September 2, 2016

NOTICE OF AMENDED MEETING AGENDA & REQUEST FOR RSVPS

Members of the Joint Recycled Water Committee:
SCVWD Director Tony Estremera, Committee Member
SCVWD Director Barbara Keegan, Committee Member
SCVWD Director Gary Kremen, Committee Member

And Supporting Staff Members:
Norma Camacho, Interim Chief Executive Officer
Stan Yamamoto, District Counsel
Anthony Fulcher, Sr. Assistant District Counsel
Jim Fiedler, Chief Operating Officer, Water Utility
Katherine Oven, Deputy Operating Officer, Water Utility Capital
Garth Hall, Deputy Operating Officer, Water Supply Division
Angela Cheung, Deputy Operating Officer, Water Utility & Maintenance
Chris Elias, Deputy Administrative Officer, District Communications
Hossein Ashktorab, Water Use Efficiency Unit Manager, Recycled & Purified Water
Luis Jaimes, Senior Project Manager, Recycled & Purified Water
Miguel Silva, Assistant Engineer II (Civil), Recycled & Purified Water
Phillippe Daniel, Contractor
Rick Callender, Deputy Administrative Officer
Marta Lugo, Public Information Representative III
Elise Latejou-Durand, Environmental Planner II
Toni Vye, Staff Analyst, Recycled & Purified Water
Natalie Dominguez, Board Administrative Assistant II, Clerk of the Board

A meeting of the Santa Clara Valley Water District Recycled Water Committee will take place at 12:00 p.m., on Wednesday, September 7, 2016, at the Santa Clara Valley Water District Headquarters Building Boardroom, 5700 Almaden Expressway, San Jose, California.

Enclosed for your convenience is a copy of the amended agenda and corresponding materials. Please bring these materials to the meeting with you.

Please RSVP at your earliest convenience to by calling 408-630-2659, or by email to ndominguez@valleywater.org.

Regards,

Natalie F. Dominguez
Natalie F. Dominguez
Board Administrative Assistant
Santa Clara Valley Water District
Office of Clerk of the Board

Enclosures
Amended* AGENDA
Recycled Water Committee
Santa Clara Valley Water District Headquarters Boardroom
5700 Almaden Expressway, San José, California.

Wednesday, September 7, 2016
12:00 PM

Time Certain: 12:00 PM
1. Call to Order/Roll Call.

2. Time Open for Public Comment on Any Item Not on the Agenda.
   Comments should be limited to two minutes. If the Committee wishes to discuss a subject raised by the speaker, it can request placement on a future agenda.

   Recommendation: Approve the minutes.

4. Action Items.

   4.1 Workshop on Expedited Purified Water Program – Dual Track Procurement. (K. Oven)

      Recommendation:
      A. Receive an update on project delivery methods for the Expedited Purified Water Program;
      B. Consider staff analysis regarding choice of either Progressive Design-Build or a Public Private Partnership delivery method; and
      C. Recommend that the Santa Clara Valley Water District Board consider and approve appropriate action.

      Recommend to the full Board to choose the Progressive Design/Build project delivery method for the Expedited Purified Water Program.

   4.2 Update on District partnership discussions with retailers. (G. Hall)

      Recommendation:
      Receive information and discuss next steps.

   4.3 Update on Reverse Osmosis Concentrate Management Plan (ROCMP). (L. Sangines)

      Recommendation:
      A. Receive update on consultant services agreement for the ROCMP; and
      B. Receive presentation and discuss next steps.
5. **Clerk Review and Clarification of Committee Requests and Recommendations.**  
   This is an opportunity for the Clerk to review and obtain clarification on any formally moved, seconded, and approved requests and recommendations made by the Committee during discussion of Item 4.

6. **Adjourn.**  
   Adjourn to next regularly scheduled meeting at 12:00 p.m., on November 2, 2016, at the Santa Clara Valley Water District, Headquarters Boardroom, 5700 Almaden Expressway, San José, California.
A special meeting of the Recycled Water Committee (Committee) was called to order at 1:30 p.m., at the Carlsbad Desalination Plant, 4600 Carlsbad Blvd., Carlsbad, California, 92008.

1. CALL TO ORDER/ROLL CALL.

Committee members in attendance were District 2 Director B. Keegan, District 7 Director G. Kremen, and District 6 Director T. Estremera, Chairperson presiding, constituting a quorum of the Committee.

District staff members in attendance were N. Dominguez, J. Fiedler, L. Orta, K. Oven and C. Sun.

San Diego County Water Authority staff members in attendance were S. Kerl, Deputy General Manager, M. Stapleton, General Manager, and B. Yamada, Director of Water Resources; and M. Weston, Chair, SDCWA Board of Directors.

2. TIME OPEN FOR PUBLIC COMMENT ON ANY ITEM NOT ON THE AGENDA.

Chairperson Estremera declared time open for public comment on any item not on the agenda. There was no one present who wished to speak.

3. PRESENTATION ON THE SAN DIEGO COUNTY WATER AUTHORITY EXPERIENCE WITH DELIVERY METHODS.

Ms. Maureen Stapleton, General Manager, distributed the attached materials identified as Handout 3-A, herein, to the Committee, and made copies available to the public. SDCWA staff members presented the information contained in Handout 3-A as follows: Ms. Stapleton, Slides 1 through 8; Ms. Sandy Kerl, Deputy General Manager, Slides 9 through 24, and Mr. Bob Yamada, Director of Water Resources, Slides 25 through 36.
The Committee noted the information without formal action.

4. TOUR OF CARLSBAD DESALINATION PLANT.

At 3:00 p.m., Mr. Peter MacLaggan, Senior Vice President of California – Project Development, Poseidon Water, led all present on a tour of the Carlsbad Desalination Plant.

Upon conclusion of the tour, Chairperson Estremera returned the agenda to Item 3.

3. PRESENTATION ON THE SAN DIEGO COUNTY WATER AUTHORITY EXPERIENCE WITH DELIVERY METHODS.

The Committee expressed appreciation for the presentation and tour; reviewed additional project information contained in Handout 3-A; and requested that staff coordinate a SDCWA presentation on water desalination projects to the full Board of Directors, and agendize a discussion of water desalination and a consultant selection process at a future Committee meeting.

5. ADJOURN.

Chairperson Estremera adjourned the meeting at 4:15 p.m., to the next scheduled meeting at 12:00 p.m., on September 7, 2016, at the Santa Clara Valley Water District Headquarters Boardroom, 5700 Almaden Expressway, San Jose, California.

Respectfully submitted,

Natalie F. Dominguez
Board Administrative Assistant II

Approved:
A meeting of the Recycled Water Committee (Committee) was called to order in the Santa Clara Valley Water District Headquarters Boardroom, 5700 Almaden Expressway, San Jose, California, at 12:00 p.m.

1. CALL TO ORDER/ROLL CALL.

Committee members in attendance were District 2 Director B. Keegan, and District 6 Director T. Estremera, Chairperson presiding, constituting a quorum of the Committee.

District 7 Director G. Kremen was excused from attending.

Staff members in attendance were N. Camacho, Interim Chief Executive Officer, H. Ashktorab, R. Callender, C. Elias, J. Fiedler, G. Hall, L. Jaimes, M. Lugo, L. Moore, and K. Oven.

2. TIME OPEN FOR PUBLIC COMMENT ON ANY ITEM NOT ON THE AGENDA.

Chairperson Estremera declared time open for public comment on any item not on the agenda. There was no one present who wished to speak.

3. APPROVAL OF MINUTES.

It was moved by Director Keegan, seconded by Director Estremera, and carried to approve the minutes of May 12, 2016, as presented.

4. ACTION ITEMS.

4.1. Update on Sunnyvale Recycled and Purified Water Efforts.

Mr. Luis Jaimes, Senior Project Manager, reviewed the information on this item per the attached Committee Agenda Memo, and reviewed the presentation materials contained in Attachment 1, Slides 1 – 25.
Director Keegan recommended that the developer design and construct the Valco and Hampton projects, and expressed concern that Option No. 3 has greater risks than are visualized, and that landfill reuse may also be too risky.

Mr. John Stufflebean, Director of Environmental Services Department, City of Sunnyvale, expressed support for staff’s analysis of Option No. 3, and shared personal experience with building on landfill.

Mr. Hall informed the Committee that the District staff is aware that City of Sunnyvale and the San Jose Water Company (SJWC) are in discussions about public-private partnership option relating to advanced water treatment at Sunnyvale’s plant. He said that staff would receive information at a planned July 19 meeting with Sunnyvale and SJWC staff, and would then inform the Committee.

Director Keegan suggested that the full District board weigh-in on the Sunnyvale options decision.

The Committee noted the information, without formal action.

4.2. Update on Expedited Purified Water Program – Dual Track Procurement.

Ms. Katherine Oven, Deputy Operating Officer, reviewed the information on this item per the attached Committee Agenda Memo, and reviewed the presentation materials contained in Attachment 1, Slides 26 – 31.

Mr. Jim Fiedler, Chief Operating Officer, Watersheds, announced a tour of the San Diego Water Authority – Carlsbad Desalination Plant had been scheduled for Tuesday, July 19, 2016, and that arrangements were being made for Committee members to participate.

Director Estremera suggested holding a 2-3 hour workshop with the Recycled Water Committee to discuss Expedited Purified Water Program, and then subsequently bring this up to the full District Board.

Mr. Stan Williams, Vice President, Project Development, Poseidon Water, expressed support for the upcoming tour as an opportunity for the Committee to obtain information from San Diego Water Authority of their experience with design build and Public-Private Partnership (P3) projects.

The Committee noted the information, without formal action.

4.3. Programmatic Name and Branding of “Expedited Purified Water Program.”

Ms. Marta Lugo, Public Information Representative III, reviewed the information on this item per the attached Committee Agenda Memo, and reviewed the presentation materials contained in Attachment 1, Slides 32 – 39.
It was moved by Chairperson Estremera, seconded by Director Keegan, and carried that staff agendize an item for the Board to discuss a naming and branding process similar to the process used for naming the Silicon Valley Advanced Water Purification Center.

Mr. Williams expressed concern for the perception issue in using unclear or incorrect terminology, and suggested the District contact the Association of California Water Agencies to receive a list of terms with specific definitions.

4.4. Update on South County Recycled Water Expansion.

Mr. Hossein Ashktorab, Recycled Water Manager, reviewed the information on this item per the attached Committee Agenda Memo, and reviewed the presentation materials contained in Attachment 1, Slides 40 - 41.

The Committee suggested the District continue the pursuit to have a District Director seated on the South County Regional Wastewater Authority Board of Directors.

It was moved by Chairperson Estremera, seconded by Director Keegan, and carried, that staff agendize an item for Board discussion regarding how Morgan Hill can become involved in South County recycled water expansion, and directed staff to prepare a proposal letter to the City of Morgan Hill.

Mr. Doug Muirhead, Morgan Hill resident, expressed his dissatisfaction that the Final 2015 South County Recycled Water Master Plan (Plan) had increased in size from the draft version, without any indication of the changes or additions to the Plan. Mr. Ashktorab explained that a summary of the changes would be provided at the July 26, 2016, Board of Directors meeting.

5. CLERK REVIEW AND CLARIFICATION OF COMMITTEE REQUESTS AND RECOMMENDATIONS.

Ms. Lin Moore, Board Administrative Assistant II, reviewed the following Committee requests:

Staff to agendize an item for the Board to discuss a naming and branding process similar to the process used for naming the Silicon Valley Advanced Water Purification Center.

Staff to agendize an item for Board discussion regarding how Morgan Hill can become involved in South County recycled water expansion, and directed staff to prepare a proposal letter to the City of Morgan Hill.
6. ADJOURN.

Chairperson Estremera adjourned the meeting at 1:30 p.m., to a Special Meeting and Tour at 1:30 p.m., on July 19, 2016, at the Carlsbad Desalination Plant, 4600 Carlsbad Boulevard, Carlsbad, California 92008.

Respectfully submitted,

Lin Moore
Board Administrative Assistant II

Approved:
SUBJECT: Workshop on Expedited Purified Water Program – Dual Track Procurement.

RECOMMENDED ACTION:

A. Receive an update on project delivery methods for the Expedited Purified Water Program;
B. Consider staff analysis regarding choice of either Progressive Design-Build or a Public Private Partnership delivery method; and
C. Recommend to the full Board to choose the Progressive Design/Build project delivery method for the Expedited Purified Water Program.

SUMMARY:

Based on direction received from the Committee on July 6, 2016 to facilitate the Board in making a decision on a single project delivery method for the Expedited Purified Water Program (Program) prior to issuing Request for Proposals, staff conducted additional research and sought the input of independent experts to provide additional perspectives on comparing project delivery methods. The qualifications of the independent experts are summarized in Table 1 below.

Both the Progressive Design-Build (PDB) and Public-Private Partnership (P3) project delivery methods represent departures from the District’s historical design-bid-build approach for capital construction, and were identified for their ability to deliver the Program faster, transfer project risks and at lower costs.

On August 10, 2016, staff convened a group of experts for a day-long internal workshop. The agenda included confirming District objectives, defining the delivery methods, reviewing relevant case studies, discussing program risks and identifying major differences for the District in comparing the project delivery methods.

The objectives staff identified for the project delivery methods during the workshop included:

1. Speed: One of the original drivers for the procurement method
2. Quality: Encompassing construction, operations, maintenance and delivered water quality, considerations also include reliability.
3. Control: Effective integration of facilities/operating entity into staff and system. Ability to ramp flow deliveries up/down efficiently. It was noted that, in a P3 context, the transition from “Doer” to “Regulator” would constitute a challenging District culture shift.
4. Cost: Lowest life-cycle cost with upper ceiling/risk transfer. Flexibility to scale-up capacity cost-effectively.
5. Success: Minimizing the chance of anything going wrong that could generate adverse reactions among internal and external stakeholders including rate concerns, public outreach, labor issues and others.

Table 1: Qualifications of Independent Experts Providing Input to District in Comparing Delivery Methods

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
<th>Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Michael Bennon</td>
<td>Stanford University</td>
<td>Managing Director at the Stanford Global Projects Center with a focus on Public Sector finance, infrastructure and real estate investment, and project organization design.</td>
</tr>
<tr>
<td>Jeff Hughes</td>
<td>University of North Carolina at Chapel Hill</td>
<td>25 years of experience assisting communities in addressing finance and policy challenges related to the provision of environmental services and programs. He recently completed research on the projected and actual costs of P3s in the water sector.</td>
</tr>
<tr>
<td>Jill Jamieson</td>
<td>JLL Inc., global professional services and investment management firm</td>
<td>25 years of successful global experience, specific areas of expertise include multi-sector P3 program development; transaction advisory services, and asset optimization strategies, as well as broader public financial management strategies. Ms. Jamieson served on the Board of the US National Council for Public Private Partnerships, as well as on the Advisory Board for the United Nations PPP Specialist Centre of Expertise.</td>
</tr>
<tr>
<td>Sandra Kerl</td>
<td>San Diego County Water Authority</td>
<td>25 years of progressively responsible experience in all aspects of municipal management. As Deputy General Manager, she was a key lead on the Water Purchase Agreement for the Claude “Bud” Lewis Desalination Project and the lead on the Project Financing.</td>
</tr>
</tbody>
</table>

Post-Workshop discussions were held, comparing the delivery methods based on the District objectives identified by staff. Consensus of staff is that Progressive Design-Build best aligns with District’s objectives:

- Simplified contract negotiations with nearly equivalent incentive structure (the Guaranteed Maximum Price limits cost overruns, incentivized performance to accelerate delivery, etc.).
- District remains a “doer” rather than a “regulator.”
- Given uncertainties, there is value in retaining control.
- District leverages and deepens core competencies.
- There is full flexibility in managing county’s water supply.
- Key cost risks (construction, financing, O&M) can be managed.

Details of the analysis are found in Attachment 1 (PowerPoint presentation).

Staff’s recommendation is that the Committee recommends to the full Board to choose the Progressive Design/Build project delivery method for the Expedited Purified Water Program.

ATTACHMENT(S):

Attachment 1: PowerPoint Presentation
COMMITTEE AGENDA MEMO

SUBJECT:  Update on District partnership discussions with retailers.

RECOMMENDED ACTION:

Receive information and discuss next steps.

SUMMARY:

This item provides a status update to the Recycled Water Committee (Committee) on the following items:

1. Discussions with City of Sunnyvale (Sunnyvale) regarding potable reuse partnership
   a. District staff meeting with representatives from Sunnyvale and San Jose Water Company on July 19, 2016.
   b. District staff correspondence with Carollo Engineers regarding treatment technology proposals for Sunnyvale’s Water Pollution Control Plant (Attachment 1).
   c. Meeting with District Board Member/CEO and Sunnyvale officials on August 9, 2016.

2. Meeting with District Board Member/CEO and City of Palo Alto officials on August 29, 2016.

3. Meeting with District Board Member/CEO and City of Mountain View officials on August 30, 2016.

4. District correspondence with South County Regional Wastewater Authority (SCRWA), City of Gilroy (Gilroy), and City of Morgan Hill (Morgan Hill) proposing the creation of a Joint Recycled Water Advisory Committee of elected officials from the District, SCRWA, Gilroy, and Morgan Hill (Attachment 2).

5. Meeting with District staff and San Francisco Public Utility Commission staff on August 30, 2016.

6. Meeting with District Board Member/CEO and City of San José officials on September 1, 2016.
SUBJECT: Update on District partnership discussions with retailers. 09/07/2016

ATTACHMENT(S):

Attachment 1: District letter to Carollo Engineers regarding potable reuse treatment options agreement – A3709F, dated August 4, 2016; Response letter from Carollo Engineers to the District, dated August 11, 2016.
August 4, 2016

Mr. James Hagstrom  
Executive Vice President  
Carollo Engineers  
2700 Ygnacio Valley Road, Suite 300  
Walnut Creek, CA 94598

Subject: Potable Reuse Treatment Options Agreement - A3709F

Dear Mr. Hagstrom:

As the Santa Clara Valley Water District (District) and Carollo Engineers (Carollo) finalize evaluation of Task 7 (Membrane Bioreactor (MBR) Demonstration for Potable Reuse) of the subject Agreement, I would like to verify the following finding by Carollo, which provided the basis for MBR Demonstration Potable Reuse project.

Carollo's finding states that using MBR was a necessary part of building an Indirect Potable Reuse (IPR) facility at Sunnyvale's Water Pollution Control Plant (WPCP), as there was no room at the WPCP for a conventional IPR facility that would employ Conventional Activated Sludge, Microfiltration, Reverse Osmosis, and Ultraviolet Disinfection.

This finding was included in Carollo's IPR Treatment Options Basis of Design Report and was also confirmed by Carollo's team during a coordination meeting between the District, the City of Sunnyvale, and Carollo, held on October 7, 2015, at the District. During that meeting I asked whether there were other treatment options that did not include the recommended level of MBR treatment at the WPCP site and you indicated that other scenarios had been previously studied and deemed infeasible due to space constraints at the WPCP.

We plan to rely upon this finding as we proceed to seek Board committee guidance on going forward. If any new information has become available since the October 7, 2015 meeting that would modify this finding, please provide it to me in writing by August 11, 2016.

Sincerely,

Garth Hall  
Deputy Operating Officer  
Water Supply Division

cc: J. Fiedler, H. Ashktorab, A. Fulcher, L. Jaimes
August 11, 2016

Mr. Garth Hall  
Deputy Operating Officer  
Santa Clara Valley Water District  
5700 Almaden Expy  
San Jose, CA 95118

Subject: Letter dated August 4, 2016 – Potable Reuse Treatment Options Agreement – A3709F

Dear Mr. Hall:

This will respond to your letter dated August 4, 2016 regarding Carollo’s findings and recommendations for the above-referenced project. We believe it is important to clarify the context in which those findings were made, the limitations on Carollo’s scope with respect to the underlying study and the decisions and directives provided to Carollo by District staff.

