

**MEMORANDUM OF AGREEMENT AMONG CITY OF SAN JOSE,
CITY OF SANTA CLARA, AND CITY & COUNTY OF SAN FRANCISCO
PUBLIC UTILITIES COMMISSION FOR THE SOUTH BAY
PURIFIED WATER PROJECT FEASIBILITY STUDY**

THIS MEMORANDUM OF AGREEMENT (“Agreement”), made in the State of California, on this ____ day of _____, 2022, is by and among the City of San Jose (“San Jose”), the City of Santa Clara (“Santa Clara”), and the City and County of San Francisco, acting by and through its Public Utilities Commission (“San Francisco” or “SFPUC”). San Jose, Santa Clara, and the SFPUC are herein referred to collectively as the “Parties” and individually as “Party.”

RECITALS

WHEREAS, The SFPUC supplies water from the San Francisco Regional Water System (“RWS”) to 26 wholesale customers in the Bay Area, including San Jose and Santa Clara, under the terms of the Water Supply Agreement dated July 1, 2009, as amended and restated on December 11, 2018, by SFPUC Commission Resolution No. 18-0212, with subsequent approval from each of the wholesale customers (“WSA”); and

WHEREAS, Pursuant to Sections 9.06 of the WSA, the SFPUC supplies water to San Jose and Santa Clara, specifically, on a “temporary, interruptible” basis; and

WHEREAS, Section 4.06 of the WSA requires the SFPUC to decide whether to make San Jose and Santa Clara “permanent” customers of the SFPUC by December 31, 2028, and to do so only if, and to the extent that, it determines that RWS long-term water supplies are available; and

WHEREAS, Section 3.06.D of the WSA requires the SFPUC and each wholesale customer to diligently apply their best efforts to use both surface water and groundwater sources located within their respective service areas and available recycled water to the maximum feasible extent, taking into account the environmental impacts, the public health effects and the effects on supply reliability of such use, as well as the costs of developing such sources; and

WHEREAS, Through its Alternative Water Supply Program, the SFPUC is developing new projects beyond the existing infrastructure and surface water supplies of the RWS, including “potable reuse” or “purified water” projects, which will help the SFPUC increase reliability and meet future water supply needs in its service area, including the needs of San Jose and Santa Clara; and

WHEREAS, San Jose and Santa Clara wish to become permanent customers of the SFPUC and are committed to developing new permanent water supplies of their own to

support future demands and increase reliability in their respective service areas as well as the Bay Area region; and

WHEREAS, The Parties agree that a joint potable reuse project that serves the local demands of San Jose and Santa Clara during all types of water years, while also supplementing the RWS in dry years, would (1) provide greater water supply reliability to the Parties and the public they all serve; (2) help each of the Parties meet their obligations under WSA section 3.06.D; and (3) contribute to the SFPUC's evaluation of whether it can provide permanent status to San Jose and Santa Clara; and

WHEREAS, The Parties desire to collaborate on a study exploring a concept for a South Bay Purified Water Project ("Project"), and evaluating and recommending the treatment processes, technologies, and infrastructure needed to produce and distribute purified water in normal and dry years ("Feasibility Study"); and

WHEREAS, The SFPUC has entered into a contract with the consulting firm Carollo Engineers ("Consultant") under which the Parties agree the Consultant will conduct the Feasibility Study via task order, and the Parties have together developed and approved a scope of services for the Feasibility Study ("Scope of Services"), which is attached hereto and incorporated herein as Attachment 1, and obtained a not-to-exceed cost estimate of \$300,000 from the Consultant for the Scope of Services; and

WHEREAS, The Parties desire to enter into this Agreement to establish the respective roles and responsibilities of the Parties with respect to the Feasibility Study as well as the terms for the sharing and payment of its costs;

NOW, THEREFORE, in consideration of the recitals and mutual obligations of the Parties herein expressed, the Parties agree as follows.

1. PURPOSE OF AGREEMENT

The purpose of this Agreement is to set forth the respective roles and responsibilities of the Parties with respect to the Feasibility Study as well as the terms for the sharing and payment of its costs.

2. TERM

The term of this Agreement shall commence on the date that all Parties have signed the Agreement and expire on August 31, 2023, or when all obligations under this Agreement have been performed, whichever occurs first, unless earlier terminated or modified as provided herein.

3. GENERAL ROLES AND RESPONSIBILITIES OF THE PARTIES

The general roles and responsibilities of each of the Parties under this Agreement are as follows:

