



# City of Palo Alto

## City Council Staff Report

(ID # 6458)

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**Report Type: Consent Calendar**

**Meeting Date: 5/16/2016**

**Summary Title: Approve Advanced Water Purification System and Agreements with SCVWD and Mountain View**

**Title: Approve Advanced Water Purification System Feasibility Contract With MNS Engineers, Inc./GHD, Inc. for a Total Amount Not-to-Exceed \$325,875, Partner Funding Agreements With the Santa Clara Valley Water District and City of Mountain View, and a Budget Amendment in the Wastewater Treatment Fund**

**From: City Manager**

**Lead Department: Public Works**

### **Recommendation**

Staff recommends that Council:

1. Approve and authorize the City Manager or his designee to execute the attached contract with MNS Engineers, Inc./GHD, Inc. (Attachment A) in the amount not to exceed \$325,875 for the Advanced Water Purification Feasibility Study and
2. Authorize the City Manager to approve partner funding agreements with the Santa Clara Valley Water District for up to \$500,000 (Attachment B) and the City of Mountain View (Attachment C) for up to \$50,000.
3. Amend Fiscal Year 2016 budget appropriation for the Wastewater Treatment Fund by:
  - a. Increasing the recycled water operations appropriation in the amount of \$325,875; and
  - b. Decreasing the Wastewater Treatment Fund reserve in the amount of \$325,875, which will be offset with an 80% reimbursement from the Santa Clara Water District and a 10% reimbursement from City of Mountain View per the aforementioned funding agreements, for a total reimbursement of \$298,127.

### **Executive Summary**

The City of Palo Alto (Palo Alto or City) currently supplies tertiary-treated recycled water

to several City-owned parks and facilities, Caltrans, commercial truck-fill standpipes at the City of Palo Alto Regional Water Quality Control Plant (RWQCP) and City of Mountain View. To expand the use of recycled water to include cooling towers and irrigation of salt-sensitive landscaping, it is advantageous to reduce the total dissolved solids (TDS) concentration to approximately 450 parts per million (ppm). Consequently, the Cities of Palo Alto and Mountain View, in collaboration with Santa Clara Valley Water District are proposing a jointly funded feasibility study on the installation of an advanced water purification system (AWPS) at RWQCP. The AWPS would produce virtually TDS-free water, which would be blended with current recycled water to achieve a TDS concentration of  $450 \pm 50$ ppm.

## **Background**

**The RWQCP's Recycled Water Program began in the early 1980s** and consists of three phases. Phase I of the recycled water delivery system provided recycled water to Shoreline Golf Links in Mountain View and later expanded to serve other uses, including maintenance of the duck pond, enhancement of Emily Renzel Marsh, processes at the RWQCP and irrigation at City facilities. In 1991 and 1992, the City of Palo Alto Utilities (CPAU) and partners of the RWQCP examined the feasibility of expanding the use of recycled water to serve additional City and commercial customers in the RWQCP service area. **This examination concluded with the publication of the April 1992, "Water Reclamation Master Plan for the Regional Water Quality Control Plant" (Recycled Water Master Plan).**

Although Council certified the Program Environmental Impacts Report ([CMR:217:95](#)) for the projects identified in the Recycled Water Master Plan in April 1995, they also agreed with staff recommendation not to move forward as the new projects were not cost-effective at that time. Instead, Council decided staff should re-evaluate the projects if and when changes such as:

- The RWQCP discharge permit requirements;
- Increased mass loading to the RWQCP;
- Partner or other local agencies requests;
- Federal or other funding availability; or
- Supply-side issues were to develop, potentially increasing the value of recycled water including, cost, availability, regulatory or legislative initiatives and/or advanced treatment for potable reuse.

**As the San Francisco Public Utilities Commission (SFPUC), the City's primary water supplier, embarked on their Water System Improvement Project, SFPUC water supply rates began to steadily increase.** In response to this change, in July 2006, the City completed a Recycled Water Market Survey to update the Master Plan and re-examine the feasibility of Phase III, an extension of the recycled water system to end-users in Palo Alto. The survey identified a total potential demand of about 1,700 acre-feet per year in Palo Alto and identified a project to serve about 840 acre-feet per year of

recycled water demand.

