 29.9°C. Since the capacity increase is expected to be beyond the rated capacity of the existing piping and pumping equipment, it is expected that a redesign of the permeate side equipment will be required. In addition to permeate side changes, the District would like to have a neutralization tank/system added in order to reduce downtime, increase overall productivity and performance.

In an effort to expedite the expansion design work (anticipated to finish in Q4 2019) SUEZ is willing to provide the following work during the design phase of the project prior to receipt of membrane order:

- A. Prepare general arrangement drawings for equipment to be provided by SUEZ.
- B. Prepare process flow diagrams (PFDs) and process and instrumentation drawings (P&IDs) showing components required for complete and operable membrane systems, specifically:
  - a. Revised membrane system (increased capacity)
  - b. CIP waste tank and neutralization system
- C. Updates to the control strategy document that incorporate the following modifications or additions:
  - a. CIP waste tank and neutralization system
  - b. Utilize membrane permeate water via backpulse pumps for recovery cleansThe control strategy shall include a control narrative.
- D. Updated electrical schematics
- E. Prepare electrical single line diagram (SLD) to show revised motors and other electrical loads for the membrane system and CIP neutralization system. Provide the following information: horsepower, volts, amps, number of phases.



- F. Prepare calculations related to sizing of key components, including the overall membrane system capacity, permeate piping, permeate pumps, CIP waste tank, neutralization equipment, and electrical controls and instrumentation associated with the membrane system.
- G. Prepare calculations related to confirming the size of existing components (backwash system, air compressors and blowers) considering the increased membrane system capacity.
- H. Other engineering support required to complete the predesign and design tasks.

Suez understands that UTRWD intends to contract with Suez directly to supply goods (membranes, control systems, etc.) and service (commissioning and startup services) related to the membrane system during the construction phase of the project. However, it is the preference of UTRWD not to contract with Suez during the design phases of the project for design related services. Instead, UTRWD would like Suez to delay billing engineering services until the construction period and have those costs wrapped into Suez's contract price. The membrane order is anticipated to be no later than June of 2020.

Based on similar projects, SUEZ anticipates that preparation of the above deliverables will not exceed \$75,000 (USD) at an engineering rate of \$200/hour. SUEZ will support Carollo up to a maximum 375 hours. Per signatures provided below, SUEZ and the district agree that SUEZ will invoice and be paid by the District for design work carried out based on the above hourly rate no later than June of 2020.

A handwritten signature in blue ink that reads "A. Forster".

**Andrea Forster**  
Municipal UF/MBR Proposal Team Leader  
SUEZ Water Technologies & Solutions

**Larry Patterson**  
Executive Director  
Upper Trinity Regional Water District

cc: Chris Lipski, Grant MacInnis, Craig Brown (SUEZ)  
Jim Gallovich, Dan Hugaboom (Carollo Engineers)