- a) Work cooperatively with the other Parties and the Consultant, and commit staff time as needed, to develop the Feasibility Study and complete other related tasks and activities, as described in the Scope of Services. This work includes providing oversight of, and reviewing and preparing comments on, the Consultant's draft and final deliverables as well as other work product prepared for the Feasibility Study. This work also includes coming to consensus on the underlying assumptions and project scenarios to be evaluated, to the extent not already agreed upon in the Scope of Services, and resolving any conflicts that may arise during the course of the Feasibility Study.
- b) Commit reasonable staff time consistent with the Parties' normal business operations and staff availability to work on tasks related to the Feasibility Study that facilitate completion of the Scope of Services, which the Parties agree are necessary or important for the development of the Project. These tasks may include, but are not limited to, (1) requesting data and other information from entities who are not parties to this Agreement but are critical to the operation of the facilities identified in the Feasibility Study (e.g., wastewater service providers in the South Bay), and (2) developing additional briefing and educational materials concerning the Project and purified water in general for each Party's leadership, stakeholders, and community members, as needed.
- c) Contribute its share of the total costs of the Feasibility Study, as specified in Section 5 of this Agreement.
- d) Share relevant engineering, permitting, regulatory and operational information regarding its own facilities and permits with the other Parties and/or the Consultant for the benefit of the Feasibility Study when requested, subject to a non-disclosure agreement, if there a legal basis exists for the non-disclosure and there is a reasonable need for the information to develop the Feasibility Study.
- e) Provide the other Parties and/or the Consultant with access to facilities and operational data when requested, if there is a reasonable need for the access or data to develop the Feasibility Study (such access or data might concern intakes, aqueducts and pumping plants, transmission lines, reservoirs, treatment plants, interties). If there is also a reasonable need, commit reasonable staff time consistent with the Parties' normal business operations and staff availability to conduct analysis of its existing information on its own facilities, permits, operational data, modeling information, procedures or requirements, or any other data needed for the Feasibility Study and share the information from such analysis with the other Parties and/or the Consultant. Access to facilities will be consistent

with, and will follow, the facility owner's standard safety and notification requirements.

- f) Participate in Feasibility Study kick-off and coordination meetings with the other Parties and the Consultant, as well as a meeting with the other Parties after the completion of the Feasibility Study to discuss the results and next steps with respect to the development of the Project.

4. ADDITIONAL ROLES AND RESPONSIBILITIES OF SFPUC

The additional roles and responsibilities of SFPUC under this Agreement are as follows:

- a) Manage and administer the contract with the Consultant and the task order thereunder to develop the Feasibility Study as described in the Scope of Services.
- b) Receive and pay all invoices from the Consultant for services rendered under the contract to develop the Feasibility Study with SFPUC funds, with reimbursement of two-thirds (i.e., 66.66%) of the total costs to be provided by San Jose and Santa Clara, collectively, to the SFPUC following the completion of the Feasibility Study, as provided in Section 5 of this Agreement.
- c) Instruct the Consultant to communicate with all Parties directly about the development of the Feasibility Study and related activities and deliverables.
- d) Instruct the Consultant to distribute both draft and final deliverables for the Feasibility Study, and other related work product, to all Parties directly for review and comment.
- e) Prepare and transmit to San Jose and Santa Clara invoices for their respective shares of the total costs of the Feasibility Study, per Section 5 of this Agreement.
- f) Instruct the Consultant to perform the Scope of Services from a neutral perspective, considering the interests of all Parties, without preference, and produce a Feasibility Study that is fair and balanced for consideration by the Parties' decision-makers.

5. COST SHARING AND PAYMENT

Each of the Parties agrees to pay one-third (i.e., 33.33%) of the total actual costs of the Feasibility Study, and the total amount paid by each Party shall not exceed one hundred thousand dollars (\$100,000), given the Consultant's not-to-exceed cost estimate of three hundred thousand dollars (\$300,000) for the performance of the Scope of Services.

As provided in Section 4 of this Agreement, the SFPUC will pay, with SFPUC funds, all of the invoices it receives from the Consultant for its performance of services

under the contract related to the Feasibility Study. After the Consultant has completed the Scope of Services, the SFPUC will prepare and transmit to San Jose and Santa Clara invoices for their respective shares of the total actual costs (one-third, or 33.33%, each), up to one hundred thousand dollars (\$100,000). San Jose and Santa Clara will pay the SFPUC their respective shares in a single payment within thirty (30) days of receipt of the SFPUC's invoices.

If a Party chooses to terminate its participation in the development and preparation of the Feasibility Study under the terms of this Agreement, that Party shall remain financially responsible for its individual share of the total actual costs of the Feasibility Study, once completed, as specified in Section 8.

6. OWNERSHIP OF RESULTS

The Parties shall have joint ownership of and access to the deliverables that are produced for the Feasibility Study under this Agreement, including any drawings, plans, specifications, blueprints, studies, reports, memoranda, computation sheets, computer files and media or other documents prepared by the Parties and/or the Consultant for the purposes of the Feasibility Study.

7. NOTICES

Any notice, demand, or request made in connection with this Agreement must be in writing and will be deemed properly served if delivered in person or sent by United States mail, postage prepaid, to the addresses of the Parties identified in this Section. Any Party may change its signatory authority, delegated project contact, or agency phone number or mailing address to which notices are to be sent by giving written notice thereof to the other Parties. Day-to-day communications about the Feasibility Study and related tasks and activities under this Agreement will be among the delegated project contacts identified in this Section.