The survey also showed that the estimated cost of the recycled water from the project was still higher than the expected future cost of water from the SFPUC. Without outside funding, the project was not cost-effective and additional planning and design was required before state or federal funds could be sought. Specifically, applying for state grant funds required the completion of a Recycled Water Facility Plan. In November 2006 Council approved development of a facility plan and environmental documentation for expanding the recycled water distribution system in Palo Alto. Proposals to complete such a plan were solicited, staff submitted an application for a planning grant of \$75,000 ([CMR:415:06](#)) from the State Water Resources Control Board and were awarded the grant.

In April 2007, Council approved the execution of a contract with RMC Water & Environment, Inc. for completion of a Recycled Water Facilities Plan and preparation of environmental documents for Phase III expansion ([CMR:191:07](#)). In analyzing essential components for expanding the system to serve additional users in Palo Alto the consultant engaged in site investigations, analysis of project alternatives, preparation of a financial plan, environmental documentation, public outreach, development of user agreements or use ordinances and preparation of facility plan reports.

A [Recycled Water Facility Plan](#) was completed in December 2008. The plan identified **Stanford Research Park as a “target area”** for expansion, but again the cost of water was significantly higher than that provided by SFPUC and outside funding would be needed to justify the project. Potential state and federal grants and low- or no-interest loans from the State Revolving Loan Fund required completion of environmental documentation.

As required by the California Environmental Quality Act (CEQA), an Initial Study and Draft Mitigated Negative Declaration was issued in March 2009 and contained a checklist evaluating environmental impacts associated with construction and operation of the Phase II expansion, **an extension of RWQCP’s recycled** water system to Mountain View. Comments were received during the 30-day public comment period and staff submitted their response in May. Phase II was completed the same year.

Due to public concerns regarding the irrigation of redwood trees and sensitive species with recycled water, the City initiated an Environmental Impact Report (EIR) focused on recycled water quality issues, salinity in particular. In January 2010, Council approved the Recycled Water Salinity Reduction Policy ([CMR 111:10](#), [Resolution 9035](#)), including the **goal of reducing TDS of recycled water to 600 ppm. Since that time, the RWQCP’s** partner agencies have taken steps to reduce salinity intrusion into the sewer system. The increasing cost for SFPUC water and severe statewide drought have raised **awareness of the importance of recycled water as part of the City’s water supply mix** and need for the Phase III expansion project. As the original environmental

documentation had grown stale, a new program EIR was completed and certified by Council in September 2015 ([CMR 5962](#)).

**Discussion**

Staff are moving forward with a Request For Proposals (RFP) to hire a consultant to update the Recycled Water Strategic Plan and Groundwater Assessment for the RWQCP service area. An update on recycled water planning efforts is located in Attachment D.

To improve the quality of recycled water, staff drafted and released another RFP to hire a consultant to conduct an Advanced Water Purification System Feasibility Study, in which a variety of options will be analyzed. In December 2015 staff received proposals from two consulting teams, Carollo/RMC and MNS Engineers, Inc./GHD, Inc.

**Summary of Bid Process**

Bid Name/Number	Advanced Water Purification System Feasibility Study
Proposed Length of Project	December 2017
Number of Vendors Notified of RFP via PlanetBids	133
Total Days to Respond to Bid	30
Pre-Bid Meeting?	Yes
Number of Bids Received:	2
Bid Price Range	\$296,250 to \$412,000

An evaluation committee consisting of RWQCP staff, City of Mountain View and Santa Clara Valley Water District reviewed the proposals. Both teams were invited to participate in oral interviews on January 27, 2016. The proposals were judged by the following criteria:

- Quality and completeness of the proposal
- Customer service and experience
- Financial stability
- Quality control/quality assurance
- Innovative/creative approach to system design and communication skills

- Compliance with regulatory requirements
- Cost to the City

Following oral interviews the consultant team MNS Engineers, Inc./GHD, Inc. was selected as the preferred team due to their demonstrated strong technical knowledge of advanced water purification systems and ability to meet program budgets.