The *IPR Treatment Options Basis of Design Report* (Report) referenced in your letter was developed and prepared pursuant to a specifically-defined scope of services pertaining to the City of Sunnyvale’s Water Pollution Control Plant (WPCP). Specifically, Carollo was engaged to:

Analyze and evaluate the feasibility of treatment alternative 3B specified in HydroScience, Inc.’s technical memo entitled “Indirect Potable Reuse In Western Santa Clara County” dated April 30, 2013 (“Treatment Alternative 3B”) to use recycled water for both direct and indirect potable reuse purposes.


We were advised that Carollo’s services were limited to evaluating the single, specified alternative developed by HydroScience, Inc., in order to accommodate the District’s timeline for selecting a project approach and initiating an Environmental Impact Report. Our scope of services did not include, nor was it ever intended to be, a broad exploration of multiple potential alternatives to meet the District’s objectives.

In April of 2015, at the District’s request, Carollo prepared a scope of services to evaluate the feasibility of a small footprint multi-story purification center at the WPCP, in addition to examining potential off-site options for purification centers. As we noted in the transmittal, “The attached scope would create a detailed Basis of Design report of these options and provide confidence in the costs, allowing a comparison with the MBR option.” (Attachment B – Draft Task Order and transmittal). The District subsequently declined to authorize these services.
The above context is important in light of the purpose of the October 7, 2015 meeting, where Carollo presented the draft final Report for the District’s consideration and feedback. As of that time, Carollo had only evaluated the single Alternative 3B from the HydroScience technical memorandum, and our proposal to evaluate a different concept had not been authorized. Thus, we had not explored other approaches to purification centers at the WPCP, as the District had not authorized an alternatives study.

Subsequent to this meeting, in early 2016, Carollo participated in discussions with a team that included the San Jose Water Company (SJWC), which intended to submit a proposal in response to the District’s RFP (Project Number 91284009). As part of those discussions, the team considered different approaches to water purification at different locations, not just for the expansion of the existing purification center adjacent to the SJ/SC RWF. In particular, SJWC asked Carollo to develop an alternative configuration for a new Sunnyvale project that could be presented to the District. The result of a brainstorming effort was a new idea to replace specific existing equipment with a much smaller and more technical treatment process, potentially freeing up space for a multi-story MF/RO/AOP configuration that would be coupled with the new conventional activated sludge option developed as part of the City of Sunnyvale Wastewater Masterplan. This concept was presented to the SJWC. As the District knows, the SJWC later submitted qualifications for this RFP alongside Black and Veatch. This team was not selected by the District for further consideration in the P3 process (not shortlisted).

We understand that SJWC has agreed to share details of the multi-story concept directly with the District. Please note, however, that this concept has not been fully developed, or evaluated beyond a "rule of thumb" estimate. Carollo has prepared a proposal to the SJWC to further study and evaluate this option to determine if the concept would be feasible. Until such further investigation is done, we cannot know whether this concept would be a viable alternative to the "3B" approach described in the Report.

We trust that this clarifies the context of Carollo’s current findings and recommendations for this project. Please feel free to contact us if you have additional questions.

Sincerely

For
Jim Hagstrom, P.E.
Executive Vice President

AS:JH:dlt

Draft Task Order and Transmittal
STANDARD CONSULTANT AGREEMENT
C0323 (08-03-09)

THIS AGREEMENT "Agreement" is entered into on January 28, 2014, by and between SANTA CLARA VALLEY WATER DISTRICT, ("District"), and CAROLLO ENGINEERS, INC., incorporated in the State of Delaware ("Consultant").

WHEREAS District desires certain services hereinafter described and Consultant is capable of providing and desires to provide such services,

NOW, THEREFORE, District and Consultant for the consideration and upon the terms and conditions specified agree as follows:

SECTION I
SCOPE OF SERVICES

The services to be performed under this Agreement are as described in Appendix One attached hereto and incorporated herein by this reference.

SECTION II
DUTIES OF CONSULTANT

All work performed by Consultant or under its direction must be sufficient to meet the purposes specified in this Agreement, and must be rendered in accordance with the accepted practices and standards of Consultant's profession.

Consultant must stay informed of and observe any and all statutes, laws, ordinances, and regulations pertaining to Consultant's contractual performance. To the extent that any copyrighted materials are used or reproduced for use in such performance, Consultant must secure, at its sole cost and expense, any and all necessary permission to utilize or reproduce such materials in the manner proposed or suggested by the scope of services.

Consultant must not undertake any work beyond the scope of this Agreement unless such additional work is approved in advance in writing by District. The cost of such additional work will be reimbursed to Consultant by District on the same basis as provided in Section IV unless otherwise specified.

Consultant is required, at District's request, to meet with District staff regarding performance of the Scope of Services.

In accordance with the provisions of Section 3700 of the California Labor Code, Consultant is required to secure Workers' Compensation insurance for its employees. Consultant must obtain and keep in full force and effect Workers' Compensation insurance necessary in connection with the performance of this Agreement to protect Consultant and its employees under the Workers'
Compensation Insurance and Safety Act, including coverage under United States Longshoremen's and Harbor Worker Act, when applicable. Such insurance must be in a standard form and relieve the District of all responsibility therefore. Consultant must, prior to undertaking the work contemplated herein, supply District with a certificate of insurance evidencing that said requirements are fully in effect.

The Santa Clara Valley Water District is an equal opportunity employer and requires its contractors to have and adhere to a policy of equal opportunity and non-discrimination. In the performance of the Contract, the Consultant will comply with all applicable federal, state, local laws and regulations, and will not discriminate against any sub-consultant, employee, or applicant for employment, in the recruitment, selection for training including apprenticeship, hiring, employment, utilization, promotion, layoff rates of pay, or other forms of compensation, or against any other person, on the basis of race, color, religion, ancestry, gender, national origin, age (over 40), marital status, medical condition (including cancer), pregnancy, parental status, the exercise of family care leave rights, political affiliation, sexual orientation, gender identity, special disabled veteran status, Vietnam Era veteran and all other Veteran status, or because of a physical or mental disability (including HIV and AIDS). The Consultant's policy must conform with applicable state and federal guidelines including the Federal Equal Opportunity Clause, “Section 60-1.4 of Title 41, Part 60 of the Code of Federal Regulations,” Title VII of the Civil Rights Act of 1964 as amended; the American’s with Disabilities Act of 1990; the Rehabilitation Act of 1973 (sections 503 and 504); California Fair Employment and Housing Act (Government Code section 12900 et. Seq.); California Labor Code sections 1101 and 1102.

Consultant is responsible for designating a specific person responsible for assuring nondiscrimination and non-harassment as provided in the Agreement. That named individual must investigate all complaints directed to them by District. District will refer complaints in writing, and investigations will be deemed concluded only upon submission of a written investigation report from the Consultant to the District. The scope of such investigations must include not only officers, employees, and agents of the Consultant, but also all subcontractors, subconsultants, materialmen, and suppliers of the Consultant. In cases where such investigation results in a finding of discrimination, harassment, or hostile work environment, Consultant must take prompt, effective disciplinary action against the offender. Failure to take appropriate action is a material breach of the Agreement.

SECTION III

DUTIES OF DISTRICT

District agrees to make available to Consultant all data and information in the possession of District which District deems necessary to the preparation of the work, and District will actively aid and assist Consultant in obtaining such information deemed necessary from other agencies and individuals.

The District will authorize a staff person as the District representative to confer with Consultant relative to Consultant services hereunder. The work in progress hereunder will be reviewed by District at each milestone or at the discretion of District. If the District determines that the work is satisfactory and meets the requirements of the Agreement, it will be approved. If the work is not satisfactory, District will inform Consultant of the changes or revisions necessary to secure approval. However, none of the proposed changes or revisions or anything else in this Agreement should be construed to relieve the Consultant of professional or legal responsibility.
for the performance of any services. Corrections to the work as a result of errors or omissions of Consultant will not result in additional costs or expenses to District.

SECTION IV

FEES AND PAYMENT

District will pay for the services described in this Agreement according to the fee schedule set forth in Appendix Two attached hereto and incorporated herein by this reference. Payment for services and any other expenses related to this Agreement must not exceed the limit or limits shown in Appendix Two. Such payment is considered as full compensation for all labor, materials, supplies, equipment, and other items used in carrying out the services described in this Agreement.

Consultant must send all invoices to:

Santa Clara Valley Water District
Attention: Accounts Payable
P.O. Box 20670
San Jose, CA 95160-0670

Consultant must invoice for services upon Consultant’s completion and the District’s acceptance of each phase.

- Agreement Number.
- Full Legal Name of Consultant/Firm.
- Payment Remit-to Address.
- Invoice Number.
- Invoice Date (the date invoice is mailed).
- Beginning and end date for billing period that services were provided.

SECTION V

TIME OF BEGINNING AND SCHEDULE FOR COMPLETION

Consultant must begin work by the date indicated in the written Notice to Proceed from District. The notice will not be issued until after this Agreement has been approved and authorized by District.

The schedule for completion of the work is detailed in Appendix Three attached hereto and incorporated herein by this reference.

(Remainder of page intentionally left blank)
SECTION VI

CHANGES IN WORK

District may order, via a written amendment signed by each parties authorized representative, changes in scope or character of work, either decreasing or increasing the amount of Consultant’s services.

This Agreement may be terminated for cause by either party for failure to comply with any terms and conditions of this Agreement, provided, however, that the party in breach has five (5) business days or such period as the parties may otherwise agree in writing to cure such breach following written notification. Additionally, this Agreement may be terminated for convenience by the District upon five (5) business days prior written notice to Consultant. In the event of termination of this Agreement, (i) the District’s sole obligation will be to pay Consultant for any authorized work performed through the date of the termination, subject to the not-to-exceed amount for each task; and (ii) Consultant must provide the District with all deliverables and other tangible data created through the date of termination. This paragraph will not be deemed to wave, prejudice, or diminish any rights which the District or Consultant may have at law or in equity for an unlawful termination or other breach of this Agreement by the other party.

SECTION VII

DELAYS AND EXTENSIONS

In the event Consultant is delayed in performance of its services by circumstances beyond its control, District may in its discretion grant a reasonable adjustment in the Schedule of Completion. All claims for adjustments in Schedule of Completion must be submitted to the District representative by Consultant within thirty (30) calendar days of the time of occurrence of circumstances necessitating the adjustment.

SECTION VIII

RESOLUTION OF DISPUTES

In the event of a dispute regarding performance of any of the terms of this Agreement, the parties agree to proceed as follows:

Internal Review: If Consultant wants to dispute an interpretation or requirement, Consultant must invoke this provision and submit the particulars of Consultant’s position in writing to the identified District Representative. District Representative must reply in writing to the Consultant. If Consultant is not satisfied by the response of the District Representative, Consultant may appeal to the District’s Contract Administrator, or designee. To exercise this administrative remedy the Consultant must submit their written position, the District Representative’s response and any other additional reply information the Consultant deems relevant to the decision, to the District’s Contract Administrator, or designee, with a copy to the District Representative. The Contract Administrator may at his/her discretion hold a meeting, ask for additional written information, and/or issue a decision based on the information submitted. If after following the
Internal Review Process the Consultant is still not satisfied, Consultant may seek external review.

External Review: Consultant, only after proceeding through the Internal Review Process, or District may seek external review where there is a dispute regarding an interpretation or requirement under the Agreement. The intent of this provision is to provide an informal dispute resolution measure which is alternative to a court action. The parties agree that they will submit the controversy to mediation before a mediator. The selection of the mediator and the ground rules for the mediation must be agreed upon by the parties. If agreement cannot be reached to pursue binding mediation or another acceptable alternative dispute resolution procedure, the matter may be submitted to Court for traditional resolution.

SECTION IX

MISCELLANEOUS PROVISIONS

District reserves the right to approve the project manager assigned Consultant to said work.

Consultant may not assign this Agreement without the express written consent of the District.

Consultant is employed to render a professional service only and any payments made to Consultant are compensation solely for such services as Consultant may render.

Any discretion or right to approve given to any party herein must be exercised in a reasonable manner.

All work performed, and documents produced, pursuant hereto will, upon completion, become the property of District. In the event the work is not completed, the completed portions thereof will become the property of District. However, District agrees that any reuse of any of the materials so furnished by Consultant will be at District’s own risk unless prior written approval has been given by Consultant for such reuse. Any and all original correspondence, memoranda, reports, designs, plans, specifications, data compilations, computer programs, or drawings delivered to District by Consultant under terms of this Agreement, in or by any medium (including computer files transmitted electronically or on disk) is deemed to be “work for hire” under the copyright laws of the United States and the copyright will belong to the District. Co-venturers, subcontractors, and vendors to Consultant likewise be bound by these copyright terms. District makes no copyright claim and requires no release for copyrighted material or trademarked names used incidentally by Consultant.

Consultant represents and warrants that neither it or its Parent or Subsidiary Company is currently acting as consultant or expert for any party in support of a claim, potential claim, or active or potential legal action against the District by such party. Consultant agrees that it or its Parent or Subsidiary Company will not so act as such consultant or expert for the duration of this Agreement without first obtaining the written consent of District.

Neither Consultant, nor any parent or subsidiary of Consultant, nor any affiliated entity sharing substantially similar ownership or control with Consultant, are eligible to bid on any contract to be awarded for the construction of any project which may be the subject of services provided under this Agreement.
Consultant hereby acknowledges that District policy prohibits the acceptance by District personnel of gifts of any kind from vendors or contractors. Consultant must honor this policy by not sending or bringing gifts to the District.

Consultant agrees that District, or its agent, has the right to review, obtain, and copy all records pertaining to performance of this Agreement. Consultant agrees to provide District, or its agent, with any relevant information requested and will permit District, or its agent, access to its premises, upon reasonable notice, during normal business hours for the purpose of interviewing employees and inspecting or copying books, records, accounts, computerized records, and other materials that may be relevant to the matter under investigation for the purpose of determining compliance with this Agreement. Consultant further agrees to maintain such records for a period of three (3) years after final payment under this Agreement.

It is understood and agreed that the District does not wish to receive from Consultant any confidential information of Consultant or of any third party. Consultant represents and warrants that any information provided to the District in the course of entering into and performing work under this Agreement is not confidential or proprietary to Consultant or any third party. Consultant must maintain confidential all District information which may be disclosed to Consultant where such information by its nature would construed as being confidential by a reasonable person. Consultant will use its best efforts to prohibit any use or disclosure of the District’s confidential information, except as absolutely necessary to perform work under this Agreement.

Consultant must notify the District in writing of each completed deliverable described in Appendix One. Within thirty (30) calendar days of Consultant’s notice, the District must either (i) notify Consultant that the District accepts the deliverable, or (ii) notify the Consultant of any deficiencies in such deliverable. If the District advises Consultant of deficiencies in the deliverable, Consultant must correct, at no cost to the District, those deficiencies as soon as possible and must again notify the District upon completion. The District must then respond to Consultant’s notice within thirty (30) calendar days of receipt, and Consultant must correct at no cost to the District any further deficiencies noted. This process will continue until Consultant has corrected all deficiencies.

This Agreement, which includes the terms and conditions, Appendix One, Appendix Two, Appendix Three, and Appendix Four, represents the entire understanding between the parties hereto relating to the services described in this Agreement and supersedes any and all prior proposals or agreements, whether written or oral, that may exist between the parties. This Agreement may not be modified or amended except in writing signed by a duly authorized representative of the party against whom enforcement is sought.

SECTION X

INDEMNIFICATION

Notwithstanding any other provision of this Agreement, Consultant agrees to indemnify, defend and hold harmless the District, its agents, officers, directors, and employees from and against any and all demands, claims, damages, losses and reasonable expenses, including but not limited to liabilities, obligations, claims, costs, reasonable expenses (including without limitation interest, penalties and reasonable attorney’s fees), fines, taxes, levies, impost, assessment, demands, damages or judgments of any kind or nature, whether in law or equity (including
without limitation, death or injury to any person, property damage, administrative and judicial orders and consents, or any other loss) to the extent they arise out of, pertain to, or relate to the Consultant's negligence, recklessness, or willful misconduct. The foregoing does not limit any strict liability imposed onto the Consultant by law.

SECTION XI

INSURANCE

Consultant's insurance requirements, if any, are set forth in Appendix Four attached hereto and incorporated herein by this reference.

IN WITNESS WHEREOF, the parties have executed this Agreement the day first hereinabove written.

SANTA CLARA VALLEY WATER DISTRICT
“District”

By: 
Jim Fiedler
Chief Operating Officer

CAROLLO ENGINEERS, INC.
“Consultant”

By: 
James Hagstrom, PE
Executive Vice President

“By:
Jean-Marc Petit, PE
Vice President

2700 Ygnacio valley Rd., Suite 300
Walnut Creek, CA 94598

“The official signing for Consultant certifies, to the best of his or her knowledge and belief, that neither Consultant nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal department or agency.”

NOTE: “No representative may obligate the District to pay fees in excess of the amount in Appendix Two without written authorization from the Board of Directors or appropriate Executive Officer, in accordance with Board Governance Policies.”

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This Appendix One describes the tasks to be undertaken by CAROLLO ENGINEERS, INC. ("Consultant") in providing consulting services to the SANTA CLARA VALLEY WATER DISTRICT ("District").

I. PROJECT OBJECTIVE

The primary objective of this Scope of Services is for the Consultant to comprehensively analyze and evaluate the feasibility of treatment alternative 3B specified in HydroScience, Inc.'s technical memo entitled “Indirect Potable Reuse In Western Santa Clara County” dated April 30, 2013 (“Treatment Alternative 3B”) to use recycled water for both direct and indirect potable reuse purposes.

The Consultant will evaluate direct and indirect potable reuse treatment feasibility options that can be used by the District, and prepare a technical memorandum to explain and summarize Consultant’s findings. The Consultant shall consider past studies that the District and the City of Sunnyvale (“Sunnyvale”) have already prepared and that these studies be used as references, including the Brine Evaluation study currently being performed by the District staff and RMC.

II. GENERAL DESCRIPTION OF THE SCOPE OF SERVICES

As part of the “Santa Clara Valley Water District and City of Sunnyvale, Indirect Potable Reuse Planning TM #2 – Purified Water Alternatives Evaluation” (KJ - April 29, 2013), the District and Sunnyvale are interested in pursuing a joint project to produce purified water for potable reuse. Source water for potable reuse would be effluent from Sunnyvale's Waste Water Pollution Control Plant ("Sunnyvale WPCP"), but there also is an opportunity to use secondary effluent from the San Jose-Santa Clara Regional Wastewater Facility ("San Jose Plant") as a source that can be used to produce purified water for potable reuse.

In addition, the technical memo entitled “Indirect Potable Reuse In Western Santa Clara County” prepared by HydroScience, Inc. on April 30, 2013 for the District (HydroScience TM), several treatment alternatives were analyzed. These treatment alternatives evaluated treatment and distribution options for producing and conveying water originating from the Sunnyvale WPCP for treatment for potable reuse purposes on the western side of the Santa Clara County.

Consultant shall evaluate treatment alternative 3B contained in the HydroScience TM (“Treatment Alternative 3B”). The Consultant shall prepare a technical memo in which Consultant conducts a fatal flaw analysis for Treatment Alternative 3B using source water from the Sunnyvale WPCP and secondary effluent from the San Jose Plant to produce water of suitable quality for use as a source for both indirect and direct potable reuse treatment by the District. In the technical memo, Consultant will further refine Treatment Alternative 3B to provide a more detailed discussion of the sizing, site layouts impacts, capital costs as well as operation and maintenance (O&M) costs, overall features, and a summary of the pros and cons of Treatment Alternative 3B.