AGENCY	SIGNATORY AUTHORITY	DELEGATED PROJECT CONTACT	AGENCY MAILING ADDRESS AND PHONE NUMBER
San Jose	Sarah Zarate	Nicole Harvie Nicole.Harvie@sanjoseca.gov (408) 277-3671	City of San Jose Municipal Water System 3025 Tuers Road San Jose, CA 95121 (408) 277-3671
Santa Clara	Rajeev Batra	Shilpa Mehta smehta@SantaClaraCA.gov (408) 615-2011	City of Santa Clara Water and Sewer Utilities Department 1500 Warburton Avenue Santa Clara, CA 95050 (408) 615-2000
SFPUC	Dennis J. Herrera	Fan Lau flau@sfwater.org (415) 554-2498	San Francisco Public Utilities Commission 525 Golden Gate Avenue San Francisco, CA 94102 (415) 551-3000

8. TERMINATION

If an individual Party elects to terminate its participation in this Agreement, it may do so by providing each of the other Parties with at least thirty (30) days' written notice of its intention to terminate. The terminating Party's notice shall state the effective date of its termination. Termination of San Jose or Santa Clara from this Agreement shall not terminate this Agreement with respect to the remaining two Parties, nor shall it terminate that Party's obligation to pay one-third (33.33%) of the total actual costs of the Feasibility Study, once completed, as provided in Section 5 of this Agreement (i.e., the terminating Party will remain obligated to reimburse the SFPUC up to one hundred thousand dollars (\$100,000) for its individual share of the total actual costs of the Feasibility Study, once completed).

If the SFPUC is the terminating Party, SFPUC shall notify Consultant whose responsibilities under the contract with the SFPUC with respect to the Feasibility Study shall also terminate. Under such circumstances, Consultant will complete any work paid for by the SFPUC before the effective date of termination, and San Jose and Santa Clara shall reimburse the SFPUC for one-third (33%) of the total costs of the services provided,

and shall have joint ownership of and access to the deliverables that were produced, as of the effective date of termination.

9. AMENDMENT

The Parties may amend this Agreement by written instrument executed and approved in the same manner as this Agreement.

10. GOOD FAITH

Each Party shall use all reasonable efforts and work wholeheartedly and in good faith for the expedited completion of the objectives of this Agreement and the satisfactory performance of its terms.

11. DISPUTE RESOLUTION

Any claim that a Party may have against another Party or Parties regarding the performance of this Agreement including, but not limited to, claims for compensation will be submitted to the other Party or Parties in writing. Parties will meet and confer, first at a staff level and then elevated to a meeting of executive management, as needed, in a good faith attempt to negotiate a resolution of the claim and, if necessary, process an amendment to this Agreement or a settlement agreement to implement the terms of any such resolution.

12. SEVERABILITY

If any term or provision of this Agreement is deemed invalid or unenforceable by a court of competent jurisdiction or by operation of any applicable law, it will not affect the validity of any other provision, which will remain in full force and effect.

13. WAIVER

The waiver at any time by any Party of its right with respect to default or other matter arising in connection with this Agreement will not be deemed a waiver by that Party with respect to any subsequent default or matter.

14. BOOKS AND RECORDS

The SFPUC agrees to maintain accurate books and accounting records relating to this Agreement for a period of not fewer than five (5) years from the date of final payment to the Consultant for its services related to the Feasibility Study. The SFPUC agrees to provide the other Parties with access to its books and records for audit purposes.

15. SAN FRANCISCO SUNSHINE ORDINANCE

The Parties acknowledge that this Agreement and all related records are subject to the California Public Records Act, (California Government Code §6250 et. seq.), and the

San Francisco Sunshine Ordinance, (San Francisco Administrative Code Chapter 67). Such records are subject to public inspection and copying unless exempt from disclosure under federal, state, or local law.

16. SAN FRANCISCO CERTIFICATION OF FUNDS

This Agreement is subject to the budget and fiscal provisions of the City and County of San Francisco's ("City's") Charter. Charges will accrue to San Francisco only after prior written authorization certified by the City's Controller, and the amount of San Francisco's obligation hereunder shall not at any time exceed the amount certified for the purpose and period stated in such advance authorization. This Agreement will terminate without penalty, liability, or expense of any kind to San Francisco at the end of any fiscal year if funds are not appropriated for the next succeeding fiscal year. If funds are appropriated for a portion of the fiscal year, this Agreement will terminate, without penalty, liability, or expense of any kind at the end of the term for which funds are appropriated. San Francisco has no obligation to make appropriations for this Agreement in lieu of appropriations for new or other agreements. San Francisco budget decisions are subject to the discretion of the Mayor and the Board of Supervisors. THIS SECTION CONTROLS AGAINST ANY AND ALL OTHER PROVISIONS OF THIS AGREEMENT.

17. SAN FRANCISCO MAXIMUM COSTS

As provided in Section 5, in no event shall the amount of this Agreement for the SFPUC exceed \$100,000. The SFPUC's payment obligation under this Agreement cannot at any time exceed the amount certified by City's Controller for the purpose and period stated in such certification. Absent an authorized Emergency per the City Charter or applicable Code, no City representative is authorized to offer or promise, nor is the City required to honor, any offered or promised payments under this Agreement in excess of the certified maximum amount without the Controller having first certified the additional promised amount and the Parties having modified this Agreement as provided in Section 9.