### **Timeline**

Immediately upon execution of the contract, MNS Engineers, Inc./GHD, Inc. will begin collecting information. The study will be completed by December 31, 2017.

### **Resource Impact**

The contract with MNS Engineers, Inc./GHD, Inc. will be in the amount not to exceed \$325,875. Included in that not to exceed amount is \$141,750 for optional tasks listed in the scope that may or may not be conducted based on the results of the core tasks and only at the direction of the project manager and ten percent for additional services. Funding will be provided by the funding agreements with the Santa Clara Valley Water District, City of Mountain View and Wastewater Treatment Fund.

A budget amendment is necessary to amend Fiscal Year 2016 budget appropriation for the Wastewater Treatment Fund, increasing the recycled water operations appropriation in the amount of \$325,875 and decreasing the Wastewater Treatment Fund reserve in the amount of \$325,875, which will be offset with an 80% reimbursement from the Santa Clara Water District and a 10% reimbursement from City of Mountain View per the aforementioned funding agreements, for a total reimbursement of \$298,127.

### **Policy Implications**

Improving the quality of recycled water will help expand the use of recycled water in Palo Alto and is consistent with Council policy. Additionally, Council approved the Water Integrated Resources Plan (WIRP) Guidelines in December 2003 ([CMR:547:03](#)), specifically, WIRP Guideline #3: Actively participate in development of cost-effective regional recycled water plans.

**Council's Sustainability Policy supports the development of recycled water, specifically in the policy's statement to "reduce resource use and pollution in a cost-effective manner while striving to protect and enhance the quality of the air, water, land, and other natural resources."**

**The City's Comprehensive Plan contains Natural Environment Goal N-4:** Water resources that are prudently managed to sustain plant and animal life, support urban activities and protect public health and safety. Specifically, Program N-26 addresses the use of recycled water: Implement incentives for the use of drought-tolerant landscaping and recycled water for landscape irrigation.

## **ENVIRONMENTAL REVIEW**

This study is exempt from the California Environmental Quality Act.

## **NEXT STEPS**

Following completion of the study, staff will confer with the RWQCP partners and develop a recommendation on whether to proceed to design and construction of an advanced water purification system. Staff will bring the recommendation to Council for action.

### **Attachments:**

- Attachment A: MNS Engineers C16161973-Final (PDF)
- Attachment B: Final Feasibility Study Cost Share Agreement with SCVWD\_PA April2016 (PDF)
- Attachment C: Mountain View Feasibility Study Cost Share 2016 (PDF)
- Attachment D: Update on Recycled Water Planning Efforts March 2016 (PDF)

**CITY OF PALO ALTO CONTRACT NO. C16161973**  
**AGREEMENT BETWEEN THE CITY OF PALO ALTO AND MNS ENGINEERS, INC.**  
**FOR PROFESSIONAL SERVICES**

This Agreement is entered into on this 2<sup>nd</sup> day of March , 2016, (“Agreement”) by and between the CITY OF PALO ALTO, a California chartered municipal corporation (“CITY”), and **MNS ENGINEERS, INC.**, a California corporation, located at 201 N Calle Cesar Chavez Ste 300, SANTA BARBARA, CA 93103 (“CONSULTANT”).

**RECITALS**

The following recitals are a substantive portion of this Agreement.

A. CITY intends to conduct a feasibility study for installation of an advanced water purification system at the RWQCP to produce recycled water with lower TDS that can be blended with the existing tertiary-treated recycled water in order to achieve an instantaneous TDS concentration of 450 ± 50 mg/L. (“Project”) and desires to engage a consultant to provide professional services in connection with the Project (“Services”).