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APPENDIX ONE
SCOPE OF SERVICES

III. PROJECT TASKS

The services described consist of the following tasks:

- Task 1 - Project Initiation
- Task 2 - Project Workshops
- Task 3 - Project Management
- Task 4 - Potable Reuse Treatment Options
- Task 5 - Prepare the District Potable Reuse Treatment Options Evaluation Feasibility Executive Summary Report
- Task 6 - Supplemental Services

Task 1 - Project Initiation

Task 1.1 - Kick-Off Meeting
Following receipt of notice to proceed, a kick off meeting will be scheduled. The desired outcome of the meeting is to reach a consensus on the scope of work, goals, and schedule. (Note: Consultant suggests that representative(s) from the Sunnyvale WPCP facility be invited to the kick-off meeting, as the proposed options are proposed to be located at their facilities and would impact not only their plant operations but could also impact their discharge water quality.

Task 2 – Project Workshops

Consultant shall attend progress meetings and conduct project workshops subsequent to District review of agenda, supporting documents and any materials in preparation for the workshops. District designated staff will participate in workshops and provide contact information for District team leaders.

Task 2.1 - Progress Meetings
The Consultant will attend up to three 2-hour long progress meetings after the kickoff meeting. Consultant will be responsible for preparing meeting materials, agenda, and meeting notes.

Task 2.2 – Technical Workshop
One half-day technical workshops shall be scheduled. Technical workshop is intended to identify key issues, constraints, information needs, and provide recommendations to facilitate the decision-making process. The workshop will be focused around the review of options to supply purified water from the Sunnyvale WPCP and San Jose Plant to the District recharge system.

The Workshop will be approximately four to five hours in length, and will be a working session, where the appropriate Consultant’s technical staff will discuss specific issues in detail and generate comments from District staff. Again, it would be desirable to invite Sunnyvale staff at this meeting for coordination.

Task 2 - Deliverables:

- Meeting/workshop agenda and supporting information.
- Meeting/workshop notes.
- Decision logs.
APPENDIX ONE
SCOPE OF SERVICES

Task 3 - Project Management

Task 3.1 - Project Administration
Consultant management team will manage the efforts of the Consultant’s project team throughout the duration of this Scope of Services. Project management will include preparing a project activities schedule and a workflow plan, tracking progress and expenditures, and maintaining a decision log.

Task 3.2 - Quality Management
Consultant will complete in-house quality management procedures for the technical memoranda and of the District and Potable Reuse Treatment Options Evaluation Feasibility Study prior to submission to the District.

Task 3 - Deliverables:
- Monthly Progress Reports.

Task 4 – Direct and Indirect Potable Reuse Treatment Options

Task 4.1 - Evaluation of Potable Reuse Treatment Options:
The Consultant will perform a District Potable Reuse Treatment Options Evaluation Feasibility Study.

The scope elements for this effort include a fatal flaw analysis for Treatment Alternative 3B that was presented in the HydroScience TM. Treatment Alternative 3B assumes that the process equipment will be located within the Sunnyvale WPCP site and would be capable of producing a net purified water flow rate of 10 MGD to the District and an additional 10 mgd from the San Jose Plant.

Alternative 3B would receive tertiary effluent from the Sunnyvale WPCP and secondary effluent from the San Jose Plant. It would be based on the following process train: membrane bioreactor (“MBR”) for Sunnyvale tertiary effluent, microfiltration (“MF”) for San Jose Plant combined tertiary and MF effluent followed by reverse osmosis (“RO”) / ultra violet (“UV”) - advanced oxidation process (“AOP”) for the combined flow. Because full advanced treatment, as defined by the California Department of Public Health (“CDPH”), is not required for surface spreading recharge operations, the technology and cost analysis will include alternative lower cost (and lower energy) treatment scenarios.

Task 4.2 - Regulatory Review and Impacts of Implementing Potable Reuse:
As part of this task, the Consultant will review the latest regulations associated with Potable Reuse and Groundwater Replenishment Reuse Project (GRRP) in the State of California.

The latest regulations require that the process trains will need to meet two major criteria: 1) Pathogenic Microorganism Control and 2) Meet Advanced Treatment Criteria.

The key treatment goals include total organic carbon (“TOC”) reduction, total nitrogen reduction, and pathogen control. For projects that are “direct injection”, the treatment
goals include 12-log virus, 10-log Cryptosporidium, and 10-log Giardia. Other research for CDPH has also detailed a need for 9-log coliform removal. Direct injection projects require 0.5-log reduction of 1.4-dioxane and require a final produce water NDMA concentration below 10 parts per trillion. Full advanced treatment is required to meet these treatment goals, which include microfiltration (or ultrafiltration), followed by RO, followed by Advanced Oxidation (UV/H₂O₂ is the de facto process, but other processes are allowed). For potable reuse that relies upon surface spreading for recharge (percolation ponds), the minimum level of treatment is filtration and disinfection meeting the “tertiary recycled water” standards of Title 22 of the California Code of Regulations. Salt reduction is an important goal for reclaimed water treatment, thus full-stream or partial stream RO should be included in the analysis. Thus, Consultant’s technology and cost analysis will have several derivations, as follows:

1. San Jose Plant secondary Effluent: Rev: MF-RO-UV/Peroxide
2. Alternative 3B-Rev for the Sunnyvale WPCP tertiary effluent: MBR-RO-UV/Peroxide, with the same alternatives as above. One important note on MBR use for potable reuse is that MBRs will not get any protozoan (or virus) removal credit from CDPH, as MBR operation negates the ability to accurately measure membrane integrity and thus log reduction performance.
3. Consultant shall also review and evaluate a variation of Alternative 3B. Two sources of effluent may be available as feed to the Potable Reuse treatment train depending on timing. At first, the secondary effluent would consist of pond effluent (current Sunnyvale WPCP configuration). Later, (in 10± years), an activated sludge (AS) process may be implemented and therefore the water quality from that new AS process would be different.
4. The District staff and RMC are conducting a brine disposal evaluation study independently of this work. District will provide a copy of the study to the Consultant within 30 days of the notice to proceed.

Task 4.3 - Preliminary Basis of Design:

A preliminary basis of design will be prepared for the preferred option determined under task 4.2 above as a basis of developing a cost estimate for the alternative. This basis of design shall include elements listed below (from a planning level basis):

- Preparation of major design criteria
- List of potential vendors (as well as any related procurement issues)
- Recommendations for levels of automation/control
- Major operations and maintenance considerations (access, redundancy needs)
- Basic layout considerations (generic plan)
- List of major support systems needed (Automation/Electrical and Combined Heat and Power Plan (ECHP))
- Implementation timelines and overall major sequencing
- Identification of any interim improvements or wasted assets at the Sunnyvale Plant
APPENDIX ONE
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- Impacts to other Sunnyvale WPCP operations (sludge production, power generation, reliability)
- Review of Impact on the Sunnyvale WPCP central power distribution system
- Disinfection related concerns (Previous report discussed disinfection by-products as an issue with City of Sunnyvale water). Consultant to determine if the organics from the Pond are still of concern with a future secondary process.
- Evaluate expected water quality for the treated water
- Review and discuss regulatory requirements associated with Potable Reuse and the impact on the process

Task 4.4 - Planning Level Cost Estimate:
For the selected option evaluated under this study, Consultant shall evaluate the following cost for each option:

- Validation of the HyroScience TM of costs and O&M
- Update capital cost and the operating costs for each option.
- Consultant will evaluate the cost required to treat to a "bay discharge" quality and also determine the incremental cost to treat to “Potable Reuse” quality.
- Evaluate cost of handling the brine
  - Using previous data (Report prepared by District staff and RMC) to assess the feasibility
- Evaluate equitable cost allocation between all agencies involved with this project. This effort will be led by Tom Chesnut.

Task 4.5 - Evaluation of Timeline for Improving Water Quality:
- Consultant shall present expected timelines for implementation of the various treatment options and the expected production time to improve recycled water quality at the Sunnyvale WPCP Plant to meet the Potable Reuse needs of the District.

Task 4.6 - Water Quality Evaluation:
- Consultant shall prepare a water quality comparison table for the water produced by each alternative.
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Task 4 - Deliverables

- Fatal Flaw Alternative analysis for the process configurations for each of the two sources (Sunnyvale WPCP and San Jose Plant).
- Capital costs analysis
- Life cycle cost analysis
- A technical memorandum summarizing the Potable Reuse options
- Basis of design documents (10% design) for the recommended selected process configuration
- Implementation, phasing and integration plan for the selected process configuration
- A technical memorandum discussing the Potable Reuse Treatment Options.
- Discussion of the results from the District/RMC TM on Brine Management from the RO

Duties of the District:

- Review technical memorandum prepared by Consultant.
- Provide the TM on Brine Disposal options prepared by District staff and RMC.

Task 5 – Prepare the District Potable Reuse Treatment Options Evaluation Feasibility Executive Summary Report

Consultant will assemble the information prepared under the tasks listed above and prepare the District Potable Reuse Treatment Options Evaluation Feasibility Executive Summary TM. Technical memoranda will be included in the appendix. A draft report will be prepared for District review. A final draft will incorporate District comments.

Task 5 - Deliverables:


Support from District:

- Review District Potable Reuse Treatment Options Evaluation Feasibility Executive Summary Report.

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Task 6 - Supplemental Services:
The District may require, and Consultant shall perform, Supplemental Services during the Agreement term on an as-needed basis. Prior to performing any Supplemental Service, Consultant shall obtain written authorization in the form of a Task Order (see Attachment Five - Task Order Template) approved by the District's Water Utility Technical Services Division Deputy Operating Officer (DOO).

6.1 - Brine Disposal Feasibility Analysis (Optional Task):
If the Brine Disposal Study provided by the District needs to be expanded, an optional task could be requested by the Consultant.

Conduct a fatal flaw analysis and review of potential impacts of Water Brine discharge and disposal, and recommend solutions. A subconsultant, EOA, Inc. will assist with this effort regarding the impact of brine discharge associated with the NPDES when diluted with the Sunnyvale WPCP flow to the Bay. EOA will set the parameters for brine discharge for the options listed below. Another subconsultant, New Fields will provide some input on the viability of using wetlands to treat the brine.

1. Blending brine with effluent
2. Constructed brine wetland
3. Mechanical (us a brine concentrator and mix with biosolids and haul off site)
4. Use District adjacent stormwater pond to enhance dilution.
5. For the offsite treatment plant options: a) sewer discharge or b) discharge to near by agency (e.g., Palo Alto).

6.2- Additional Non Defined Tasks:
A. Details of the specific scope, deliverable, schedule, and fees for any Supplementary Services will be developed with the District and submitted in writing prior to approval to begin work.

B. The Not-To-Exceed Fees for each Supplemental Services Task Order will be based upon the Hourly Rate Schedule (time and material) as described in Appendix Two, Fees and Payments, of this Agreement, and must include all of the following information:

1. The agreed upon scope of services requested by the District;
2. The total not-to-exceed amount for Consultant to complete the Supplemental Services Task Order on a Time and Materials basis;
3. The schedule for completing the Supplemental Services Task Order; and
4. Consultant key staff and classifications that will be assigned to complete the Supplemental Services.
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C. The Supplemental Services Task Order fees will not be exceeded by Consultant without prior written authorization from the District's Water Utility Technical Services Division DOO.

D. Under no circumstances shall Consultant commence the Supplemental Services until:
   1. The Supplemental Services Task Order is received, reviewed, and executed by the District's Water Utility Technical Service Division DOO; and
   2. The Consultant receives a Task Order Notice-To-Proceed from the District's Project Manager.

E. The Consultant will not perform the following Supplemental Services under this Agreement:
   - Perform field surveys of the plant site, prepare legal descriptions, or plat maps for any right-of-ways, easements, lot line adjustments, or land swaps.
   - Site Specific testing of the brine disposal alternatives
   - Prepare Preliminary Design Report.
   - Perform general soil investigations (e.g., to confirm structural sections).
   - Complete Potholing to determine or verify the exact location of existing underground utilities;
   - Complete environmental review (CEQA work);
   - Detailed subsystem piping layouts will not be provided
   - Prepare final design
   - Evaluate the various physical support systems needed for potential expansion of the existing buildings, such as the structural, mechanical, HVAC, or communications requirements related to the preliminary workspace planning needs assessment.

IV. PROJECT MANAGEMENT

The Consultant will report to Luis Jaimes, the District Project Manager. All other District staff will be available as needed, with reasonable advance notice coordinated with the District Project Manager. Project correspondence, meetings and communications will be directed and coordinated through the District Project Manager.

Jim Hagstrom from Carollo will serve as the Project Lead throughout the duration of this agreement.
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SCOPE OF SERVICES

Consultant will not sub-contract or add team members without written approval by the District Project Manager. Consultant will not remove any of the assigned team members without obtaining a written approval of the District Project Manager. Such approval may not be unreasonably withheld.

The Consultant will provide periodic project status reports (once every two weeks) that include progress toward achieving tasks, issues encountered that might cause significant deviations from the project plan and recommendations for corrective actions, in the following format:

The District Project Manager and Consultant will jointly establish and agree upon criteria for the written acceptance of each task. The District Project Manager will review the deliverables and provide a written acknowledgment of completion of each milestone.

V. ADDITIONAL TERMS AND CONDITIONS:

A. Consultant as Independent Contractor
   1. Consultant will perform all services as an independent contractor and not an agent or employee of District.
   2. The expertise and experience of Consultant are material considerations for District’s award and execution of this Agreement. Consultant will not assign or transfer any interest in this Agreement nor the performance of any of Consultant’s obligations hereunder, without prior written consent of District, and any attempt to so assign this Agreement, or any rights, duties or obligations arising hereunder, will be void and of no effect. Any assignment of moneys due or to become due in accordance with this Agreement, will be to the extent permitted by law, and will be subject to all proper set-offs, deductions, and withholdings in favor of the District.

B. Consultant’s General Responsibilities
   1. Standard of Care
      a. Consultant and its sub-consultants must perform services in accordance with those standards of care that are generally recognized as being used by competent persons in Consultant’s area of specialty in the State of California.
      b. Consultant and its sub-consultants must perform services in compliance with all applicable written federal, state and local codes, statutes, laws, regulations and ordinances, including, but not limited to, environmental, energy conservation, and disabled access requirements.
   2. Unless the requirements for the Scope of Services described in this Agreement are specifically modified in writing, Consultant must provide its services and deliverables as required.

   (Remainder of page intentionally left blank)
C. Confidentiality
Due to the nature of the services the Consultant will provide under the Agreement, there may be disclosure to the Consultant of detailed information about the District’s operations, including on a need-to-know basis information which may be protected from public disclosure by confidentiality laws, the attorney-client privilege, and/or other provisions of law which govern the nature and timing of disclosure of public information. The Consultant understands and acknowledges that District staff members providing information to the Consultant do so with the understanding that such information will be handled appropriately. In the event the Consultant receives such restricted or confidential information, the Consultant will limit access to the information to only those of the Consultant’s employees, its subcontractors, and its subconsultants authorized by the District to have the information. The Consultant will notify the District’s Project Manager immediately of any request by any third party to have access to the information, and will not disclose the requested information without first receiving express written authorization from the District’s Project Manager. The requirements of this section will survive completion of the Agreement.

D. Project Management
1. The Project Manager for the District is Hossein Ashktorab.
2. The Project Manager for Consultant is as indicated in Attachment One of this Appendix.
3. The District’s Project Manager or his designee is the only person authorized to accept Consultant’s deliverables on behalf of the District.

E. Issuance of Task Orders for Supplemental Services
1. Supplemental Services will be assigned to the Consultant through issuance of Task Orders. After Supplemental Services, to be performed under this Agreement, are identified and communicated to Consultant by the District Project Manager, the Consultant will prepare a proposed Task Order. The proposed Task Order must identify the following:
   a. description of the services, including deliverables;
   b. the total not-to-exceed amount for Consultant to complete the services, including estimated number of hours per assigned staff to complete the services;
   c. proposed staff that will be assigned to complete the services, including resumes if not previously provided to the District Project Manager;
   d. estimated cost of each reimbursable expense, including any applicable fees;
   e. time schedule for completing the services and copies of applicable state and federal permits required to complete the services, unless previously provided to the District Project Manager.
APPENDIX ONE
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2. The Consultant agrees that the not-to-exceed amount specified in a proposed Task Order will be the product of a good faith effort in exercising its professional judgment. After an agreement has been reached on the negotiable items, the finalized Task Order will be signed by both the District’s Project Manager, and the Consultant’s Project Manager.

3. The Consultant must not commence performance of work or services on a Task Order until it has been approved by the District’s Project Manager. No payment will be made for any work performed prior to approval or after the period of performance of the Task Order. The period of performance for Task Orders will be in accordance with dates specified in the Task Order. No Task Order will be written which extends beyond the expiration date of this Agreement. The total amount payable by the District for an individual Task Order will not exceed the amount agreed to in the Task Order.

F. Conflict of Interest

1. Consultant employees, officers, agents, subconsultants, and subcontractors assigned to perform services under this Agreement shall file with the District Clerk of the Board an Assuming Office Statement. The Assuming Office Statement shall be filed:

   a. within thirty (30) calendar days of the effective date of this Agreement;

   b. within thirty (30) calendar days of Consultant hiring, adding or promoting to a designated filer position employees, officers, agents, subconsultants, and subcontractors to perform services under this Agreement.

2. Consultant employees, officers, agents, subconsultants, and subcontractors assigned to perform services under this Agreement that filed a an Assuming Office Statement shall file with the District Clerk of the Board an amendment to their Form 700 anytime there is a change to their disclosure information.

3. Consultant employees, officers, agents, subconsultants, and subcontractors assigned to perform services under this Agreement that filed an Assuming Office Statement shall file with the District Clerk of the Board an Annual Statement with the District Clerk of the Board during the District's annual filing season as determined by the District Clerk of the Board;

4. Consultant employees, officers, agents, subconsultants, and subcontractors assigned to perform services under this Agreement that filed an Assuming Office Statement shall file with the District Clerk of the Board a Leaving Office Statement when one of the following occurs:
APPENDIX ONE
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a. Upon termination of this Agreement;

i. within thirty (30) calendar days of Consultant employees, officers, agents, subconsultants, and subcontractors vacating a designated filing position (i.e. removed from the project, promotion, demotion, transfer to non-designated position, end of employment, or as a result of changes in designated filer positions in the Districts Conflict of Interest Code.)

5. Consultant understands that its employees, officers, agents, subconsultants, and subcontractors may be disqualified from providing services to the District pursuant to the California Political Reform Act, Gov. Code Sections 81000 et. seq. and Government Code Section 1090. If Consultant's employees, officers, agents, subconsultants, and subcontractors are disqualified from providing services, on written notice from District's Project Manager, Consultant will have fifteen (15) calendar days to remove that employees, officers, agents, subconsultants, and subcontractors person from the project and provide a replacement acceptable to the District.

6. Further, the failure of Consultant’s employees, officers, agents, subconsultants, and subcontractors to file an Assuming Office, Annual, Amended, or Leaving Office Statement within the time prescribed herein or by the District Clerk of Board is deemed a material breach and may result in termination of the Agreement for cause.

G. Term and Termination

1. This paragraph G., Term and Termination and the following paragraph H., Consultant's Compensation Upon Termination or Suspension, of Section IV. Additional Terms and Conditions, replaces the paragraph 2 stated in the Standard Consultant Agreement portion of this Agreement, at Section IV. Changes in Work.

2. Term & Automatic Termination:
This Agreement encompasses all services for which Consultant is responsible to provide within the time limits and not-to-exceed amount set forth herein. Consultant will not undertake to provide services where it reasonably appears that the services cannot be provided and expenses cannot be incurred within said total compensation limit and the applicable not-to-exceed amount of any Task Order.