18. LIABILITY OF PARTIES

The Parties' payment obligations under this Agreement shall be limited to the payment of the amounts provided for in Section 5. Notwithstanding any other provision of this Agreement or Government Code Section 895.2, in no event shall the Parties be liable, regardless of whether any claim is based on contract or tort, for any special, consequential, indirect, or incidental damages, including, but not limited to, lost profits,

arising out of or in connection with this Agreement or the services performed by the Consultant in connection with this Agreement.

19. AGREEMENT NOT A PRECEDENT

The Parties intend that the provisions of this Agreement will not bind the Parties as to the provisions of any future agreement between them, including, but not limited to an agreement for the use or purchase of purified water. This Agreement was developed specifically for the specified Agreement term.

20. ASSIGNMENT

This Agreement is not assignable either in whole or in part, except upon mutual written consent of the Parties.

21. SUCCESSORS

This Agreement shall bind the successors of the Parties in the same manner as if they were expressly named.

22. ENTIRE AGREEMENT

This Agreement, together with the attachment hereto, represents the entire agreement of the Parties as to those matters contained herein. No prior oral or written communications among the Parties shall be of any force or effect with respect to the matters covered hereunder.

23. INTERPRETATION

This Agreement shall be deemed to have been prepared equally by all Parties, and its individual provisions shall not be construed or interpreted more favorably for one Party on the basis that the other Parties prepared it.

24. GOVERNING LAW

This Agreement is governed by and will be interpreted in accordance with the laws of the State of California.

25. COUNTERPARTS

This Agreement may be executed in counterparts, each of which shall be deemed an original and but all of which taken together constitute one and the same Agreement.

IN WITNESS WHEREOF, the Parties have executed this Agreement by their duly authorized representatives, in counterpart.

CITY OF SAN JOSE

By: _____ Date: _____
Sarah Zarate
Director, Office of the City Manager

Approved as to form:

By: _____
Colleen Winchester
Sr. Deputy City Attorney

CITY OF SANTA CLARA

By: _____
Rajeev Batra
City Manager

Date: _____

Approved as to form:

By: _____
Jennifer Pousho
Assistant City Attorney

**CITY AND COUNTY OF SAN FRANCISCO
ACTING BY AND THROUGH ITS PUBLIC UTILITIES COMMISSION**

By: _____ Date: _____
Dennis J. Herrera
General Manager

Authorized by SFPUC Resolution No. _____

Approved as to form:

David Chiu, City Attorney

By: _____
Deputy City Attorney

ATTACHMENT 1

**SCOPE OF SERVICES FOR
SOUTH BAY PURIFIED WATER PROJECT
FEASIBILITY STUDY**

Exhibit A - Scope of Services

**San Francisco Public Utilities Commission
CONSULTANT/WRE JV**

PRO.0118 Water Resources Professional Services

Task Order 10

Task Order: South Bay Purified Water Project – Feasibility Study

OBJECTIVE

Consultant to provide evaluation of DPR treatment and infrastructure for:

- 1. Two Advanced Water Treatment Facility (AWTF) production capacities**
- 2. Three purified “finished” water blending and distribution options**

1.0 BACKGROUND AND PURPOSE

San Francisco Public Utilities Commission (SFPUC) faces water supply shortfalls during future droughts. In response, SFPUC continues to look for opportunities to develop alternative water supplies regionally that can provide dry year supply reliability. Simultaneously, the Cities of San José and Santa Clara (SJ and SC) who are interruptible customers of the SFPUC, are seeking permanent supplies to support projected future demands. The SFPUC must evaluate whether it can provide permanent status and meet the needs of both existing and future permanent customers. This task order evaluates the implementation of an AWTF that would produce Direct Potable Reuse (DPR) water (i.e., purified water) from water supplies from the San José-Santa Clara Regional Wastewater Facility (RWF). The purified water would be provided to SJ and SC in all year types, and to the Regional Water System (RWS) for the benefit of all SFPUC customers during dry years when supply shortages are likely to occur. The SFPUC is administering the project contract. This project will require subject matter expertise from SFPUC, SJ, and SC. Input from other South Bay water agencies (e.g., Sunnyvale and/or Valley Water) may also be needed during the course of the study.

2.0 SCOPE OF SERVICES

TASK 1 PROJECT MANAGEMENT AND COORDINATION OF CONSULTANT SERVICES

Project Overview and Deliverables

The CONSULTANT will prepare, with SFPUC, SJ, and SC input, a project summary that summarizes the goals and components of the project. The summary will also be accompanied by a PowerPoint presentation of the project to share updates on the project progress for the project proponents, as needed. The summary and PowerPoint will be developed initially and updated at the 50% and 95% stages of the project.

Included in this effort is the review of prior work regarding potable water reuse (either indirect [IPR] or direct [DPR]) that has involved the RWF. It is assumed that all of this work was done in collaboration with Valley Water and thus available on the Valley Water website.

Project Kick-Off Meeting

To efficiently engage CONSULTANT, SFPUC, and SJ and SC, a kick-off meeting to review the scope and schedule for the subject work will occur (online meeting). A data and information request will also be discussed at the kickoff meeting, along with schedule for delivering data needed (information request

detailed in Task 3). Meeting notes summarizing key discussion points, decisions, and action items will be provided within one week.