B. CONSULTANT has represented that it has the necessary professional expertise, qualifications, and capability, and all required licenses and/or certifications to provide the Services.

C. CITY in reliance on these representations desires to engage CONSULTANT to provide the Services as more fully described in Exhibit “A”, attached to and made a part of this Agreement.

NOW, THEREFORE, in consideration of the recitals, covenants, terms, and conditions, in this Agreement, the parties agree:

**AGREEMENT**

**SECTION 1. SCOPE OF SERVICES.** CONSULTANT shall perform the Services described at Exhibit “A” in accordance with the terms and conditions contained in this Agreement. The performance of all Services shall be to the reasonable satisfaction of CITY.

**SECTION 2. TERM.**

The term of this Agreement shall be from the date of its full execution through December 31, 2017 **unless** terminated earlier pursuant to Section 19 of this Agreement.

**SECTION 3. SCHEDULE OF PERFORMANCE.**

Time is of the essence in the performance of Services under this Agreement. CONSULTANT shall complete the Services within the term of this Agreement and in accordance with the schedule set forth in Exhibit “B”, attached to and made a part of this Agreement. Any Services for which times for performance are not specified in this Agreement shall be commenced and completed by CONSULTANT in a reasonably prompt and timely manner based upon the circumstances and direction communicated to the CONSULTANT. CITY’s agreement to extend the term or the schedule for performance shall

not preclude recovery of damages for delay if the extension is required due to the fault of CONSULTANT.

**SECTION 4. NOT TO EXCEED COMPENSATION.** The compensation to be paid to CONSULTANT for performance of the Services described in Exhibit “A”, including both payment for professional services and reimbursable expenses, shall not exceed Two hundred ninety six thousand two hundred fifty Dollars (\$296,250.00). In the event Additional Services are authorized, the total compensation for Services, Additional Services and reimbursable expenses shall not exceed Three hundred twenty five thousand eight hundred seventy five Dollars (\$325,875.00).

The applicable rates and schedule of payment are set out at Exhibit “C-1”, entitled “HOURLY RATE SCHEDULE,” which is attached to and made a part of this Agreement.

Additional Services, if any, shall be authorized in accordance with and subject to the provisions of Exhibit “C”. CONSULTANT shall not receive any compensation for Additional Services performed without the prior written authorization of CITY. Additional Services shall mean any work that is determined by CITY to be necessary for the proper completion of the Project, but which is not included within the Scope of Services described at Exhibit “A”.

**SECTION 5. INVOICES.** In order to request payment, CONSULTANT shall submit monthly invoices to the CITY describing the services performed and the applicable charges (including an identification of personnel who performed the services, hours worked, hourly rates, and reimbursable expenses), based upon the CONSULTANT’s billing rates (set forth in Exhibit “C-1”). If applicable, the invoice shall also describe the percentage of completion of each task. The information in CONSULTANT’s payment requests shall be subject to verification by CITY. CONSULTANT shall send all invoices to the City’s project manager at the address specified in Section 13 below. The City will generally process and pay invoices within thirty (30) days of receipt.

**SECTION 6. QUALIFICATIONS/STANDARD OF CARE.** All of the Services shall be performed by CONSULTANT or under CONSULTANT’s supervision. CONSULTANT represents that it possesses the professional and technical personnel necessary to perform the Services required by this Agreement and that the personnel have sufficient skill and experience to perform the Services assigned to them. CONSULTANT represents that it, its employees and subconsultants, if permitted, have and shall maintain during the term of this Agreement all licenses, permits, qualifications, insurance and approvals of whatever nature that are legally required to perform the Services.

All of the services to be furnished by CONSULTANT under this agreement shall meet the professional standard and quality that prevail among professionals in the same discipline and of similar knowledge and skill engaged in related work throughout California under the same or similar circumstances.

**SECTION 7. COMPLIANCE WITH LAWS.** CONSULTANT shall keep itself informed of and in compliance with all federal, state and local laws, ordinances, regulations, and orders that may affect in any manner the Project or the performance of the Services or those engaged to perform Services under this Agreement. CONSULTANT shall procure all permits and licenses,

pay all charges and fees, and give all notices required by law in the performance of the Services.