3. District’s Rights:
   a. Suspension: District may, by written notice to Consultant, suspend any or all services pursuant to this Agreement or to any individual Task Order. District may subsequently terminate this Agreement or any Task Order for convenience, or determine to proceed. If a decision to proceed is not made within ninety (90) days from the date of the notice of suspension, any decision to proceed must be conditioned upon execution of a new Notice-To-Proceed or Task Order.
b. Termination for Convenience: District may, by written notice to Consultant, terminate all or part of this Agreement or any Task Order at any time for District's convenience. Upon receipt of such notice, Consultant will immediately cease all work as specified in the notice. If this Agreement or any Task Order is so terminated, Consultant will be compensated as set forth in Section H., Consultant’s Compensation Upon Termination of Suspension, referenced below.

c. The Consultant may also terminate this contract at any time, for any reason, with a 30 day written notice to the District.

Termination for Breach: If Consultant violates any of the covenants, agreements or stipulations of this Agreement or a Task Order, or if Consultant fails to fulfill in a timely and proper manner its obligations pursuant to this Agreement or any Task Order, and does not cure such failure or violation within thirty (30) days (or a reasonable extension thereof, if requested, which extension will not be unreasonably withheld) after receipt of written notice from District specifying such failure or violation, District will thereupon have the right to terminate this Agreement and any or all uncompleted Task Orders by giving written notice to Consultant of such termination. Such notice will specify the effective date thereof, and Consultant will not be entitled to compensation for services or expenses beyond the specified termination date.

d. If, after notice of termination for breach of this Agreement or any Task Order, it is determined that Consultant did not breach the Agreement or Task Order, the termination will be deemed to have been effected for District's convenience, and Consultant will receive payment that is allowed by this Agreement for a termination for convenience.

e. The rights and remedies provided herein to District are in addition to any other rights and remedies provided by law, this Agreement, or a Task Order.

H. Consultant’s Compensation Upon Termination or Suspension

1. In the event of termination of this Agreement or any Task Order, or suspension of services by District, Consultant shall receive compensation based on satisfactory performance, accepted by the District Project Manager, as follows:

   a. For Direct Labor—Consultant shall be entitled to receive compensation for all authorized direct labor performed prior to termination pursuant to the provisions of this Agreement or Task Order and all authorized labor expenses incurred to demobilize from the Project after the date of termination.
APPENDIX ONE
SCOPE OF SERVICES

b. For Reimbursable Expenses—Consultant shall be entitled to receive compensation for all authorized Reimbursable Expenses incurred prior to termination and all authorized expenses incurred to demobilize from the Project after the date of termination. In no event shall the total compensation paid for any item of service exceed the payment specified in the applicable Task Order for that item of service.

I. Release of Information Prohibited
The Consultant is not permitted to provide any information concerning the Project to the media nor anyone other than authorized District personnel. The Consultant will not release any information pertinent to the Project under design or construction for publication, public disclosure, or in any other manner without first obtaining clearance and a release in writing from the District Project Manager. Any media inquiry at any time to Consultant relating to any matter concerning services provided or requested to be provided under this Agreement will be referred immediately to the District Project Manager. Consultant will not communicate with the media regarding any such matter.

J. Notices
All notices will be deemed to have been given when made in writing and delivered or mailed to the representatives of District and Consultant at their respective addresses as follows:

**District:**
Santa Clara Valley Water District
Attention: Mr. Jim Fiedler; Chief Operating Officer
5750 Almaden Expressway
San Jose, CA 95118
(408) 630-2736
Email: jfiedler@valleywater.org

**Consultant:**
Carollo Engineers
Attention: Mr. James Hagstrom, PE, Executive Vice President
2700 Ygnacio valley Rd., Suite 300
Walnut Creek, CA 94598
Email: jhagstrom@carollo.com

K. Appendix One Attachments:
   1. The following listed Attachments referred to herein are incorporated in this Appendix One — Scope of Services:
      a. Attachment One – Consultant's Key Staff
      b. Attachment Two - Contractor QEMS Awareness pamphlet, Document No. F622D04
      c. Attachment Three - QEMS Awareness and Training
      d. Attachment Four - District’s Quality Environmental Management System Awareness and Training Certification Form
      e. Attachment Five – Task Order Template
ATTACHMENT ONE TO APPENDIX ONE
CONSULTANT’S KEY STAFF

Consultant’s Key Staff:

1. Consultant key personnel assigned to the Project are as follows:

<table>
<thead>
<tr>
<th>Team Member</th>
<th>Title/Role</th>
<th>Consultant/Sub-consultant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jim Hagstrom</td>
<td>Principal Engineer</td>
<td>Consultant</td>
</tr>
<tr>
<td>Jean-Marc Petit</td>
<td>Project Engineer</td>
<td>Consultant</td>
</tr>
<tr>
<td>Jamel Demir</td>
<td>Quality Management</td>
<td>Consultant</td>
</tr>
<tr>
<td>Andrew Salveson</td>
<td>Potable Reuse Specialist</td>
<td>Consultant</td>
</tr>
<tr>
<td>Tom Seacord</td>
<td>RO Specialist</td>
<td>Consultant</td>
</tr>
</tbody>
</table>

2. The above named staff will not be replaced without the approval of the District's Project Manager. If Consultant's Project Manager or any other designated key staff person or sub-consultant fails to perform to the satisfaction of the District, on written notice from District's Project Manager, Consultant will have fifteen (15) calendar days to remove that person from the project and provide a replacement acceptable to the District.

3. The District's Project Manager may approve any revisions to Consultant's key personnel or designated sub-consultant as an administrative modification to this Agreement.

(Remainder of page intentionally left blank)
Quality, environmental stewardship, and organizational excellence are the responsibilities of each individual working for or on behalf of the Santa Clara Valley Water District. It is important for each individual to follow the Quality and Environmental Policy, procedures, and the requirements of the Quality and Environmental Management System. Any deviation from specified procedures could have an unintended adverse impact on the environment. Every individual working for or on behalf of the District is responsible for being aware of how their work could impact or potentially impact the environment.

This guide focuses on the Environmental System requirements of the District’s Quality and Environmental Management System (QEMS).

Your District contact can provide more information or answer any questions.

The Santa Clara Valley Water District (District) is registered for both:
ISO 9001:2008 – Quality Management System
ISO 14001:2004 – Environmental Management System

In accordance with the requirements of ISO 9001 and 14001, the District has established, documented, implemented, and maintains an integrated Quality and Environmental System (QEMS) and continually improves its effectiveness.

The District’s Quality and Environmental Policy:

• Expresses a commitment to the implementation and maintenance of an organization’s quality and environmental management system and the improvement of its overall quality and environmental performance.

• Is used to create quality and environmental objectives and targets and should act as a general framework for action.

This policy must be followed by all District employees and all persons working on behalf of the District.

The District’s Quality and Environmental Policy

The District maintains a Quality and Environmental Management System (QEMS) to:
• help meet the Ends and Executive Limitations governance policies established by the Board of Directors;
• meet customer requirements;
• provide for active, uniform, and systematic deployment of key processes; and
• to establish a culture of continual improvement to implement its vision of fiscal responsibility and accountability.

The District also strives for a net positive impact on the environment while implementing the vision of fiscal responsibility and accountability including compliance with legal and other requirements related to its environmental processes.
Quality, environmental stewardship, and organizational excellence are the responsibility of each individual in the organization. District leadership supports quality by providing appropriate resources, transparent processes, a supportive work environment, and development opportunities for its workforce. Each individual is expected to fully engage in deploying the mission and use resources in a manner that maximizes effectiveness and contributes to environmental stewardship.

**The District's Quality Objectives and Targets**
- Reliable high quality drinking water is delivered (Ends: 2.3.1).
- Maintain effective relationships with the retailer and other stakeholder to ensure high quality, reliable drinking water (Ends: 2.3.2).
- Provide natural flood protection for residents, businesses, and visitors by removing parcels from flooding, applying an integrated watershed management approach that balances environmental quality and protection from flooding (Ends: 3.1.1).

**The District's Environmental Objectives and Targets**
- Reduce greenhouse gas emissions to achieve carbon neutrality by 2020 (Ends 4.3.1). This is a significant environmental aspect.
- Prepare for and respond effectively to water utility emergencies (Ends: 2.1.6).

**The District's Significant Environmental Aspect**
For each type of activity, product, or service, the District has listed its unique environmental aspects and determined the most significant environmental aspect that has or could have a significant environmental impact. The District has identified one significant environmental aspect.

1. **Greenhouse gas emissions**
The District has implemented Greenhouse Gas (GHG) Emissions Reduction Program (Procedure Q541D01) to reduce GHG emissions when reasonable and appropriate.

This program focuses on the major sources of District GHG emissions fuel and energy uses, and sets forth tracking and reporting for the business functions responsible for fleet, fuel, and energy management.

This program follows the CEQA guidelines adopted by the Bay Area Air Quality Management District. These guidelines recommend air quality significance thresholds, analytical methodologies, and mitigation measures for local agencies to use when preparing air quality impact analyses under CEQA.

The District has a Climate Action Plan Team that provides technical support to operations units charged with tracking and reporting emissions.

**Potential Impacts Of Your Work**
What are the actual or potential negative impacts that could be associated with District work in regards to:
- Water Pollution?
- Air Pollution?
- Noise Pollution?
- Hazardous Material Pollution?
- Generation of Solid Waste?
- Wildlife Impacts?
How could your work impact the:
- Physical environment (geographical, biological, cultural)?
- Infrastructure and built environment (aesthetics, traffic, noise)?

Your District contact can provide more information or answer any questions.

Non-conformities
The District ensures that its products that do not conform to requirements are identified and controlled to prevent their unintended use. The controls and related responsibilities and authorities for dealing with nonconforming products are defined in a documented procedure Corrective or Preventive Action Request Process (Q85201). Actual and potential nonconformities related to the environment are dealt with in accordance with the above procedure.

Non-conformity is a situation or event where requirements or expectations are not met as in the following examples:
- Product does not meet Quality Standards
- A breach of a District or Division policy, procedure, process or practice
- A breach of a regulatory requirement or permit condition
- Noncompliance with the QEMS elements, ISO 9001 standard, or ISO 14001 standard

The District deals with nonconforming products or environmental non-conformities by one or more of the following ways:
- Identifying and correcting the nonconformity and taking action to mitigate their environmental impacts or to eliminate the detected nonconformity
- Investigating the nonconformity, determining their root cause and taking appropriate actions in order to avoid their recurrence or occurrence
- By taking action to preclude its original intended use or application

Records of the nature of nonconformities and any subsequent actions taken, including mitigations of environmental impacts or concessions obtained, are maintained.

When nonconforming products are corrected, it is subject to re-verification to demonstrate conformity to the requirements.

When nonconforming products are detected after delivery or use has started, the District takes action appropriate to the impacts, or potential impacts, of the nonconformity.

Quality and environmental stewardship are the responsibility of each individual working for or on behalf of the District. It is important that each individual follows the District's Quality and Environmental Policy, procedures, and the requirements of the QEMS. Any deviation from specified procedures could have an unintended adverse impact on the environment. Every individual working for or on behalf of the District is responsible for being aware of how their work could impact or potentially impact the environment.
As an on-site provider of services for the Santa Clara Valley Water District (District) that has the potential to result in significant environmental impacts, your firm is required to review the Contractor QEMS Awareness pamphlet, Document No. F622D04, with any of the employee(s), sub-contractor(s), and/or sub-consultant(s) (“Staff”) performing services on behalf of the District, and make Staff aware of the District’s Quality and Environmental Policy and their role and responsibility in achieving conformity with the expectations.

The District is registered for International Organization for Standardization (ISO) 9001- Quality Management System and ISO 14001- Environmental Management System. ISO is a worldwide federation that produces international standards for a sustainable world. ISO 9001 sets the quality standards that assist the District in providing consistent quality to its customers, enhance customer satisfaction, and achieve continual improvement of the system in pursuit of these objectives. ISO 14001 sets the environmental standard that assists the District in identifying its potential impacts on the environment and the control of those impacts while meeting the applicable regulatory requirements.

Quality, environmental stewardship, and organizational excellence are the responsibility of each individual in the organization, including District service providers. District leadership supports quality by providing appropriate resources, transparent processes, a supportive work environment, and development opportunities for its workforce. Each individual is expected to fully engage in deploying the mission and use resources in a manner that maximizes effectiveness and contributes to environmental stewardship.

In accordance with the requirements of ISO 9001 and 14001, the District has established, documented, implemented, and maintains an integrated Quality and Environmental System (QEMS) and continually improves its effectiveness. In accordance with ISO 14001:2004 – 4.4.2, Competence Training and Awareness, the District shall ensure that any person working for it or on its behalf is aware of:

1. The importance of conformity with the District’s Quality and Environmental Policy, procedures, and the requirements of the District’s Quality and Environmental Management System;
2. The significant environmental aspects and related actual or potential impacts associated with the work and the environmental benefits of improved personal performance;
3. Their roles and responsibilities in achieving conformity with the requirements of the District’s QEMS; and
4. The potential consequences of departure from QEMS procedures.

The Consultant must give its Staff a copy of the Contractor QEMS Awareness pamphlet; and, by completing, signing, and returning to the District the QEMS Awareness and Training Certification Form, warrants that the pamphlet has been reviewed by the Consultant’s Staff and Staff is aware of the District’s quality and environmental objectives and targets. The QEMS Awareness and Training Certification Form must be sent to: Contract Analyst, Santa Clara Valley Water District, 5750 Almaden Expressway, San Jose, CA 95118.
ATTACHMENT FOUR – TO APPENDIX ONE
District’s Quality Environmental Management System
Awareness and Training Certification Form

QUALITY AND ENVIRONMENTAL
MANAGEMENT SYSTEM (QEMS)
AWARENESS AND TRAINING
CERTIFICATION FORM
(01/31/13)

By signing below, I certify that: Consultant’s employees, sub-contractor(s), and/or sub-
consultant(s) (“Staff”) performing services on behalf of the District have received the District’s
Contractor QEMS Awareness pamphlet, Document No. F522D04; Staff is aware of the District’s
quality and environmental objectives and targets; and, Staff is aware of their role and
responsibility in achieving conformity.

Further and in accordance with ISO 14001:2004 – 4.4.2, Competence Training and Awareness,
Staff is aware of:

1. The importance of conformity with the District’s Quality and Environmental Policy,
   procedures, and the requirements of the District’s Quality and Environmental
   Management System;
2. The significant environmental aspects and related actual or potential impacts associated
   with the work and the environmental benefits of improved personal performance;
3. Their roles and responsibilities in achieving conformity with the requirements of the
   District’s QEMS; and
4. The potential consequences of departure from QEMS procedures.

I declare under penalty of perjury under the laws of the State of California that the foregoing is
true and correct to the best of my knowledge.

[INSERT NAME OF FIRM IN ALL CAPS]
“Consultant”

________________________________________
(Signature)

________________________________________
(Print Name)

________________________________________
(Print Title)

________________________________________
(Date)
ATTACHMENT FIVE – TO APPENDIX ONE

TASK ORDER TEMPLATE

Task Order No.___________

Agreement: Standard Consultant Agreement – Contract No._____________ ("Agreement") Between the Santa Clara Valley Water District ("District") and ______________________ ("Consultant"), dated ______________.

District Project Manager:  ___________________________________
Consultant Project Manager:  ___________________________________

Dollar Amount of Task Order: Not-to-exceed $____________

1. Upon full execution of this Task Order Number:_________, as set forth in Appendix One, Section VI. Additional Terms and Conditions, D. Task Orders, and issuance of a notice to proceed by the District Project Manager, the Consultant is hereby authorized to perform the services described in Attachment A to this Task Order. Any costs incurred, services performed or expenditures by the Consultant before this Task Order is executed or before the issuance of the notice to proceed will be considered outside the contracted scope of services and will not be eligible for payment.

2. Both the scope of services to be performed and the deliverables to be provided under this Task Order are described in Attachment A which is attached hereto and incorporated by this reference. Attachment A identifies the following:
   a. The Consultant personnel to be assigned to perform the services, including resumes if not previously provided to the District Project Manager.
   b. The estimated number of hours required to perform the services assigned to each assigned Consultant personnel.
   c. Estimated cost of each reimbursable expense, including any applicable fees.
   d. Project schedule for completing the scope of services.

3. The Consultant shall be compensated at the hourly rates established in Appendix Two, Fees and Payments, of the Agreement. The Consultant agrees that it will provide all equipment, furnish all materials, except as may be otherwise noted in the Attachment A.

4. This Task Order will become effective on the date of signature by the District Deputy Operating Officer and the Consultant Project Manager, and remain in effect until the earlier of: completion of the tasks set forth in Attachment A or {enter expected completion date}.

5. Copies of applicable state and federal permits required to complete the work in Attachment A are attached to this Task Order, unless the Consultant Project Manager previously provided the appropriate permits to the District.

6. The Consultant shall perform all services described in Attachment A to this Task Order in accordance with the terms and conditions of the Agreement.

7. Signatures:

Signature/Print Name:  
CONSULTANT PROJECT MANAGER  
ON BEHALF OF THE CONSULTANT  

CONSULTANT

Signature/Print Name:  
SANTA CLARA VALLEY WATER DISTRICT  
DEPUTY OPERATING OFFICER (or the Project Manager, if the Task Order amount is less than or equal to $100,000)  

DATE

DATE

DATE
APPENDIX TWO
FEES & PAYMENTS

I. GENERAL

Services as listed in Appendix One - Scope of Services of this Agreement that are performed by the Consultant to the satisfaction of the District will be paid on a time and material basis at the hourly rates set forth in the Hourly Rate Schedule contained in Section IV below, subject to the not-to-exceed amounts for each task set forth in the Cost Breakdown table located in Section III below. Payments made by the District to the Consultant for services rendered will be considered full compensation for all personnel, materials, supplies, subconsultant(s), and equipment including reimbursable, travel, per diem and all other expenses incurred by the Consultant to complete the work.

II. TOTAL AUTHORIZED FUNDING

Total payment for services performed, as defined in Appendix One - Scope of Services, shall not exceed a total amount of $64,443 for Tasks 1 – 5, and $28,932 for Task 6 during the term of this Agreement. Under no conditions will the total compensation to the Consultant exceed those amounts without prior written approval in the form of an amendment to this Agreement executed by the District's Board of Directors or Chief Executive Officer as authorized by the Board. The Consultant guarantees that it will complete Tasks 1 through 5 for the $64,443 not-to-exceed amount, and, if the District elects Consultant to perform Task 6, to complete Task 6 for the $28,932 not-to-exceed amount.

III. COST BREAKDOWN

The $93,375 total not-to-exceed consists of the following task fee breakdown. No services will be performed or fees paid by the District to the Consultant for Supplemental Services without prior written authorization by the District as stated in Appendix One of this Agreement. All Consultant project management fees are included in the not-to-exceed amounts listed below.