Monthly Technical Coordination Meetings

This project is anticipated to span 8 months, understanding that the deliverable goal is by early December 2022. Over that period, monthly technical coordination meetings and up to two workshops are anticipated. During these meetings, CONSULTANT, SFPUC and SJ and SC staff will review tasks, completed work (deliverables), and project challenges. The timing of the meetings may be adjusted to align with key milestones.

Targeted Technical Meetings & Workshops

Two workshops between CONSULTANT, SFPUC, and SJ and SC (and potentially other regional partners) are necessary to capture ideas and share information. These include:

- a. **Preliminary Project Update** – 90-minute Workshop with all collaborating partners to provide a project review at ~50% completion stage of the project.
- b. **Draft Report** – 90-minute Workshop with all collaborating partners to provide a project review at the 95% completion stage of the project.

CONSULTANT will develop meeting materials (presentations and agendas) at least one day ahead of the workshops/technical meetings and circulate workshop notes summarizing key discussion points, decisions, and action items within one week of each workshop. It is assumed workshops will be virtual.

General Project Management and Reporting

The CONSULTANT will provide overall financial and administrative management for the task order and will maintain effective communication and coordination with the SFPUC project manager and project team, including the development of a Project Plan (schedule, communication, QA/QC, and deliverables). Specific project management activities include work coordination and scheduling, project budget and schedule monitoring, subcontracting, preparation of monthly invoices including a monthly progress report, and maintaining a decision log and action items log.

Agency Support for Task 1:

SFPUC, SJ, and SC staff will provide the following support services for Task 1:

- Attendance at meetings and workshops of key project team members
- Coordination internally with the different departments and disciplines within SFPUC, SJ, and SC to support engagement and discussion.
- Review and comment on Task 1 deliverables.

Deliverables for Task 1:

- Project Summary and PowerPoint
- Kick-Off Meeting materials (agenda, notes).
- Monthly coordination meetings (g) materials (agenda, notes).
- Monthly reports and invoices provided on a monthly basis.
- Workshops agendas, PowerPoint presentations, and meeting notes.

TASK 2 REGULATORY SUMMARY

CONSULTANT shall review and summarize the following regulatory elements:

- Current potable water reuse regulations
- Draft CA DPR regulations
- anticipated challenges for DPR implementation

Assumptions for Task 2:

- Information to be presented by CONSULTANT during the monthly technical coordination meetings, when appropriate, and included in the Draft and Final Report detailed further on.

Deliverables for Task 2:

- PowerPoint presentation

TASK 3 TREATMENT, MONITORING, AND DELIVERY ANALYSIS

CONSULTANT will evaluate DPR treatment and infrastructure necessary to produce 10.0 mgd (Option 1) or more (Option 2) of purified water for treated water augmentation.

Task 3.1 – Information Request and Review

CONSULTANT will develop an information request at the onset of the project to collect the necessary information from SFPUC and from SJ and SC and potentially Valley Water. This information request will include, but not be limited to, the following:

- RWF effluent quality
- RWF daily, monthly, and seasonal flow data
- SJ and SC potable water distribution system information, including pipeline locations and sizes, reservoir locations and sizes, and minimum reservoir operational volumes.
- RWS connection locations
- Prior potable water reuse studies done for or with SJ and SC
- Reverse osmosis concentrate (ROC) studies done for or with SJ and SC
- Power infrastructure in the vicinity of the proposed AWTF

CONSULTANT will summarize requested information and provide data gaps to the project team, which can either be filled with new information or assumptions can be made in the absence of such information.

Task 3.2 – Treatment and Monitoring Systems

CONSULTANT will utilize the information summarized above to develop the two AWTF options, including preliminary sizing and design criteria. As noted above, one AWTF will be a 10-mgd project that is operated at 6.5 mgd in all years and increases deliveries to the full capacity of 10 mgd during droughts. The ability to increase production during droughts helps to meet a dry year reliability objective for the SFPUC. The second AWTF would be maximum sized based upon an evaluation of (1) available supply, (2) ROC NPDES concerns, and (3) availability of potable water distribution infrastructure. The preliminary concepts will include treatment and monitoring systems to meet draft DDW DPR criteria (including distribution system blending) as well as layout, footprint, power, and costs.

CONSULTANT will summarize work by others regarding the acceptability and potential challenges associated with ROC discharge in the RWF outfall.

Task 3.3 – Infrastructure

CONSULTANT will utilize the information summarized above to identify the infrastructure necessary to transport RWF effluent to the proposed AWTF, to transport purified water to the potable water distribution system, and to transport ROC to the RWF outfall. Pipeline alignments and pipeline costs are included in this effort.

CONSULTANT will, with the support of SJ, SC, and SFPUC, evaluate and develop up to **three** options for blending of purified water into SJ's and SC's potable water distribution system (including blending locations (mixing reservoir) and connection points within the potable water distribution system) and evaluate and

develop options for connection to the RWS. Efforts may include engagement of parties beyond SFPUC, SJ, and SC, such as Valley Water or other South Bay cities.