**SECTION 8. ERRORS/OMISSIONS.** CONSULTANT shall correct, at no cost to CITY, any and all errors, omissions, or ambiguities in the work product submitted to CITY, provided CITY gives notice to CONSULTANT. If CONSULTANT has prepared plans and specifications or other design documents to construct the Project, CONSULTANT shall be obligated to correct any and all errors, omissions or ambiguities discovered prior to and during the course of construction of the Project. This obligation shall survive termination of the Agreement.

**SECTION 9. COST ESTIMATES.** If this Agreement pertains to the design of a public works project, CONSULTANT shall submit estimates of probable construction costs at each phase of design submittal. If the total estimated construction cost at any submittal exceeds ten percent (10%) of CITY's stated construction budget, CONSULTANT shall make recommendations to CITY for aligning the PROJECT design with the budget, incorporate CITY approved recommendations, and revise the design to meet the Project budget, at no additional cost to CITY.

**SECTION 10. INDEPENDENT CONTRACTOR.** It is understood and agreed that in performing the Services under this Agreement CONSULTANT, and any person employed by or contracted with CONSULTANT to furnish labor and/or materials under this Agreement, shall act as and be an independent contractor and not an agent or employee of CITY.

**SECTION 11. ASSIGNMENT.** The parties agree that the expertise and experience of CONSULTANT are material considerations for this Agreement. CONSULTANT shall not assign or transfer any interest in this Agreement nor the performance of any of CONSULTANT's obligations hereunder without the prior written consent of the city manager. Consent to one assignment will not be deemed to be consent to any subsequent assignment. Any assignment made without the approval of the city manager will be void.

**SECTION 12. SUBCONTRACTING.**

**Option A: No Subcontractor:** CONSULTANT shall not subcontract any portion of the work to be performed under this Agreement without the prior written authorization of the city manager or designee.

**Option B: Subcontracts Authorized:** Notwithstanding Section 11 above, CITY agrees that subconsultants may be used to complete the Services. The subconsultants authorized by CITY to perform work on this Project are:

GHD, INC., Located at 175 Technology Drive, Suite 200 Irvine CA, 92618 USA  
Website: [www.ghd.com](http://www.ghd.com)

CONSULTANT shall be responsible for directing the work of any subconsultants and for any compensation due to subconsultants. CITY assumes no responsibility whatsoever concerning compensation. CONSULTANT shall be fully responsible to CITY for all acts and omissions of a subconsultant. CONSULTANT shall change or add subconsultants only with the prior approval of the city manager or his designee.

**SECTION 13. PROJECT MANAGEMENT.** CONSULTANT will assign Julia Aranda as

the Project Manager to have supervisory responsibility for the performance, progress, and execution of the Services and to represent CONSULTANT during the day-to-day work on the Project. If circumstances cause the substitution of the project director, project coordinator, or any other key personnel for any reason, the appointment of a substitute project director and the assignment of any key new or replacement personnel will be subject to the prior written approval of the CITY's project manager. CONSULTANT, at CITY's request, shall promptly remove personnel who CITY finds do not perform the Services in an acceptable manner, are uncooperative, or present a threat to the adequate or timely completion of the Project or a threat to the safety of persons or property.

CITY's project manager is **Samantha Engelage**, Public Works Department, Environmental Compliance Division, 2501 Embarcadero Way, Palo Alto, CA 94303, Telephone: (650) 329-2123. The project manager will be CONSULTANT's point of contact with respect to performance, progress and execution of the Services. CITY may designate an alternate project manager from time to time.