<table>
<thead>
<tr>
<th>Task#</th>
<th>Task Description</th>
<th>Not-To-Exceed Amount**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task 1</td>
<td>Project Initiation</td>
<td>$3,100</td>
</tr>
<tr>
<td>Task 2</td>
<td>Workshops</td>
<td>$15,462</td>
</tr>
<tr>
<td>Task 3</td>
<td>Project Management</td>
<td>$4,032</td>
</tr>
<tr>
<td>Task 4</td>
<td>Evaluation of Potable Reuse Treatment Options</td>
<td>$34,882</td>
</tr>
<tr>
<td>Task 5</td>
<td>Preparation of District Potable Reuse Treatment Options</td>
<td>$6,967</td>
</tr>
<tr>
<td>Task 6 -</td>
<td>Supplemental Services: (Including task 6.1: Brine Disposal</td>
<td>$28,932</td>
</tr>
<tr>
<td>OPTIONAL</td>
<td>Feasibility Study</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>** Note: All expenses, including overhead expenses, for Consultant Project Manager responsibilities are included in the Not-To-Exceed amounts in the above Cost Breakdown Table.</td>
<td>$93,375</td>
</tr>
</tbody>
</table>
IV. TERMS AND CONDITIONS

Payments for work completed, as defined in Appendix One - Scope of Services, will be based on the following terms:

1. District will pay for services provided by the Consultant according to the schedule of rates for professional, technical, and administrative personnel as listed below in the Hourly Rate Schedule and unit rate.

2. The stated hourly and unit rates are effective for the term of this Agreement unless otherwise revised as indicated. After twelve (12) months from the date this Agreement is entered into by parties (“anniversary date”), and each 12 months thereafter, these hourly and unit rates may be negotiated by the Consultant and the District, provided Consultant submits written notice to District of Consultant’s request to revise the hourly and unit rates ninety (90) calendar days prior to the anniversary date of this Agreement. Both parties will use as a benchmark for negotiations the percent change for the previous twelve (12) months of the “Employment Cost Index (ECI), for total compensation for private industry workers, for the San Francisco-Oakland-San Jose, CA CSA Census region and metropolitan area (not seasonally adjusted)” as published by the U.S. Department of Labor, Bureau of Labor Statistics, or 2.5% whichever is less. A negative index will result in rates remaining the same. Such rate revisions are subject to written approval by the District’s Water Utility Capital Services Division Deputy Operating Officer.

### HOURLY RATE SCHEDULE
CAROLLO ENGINEERS, INC.
As of January 1, 2014

<table>
<thead>
<tr>
<th>Classification</th>
<th>Hourly Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PRIME CONSULTANT</strong></td>
<td></td>
</tr>
<tr>
<td>Senior Technologist</td>
<td>$271</td>
</tr>
<tr>
<td>Senior Professional</td>
<td>$252</td>
</tr>
<tr>
<td>Lead Project Professional</td>
<td>$236</td>
</tr>
<tr>
<td>Project Professional</td>
<td>$220</td>
</tr>
<tr>
<td>Professional</td>
<td>$153</td>
</tr>
<tr>
<td>Assistant Professional</td>
<td>$138</td>
</tr>
<tr>
<td>Senior Technicians</td>
<td>$138</td>
</tr>
<tr>
<td>Technicians</td>
<td>$111</td>
</tr>
<tr>
<td>Document Processing / Clerical</td>
<td>$89</td>
</tr>
</tbody>
</table>

Project Equipment Communication Expense (PECE) added to each direct labor hour

$11.70
APPENDIX TWO
FEES & PAYMENTS

Other Direct Expenses

<table>
<thead>
<tr>
<th>Description</th>
<th>Rate/Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Travel and Subsistence</td>
<td>at cost, subject to the limitations of Section 6 below</td>
</tr>
<tr>
<td>Mileage at IRS Reimbursement Rate</td>
<td>$.565 per mile, subject to the limitations of Section 6 below</td>
</tr>
<tr>
<td>Effective January 1, 2013</td>
<td></td>
</tr>
<tr>
<td>Subconsultant</td>
<td>cost + 10%</td>
</tr>
<tr>
<td>Other Direct Cost</td>
<td>cost + 10%</td>
</tr>
</tbody>
</table>

This Hourly Rate Schedule is subject to annual revisions due to labor adjustments. Any adjustment to the Hourly Rate Schedule will only be effective if the adjustment is specified in an amendment to this Agreement signed by both parties.

3. Unused fees from a completed task may be reallocated to a future task provided that the Agreement Total Not-To-Exceed Amount is not exceeded.

4. Not-to-exceed fees and services to be performed under Supplemental Services will commence only after written approval from the District’s Division Deputy Operating Officer.

5. All other direct expenses not included in overhead including, but not limited to, mapping, rendering, printouts, leased equipment, mailing and delivery services, printing services, film and processing, plotting, and supplies, will be billed monthly at cost linked to each Agreement Task, as approved by the District's Project Manager.

6. Automobile travel mileage expenses will be paid at the current IRS rate. District will not reimburse Consultant and its subconsultants for travel to and from District Headquarters and surrounding campus located at 5700 Almaden Expressway, San Jose, California. District will reimburse Consultant and its subconsultants for mileage incurred from District Headquarters or Consultant’s and subconsultants’ firm address, whichever is closer to the destination, to Project site and to meeting locations with regulatory agencies, if directed or authorized by the District.

7. Invoices will be prepared in accordance with the terms of this Appendix Two and the Standard Consultant Agreement Section IV, Fees and Payments and represent work performed and reimbursable costs incurred during the identified billing period and will be consistent with Appendix One and include categorized costs for all labor charges, name and personnel category, and direct charges by task, must reflect actual fees versus the Agreement not-to-exceed fees in this Appendix Two. Before submitting an invoice, a draft semi-monthly progress
report and invoice (in Adobe PDF format) will be provided by the Consultant for preliminary review by the District Project Manager. Upon preliminary approval by the District, the Consultant will mail the complete signed and dated hardcopy invoice, including all supporting documentation. District review of the draft invoice does not represent final approval of the hardcopy invoice.

8. District’s Project Manager will review invoice within 5 working days of receipt, address any questions with Consultant’s Project Manager, and approve the undisputed amount of the invoice within 10 working days of receipt of the invoice. District will pay undisputed invoices within one week from date invoice is approved by District's Project Manager.

9. Consultant’s services will be performed by its staff members and subconsultants’ staff members at the lowest hourly rates commensurate with the complexity of the required services.

10. Small Business Enterprise (SBE) Participation

Consultant is not a California Department of General Services (DGS) certified Small/Micro Business and is not utilizing DGS certified Small/Micro Businesses in the performance of the Scope of Services of this Agreement.

( Remainder of page intentionally left blank)
APPENDIX THREE
SCHEDULE OF COMPLETION

1. This Agreement commences on the date specified in the introductory paragraph of the
   Standard Consultant Agreement portion of this Agreement. This Agreement expires
   (December 31, 2014), unless its term is modified by a written amendment hereto, signed by
   both parties. The District reserves the right to terminate or suspend this Agreement at any time.

2. Consultant will commence Tasks listed in Appendix One of this Agreement upon receipt of the
   Notice-to-Proceed (NTP) issued by the District.

3. Consultant will perform and complete the Services described in Appendix One, Scope of
   Services, in accordance with the Project Schedule table as shown below. Consultant will
   coordinate services with the District to provide the timeline of all tasks and subtasks including
   the site visits, document review, meetings and Deliverables.

4. The approved Project Schedule will be monitored monthly. Changes to the schedule for
   performance of Tasks and Deliverables are subject to advance written approval by District.
   Consultant’s attention is directed to District’s Standard Consultant Agreement, Section VII.
   Delays and Extensions.

5. Project Delays - The Consultant will make all reasonable efforts to comply with the Project
   Schedule as shown here in Appendix Three. In the event the Project Schedule will be delayed,
   Consultant will notify the District as soon as possible, providing the reason why, the length of
   the delay, and a description of the actions being taken to address the delay. In the event
   Consultant is delayed in performance of its services by circumstances beyond its control,
   District may in its discretion grant a reasonable adjustment in the Project Schedule. This
   language will prevail should any conflict or discrepancy occur between this provision and
   Section VII. Delays and Extensions.

6. District’s Project Manager and Consultant may agree to modify the schedule specified for
   Consultant’s performance as an administrative modification to the Agreement.

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
<th>Duration from NTP in Weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task 1</td>
<td>Project Initiation</td>
<td>2</td>
</tr>
<tr>
<td>Task 2</td>
<td>Workshops</td>
<td>8</td>
</tr>
<tr>
<td>Task 3</td>
<td>Project Management</td>
<td>15</td>
</tr>
<tr>
<td>Task 4</td>
<td>Evaluation of Potable Reuse Treatment Options</td>
<td>9</td>
</tr>
<tr>
<td>Task 5</td>
<td>Preparation of District Potable Reuse Treatment Options Evaluation Feasibility Executive Summary</td>
<td>12 Draft 15 Final Version</td>
</tr>
<tr>
<td>Task 6 - OPTIONAL</td>
<td>Supplemental Services</td>
<td>4-6 after being authorized</td>
</tr>
</tbody>
</table>
APPENDIX FOUR

INSURANCE REQUIREMENTS

Please refer to the insurance requirements listed below.

Without limiting the Consultant's indemnification of, or liability to, the Santa Clara Valley Water District ("District"), the Consultant must provide and maintain at its own expense, during the term of this Agreement, or as may be further required herein, the following insurance coverages and provisions:

Consultant must provide its insurance broker(s)/agent(s) with a copy of these requirements and warrants that these requirements have been reviewed by Consultant's insurance agent(s) and/or broker(s), who have been instructed by Consultant to procure the insurance coverage required herein. All Certificates of Insurance complete with copies of all required endorsements must be sent to: Contract Administrator, Santa Clara Valley Water District, 5750 Almaden Expressway, San Jose, CA 95118.

In addition to certificates, Consultant must furnish District with copies of original endorsements affecting coverage required by this Appendix. The certificates and endorsements are to be signed by a person authorized by that insurer to bind coverage on its behalf. All endorsements and certificates are to be received and approved by District before work commences. In the event of a claim or dispute, District has the right to require Consultant's insurer to provide complete, certified copies of all required pertinent insurance policies, including endorsements affecting the coverage required by this Appendix.

Consultant must, at its sole cost and expense, procure and maintain during the entire period of this Agreement the following insurance coverage(s).

**Required Coverages**

1. **Commercial General/Business Liability Insurance** with coverage as indicated:

   $1,000,000 per occurrence / $1,000,000 aggregate limits for bodily injury and property damage

   General Liability insurance must include:

   a. Coverage at least as broad as found in standard ISO form CG 00 01.
   b. Contractual Liability expressly including liability assumed under this contract.
   c. If Consultant must be working within fifty (50) feet of a railroad or light rail operation, any exclusion as to performance of operations within the vicinity of any railroad bridge, trestle, track, roadbed, tunnel, overpass, underpass, or crossway must be deleted, or a railroad protective policy in the above amounts provided.
   d. Severability of Interest
   e. Broad Form Property Damage liability
   f. If the standard ISO Form wording for "OTHER INSURANCE," or other comparable wording, is not contained in Consultant's liability insurance policy, an endorsement must be provided that said insurance will be primary insurance and any insurance or self-insurance maintained by District, its Directors, officers, employees, agents or volunteers must be in excess of Consultant's insurance and must not contribute to it.
APPENDIX FOUR

INSURANCE REQUIREMENTS

2. **Business Auto Liability Insurance** with coverage as indicated:

   $1,000,000 combined single limit for bodily injury and property damage per occurrence, covering all owned, non-owned and hired vehicles.

3. **Professional/Errors and Omissions Liability** with coverage as indicated:

   $2,000,000 per claim/ $2,000,000 aggregate

   Professional/Errors and Omission Liability appropriate to the Consultant’s profession, and must include:

   A. If coverage contains a deductible, or self-insured retention, it shall not be greater than one hundred thousand dollars ($100,000) per occurrence/event.

   B. Coverage shall include contractual liability

   C. If coverage is claims-made:

      a. Certificate of Insurance shall clearly state that the coverage is claims-made
      b. Policy retroactive date must coincide with or precede the Consultant’s start of work (including subsequent policies purchased as renewals or replacements).
      c. Policy must allow for reporting of circumstances or incidents that might give rise to future claims.
      d. Insurance must be maintained and evidence of insurance must be provided for at least three (3) years after completion of the contract of work.

4. **Workers’ Compensation and Employer’s Liability Insurance**

   Statutory California Workers’ Compensation coverage covering all work to be performed for the District.

   Employer Liability coverage for not less than $1,000,000 per occurrence.

**General Requirements**

With respect to all coverages noted above, the following additional requirements apply:

1. **Additional Insured Endorsement(s)** Consultant must provide an additional insured endorsement for Commercial General/Business Liability and Business Automobile liability coverage naming the **Santa Clara Valley Water District, its Directors, officers, employees, and agents, individually and collectively**, as additional insureds, and must provide coverage for acts, omissions, etc. arising out of the named insureds’ activities and work. Other public entities may also be added to the additional insured endorsement as applicable and the Consultant will be notified of such requirement(s) by the District.

   (NOTE: Additional insured language on the Certificate of Insurance is NOT acceptable without a separate endorsement such as Form CG 20 10, CG 2033, CG 2037. Note: Editions dated 07/04 are not acceptable)
APPENDIX FOUR
INSURANCE REQUIREMENTS

2. **Primacy Clause:** Consultant’s insurance must be primary with respect to any other insurance which may be carried by the District, its officer, agents and employees, and the District’s coverage must not be called upon to contribute or share in the loss.

3. **Cancellation Clause Revision:** The Certificate of Insurance **MUST** provide **30 days** notice of cancellation, (10 days notice for non-payment of premium). **NOTE:** The standard wording in the ISO Certificate of Insurance is **not** acceptable. The following words must be crossed out or deleted from the standard cancellation clause: "...endeavor to..." AND "...but failure to mail such notice must impose no obligation or liability of any kind upon the company, its agents or representatives."

4. **Acceptability of Insurers:** All coverages must be issued by companies admitted to conduct business in the State of California, which hold a current policy holder's alphabetic and financial size category rating of not less than A- V, according to the current Best's Key Rating Guide or a company of equal financial stability that is approved by the District’s Risk Management Administrator.

5. **Self-Insured Retentions or Deductibles:** Any deductibles or self-insured retentions must be declared to and approved by the District. At the option of the District, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the District, its officers, officials, employees and volunteers; or the Consultant shall provide a financial guarantee satisfactory to the Entity guaranteeing payment of losses and related investigations, claim administration, and defense expenses.

6. **Subconsultants:** Should any of the work under this Agreement be sublet, the Consultant must require each of its subconsultants of any tier to carry the aforementioned coverages, or Consultants may insure subconsultants under its own policies.

7. **Amount of Liability not Limited to Amount of Insurance:** The insurance procured by Consultant for the benefit of the District must not be deemed to release or limit any liability of Consultant. Damages recoverable by the District for any liability of Consultant must, in any event, not be limited by the amount of the required insurance coverage.

8. **Coverage to be Occurrence Based:** With the exception of the Professional Liability/Errors and Omissions coverage mentioned above, all coverage must be occurrence-based coverage. Claims-made coverage is not allowed.

9. **Waiver of Subrogation:** Consultant agrees on to waive subrogation against the District to the extent any loss suffered by Consultant is covered by any Commercial General Liability policy, Automobile policy, Workers’ Compensation policy, or Professional policy described in **Required Coverages** above. Consultant agrees to advise its broker/agent/insurer about this provision and obtain any endorsements, if needed, necessary to ensure the insurer agrees.

10. **Non-compliance:** The District reserves the right to withhold payments to the Consultant in the event of material noncompliance with the insurance requirements outlined above.
11. Please mail the certificates and endorsements to:

   Contract Administrator  
   Santa Clara Valley Water District  
   5750 Almaden Expressway  
   San Jose, CA 95118

IMPORTANT: On the certificate of insurance, please note either the name of the project or the name of the District contact person or unit for the contract.

If your insurance broker has any questions please advise him/her to call Mr. David Cahen, District Risk Management Administrator at (408) 265-2607, extension 2213.

(Remainder of page intentionally left blank)
without limitation, death or injury to any person, property damage, administrative and judicial
orders and consents, or any other loss) to the extent they arise out of, pertain to, or relate to the
Consultant's negligence, recklessness, or willful misconduct. The foregoing does not limit any
strict liability imposed onto the Consultant by law.

SECTION XI
INSURANCE

Consultant's insurance requirements, if any, are set forth in Appendix Four attached hereto and
incorporated herein by this reference.

IN WITNESS WHEREOF, the parties have executed this Agreement the day first hereinabove
written.

SANTA CLARA VALLEY WATER DISTRICT
"District"

By: [Signature]
Jim Fiedler
Chief Operating Officer

CAROLLO ENGINEERS, INC.
"Consultant"

By: [Signature]
James Hagstrom, PE
Executive Vice President

"By:
Jean-Marc Petit, PE
Vice President

2700 Ygnacio valley Rd., Suite 300
Walnut Creek, CA 94598

"The official signing for Consultant certifies, to the best of his or her knowledge and
belief, that neither Consultant nor its principals is presently debarred, suspended,
proposed for debarment, declared ineligible, or voluntarily excluded from participation in
this transaction by any federal department or agency.”

NOTE: “No representative may obligate the District to pay fees in excess of the amount
in Appendix Two without written authorization from the Board of Directors or appropriate
Executive Officer, in accordance with Board Governance Policies.”

(Remainder of page intentionally left blank)
Jeannine

You had asked for us to look into the multi-story approach to Sunnyvale as well as off-site options. The attached scope would create a detailed Basis of Design report of these options and provide confidence in the costs, allowing a comparison with the MBR option.

Similar to past discussions, you may want to check if CDM/RMC is doing a Sunnyvale off-site evaluation. I seriously doubt they are looking at anything on the Sunnyvale plant, because they don’t have the site knowledge.

**IMPORTANT NOTE: before proceeding with any work or any contracting of this approach, we must be sure that such additional evaluations are not in violation of the ongoing CEQA work. We are looking into this CEQA impact now. So, at this point, I am just asking for you to review this scope and decide if indeed this is what you wanted.**

Thanks

Andy
Note: Use and preparation of Task Orders will be discussed at Tab VIII, Scope of Work/Out-of-Scope Work.

TASK ORDER NO. _____

OWNER

AND

CAROLLO ENGINEERS, INC.

This Task Order is issued by the OWNER and accepted by ENGINEER pursuant to the mutual promises, covenants and conditions contained in the Agreement between the above named parties dated the __________ day of ________________, 20__, in connection with:

______________________________________________________________

(Project)

PURPOSE

The purpose of this Task Order is to: Evaluate the feasibility and cost for a 10 million gallon per day (mgd) Purification Center treating conventional activated sludge clarified secondary effluent from the Sunnyvale WPCP. The Purification Center costs will be evaluated at the Sunnyvale WPCP site as a multilevel structure, and for two alternative offsite locations in a “normal” configuration. The offsite alternative evaluations will include costs to construct and operate dedicated secondary effluent pumping stations to alternative sites as well as return pumping facilities (to the Sunnyvale WPCP) for the residuals generated at the Purification Center.

ENGINEER’S SERVICES

Task 1 – Project Initiation
Consultant will attend a single 2-hour Kickoff Meeting to discuss the project scope, schedule, criteria for offsite locations (as identified by SCVWD), and pipeline alignment study data needs. Consultant will be responsible for preparing meeting materials, agenda, and meeting notes.

Task 2 – Project Workshops
The Consultant will attend up to two, 4-hour long project workshops after the kickoff meeting.

Project Workshop 1: District and Consultant shall meet to review preliminary screening results for the proposed offsite Purification Center locations and to review preliminary pipeline performance criteria. The meeting shall be attended by the project manager and pipeline alignment study lead. The anticipated outcome of this meeting is concurrence on two sites for further evaluation.

Project Workshop 2: District and Consultant shall meet to review the findings of the siting and pipeline alignment studies prior to issuing the draft report.
Consultant will be responsible for preparing meeting materials, agenda, and meeting notes.

Task 2 - Deliverables
Meeting/workshop agenda and supporting information.
Meeting/workshop notes.
Decision logs.