Task 3.4 – Power Needs

CONSULTANT will utilize the information summarized above to evaluate identified needed additional power infrastructure and costs associated with the potential AWTF (including AWTF, supply pump station, treatment facilities, discharge pump station). Additional details on the power analysis scope are provided below.

CONSULTANT will hold planning meeting with your staff engineers and decision makers to review expected power usage and daily electrical load curves, general site conditions, and available footprints at the site, vicinity to the electrical switch gear and electrical power needs.

CONSULTANT will develop preliminary sizing of possible solar PV systems using industry specific tools as well as internal calculations and cost models based on recent projects. A general layout drawing with recommended solar project sizes and ideal installation locations will be prepared. The layout may include battery storage footprint as appropriate.

Planning tools: CONSULTANT will use 'Homer Energy' a micro-grid optimization software developed by NREL (National Renewable Energy Laboratory) USA. HOMER stands for Hybrid Optimization Model for Multiple Energy Resources and includes Simulation, Optimization and Sensitivity Analysis tools based on power usage forecasts.

Specific Solar Deliverables:

The following items will be included in the deliverables:

- 1) Simulated solar PV energy production model to develop scenarios to either cover partial or all power demands. The output will be including an economic evaluation based on local rates.
- 2) Layouts for roof mounted options, carports, or possible ground mounted system with associated battery storage layout as appropriate.
- 3) Schematics to show electrical site connections from solar PV sites to the switch gear.
- 4) CAPEX and OPEX calculations.
- 5) Conclusions and Findings that will be included in the larger project report, including site layout conceptual drawings for solar PV and energy storage systems and economic benefits (return on investment).

Specific exclusions and caveats:

- Current-voltage characteristic curves or shading analysis.
- Loss factors during PV power generation.
- The PV electricity generation report is limited to average weather data and module data.

Task 3.5 – NPDES Discharge Analysis

CONSULTANT will summarize prior ROC analysis and NPDES impact associated with the two AWTF production options.

Assumptions for Task 3:

- SFPUC, SJ, and SC will assist in gaining information related to connection of purified water to potable water distribution systems and the RWS.
- SJ and SC will provide detailed information pertaining to available land, existing utilities (including power) on potential AWTF sites, and relevant geotechnical studies for the potential AWTF site. No new geotechnical information will be generated as part of this project.

- Best available ROC data and analysis, identified in coordination with SJ and SC, will be used to evaluate the acceptability of ROC discharge into the RWF outfall based upon the two finished water production targets of 6.5 mgd and 10.0 mgd.
- Information to be presented by CONSULTANT during periodic meetings and included in the Draft and Final Report detailed further on.
- A new reasonable potential analysis, pertaining to NPDES discharge, will be NOT be conducted as part of this scope of work.
- The level of design development is anticipated to be no greater than 2%, focused on the treatment process, conveyance, and power systems infrastructure.
- Regarding cost estimating: The opinions of probable cost is a Class 5 estimate as defined by the Association for the Advancement of Cost Engineering International (AACE). Class 5 estimates are prepared from planning and preliminary design where engineering is from 0 to 2 percent complete. For this Project, the Class 5 estimating methodology includes capacity factored, parametric models judgement and allowances and/or scale-up factors for less significant or support areas of the facilities. The expected accuracy range for this class of estimate -20 to -50 percent on the low range and +30 to +100 percent on the high range.
- The schedule assumes agency comments will be provided within 2 weeks of submission of the materials.

Deliverables for Task 3:

- PowerPoint presentations, as needed over the project duration to share information.

TASK 4 DPR IMPLEMENTATION PLAN

CONSULTANT shall prepare an **OUTLINE** of major aspects of a successful potable reuse program, based upon the 2021 *DPR Implementation Guide for California Water Utilities*, highlighting key cost and non-cost items that include and go beyond treatment and delivery infrastructure that could potentially add substantial cost burdens to the project. The Outline will document major anticipated efforts necessary for DPR success and the approximate timeline for implementation (including permitting, design, and construction).

Assumptions for Task 4:

- Information to be presented by CONSULTANT during the monthly technical coordination meetings, when appropriate, and included in the Draft and Final Report detailed further on.

Deliverables for Task 4:

- PowerPoint presentations, as needed over the project duration to share information.
- The schedule assumes agency comments will be provided within 2 weeks of submission of the materials.

TASK 5 PROJECT REPORT

CONSULTANT will compile the above information into an annotated outline as part of the ~50% completion workshop (along with slide materials) and later as a Preliminary Draft and Final Draft Report at the ~95% stage of the project, followed by one Final (100%) report.

Assumptions for Task 5:

- Review of reports will be conducted virtually from a MS Teams location if possible with participating agencies, in which comments from all parties will be collected on one document. A procedure for

addressing conflicting views by participating agencies will need to be developed at project initiation.

- The schedule assumes that agency comments will be provided within 2 weeks of submission of each draft.

Deliverables for Task 5:

- Two Draft and one Final Report (electronic)

3.0 TIME OF PERFORMANCE

CONSULTANT shall commence work immediately following authorization to proceed. A task schedule is included as EXHIBIT B. CONSULTANT agrees to deliver the Final Report within 8 calendar months after authorization to proceed with this task order. The following table highlights key milestones.