**SECTION 14. OWNERSHIP OF MATERIALS.** Upon delivery, all work product, including without limitation, all writings, drawings, plans, reports, specifications, calculations, documents, other materials and copyright interests developed under this Agreement shall be and remain the exclusive property of CITY without restriction or limitation upon their use. CONSULTANT agrees that all copyrights which arise from creation of the work pursuant to this Agreement shall be vested in CITY, and CONSULTANT waives and relinquishes all claims to copyright or other intellectual property rights in favor of the CITY. Neither CONSULTANT nor its contractors, if any, shall make any of such materials available to any individual or organization without the prior written approval of the City Manager or designee. CONSULTANT makes no representation of the suitability of the work product for use in or application to circumstances not contemplated by the scope of work.

**SECTION 15. AUDITS.** CONSULTANT will permit CITY to audit, at any reasonable time during the term of this Agreement and for three (3) years thereafter, CONSULTANT's records pertaining to matters covered by this Agreement. CONSULTANT further agrees to maintain and retain such records for at least three (3) years after the expiration or earlier termination of this Agreement.

**SECTION 16. INDEMNITY.**

**[Option A applies to the following design professionals pursuant to Civil Code Section 2782.8: architects; landscape architects; registered professional engineers and licensed professional land surveyors.]** 16.1. To the fullest extent permitted by law, CONSULTANT agrees to, indemnify, defend and hold harmless CITY, its Council members, officers, employees and agents (each an "Indemnified Party") from and against any and all demands, claims, or liability of any nature, including death or injury to any person, property damage or any other loss, including all costs and expenses of whatever nature including reasonable attorneys fees, experts fees, court costs and disbursements ("Claims") that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of CONSULTANT, its officers, employees, agents or contractors under this Agreement, regardless of whether or not it is caused in part by an Indemnified Party.

**[Option B applies to any consultant who does not qualify as a design professional as defined in Civil Code Section 2782.8.]** 16.1. To the fullest extent permitted by law, CONSULTANT shall protect, indemnify, defend and hold harmless CITY, its Council members, officers, employees and agents (each an “Indemnified Party”) from and against any and all demands, claims, or liability of any nature, including death or injury to any person, property damage or any other loss, including all costs and expenses of whatever nature including attorneys fees, experts fees, court costs and disbursements (“Claims”) resulting from, arising out of or in any manner related to performance or nonperformance by CONSULTANT, its officers, employees, agents or contractors under this Agreement, regardless of whether or not it is caused in part by an Indemnified Party.

16.2. Notwithstanding the above, nothing in this Section 16 shall be construed to require CONSULTANT to indemnify an Indemnified Party from Claims arising from the active negligence, sole negligence or willful misconduct of an Indemnified Party.

16.3. The acceptance of CONSULTANT’s services and duties by CITY shall not operate as a waiver of the right of indemnification. The provisions of this Section 16 shall survive the expiration or early termination of this Agreement.

**SECTION 17. WAIVERS.** The waiver by either party of any breach or violation of any covenant, term, condition or provision of this Agreement, or of the provisions of any ordinance or law, will not be deemed to be a waiver of any other term, covenant, condition, provisions, ordinance or law, or of any subsequent breach or violation of the same or of any other term, covenant, condition, provision, ordinance or law.

**SECTION 18. INSURANCE.**

18.1. CONSULTANT, at its sole cost and expense, shall obtain and maintain, in full force and effect during the term of this Agreement, the insurance coverage described in Exhibit "D". CONSULTANT and its contractors, if any, shall obtain a policy endorsement naming CITY as an additional insured under any general liability or automobile policy or policies.

18.2. All insurance coverage required hereunder shall be provided through carriers with AM Best’s Key Rating Guide ratings of A-:VII or higher which are licensed or authorized to transact insurance business in the State of California. Any and all contractors of CONSULTANT retained to perform Services under this Agreement will obtain and maintain, in full force and effect during the term of this Agreement, identical insurance coverage, naming CITY as an additional insured under such policies as required above.