Task 3 - Project Management

Task 3.1 - Project Administration
Consultant management team will manage the efforts of the Consultant’s project team throughout the duration of this Scope of Services. Project management will include preparing a project activities schedule and a workflow plan, tracking progress and expenditures, and maintaining a decision log.

Task 3.2 - Quality Management
Consultant will complete in-house quality management procedures for the alternatives analysis prior to submission to the District.

Task 3 - Deliverables:
Monthly Progress Reports.

Task 4 – Offsite IPR Purification Center Conceptual Design

In this Task the Consultant shall develop a design concept for an offsite, 10 mgd, Purification Center treating secondary effluent from the WPCP. The Purification Center shall use the Alternative 3B treatment train (MF/RO/UV AOP), as defined in “Santa Clara Valley Water District IPR Treatment Options Study Basis of Design Report (BODR) (Carollo Engineers, July 2014).

Task 4.1 – Preliminary Screening of Offsite Locations for the Purification Center
Consultant shall provide the Owner with minimum site requirements to guide selection of two offsite locations for the Purification Center. The Consultant shall review potential sites identified by the Owner in terms their proximity of adequate power infrastructure, District’s IPR delivery system, impacts on pumping costs for secondary effluent, and residuals return pumping. Consultant shall provide minimum site requirements to the District at the Kickoff Meeting. It is assumed that the District will provide a list of potential offsite locations for the purification center 2 weeks prior to Project Workshop 1. It is assumed that the two sites will be selected in Project Workshop 1, allowing site evaluation and pipeline alignment study tasks to proceed.

Task 4.2 – Feasibility Level Pipeline Alignment Study
Consultant shall identify 2 potential alignments for each potential location of the offsite Purification Center. In this task, the Consultant shall also generate project descriptions for future California Environmental Quality Act (CEQA) permitting efforts.

**Identify Pipeline Performance Criteria:** Minimum level of performance for the alternatives will be established based on ability to convey anticipated flows, pipeline materials, and O&M
considerations. The criteria will be discussed and confirmed with District staff and stakeholders during Project Workshop No. 1.

*Review Existing Information / Record Drawings* – Review existing information, related documents, and District record utility drawings to evaluate and propose two (2) pipeline alignment alternatives for each of two (2) treatment plant sites (4 total). Additional documents pertinent to the development of alternatives will be requested from the District as needed.

*Develop Draft Pipeline Alternatives, Site 1 & 2:* Carollo will develop two (2) alternatives that meet the minimum level of performance criteria for each proposed treatment plant site. Figures will be developed that show the recommended pipeline alignment alternatives. Estimated pipeline lengths, pipeline diameter, critical crossings, separation requirements, and general pipeline routing will be depicted on the Figures. Considerations from Project Workshop No. 1 will be incorporated into the development of the initial pipeline alternatives. The figures will be prepared to facilitate discussion of the final pipeline alternatives in Project Workshop No. 2.

*Develop Final Pipeline Alternatives, Site 1 & 2:* The alternatives from Task 2.3 will be further refined, developed, and evaluated so that each alternative may be incorporated into the Alignment Feasibility Study. Figures will be prepared for each alternative that identify where specific improvements are located so that utility crossings, permitting requirements, temporary/permanent easement requirements, and environmental requirements can be identified.

*Conduct Initial Existing Utility Research* – Critical utilities found during the review of existing documents and record drawings will be shown on the figures developed for each evaluated alternative. Carollo will request additional existing utility base maps and record drawings from utility companies and agencies located within the proposed alignment corridor. Additional data will be obtained from District and County website linked databases. A list of all utility companies within the alignment study will be provided to the District.

*Identify Permitting Requirements:* Consultant to identify permitting requirements for each evaluated alternative. A matrix will be developed for each alternative that identifies the agencies that will require a permit and the steps, estimated time, restrictions, and conditions needed for each permit. Depending on the alignment of a given alternative, permits from the following agencies may be required:
- District of Sunnyvale
- Santa Clara County
- Alameda Flood Control
- California Regional Water Quality Control Board
- California Department of Fish & Game
- California Department of Transportation
- Pacific Gas and Electric (PG&E)
- Army Corps of Engineers (ACOE)

*Identify Temporary/Permanent Easement Requirements:* GIS files, provided by the District, will be used to define the property lines for this task. An estimate of the construction work area for each evaluated alternative will be used to determine if any temporary or permanent easements
will be required for the project. The easement requirements for each alternative will be documented in incorporated into the Alignment Feasibility Study.

Identify Environmental Requirements: Carollo will assist District staff to identify the environmental requirements for each evaluated alternative. These requirements will be included in the Feasibility Report.

Develop Level 4 Cost Estimate: The selected alternatives will be used to develop a Level 4 cost estimate. Specific improvements will be clearly identified and costs determined such that the viability of the alternatives may be compared by the District to assist them during the alternative selection process. Class 4 budget estimates are prepared based on limited design information. Cost are developed using equipment factors, parametric models, engineering judgment, or analogy (reference to past projects).

Develop DRAFT Alignment Feasibility Study: Descriptions of each alternative selected for each proposed treatment plant site will be described and depicted with Figures in a report. The permitting requirements, temporary/ permanent easement requirements, environmental requirements, and utility research data will also be included in the DRAFT Alignment Feasibility Study. A recommendation for the preferred alternative resulting from the Workshop Meeting No. 2 will be provided with the reasons why the alternative is preferred. The DRAFT Alignment Feasibility Study will be submitted to the District. The District will provide comments.

Develop FINAL Alignment Feasibility Study: District comments to the DRAFT Alignment Feasibility Study will be incorporated and the document will be finalized. The preferred alternative can be carried forward into the future Preliminary Design Report.

Assumptions

• Alignment study for each site will be within a five (5) mile radius of the WWTP

Task 4.3 – Develop preliminary basis of design (3 sites)

Preliminary basis of design will be developed for both offsite locations as well as the multilevel onsite Purification Center alternative. Design criteria will be developed for these three alternatives based on the data developed for the previous BODR (Alternative 3B) and additional requirements of the three proposed locations for the Purification Center.

• Preparation of major design criteria
• Updated process flow diagrams
• Basic layout considerations
• Preliminary hydraulic profiles
• List of major support systems needed
• Implementation timelines and overall major sequencing
• Review of impact on the Sunnyvale WPCP central power distribution system

Task 4.4 – Construction and Operating Costs

For the 3 alternatives developed under this study, Consultant shall evaluate the following costs for each option:

• Construction costs for treatment infrastructure, pipeline and pumping facilities (Level 4)
• Projected operating costs
• Unit cost of water ($/acre-ft)
Task 4.5 – Project timelines:
Consultant shall develop project timelines for the three alternative locations.

Task 4 Deliverables

Pipeline Alignment Study Deliverables:
• DRAFT Pipeline Alternatives: electronic pdf with figures included.
• FINAL Pipeline Alternatives: electronic pdf with figures included.

Purification Center Siting Study Deliverables:
• Site layouts, process flow diagrams, and hydraulic gradelines for the three alternative locations
• Capital, operations, and lifecycle costs for the three alternative locations
• Estimated construction schedules for the three alternative locations

Duties of the District:
• Provide existing documents and record utility drawings to be reviewed.
• Provide updated GIS files that show property lines throughout the District.
• Identify offsite locations to consider for the Purification Center.

Task 5 - Prepare the District Summary Memorandum
Consultant shall prepare an overall summary memorandum (draft and final) for the siting study as well as a focused memorandum for the pipeline alignment study (draft and final) to support future CEQA permitting activities.

TIME OF PERFORMANCE

The Draft report will be delivery to the District 20 weeks from the Notice to Proceed as detailed in the table below. The project duration will heavily influenced by the time required to collect utility data from the pipeline alignment study.

<table>
<thead>
<tr>
<th>Task</th>
<th>Weeks from NTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kickoff Meeting</td>
<td>2</td>
</tr>
<tr>
<td>District Provides Viable Offsite Purification Center Locations</td>
<td>4</td>
</tr>
<tr>
<td>Project Workshop 1</td>
<td>6</td>
</tr>
<tr>
<td>District Provides Available Utility Data</td>
<td>10</td>
</tr>
<tr>
<td>Project Workshop 2</td>
<td>13</td>
</tr>
<tr>
<td>Draft Memoranda (2)</td>
<td>15</td>
</tr>
<tr>
<td>District Provides Review Comments</td>
<td>17</td>
</tr>
<tr>
<td>Final Memoranda (2)</td>
<td>18</td>
</tr>
</tbody>
</table>

PAYMENT
EFFECTIVE DATE

This Task Order No. ____ is effective as of the _____ day of _____________________, 20__.

IN WITNESS WHEREOF, duly authorized representatives of the OWNER and of the ENGINEER have executed this Task Order No. ____ evidencing its issuance by OWNER and acceptance by ENGINEER.

CAROLLO ENGINEERS, INC.  

OWNER

Accepted this _____ day of __________, 20___

By: ____________________________  
[Title]

By: ____________________________  
[Title]

By: ____________________________  
[Title]
July 27, 2016

Mr. Dion Bracco
Board Chair
South County Regional Wastewater Authority
1500 Southside Drive
Gilroy, CA 95020

Subject: Letter of Invitation – Proposed Joint Recycled Water Advisory Committee – Santa Clara Valley Water District, City of Gilroy, City of Morgan Hill, and South County Regional Wastewater Authority

Dear Mr. Bracco:

In May of 2015, the Santa Clara Valley Water District (District) Board of Directors (Board) sent a letter to the South County Regional Wastewater Authority (SCRWA) presenting two options to facilitate policy-level discussions to advance the expansion of drought-proof recycled and purified water in the southern portion of Santa Clara County (South County). The District received a response from SCRWA, dated June 5, 2015, extending an interest in continuing with the existing collaborative structure or an ad-hoc committee to support delivery of recycled water in the South County. During this time, the District and SCRWA were working in partnership to develop the 2015 South County Recycled Water Master Plan Update (Master Plan Update).

The Master Plan Update, which includes approximately $98 million in capital improvement recommendations related to the treatment, distribution, and delivery of recycled water in South County, was accepted independently by the SCRWA and District Boards in July 2016. Given the magnitude of this proposed investment, the need for a higher level of joint oversight is called for. The District invites SCRWA to join in the creation of a Joint Recycled Water Advisory Committee (SCRWA/City of Gilroy/City of Morgan Hill/SCVWD) to facilitate coordination of implementation of the Master Plan Update recommended projects. The District suggests the committee be composed of three members from the District Board and one elected official from each of the following: SCRWA Board, the City of Morgan Hill Council, and the City of Gilroy Council.

The District currently has successful collaboration with certain Cities in similar joint recycled water advisory committees: the Joint Recycled Water Committee (City of Palo Alto/SCVWD), the Joint Recycled Water Committee (City of Sunnyvale/SCVWD), and the Recycled Water Policy Advisory Committee (City of San José/SCVWD/City of Santa Clara). The District looks forward to building upon our existing collaborative structure and partnership through the proposed Joint Recycled Water Advisory Committee.
Mr. Dion Bracco  
Page 2  
July 27, 2016

I am sending similar invitation letters to the City of Gilroy Mayor and the City of Morgan Hill Mayor who are copied on this letter. To discuss SCRWA's interest in this invitation, and at your convenience, please feel free to contact me at (408) 813-2525.

Sincerely,

Barbara Keegan  
Chair/Board of Directors

cc: Board of Directors (7), N Camacho, J. Fiedler, G. Hall, H. Ashktorab  
The Honorable Perry Woodward, Mayor, City of Gilroy, 7351 Rosanna Street,  
Gilroy, CA  95020  
The Honorable Steve Tate, Mayor, City of Morgan Hill, 17575 Peak Avenue,  
Morgan Hill, CA 95037

kj:mf  
0725g-l.docx
July 27, 2016

The Honorable Perry Woodward
Mayor of the City of Gilroy
7351 Rosanna Street
Gilroy, CA 95020

Subject: Letter of Invitation – Proposed Joint Recycled Water Advisory Committee – Santa Clara Valley Water District, City of Gilroy, City of Morgan Hill, and South County Regional Wastewater Authority

Dear Mayor Woodward:

The Santa Clara Valley Water District (District) Board of Directors (Board) is seeking a process to facilitate policy-level discussions on the implementation of capital improvement recommendations from the 2015 South County Recycled Water Master Plan Update (Master Plan Update) and for other opportunities to advance the expansion of drought-proof recycled and purified water in the southern portion of Santa Clara County. The District is driven by a goal of meeting 10 percent of the County’s water demands with recycled and purified water by the year 2025.

The Master Plan Update, which includes approximately $98 million in capital improvement recommendations related to the treatment, distribution, and delivery of recycled water in South County, was accepted independently by the South County Regional Wastewater Authority (SCRWA) and District Boards in July 2016. Given the magnitude of this proposed investment, the need for a higher level of joint oversight is called for. The District invites the City of Gilroy to join in the creation of a Joint Recycled Water Advisory Committee (SCRWA/City of Gilroy/City of Morgan Hill/SCVWD) to facilitate coordination of implementation of the Master Plan Update recommended projects. The District suggests the committee be composed of three members from the District Board and one elected official from each of the following: the City of Gilroy Council, the City of Morgan Hill Council, and SCRWA Board.

The District currently has successful collaboration with certain Cities in similar joint recycled water advisory committees: the Joint Recycled Water Committee (City of Palo Alto/SCVWD), the Joint Recycled Water Committee (City of Sunnyvale/SCVWD), and the Recycled Water Policy Advisory Committee (City of San José/SCVWD/City of Santa Clara). The District looks forward to building upon our existing collaborative structure and partnership through the proposed Joint Recycled Water Advisory Committee.
The Honorable Perry Woodward  
Page 2  
July 27, 2016

I am sending similar invitation letters to the City of Morgan Hill Mayor and SCRWA Board Chair who are copied on this letter. To discuss the City of Gilroy’s interest in this invitation, and at your convenience, please feel free to contact me at (408) 813-2525.

Sincerely,

Barbara Keegan  
Chair/Board of Directors

cc: Board of Directors (7), N Camacho, J. Fiedler, G. Hall, H. Ashktorab  
The Honorable Steve Tate, Mayor, City of Morgan Hill, 17575 Peak Avenue, Morgan Hill, CA 95037  
Mr. Dion Bracco, Board Chair, SCRWA, 1500 Southside Drive, Gilroy, CA 95020

kj:mf  
0725h-l.docx
July 27, 2016

The Honorable Steve Tate  
Mayor, City of Morgan Hill  
17575 Peak Avenue  
Morgan Hill, CA 95037

Subject: Letter of Invitation – Proposed Joint Recycled Water Advisory Committee – Santa Clara Valley Water District, City of Gilroy, City of Morgan Hill, and South County Regional Wastewater Authority

Dear Mayor Tate:

The Santa Clara Valley Water District (District) Board of Directors (Board) is seeking a process to facilitate policy-level discussions on the implementation of capital improvement recommendations from the 2015 South County Recycled Water Master Plan Update (Master Plan Update) and for other opportunities to advance the expansion of drought-proof recycled and purified water in the southern portion of Santa Clara County. The District is driven by a goal of meeting 10 percent of the County’s water demands with recycled and purified water by the year 2025.

The Master Plan Update, which includes approximately $98 million in capital improvement recommendations related to the treatment, distribution, and delivery of recycled water in South County, was accepted independently by the South County Regional Wastewater Authority (SCRWA) and District Boards in July 2016. Given the magnitude of this proposed investment, the need for a higher level of joint oversight is called for. The District invites the City of Morgan Hill to join in the creation of a Joint Recycled Water Advisory Committee (SCRWA/City of Gilroy/City of Morgan Hill/SCVWD) to facilitate coordination of implementation of the Master Plan Update recommended projects. The District suggests the committee be composed of three members from the District Board and one elected official from each of the following: the City of Morgan Hill Council, the City of Gilroy Council, and SCRWA Board.

The District currently has successful collaboration with other recycled water producer and retailers in similar joint recycled water advisory committees in each of the other three public recycled water systems in the County: the Joint Recycled Water Committee (City of Palo Alto/SCVWD), the Joint Recycled Water Committee (City of Sunnyvale/SCVWD), and the Recycled Water Policy Advisory Committee (City of San José/SCVWD/City of Santa Clara). The District looks forward to building upon our existing collaborative structure and partnership through the proposed Joint Recycled Water Advisory Committee.
The Honorable Steve Tate  
Page 2  
July 27, 2016

I am sending similar invitation letters to the City of Gilroy Mayor and SCRWA Board Chair who are copied on this letter. To discuss the City of Morgan Hill’s interest in this invitation, and at your convenience, please feel free to contact me at (408) 813-2525.

Sincerely,

Barbara Keegan  
Chair/Board of Directors

cc:  Board of Directors (7), N Camacho, J. Fiedler, G. Hall, H. Ashktorab  
The Honorable Perry Woodward, Mayor, City of Gilroy, 7351 Rosanna Street, Gilroy, CA 95020  
Dion Bracco, Board Chair, SCRWA, 1500 Southside Drive, Gilroy, CA 95020  

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COMMITTEE AGENDA MEMO

SUBJECT: Update on Reverse Osmosis Concentrate Management Plan (ROCMP).

RECOMMENDED ACTION:
A. Receive update on consultant services agreement for the ROCMP
B. Receive presentation and discuss next steps.

SUMMARY:

The overall objective of the ROCM Project is to evaluate viable alternatives for managing reverse osmosis (RO) concentrate generated from advanced water purification facilities (AWPFs) to be potentially built in various locations in the County, such as San José, Sunnyvale, Palo Alto, Gilroy and/or Morgan Hill areas. This study will evaluate alternatives other than the dilution and toxicity studies for use of the existing San José/Santa Clara Regional Facility outfall currently being performed by RMC.

This project is critical because it will address one of the key challenges in potable water reuse: proper management of the concentrated stream with high salt content generated by the process of water purification using advanced technologies.

ROCM with discharge to an estuary, and in particular to the South San Francisco Bay, which is a very sensitive ecosystem, is a new field with very few case studies to draw information from, compared to ROCM with ocean discharge.

Background

Consultant Selection Process:
The Santa Clara Valley Water District (District) implemented a competitive bid process by issuing a request for proposals (RFP) for the ROCM Project.

A Consultant Review Board (CRB) consisting of three internal and two external members reviewed proposals and interviewed candidate and determined that GHD was qualified to provide the required services. The CRB completed the selection process on April 18, 2016.
Since, District staff has been actively negotiating the terms, conditions, costs, and tasks of the proposal submitted by GHD, Inc (GHD). After an iterative process, the total negotiated contract cost has been reduced from $1.7 million to $1.5 million. Contract negotiations took longer than anticipated due to the unique and complex nature of the scope of work and the participation of multiple parties, including research institutions.

Consultant Services:
The consultant will develop ROCM plans that will provide recommendations for successful implementation of a reliable county-wide solution to ROCM, taking into consideration the unique characteristics and limitations at each potential site.

The scope of work includes testing of contaminants of emerging concern (CECs) that may be present in RO concentrate, as well as pilot treatment of identified CECs by advanced oxidation processes and/or by engineered wetlands. The testing and piloting portion of the project will be carried out in partnership with the Bay Area Clean Water Agencies (BACWA), the San Francisco Estuary Institute (SFEI), and expert professors from the University of California at Berkeley and Stanford University. The District plans to submit an application for Proposition 1 grant funding to the State Water Regional Quality Control Board for the wetland piloting task.

Costs:
Table 1 summarizes the negotiated tasks and cost per task.

<table>
<thead>
<tr>
<th>Task</th>
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<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td><strong>$1,467,000</strong></td>
</tr>
</tbody>
</table>

Timeline:
The contract duration is 24 months. The plan is to issue a notice to proceed in October 2016, pending Board approval. Wetland piloting would begin in February 2017 and last for one year.