Milestone	Weeks Following Notice to Proceed
Kickoff Meeting	2
~50% Completion Outline and Workshop	20-22
First 95% Draft Report	25-28
95% Workshop	26-29
Revised 95% Draft Report	28-31
Final Report	35

CONSULTANT and SFPUC mutually agree that they will work toward meeting the above schedule. Should the Scope of Work be changed and/or should problems arise during the course of the work effort that could affect the above schedule, it is understood that both SFPUC and CONSULTANT will develop a revised schedule and budget limit, if required, to address scope changes, delays outside control of CONSULTANT, or other problems.

4.0 COMPENSATION

CONSULTANT will bill all work completed for this scope on a “cost-plus basis.” This means that CONSULTANT and associated subconsultants will bill the time required to complete the tasks based upon hourly billing rates as contained in the contract. The not-to-exceed amount is **\$297,244.**

The estimated budget for each task is presented in EXHIBIT C. SFPUC and CONSULTANT agree to allow redistribution of funds between tasks as appropriate to allow flexibility in providing the needed services within the not-to-exceed budget. Invoicing will be at the task order level; SOLIS budgets will not be established for the individual subtasks.

CONSULTANT agrees to complete these services for this amount unless the SFPUC and CONSULTANT amend the budget as a result of a change to the Scope of Services or Time of Performance.