18.3. Certificates evidencing such insurance shall be filed with CITY concurrently with the execution of this Agreement. The certificates will be subject to the approval of CITY’s Risk Manager and will contain an endorsement stating that the insurance is primary coverage and will not be canceled, or materially reduced in coverage, by the insurer except after filing with the Purchasing Manager thirty (30) days' prior written notice of the cancellation or modification. If the insurer cancels or modifies the insurance and provides less than thirty (30) days’ notice to CONSULTANT, CONSULTANT shall provide the Purchasing Manager written notice of the cancellation or modification within two (2) business days of the

CONSULTANT's receipt of such notice. CONSULTANT shall be responsible for ensuring that current certificates evidencing the insurance are provided to CITY's Chief Procurement Officer during the entire term of this Agreement.

18.4. The procuring of such required policy or policies of insurance will not be construed to limit CONSULTANT's liability hereunder nor to fulfill the indemnification provisions of this Agreement. Notwithstanding the policy or policies of insurance, CONSULTANT will be obligated for the full and total amount of any damage, injury, or loss caused by or directly arising as a result of the Services performed under this Agreement, including such damage, injury, or loss arising after the Agreement is terminated or the term has expired.

### **SECTION 19. TERMINATION OR SUSPENSION OF AGREEMENT OR SERVICES.**

19.1. The City Manager may suspend the performance of the Services, in whole or in part, or terminate this Agreement, with or without cause, by giving ten (10) days prior written notice thereof to CONSULTANT. Upon receipt of such notice, CONSULTANT will immediately discontinue its performance of the Services.

19.2. CONSULTANT may terminate this Agreement or suspend its performance of the Services by giving thirty (30) days prior written notice thereof to CITY, but only in the event of a substantial failure of performance by CITY.

19.3. Upon such suspension or termination, CONSULTANT shall deliver to the City Manager immediately any and all copies of studies, sketches, drawings, computations, and other data, whether or not completed, prepared by CONSULTANT or its contractors, if any, or given to CONSULTANT or its contractors, if any, in connection with this Agreement. Such materials will become the property of CITY.

19.4. Upon such suspension or termination by CITY, CONSULTANT will be paid for the Services rendered or materials delivered to CITY in accordance with the scope of services on or before the effective date (i.e., 10 days after giving notice) of suspension or termination; provided, however, if this Agreement is suspended or terminated on account of a default by CONSULTANT, CITY will be obligated to compensate CONSULTANT only for that portion of CONSULTANT's services which are of direct and immediate benefit to CITY as such determination may be made by the City Manager acting in the reasonable exercise of his/her discretion. The following Sections will survive any expiration or termination of this Agreement: 14, 15, 16, 19.4, 20, and 25.

19.5. No payment, partial payment, acceptance, or partial acceptance by CITY will operate as a waiver on the part of CITY of any of its rights under this Agreement.

### **SECTION 20. NOTICES.**

All notices hereunder will be given in writing and mailed, postage prepaid, by certified mail, addressed as follows:

To CITY: Office of the City Clerk

City of Palo Alto  
Post Office Box 10250  
Palo Alto, CA 94303

With a copy to the Purchasing Manager

To CONSULTANT: Attention of the project director  
at the address of CONSULTANT recited above

**SECTION 21. CONFLICT OF INTEREST.**

21.1. In accepting this Agreement, CONSULTANT covenants that it presently has no interest, and will not acquire any interest, direct or indirect, financial or otherwise, which would conflict in any manner or degree with the performance of the Services.

21.2. CONSULTANT further covenants that, in the performance of this Agreement, it will not employ subconsultants, contractors or persons having such an interest. CONSULTANT certifies that no person who has or will have any financial interest under this Agreement is an officer or employee of CITY; this provision will be interpreted in accordance with the applicable provisions of the Palo Alto Municipal Code and the Government Code of the State of California.

21.3. If the Project Manager determines that CONSULTANT is a “Consultant” as that term is defined by the Regulations of the Fair Political Practices Commission, CONSULTANT shall be required and agrees to file the appropriate financial disclosure documents required by the Palo Alto Municipal Code and the Political Reform Act.