ATTACHMENT(S):
Attachment 1: PowerPoint Presentation
JOINT RECYCLED WATER COMMITTEE
Barbara Keegan, Board Member, Santa Clara Valley Water District
Gary Kremen, Board Member, Santa Clara Valley Water District
Tony Estremera, Board Member, Santa Clara Valley Water District

Joint Recycled Water Committee
September 7, 2016
Agenda Outline

4.1 Workshop on Expedited Purified Water Program - Dual Track Procurement Methods (K. Oven)

4.2 Update on District Partnership Discussions with Retailers (G. Hall)

4.3 Update on Reverse Osmosis Concentrate Management (L. Sangines)
4.1 Workshop on Expedited Purified Water Program: Dual Track Procurement
4.1 Potential Program Elements

- SVAWPC Expansion
- Los Gatos Ponds
- Injection Wells
- Ford Road
- Sunnyvale
- Ponds
- Injection Wells
- Ponds

$600M
4.1 RFQ Components – Group A

- Los Gatos Recharge Ponds
  - IPR - 20,200 AFY

Legend:
- Expanded SVAWPC
- Water Pollution Control Plant
- Water Treatment Plant
- Pump Station
- District Raw Water Pipeline
- Existing Recycled Water Pipeline
- Future Wolfe Road Pipeline
- IPR/DPR Purified Water Pipeline
### 4.1 Dual Track Procurement Process

**Calendar Year 2015**

1. Alternative project delivery methods available to expedite potable reuse implementation.

2. Board supported dual track approach to determine best method.

3. Concerns about dual track expressed by potential respondents prior to release of RFQs.

<table>
<thead>
<tr>
<th>Progressive Design-Build</th>
<th>Public-Private Partnership (P3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaborative development of project concept.</td>
<td></td>
</tr>
<tr>
<td>Costs developed through an open book process.</td>
<td></td>
</tr>
<tr>
<td>Guaranteed maximum price for construction to be approved by Board.</td>
<td>Water availability agreement negotiated and approved by the Board.</td>
</tr>
<tr>
<td>Capital costs are negotiated between Owner and DB entity.</td>
<td>Capital and O&amp;M costs are negotiated between Owner and P3 entity.</td>
</tr>
<tr>
<td>District provides 100% funding, integration of program elements and O&amp;M.</td>
<td>P3 provides 70% of funding, integration of program elements and O&amp;M; 30% is Owner pay-go.</td>
</tr>
</tbody>
</table>
4.1 Dual Track Procurement Process

Calendar Year 2016

1. Strong RFQ response in April.

2. Shortlists published in June (highlighted in yellow).

3. Recycled Committee agrees to reach decision on delivery method prior to issuing RFPs.

4. Recycled Water Committee visited San Diego County Water Authority in July; visit to Stockton in September.

5. Staff held internal P3/PDB workshop in August.

<table>
<thead>
<tr>
<th>Progressive Design-Build</th>
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</tr>
</thead>
<tbody>
<tr>
<td>SVAWPC Expansion</td>
<td>Purified Water Pipeline</td>
</tr>
<tr>
<td>Filanc-BV</td>
<td>SJWC (Filanc-BV, SJWC &amp; Citigroup Global Markets)</td>
</tr>
<tr>
<td>CH2M</td>
<td>Table Rock (CH2M &amp; Goldman Sachs)</td>
</tr>
<tr>
<td>Fluor (Kiewit)</td>
<td>Fluor (ARB)</td>
</tr>
<tr>
<td>CDM-PCL</td>
<td>Garney Pacific (Lockwood)</td>
</tr>
<tr>
<td>MWH/Webcor</td>
<td>Ranger Pipelines (HMM)</td>
</tr>
<tr>
<td></td>
<td>PERC Water (Layton, Tetra Tech &amp; Stonepeak Infrastructure)</td>
</tr>
<tr>
<td></td>
<td>Poseidon (Sacyr, Arcadis &amp; Poseidon)</td>
</tr>
</tbody>
</table>
4.1 Overview of Delivery Methods

By: Jill Jamieson
Progressive Design-Build

Advantages

- Compressed timeline (similar to DB), but with shorter procurement process
- Cost analysis of options available as project progresses; opportunities for value-engineering
- Maximizes owner flexibility, involvement and control

Disadvantages

- Cost for construction not known at the time of initial contract signing
- Cost is determined through combination of negotiated and competitive processes
- Stakeholder concerns related to uncertainty of final construction costs

Risk Considerations

- **Design Risk** (low) – Single design-builder maintains responsibility for designs throughout process, with input from owner at various design levels.
- **Schedule delay risk** – Risk of schedule delays shared between owner and Design-Builder through incentive structure
- **Procurement risk** (low) – Mitigated due to single procurement and increased competition driven by low preparation costs.
- **Budgetary risk** (moderate) – Some cost certainty through Guaranteed Maximum Price and off-ramp.
- **Interface risk** (low) – Risk of integrating design and construction transferred to design builder.
Design-Build-Operate-Maintain

**Advantages**
- Benefits of DB, while likewise locking in O&M at pre-defined, prescribed standards
- Life-cycle asset management and innovation;
- Owner life-cycle budget predictability;

**Disadvantages**
- Must define KPI’s upfront / more complex agreement
- Payment structure needs to be aligned to provide incentives for innovation and life-cycle savings
- More complex agreement requires more sophisticated contract governance and oversight

**Risk Considerations**
- **Design Risk** (low) – Single design-builder maintains responsibility for designs throughout process, with input from owner at various design interventions.
- **Schedule delay risk** (low) – Risk of schedule delays mostly transferred to Design-Builder (or shared)
- **Procurement risk** (low) – Single procurement for majority of asset life-cycle. Extensive industry experience with DBOM for parking facilities.
- **DB Budgetary risk** (moderate) – Cost certainty for DB, however, budgetary risk for major rehabilitation remains high.
- **Interface risk** (low) – Risk of integrating design and construction transferred to design builder.
- **O&M Budgetary risk** (low) – Predictable long-term O&M expenditures.
- **Performance Risk** (low) – Prescribed performance levels and bonding ensure SLA’s.
- **Technology Risk** (moderate) - depends on contract terms
- **Handback Risk** (low) – prescribed levels and bonding ensure handback standards
**Design-Build-Finance-Operate-Maintain**

### Advantages
- Life-cycle O&M (including rehab) addressed by private partner;
- Maximized incentive structure due to equity;
- Lenders’ reps provide additional oversight;
- Hand-back conditions secured.

### Disadvantages
- Higher cost of capital than public finance;
- More complex agreement due to financing provisions;
- More complex agreement requires more sophisticated contract governance and oversight.

### Risk Considerations
- **Design Risk (low)** – Single design-builder maintains responsibility for designs throughout process, with input from owner at various design interventions.
- **Schedule delay risk** – Risk of schedule delays mostly transferred to Design-Builder (or shared);
- **Procurement risk (low)** – Single procurement for asset life-cycle. Extensive industry experience with DBFOM for parking facilities, but procurement must be carefully structured to attract best-in-class DBFOM groups.
- **Budgetary risk (low)** – Budget risk transferred fully to private partner.
- **Interface risk (low)** – Risk of integrating design and construction transferred to design builder.
- **O&M Budgetary risk (low)** – Fully transferred to private partner.
- **Performance Risk (low)** – Prescribed performance levels and bonding.
- **Technology Risk (low)** – Transferred to private partner
- **Handback Risk (low)** – Prescribed levels and bonding ensure handback standards.
Summary of Options

<table>
<thead>
<tr>
<th>Project Structure</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
</table>
| **PDB** | • Accelerated implementation timeline  
• Integrated design and construction  
• Low cost of finance  
• Under PDB, increased role of District in design | | • District bears life-cycle asset risk  
• District bears all performance risk  
• Full responsibility for asset ownership risks (including deferred maintenance, technology, etc.) |
| | • Benefits of PDB, while likewise locking in O&M at pre-defined standards and costs;  
• Life-cycle asset management and innovation;  
• Owner life-cycle budget predictability;  
• Innovation driven by life-cycle interests; | | • More complex contracting structure. Payment structure needs to be aligned to provide incentives for innovation and life-cycle savings  
• Need for more sophisticated contract governance and oversight |
| **PDBOM** | | • Higher cost of capital than public finance;  
• More complex agreement due to financing provisions  
• Need for more sophisticated contract governance and oversight |
| **PDBFOM** | | |

Recycled Water Committee Meeting – September 7, 2016
4.1 Dual Track Procurement Process

Take-aways from “PDB or P3?” Staff Workshop:

• There is no one right way.
• What does the Board want to achieve?
• Align your choice with District’s objectives.
• Remain a “doer” or become a “regulator?”
• Potential implications of privatization in a predominantly public agency region?
• The Board must be the District’s political champion.
## 4.1 Staff Assessment of Key Objectives

<table>
<thead>
<tr>
<th>District’s Objective</th>
<th>Progressive Design/Build</th>
<th>Public-Private Partnership</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Speed</strong></td>
<td>Less complex procurement; May result in quicker start to construction.</td>
<td>Financial incentives to finish construction quickly.</td>
</tr>
</tbody>
</table>
## 4.1 Staff Assessment of Key Objectives

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<th>Progressive Design/Build</th>
<th>Public-Private Partnership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>1. Effective integration of new facilities with District system:</td>
<td>1a. Integrating private O&amp;M functions with District staff at points of delivery.</td>
</tr>
<tr>
<td></td>
<td>• Staff at 8MGD SVAWPC</td>
<td>1b. Public O&amp;M at SVAWPC; private O&amp;M next door.</td>
</tr>
<tr>
<td></td>
<td>• Points of delivery to recharge ponds</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Points of delivery to raw water system (future DPR)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Ability to increase/decrease production cost-effectively.</td>
<td>2. Scaling production up/down an essential aspect of P3 contract.</td>
</tr>
<tr>
<td></td>
<td>3. Flexibility in addressing many unknowns in future.</td>
<td>3. Locking in a P3 contract may limit flexibility.</td>
</tr>
<tr>
<td></td>
<td>4. District remains a “doer.”</td>
<td>4. District takes on role of “regulator.”</td>
</tr>
</tbody>
</table>

Recycled Water Committee Meeting – September 7, 2016
## 4.1 Staff Assessment of Key Objectives

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<tr>
<td><strong>Cost</strong></td>
<td>1. Full transparency/control over construction cost.</td>
<td>1. P3 O&amp;M agreement is key incentive for reliable facility.</td>
</tr>
<tr>
<td></td>
<td>2. Cost-effective integration of new facility with O&amp;M staff from District’s other facilities.</td>
<td>2. District pays premium for transferring O&amp;M/life-cycle risks.</td>
</tr>
<tr>
<td></td>
<td>3. District must hire more O&amp;M staff.</td>
<td>3. District must hire or re-train staff to monitor/regulate P3 performance.</td>
</tr>
<tr>
<td></td>
<td>4. Long-term O&amp;M subject to annual budgets.</td>
<td>4. O&amp;M agreement assures reliable operations throughout contract term.</td>
</tr>
</tbody>
</table>

Recycled Water Committee Meeting – September 7, 2016
4.1 Staff Assessment of Key Objectives

<table>
<thead>
<tr>
<th>District’s Objective</th>
<th>Progressive Design/Build</th>
<th>Public-Private Partnership</th>
</tr>
</thead>
</table>
| Success              | 1. Nearly identical to historical design-bid-build to external observers.  
                      | 2. Earlier rise in water rates can be mitigated in long run with financial structuring.  
                      | 3. Performance success owned by District.  
                      | 4. District perceived as champion of valuing staff and workforce development.  
                      | • Value to District for strengthening its own core functions?  
                      | • Value of staff pride in expanding capabilities? | 1. New process with potential ripple effects in region.  
                      | 2. Water rates slower to rise but long-term premium is paid for risk transfers.  
                      | 3. P3’s performance success relieves some burdens, but District, as regulator, still owns failures. | 4. Potential union issues with P3 O&M contract?  
                      | 5. Impacts of organizational /cultural change to District.  
                      | • Staff morale  
                      | • Trust in senior leaders |

Recycled Water Committee Meeting – September 7, 2016
### Staff’s qualitative assessment of PDB vs. P3:

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<td>Speed</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Quality</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Control</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Cost</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Success</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>
# 4.1 Key Risks and Anticipated Allocation

<table>
<thead>
<tr>
<th>Key Risk</th>
<th>PDB</th>
<th>PDBFOM</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Progressive Design-Build</td>
<td>Progressive-Design-Build-Finance-Operate-Maintain (30 years)</td>
</tr>
<tr>
<td>Finance</td>
<td>District</td>
<td>Private (or shared)</td>
</tr>
<tr>
<td>Design Risk</td>
<td>Private/Shared</td>
<td>Private/Shared</td>
</tr>
<tr>
<td>Schedule Risk</td>
<td>Shared/Private</td>
<td>Private</td>
</tr>
<tr>
<td>Cost Overruns</td>
<td>Private (with some exceptions)</td>
<td>Private (with some exceptions)</td>
</tr>
<tr>
<td>Operating Risk</td>
<td>District</td>
<td>Private</td>
</tr>
<tr>
<td>Ongoing Maintenance</td>
<td>District</td>
<td>Private</td>
</tr>
<tr>
<td>Rehabilitation</td>
<td>District</td>
<td>Private</td>
</tr>
<tr>
<td>Technology</td>
<td>District</td>
<td>Private</td>
</tr>
<tr>
<td>Asset life-cycle</td>
<td>District</td>
<td>Private</td>
</tr>
<tr>
<td>Handback</td>
<td>District</td>
<td>Private</td>
</tr>
</tbody>
</table>
## 4.1 Financial Modeling Assumptions - Base Case

<table>
<thead>
<tr>
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<th>PDB*</th>
<th>P3*</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design &amp; Construction Budget (expansion &amp; pipeline only)</td>
<td>$600M</td>
<td>$600M</td>
<td>Assume 30% funded by pay-go and 70% by debt issuance for both PDB &amp; P3</td>
</tr>
<tr>
<td>Operating &amp; Maint. Budget</td>
<td>$11.8M</td>
<td>$11.8M</td>
<td>Annual esc. 3%, 30 years O&amp;M period</td>
</tr>
<tr>
<td>Debt Rate</td>
<td>5.50%</td>
<td>6.60%</td>
<td>P3 % higher due to credit spread (0.80%) and AMT penalty (0.30%) vs. District AA tax-exempt rate</td>
</tr>
<tr>
<td>Equity Rate</td>
<td>--</td>
<td>10%</td>
<td>Based on SDCWA negotiated rate ~9.6%</td>
</tr>
<tr>
<td>Debt to Total Capital</td>
<td>100%</td>
<td>90%</td>
<td></td>
</tr>
<tr>
<td>Weighted Average Cost of Capital</td>
<td>5.5%</td>
<td>6.94%</td>
<td></td>
</tr>
<tr>
<td>Commercial Operations Date</td>
<td>2024</td>
<td>2024</td>
<td></td>
</tr>
<tr>
<td>Revenue Coverage</td>
<td>2 x</td>
<td>1 x</td>
<td>P3 pmt is an operating/maint. expense which requires 1 x revenue coverage</td>
</tr>
<tr>
<td>Credit Rating</td>
<td>AA</td>
<td>BBB</td>
<td>Reflects difference between District’s credit rating and the assumed credit rating of Special Purpose Entity delivering the Program.</td>
</tr>
<tr>
<td>Discount Rate</td>
<td>5.50%</td>
<td>5.50%</td>
<td></td>
</tr>
</tbody>
</table>

* Costs stated in 2016 dollars
4.1 Scenario 1: O&M Cost Differential for P3

Assumptions:

<table>
<thead>
<tr>
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<th>Construction Cost</th>
<th>O&amp;M Cost</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Same in both scenarios</td>
<td>P3 is 20% higher*</td>
<td>No delay in start of operations</td>
<td></td>
</tr>
</tbody>
</table>

* The present value cost of P3 versus PDB in this scenario reflects the higher financing costs of the P3 entity, and economies of scale in operations achieved in the PDB alternative (but not in the P3).

NPV cost (negative) vs benefit (positive) of P3 vs PDB ($M)

- $116M Cost
  - Scenario 1

Recycled Water Committee Meeting – September 7, 2016
4.1 Scenario 2: No Cost/Operation/Schedule Differences

Assumptions:

<table>
<thead>
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<th>Construction Cost</th>
<th>O&amp;M Cost</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Same in both scenarios</td>
<td>Same in both scenarios</td>
<td>No delay in start of operations</td>
</tr>
</tbody>
</table>

NPV cost (negative) vs benefit (positive) of P3 vs PDB ($M)

$116M Cost
Scenario 1

$72M Cost
Scenario 2

* The present value cost of P3 versus PDB in this scenario reflects the higher financing costs of the P3 entity.
4.1 Scenario 3: Cost and Schedule Differences

Assumptions:

<table>
<thead>
<tr>
<th></th>
<th>Construction Cost</th>
<th>O&amp;M Cost</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>P3 is 5% lower than PDB</td>
<td>$72M Cost</td>
<td>-50</td>
<td></td>
</tr>
<tr>
<td>P3 is 20% lower than PDB</td>
<td>-100</td>
<td>-50</td>
<td>-100</td>
</tr>
<tr>
<td></td>
<td>$0</td>
<td>50</td>
<td>50</td>
</tr>
</tbody>
</table>

NPV cost (negative) vs benefit (positive) of P3 vs PDB ($M)

$116M Cost
Scenario 1

$72M Cost
Scenario 2

$24M Benefit
Scenario 3

* This scenario shows that P3 may yield lower PV starting at these levels of construction, O&M and schedule differences
4.1 Rate impact: Scenario 1

Assumptions:

<table>
<thead>
<tr>
<th></th>
<th>PDB Track</th>
<th>P3 Track</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Cost</td>
<td>Same in both scenarios</td>
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<tr>
<td>O&amp;M Cost</td>
<td>P3 is 20% higher</td>
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<tr>
<td>Schedule</td>
<td>No delay in start of operations</td>
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</tbody>
</table>

- PDB track assumes level debt service on borrowings
- Alternative financing structure (i.e. deferring principal) can reduce rate projection for PDB track, but at higher borrowing cost
4.1 Rate impact: Scenario 3

Assumptions:

<table>
<thead>
<tr>
<th></th>
<th>Construction Cost</th>
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<tbody>
<tr>
<td>P3 is 5% lower than PDB</td>
<td>P3 is 20% lower than PDB</td>
<td>1 year schedule delay for both</td>
<td></td>
</tr>
</tbody>
</table>

- PDB track assumes level debt service on borrowings
- Alternative financing structure (i.e. deferring principal) can reduce rate projection for PDB track, but at higher borrowing cost
4.1 Staff Recommendation: PDB

Staff believes PDB best aligns with District’s objectives:

• Simplified contract negotiations with nearly equivalent incentive structure (GMP limits cost overruns, incentivized performance to accelerate delivery, etc.).
• District remains a “doer.”
• Given uncertainties, there is value in retaining control.
• District leverages and deepens core competencies.
• There is full flexibility in managing county’s water supply.
• Key cost risks (construction, financing, O&M) can be managed.
4.1 Staff Recommendation: PDB

Staff Recommendation:
That the Committee recommends to the full Board to choose the Progressive Design/Build project delivery method for the Expedited Purified Water Program.