Exhibit B – Schedule

PRO.0118 TO10 - South Bay Purified Water Project – Feasibility Study
EXHIBIT C

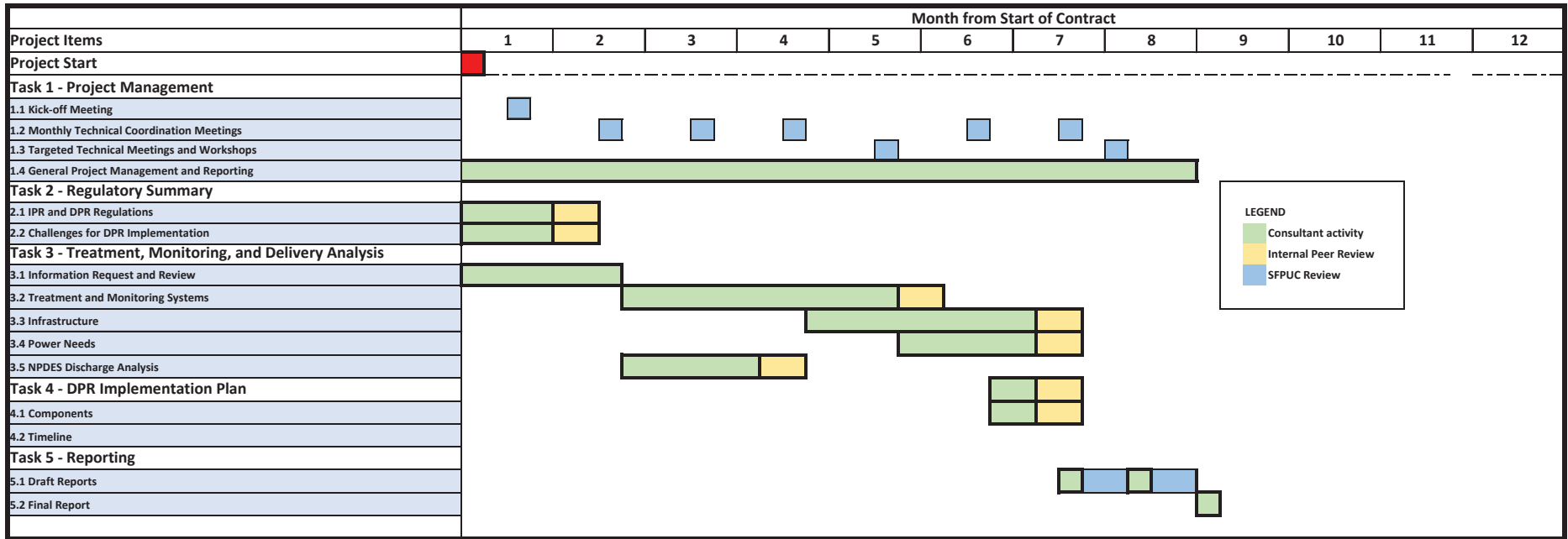


Exhibit C - Budget

EXHIBIT C - PRO.0118 Task Order. #10 - South Bay Purified Water Project - Feasibility Study	Carollo Labor															Carollo	SUB	Sub Markup	WRE	Total Project Budget	
	Andy	Elizabeth	Kourtnie	Dylan	Darren	Christian	Erik B	Christian	Michelle H	Chris Loving	Jacqueline	Briana	Kris	Graphics	Loretta	Total Labor					
Total hourly cost	\$ 240	\$ 191	\$ 134	\$ 107	\$ 240	\$ 216	\$ 236	\$ 216	\$ 184	\$ 226	\$ 102	\$ 92	\$ 162	\$ 130	\$ 96						
Task 1 - PM and Coordination of Consultant Services																					
Develop project brief and PowerPoint (initial) + review prior work	4	16	16												4	\$			\$ 2,400	\$ 42,997	
Project brief update (at 50% stage)	2	4	4												2	\$				1,974	
Project brief update (at 95% stage)	2	4	4												2	\$				1,974	
Develop data request (see task 3.1)																\$				-	
Kickoff meeting, including prep and minutes	4	12	4													\$				3,790	
Monthly technical coordination meetings, with prep (8)	16	32	8													\$				11,028	
Workshops, with prep and minutes (2)	11	19	11													\$				7,746	
Monthly project reports, and decision log (9)												18	4.5			\$				7,538	
Task 2 Regulatory Summary																\$				10,529	
Powerpoint on IPR, draft DPR regs and anticipated challenges	4	8	4													\$				3,544	
Write up of regulatory section in final report (draft)	4	16	8											4		\$				5,090	
Write up of regulatory section in final report (final)	2	6	2													\$				1,895	
Tasks 3.1 Treatment, Monitoring, and Delivery Analysis: Information Request and Review																\$				5,066	
Develop information request and coordinate information gathering	2	24														\$				5,066	
Task 3.2 Treatment and Monitoring Systems																\$				30,272	
Size max flow alternative																\$				-	
Analyze wastewater flows for AADWF		5	10													\$				2,297	
Analyze reservoir data (or obtain min res volume and outflows)		5	10													\$				2,297	
Review and summarize existing ROC NPDES documentation (see task 3.5)																\$				-	
Available space analysis		16	32													\$				7,351	
Design criteria for 2 alternatives		8		32	4											\$				5,927	
Layouts for 2 alternatives		8		32	4											\$				5,927	
Cost estimates for 2 alternatives (capital and O&M)		12	24		4											\$				6,473	
Task 3.3 Infrastructure																\$				19,715	
Develop pipeline alignments and pump station needs (3 alternatives)	4		40		24											\$				11,891	
Cost estimates for infrastructure (3 alternatives)	4		24		16											\$				7,824	
Task 3.4 - Power Needs																\$				27,624	
Internal coordination (kick off, document management, PM)	3	6				1	1	0		1						\$				2,545	
Planning (review site and electric needs, layout, calcs)	5	9				17	12	11	2	8	4					\$				14,399	
Report preparation (Appendix?)	10	5				17	2	2		1	2				24	\$				10,680	
Task 3.5 - NPDES Discharge Analysis																\$				5,074	
Review and summarize existing ROC NPDES documentation	2	10	20													\$				5,074	
Task 4 DPR Implementation Plan																\$				16,394	
Outline for DPR Implementation Plan	16	32	48													\$				16,394	
Task 5 - Reporting																\$				39,126	
Regulatory summary (see Task 2)																\$				-	
Alternatives descriptions, with figures		12	24											16		\$				7,587	
Treatment design section		8	16													\$				3,675	
Infrastructure design section		4	16		8											\$				4,831	
Power needs section		8	16													\$				3,675	
Cost estimate section		4	16													\$				2,911	
Compile draft report			16												16	\$				4,598	
QA/QC Draft report	12															\$				2,880	
Final Report		16	24												8	\$				7,048	
QA/QC Final Report	8															\$				1,920	
TOTAL																\$	\$ 194,397.21	\$ 40,000.00	\$ 2,000.00	\$ 60,846.00	\$ 297,243.21

PRO.0118 TO10 WRE Resource Breakdown

	Firm:	WRE						Total Hours	WRE Labor Costs	
	Staff:	G. Arboleda	S. Knott	C. Cano	L. Pound	A. Javaheri	M. Perez			
	Role:	Principal	Sr. Project Manager	Project Manager	Drafting/ GIS	Project Engineer	Staff Engineer			
	Rate:	\$240.00	\$175.50	\$137.70	\$121.50	\$110.70	\$97.20			
Task 1 - PM and Coordination of Consultant Services										
Kickoff meeting, including prep and minutes		2						2	\$ 480	
Monthly technical coordination meetings, with prep (8)		4						4	\$ 960	
Workshops, with prep and minutes (2)		4						4	\$ 960	
Task 3.2 Treatment and Monitoring Systems										
Analyze wastewater flows for AADWF		2		16				40	58	\$ 6,571
Analyze reservoir data (or obtain min res volume and outflows)		2		16				40	58	\$ 6,571
Task 3.3 Infrastructure										
Develop pipeline alignments and pump station needs (3 alternatives)		8				120			128	\$ 15,204
Cost estimates for infrastructure (3 alternatives)		8				40			48	\$ 6,348
Task 3.5 - NPDES Discharge Analysis										
Review and summarize existing ROC NPDES documentation			8	24				80	112	\$ 12,485
Task 5 - Reporting										
Treatment design section		2	4					24	30	\$ 3,515
Infrastructure design section		4	8			40			52	\$ 6,792
QA/QC Draft report		4							4	\$ 960
Total Hours		40	20	56	0	200	184			
Total Labor Costs		\$ 9,600	\$ 3,510	\$ 7,711	\$ -	\$ 22,140	\$ 17,885	500		\$ 60,846