Recycled Water Committee Meeting – September 7, 2016
4.2 Update on District Partnership Discussions with Retailers
4.3 Update on Reverse Osmosis Concentrate Management Plan
4.3 Objectives of the Project

Develop comprehensive Reverse Osmosis (RO) Concentrate Management (ROCM) plans for five potential advanced purification facilities (AWPFs) in collaboration with the following wastewater producers:

A. San José/Santa Clara Regional Facility: Focus is on alternatives other than those being evaluated by RMC.

C. Sunnyvale Water Pollution Control Plant, Sunnyvale

D. Palo Alto Regional Water Quality Control Plant, Palo Alto

E. South County Regional Wastewater Authority, Gilroy

Research in partnership with BACWA, SFEI, and Stanford and UC Berkeley universities.
4.3 Scope of Work

- Conduct client workshops with District staff and stakeholders
- Review and compile existing and new information; identify knowledge gaps and opportunities
- Establish project requirements and basis for conceptual design
- Define challenges and main drivers
- Determine viable discharge and treatment alternatives
- Perform bench and pilot tests for ROC pre-treatment using wetlands
- Evaluate feasible alternatives and develop 10% level design for recommended alternative for each site
### 4.3 Summary of Tasks and Costs

#### Table 1 - Summary of ROCMP Tasks and Estimated Costs

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<td><strong>TOTAL</strong></td>
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</table>
4.3 Timeline and Next Steps

- Contract duration is 24 months.
- Issue Notice to Proceed in October 2016, pending Board approval at Sept. 27, 2016 meeting.
- Wetland piloting to begin in Feb. 2017 and last for 12 months.
- Staff will seek IAP input and provide regular updates to this Committee for their input.
Potential Topic(s) for Next Meeting
Next Meeting Date
RE: Amended Agenda Item 4.1 Workshop on Expedited Purified Water Program Dual Track Procurement

Dear Directors Estremera, Kremen and Keegan,

Poseidon Water LLC ("Poseidon"), as the P3 coordinator of one of the short listed teams for the Public - Private Partnership Purified Water Program, provides these comments on Item 4.1 on the Amended Agenda for the Santa Clara Valley Water District’s (District) Recycled Water Committee.

Poseidon respectfully requests that the Committee:

1. Not recommend the selection of a procurement method at the September 7th meeting.
2. Direct staff to develop information that provides a meaningful comparison of the alternative procurement methods including the value of the risks that are transferred to each party by each approach and the impacts on groundwater production charges of the two approaches.
3. Review the staff objectives to determine whether they are consistent with Board policies and objectives.
4. At the planned Procurement Workshop to be held with the entire Board, consider a comprehensive comparison of each of the criteria outlined in the attached power point slides. Including an evaluation of risks, the allocation of risks to each party and the value of the risks that are transferred from the public to the private sector. This workshop would be most effective if it is an interactive discussion in which project stakeholders are able to participate, including the panel of experts and the short listed potential proposers.

Procedural History

The Recycled Water Committee has been active this year as the District Board identified the need for more Board involvement in the issues and uncertainties involved in the Expedited Purified Water Program. The Recycled Water Committee has been working closely with staff to evaluate alternative approaches to project procurement for consideration by the entire Board.

At your March 1, 2016 meeting the following items were identified by the Committee: Staff to identify assumptions, risks, options, and critical points and junctures to check in with the Board of Directors; and Staff to provide a list of all alternatives, programs, credit rating, etc., and a comparison of a full program versus an incremental program.

At the May 12th Committee meeting, the staff reported on status and identified a number of policy issues that would be considered by the Board over the next several months, as the supporting information becomes available, including deciding on the dual track procurement approach or selecting one procurement method prior to issuing Requests for Proposals (RFPs). The process for supporting the Board in making this decision would include: 1. Convene selected industry experts for primer on key

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www.poseidonwater.com
elements, relevant case studies and intensive debate. 2. Board committee/Board work-study sessions to follow and 3. Board consideration: identify one track prior to issuing RFPs.

At the Committee’s July 6th meeting, staff presented the following steps for obtaining a Board decision on the project delivery method:

1. Characterization of the Key Issues (July-August): Staff will summarize all relevant information pertaining to the following questions and seek the input of independent procurement experts:
   a. What are the unique and particular risks that would be transferred to a P3 entity over a PDB entity?
   b. What is the potential range of value to the District of transferring those risks?
   c. What value does private financing provide relative to debt service coverage ratio and rate impacts?

2. Work-Study Session with the Recycled Water Committee (early September): Along with independent experts, Staff will present pros/cons/case studies for both delivery methods and answer the Committee’s questions as it formulates a recommendation to the Board on a project delivery method.

3. Special Board Meeting for Similar Work-Study Session (late September): Based on Committee feedback, a work-study session will be tailored for consideration of the entire Board.

At the end of the discussion on this item, Director Estremera suggested holding a 2-3-hour workshop with the Recycled Water Committee to discuss the Expedited Purified Water Program, and then subsequently bring this to the full District Board. As Poseidon’s representative at that meeting, I concurred with the recommendation and with the staff’s key issues for comparing the alternative delivery methods, the value of transferring risks to a P3, and the value of private financing for water rates. In addition, I suggested looking at the impact of private financing on the District’s current and future credit ratings and that the Board should also consider the innovation, performance and commercial incentives provided by the P3 approach.

Poseidon’s Comments

The posting of an Amended Agenda and staff report for the Committee’s September 7, 2016 meeting late Friday before a three-day weekend has allowed limited opportunity for review and comment. We note that agenda item 4.1 Workshop on Expedited Purified Water Program – Dual Track Procurement had been amended from “consider and approve appropriate action,” to “choose the Progressive Design/Build project delivery method for the Expedited Purified Water Program.” This amended agenda package was supported by a staff report which included information from a day-long internal workshop staff convened with a group of industry experts, followed by an internal meeting wherein staff formulated the recommendation to proceed with the Progressive Design-Build based on “District objectives” established by staff.

Poseidon supported the staff’s efforts in August to develop information for the Committee to use in order to determine which topics are most appropriate for consideration by the entire Board. Unfortunately, the process outlined in July was not followed in arriving at the recommendation that is now before the Committee for consideration. Included below is a list of information previously requested by the Committee that has yet to be provided. Since this information is essential to evaluating and comparing the alternative procurement approaches, it would seem to be premature for the Committee to adopt the staff’s recommendation at the September 7th meeting.

While we were disappointed that the workshop with the industry experts did not take place at a Committee or Board public session, we would like to direct the committee’s attention to the
recommendations of one of the experts that met with staff, Jill Jamieson (JLL Inc.), that is included in slides on Pages 8-16.

The slides also include on Page 22 of 38, a list of key risks and anticipated allocation. We cannot find in the staff information any analysis of the potential range of value to the District of transferring risks which was one of key issues identified at the July 6th Committee meeting. As one of the independent experts that met with staff has written about P3 options analysis and decision making: "Key Question: Is the value of risks transferred via a P3 greater than the additional financing costs for the P3 procurement?" (Michael Bennon, Presentation-P3 Options Analysis and Decision Making, 28 October 2015). The staff report identifies a list of key risks, but does not quantify those risks. The cost analyses on pages 23 to 26 do not include the value of the risk transfer and therefore do not reflect the potential benefit of the P3 approach.

Poseidon recommends that the presentations from all of the experts be provided to the entire Board prior to decision making on the selection of an approach.

Without a thorough analysis of the value of transferred risks, a judgement of the best approach is premature. Page 16 of the Staff Report summarized key information from the workshop with the industry experts:

1. **Staff Take-away from staff workshop:** There is no one right way.

   **Poseidon Comment:** This statement highlights the importance of the Board, as decision-maker, having all of its questions addressed and receiving all of the information that has been brought together to advise the District prior to formulating a decision on the procurement method.

2. **Staff Take-away from staff workshop:** What does the Board want to achieve?

   **Poseidon Comment:** The Board has adopted policies that that provide useful guidance on this point: GP-1. The purpose of the Board, on behalf of the people of Santa Clara County, is to see to it that the District provides Silicon Valley safe, clean water for a healthy life, environment, and economy (Governance Polices of the Board). GP-2.3. The Board will further inform itself, individually and collectively, through extensive outreach to determine community wishes and through continuing education on issues relevant to the District. GP-3.1. The Board established link between the District and the public, which includes directions to the leadership of the staff, the Board Appointed Officers, as to the intended results, organizational products, impacts, benefits, outcomes, recipients, and their relative worth. E-2.1.4 Recycled Water Policy. Protect, maintain, and develop recycled water, which includes goals to: provide at least 10% of annual recycled water production as a percentage of total County water demands by 2025; developing partnerships to develop the potential for Indirect Potable Reuse (IPR) and Direct Potable Reuse (DPR); and managing, operating and maintaining recycled water assets to maximize reliability, to minimize life cycle costs and to minimize impacts to the environment.

3. **Staff Take-away from staff workshop:** Align your choice with District’s objectives.

   **Poseidon Comment:** As identified above, maximizing reliability, minimizing life cycle costs and minimizing impacts to the environment have been identified as District objectives. The key objectives that staff has identified in the staff report of speed, quality, control, cost, and success should be reviewed by the Committee to see if they align with Board policies and objectives.

4. **Staff Take-away from staff workshop:** Remain a “doer” or become a “regulator”.

   **Poseidon Comment:** The choice of a doer or a regulator will depend on the decision made by the Board. If the Board decides to proceed with a P3, the District will need to have a plan in place to ensure that the project is completed on time and within budget. If the Board decides against a P3, the District will need to develop a plan to implement the project in-house. The choice of a doer or a regulator will have implications for the District’s financial stability and its ability to achieve its stated objectives.
 Poseidon Comment: It would be interesting to know if this distinction came from comments from one of the experts or if it was developed by staff. The District has always used private sector resources to accomplish capital projects. The P3 procurement method offers an alternative approach to accomplishing the District’s objectives that should be evaluated on its merits rather than dismissed on the basis of an overly simplistic us versus them argument.

5. Staff Take-away from staff workshop: Potential implications of privatization in a predominantly public agency region?

 Poseidon Comment: It would seem that in Silicon Valley there would be an appreciation of public agencies being able to form partnerships with the private sector to leverage investments in needed large-scale capital projects. The partnerships identified in Board policies and executive interpretation include private as well as public entities. Board Policy GP-1.3. Collaboration with government, academic, private, non-governmental, and non-profit organizations is integral to accomplishing the District mission.

6. Staff Take-away from staff workshop: The Board must be the District’s political champion.

 Poseidon Comment: Board polices specify the role of the Board as the link between the District and the public. In this governance role the Board is politically accountable for appropriate organizational performance.

In closing, Poseidon respectfully requests that the Committee:

1. Not recommend the selection of a procurement method at the September 7th meeting.
2. Direct staff to develop information that provides a meaningful comparison of the alternative procurement methods including the value of the risks that are transferred to each party by each approach and the impacts on groundwater production charges of the two approaches.
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Poseidon will have a representative at the September 7th meeting and will have more detailed comments for the Committee at that time.

Sincerely,

Stan Williams
Vice-President, Project Development
Poseidon Water
# P3 vs. Progressive Design-Build (“PDB”)

<table>
<thead>
<tr>
<th>Benefit</th>
<th>P3</th>
<th>PDB</th>
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| **Control of Process during Design and Construction Phase/Design/Quality** | • Project defined in collaboration with the District based on conceptual level of engineering  
  • P3 Entity responsible for solution based on scope book parameters (quality of materials, engineering standards, performance metrics)  
  • District to have revision rights  
  • Minimum chance of change orders | • District has total control of project definition  
  • Public entity to pay for Design as the Project progresses  
  • Open to change orders during construction because District directed design |
| **Project Cost**                              | • Open book approach on getting to final Water Price  
  • Water Purchase Agreement ("WPA") reflects water price and risk allocation | • Open book approach on getting to construction cost  
  • District to manage contract  
  • Project Design-Build contract reflects project construction costs |
| **Cost Responsibility during Development and Construction** | • P3 Entity pays for process of arriving at water price | • District pays for process to arrive at project construction cost |
| **Cost of Funding**                           | • Funding provided by P3 entity  
  • Higher cost of funding but potential for lower lifecycle cost based on value-for-money analysis (risk, cost of delay, etc.)  
  • Low cost tax-exempt debt also available to P3 entity | • Publicly funded  
  • Lower cost of funding, but higher risk of increased water costs due to delays, construction and operation performance |
| **Water Price Certainty**                    | • WPA provides water price certainty | • Ultimate water price is undetermined |
# P3 vs. Progressive Design-Build ("PDB")

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<tr>
<th>Benefit</th>
<th>P3</th>
<th>PDB</th>
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<tbody>
<tr>
<td><strong>Borrowing Capacity</strong></td>
<td>Maintains borrowing capacity as Project payments are considered an operating cost</td>
<td>Use of balance sheet impacts credit rating, debt metrics and reserve requirements</td>
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<tr>
<td></td>
<td></td>
<td>Takes resources away that could be used for other capital improvements/ maintenance projects</td>
</tr>
<tr>
<td><strong>Performance Payments</strong></td>
<td>P3 Entity paid only if the Project performs</td>
<td>District to make fixed and debt payments even if Project does not perform</td>
</tr>
<tr>
<td><strong>Water Supply</strong></td>
<td>District controls water supply sources and amounts</td>
<td>District controls water supply sources and amounts</td>
</tr>
<tr>
<td></td>
<td>Pays for water under minimum commitment only if Project is performing even if water is not taken</td>
<td>Pays for debt service and fixed O&amp;M costs even if water is not taken regardless of Project performance</td>
</tr>
<tr>
<td><strong>Project Risk</strong></td>
<td>Majority of risk is transferred to P3 entity</td>
<td>Majority of risk stays with the District</td>
</tr>
<tr>
<td><strong>Efficiency and innovation</strong></td>
<td>WPA includes efficiency/ innovation incentives for P3 entity to lower cost</td>
<td>Structure creates little incentive to improve efficiency and lower cost</td>
</tr>
<tr>
<td><strong>O&amp;M</strong></td>
<td>P3 entity penalized/incentivized based on operating guarantees in the WPA</td>
<td>District controls operations</td>
</tr>
<tr>
<td></td>
<td>District to have O&amp;M oversight/ step-in rights</td>
<td>District has risk of operating cost overruns.</td>
</tr>
<tr>
<td></td>
<td>P3 entity has risk of operations cost overruns</td>
<td></td>
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<tr>
<td><strong>Project Ownership</strong></td>
<td>District can maintain ownership of assets by structuring WPA as Service Agreement</td>
<td>District maintains ownership of the assets</td>
</tr>
<tr>
<td></td>
<td>Project transferred to District at end of WPA term</td>
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Comments • 9-7-16
Santa Clara Valley Water District Staff Report
Recycled Water Committee
Expedited Purified Water Program Dual Track Procurement
Progressive Design Build v. P3

Prepared by Table Rock Capital, P3 Lead, Silicon Valley New Water Partners
Greetings –

This morning we received an invitation to comment by noon on the Purified Water Program Staff Report that came out over the Labor Day weekend. This Report recommends a Progressive Design Build procurement to the Recycled Water Committee, and rejects a P3. As the P3 lead on the Silicon Valley New Water Partners consortium, Table Rock has a suggestion and several corrections to submit for the Committee’s consideration.

I. First, Table Rock suggests that the P3 direction can be selected without giving up the option of a publicly financed, conventionally delivered Progressive Design Build project, at a later GMP off-ramp point. The Progressive Design Build direction, however, cannot be selected and still produce for Council the definitive construction cost savings, operations and maintenance cost savings, and actual cost of capital implications of a P3. The Progressive Design Build with a P3 financing business case would be developed in open book contrast to the Progressive Design Build conventionally delivered, as part of the first phase work product that is produced by the consortium on the P3 track for SCVWD. This work product includes a market-ready design solution for either delivery, with an alternative financing and delivery option. It is at that GMP point under the Table Rock P3 that the Council would make an informed, data-driven decision on whether to self-finance the Progressive Design Build solution, or choose the risk transfer and performance of an alternatively financed and delivered Progressive Design Build. Table Rock’s approach (as currently being implemented in both Rialto, California’s Wastewater Treatment Plant Progressive Design Build and in the two-phase P3 public-private comparator commissioned by the City of Wichita, Kansas) enables a firm off-ramp for SCVWD should the desired degree of lifecycle cost savings and desired cost of capital not be achieved under the P3 delivery scenario.

II. Second, Table Rock sees in the Reports concluding statements a misunderstanding of the continued public role as “Doer” not “Regulator” under a hybrid P3 partnership such as that practiced by Table Rock. In both Rialto and Wichita, the City’s staff, engineering advisors, finance staff and elected leadership are all consistently and intensively engaged in the design, strategy, expenditures and planning regarding every aspect of the water and wastewater systems, both on the capital projects side, the asset management aspect, and in the operations and maintenance. Table Rock expects a similarly empowered and directive role for staff and leadership within the design and implementation of the Purified Water Program, just as SCVWD would experience under a conventionally delivered Progressive Design Build. The difference under P3 would lie in the degree of risk transfer and associated lifecycle cost savings and guaranteed performance that the two partners, public and private, would jointly define and agree upon at the front end of a P3 agreement.

Third, the Staff Report shows multiple scenarios for PDB v. P3, with construction cost savings ranging from flat to 5% savings under P3, and O&M costs ranging from 20% more costly, to 20% cost savings. Table Rock suggests that this 40% swing across scenarios does not reflect a decision-making degree of certainty. The one accelerated way to determine whether SCVWD can attain 20% O&M savings or not is to pursue Table Rock’s hybrid P3 approach, where an indicative GMP is developed not just for the construction cost savings, but for the lifecycle cost of capital and the operations and maintenance cost savings. Only under the comparative P3 track can these NPV comparisons be grounded in indicative figures, and support a more data-driven decision.

Finally, a common public sector bias in the United States against private financing of public sector infrastructure appears in the Staff Report, based primarily on the argument that tax-exempt debt is cheaper than taxable debt. The first development of note that establishes the out-of-date nature of this bias is the...
increasingly prevalent use of tax-exempt Private Activity Bonds and tax-exempt financing more generally, in P3. In Table Rock’s research for the City of Wichita, ample access to tax-exempt PABs has been established, with an early indicative spread of 29 basis points between the cost of Wichita self-financing, and a P3 consortium financing. Second, the tax-exempt vs. taxable financing differential makes a comparatively small contribution to the total lifecycle cost of any public infrastructure project. The cost of capital differential should therefore be evaluated as an important but not definitive factor within the overall cost profile of the project. Recognizing that public-private partnerships commonly generate 10% to 30% in lifecycle cost savings, any objective comparator of delivery costs should establish whether or not the lifecycle cost savings are present to a degree sufficient to overwhelm the tax-exempt vs. taxable financing differential.

III. The final consideration affecting this cost of capital evaluation is that marked volatility in the spread between taxable and tax-exempt bond yields in recent years has significantly called into question the cost of capital advantage of tax-exempt financing. Factors such as the ‘08-’09 recession, multiple municipal bankruptcies, and credit agencies incorporating credit considerations such as pension obligations into their municipal ratings have all contributed to these newly unpredictable spreads between tax-exempt and taxable financing.

**Cost of Financing Differential & Lifecycle Cost Savings**

Infrastructure project lifecycle cost components include three major categories of expense:

- Initial Capital Investment: 5% - 25%
- Annual Operations & Maintenance Expense: 50% - 75%
- Cost of Capital (Financing Cost): 10% - 30%

The graph below illustrates this point and shows that on numerous occasions since 2008, tax-exempt yields have been higher than taxable yields.
When viewed through a public-private comparator, it is clear that in cases where a 15% to 30% lifecycle cost savings in engineering, construction, and operations through a P3 delivery can be achieved, these savings can more than overtake the cost of capital advantages offered by tax-exempt financing.

In closing, Table Rock suggests that an open workshop with the P3 leads Brookfield and Table Rock could greatly enhance the level of informed discussion between the PDB and P3 options.

Sincerely,

Peter Luchetti, Managing Partner
Megan Matson, Partner
Table Rock Capital