**SECTION 22. NONDISCRIMINATION.** As set forth in Palo Alto Municipal Code section 2.30.510, CONSULTANT certifies that in the performance of this Agreement, it shall not discriminate in the employment of any person because of the race, skin color, gender, age, religion, disability, national origin, ancestry, sexual orientation, housing status, marital status, familial status, weight or height of such person. CONSULTANT acknowledges that it has read and understands the provisions of Section 2.30.510 of the Palo Alto Municipal Code relating to Nondiscrimination Requirements and the penalties for violation thereof, and agrees to meet all requirements of Section 2.30.510 pertaining to nondiscrimination in employment.

**SECTION 23. ENVIRONMENTALLY PREFERRED PURCHASING AND ZERO WASTE REQUIREMENTS.** CONSULTANT shall comply with the CITY’s Environmentally Preferred Purchasing policies which are available at CITY’s Purchasing Department, incorporated by reference and may be amended from time to time. CONSULTANT shall comply with waste reduction, reuse, recycling and disposal requirements of CITY’s Zero Waste Program. Zero Waste best practices include first minimizing and reducing waste; second, reusing waste and third, recycling or composting waste. In particular, CONSULTANT shall comply with the following zero waste requirements:

- All printed materials provided by CCONSULTANT to CITY generated from a personal computer and printer including but not limited to, proposals, quotes, invoices, reports, and public education materials, shall be double-sided and printed on a minimum of 30% or greater post-consumer content paper, unless

otherwise approved by CITY's Project Manager. Any submitted materials printed by a professional printing company shall be a minimum of 30% or greater post-consumer material and printed with vegetable based inks.

- Goods purchased by CONSULTANT on behalf of CITY shall be purchased in accordance with CITY's Environmental Purchasing Policy including but not limited to Extended Producer Responsibility requirements for products and packaging. A copy of this policy is on file at the Purchasing Division's office.
- Reusable/returnable pallets shall be taken back by CONSULTANT, at no additional cost to CITY, for reuse or recycling. CONSULTANT shall provide documentation from the facility accepting the pallets to verify that pallets are not being disposed.

#### **SECTION 24. NON-APPROPRIATION**

24.1. This Agreement is subject to the fiscal provisions of the Charter of the City of Palo Alto and the Palo Alto Municipal Code. This Agreement will terminate without any penalty (a) at the end of any fiscal year in the event that funds are not appropriated for the following fiscal year, or (b) at any time within a fiscal year in the event that funds are only appropriated for a portion of the fiscal year and funds for this Agreement are no longer available. This section shall take precedence in the event of a conflict with any other covenant, term, condition, or provision of this Agreement.

#### **SECTION 25. MISCELLANEOUS PROVISIONS.**

25.1. This Agreement will be governed by the laws of the State of California.

25.2. In the event that an action is brought, the parties agree that trial of such action will be vested exclusively in the state courts of California in the County of Santa Clara, State of California.

25.3. The prevailing party in any action brought to enforce the provisions of this Agreement may recover its reasonable costs and attorneys' fees expended in connection with that action. The prevailing party shall be entitled to recover an amount equal to the fair market value of legal services provided by attorneys employed by it as well as any attorneys' fees paid to third parties.

25.4. This document represents the entire and integrated agreement between the parties and supersedes all prior negotiations, representations, and contracts, either written or oral. This document may be amended only by a written instrument, which is signed by the parties.

25.5. The covenants, terms, conditions and provisions of this Agreement will apply to, and will bind, the heirs, successors, executors, administrators, assignees, and consultants of the parties.

25.6. If a court of competent jurisdiction finds or rules that any provision of this Agreement or any amendment thereto is void or unenforceable, the unaffected provisions of this

Agreement and any amendments thereto will remain in full force and effect.

25.7. All exhibits referred to in this Agreement and any addenda, appendices, attachments, and schedules to this Agreement which, from time to time, may be referred to in any duly executed amendment hereto are by such reference incorporated in this Agreement and will be deemed to be a part of this Agreement.

25.8 If, pursuant to this contract with CONSULTANT, CITY shares with CONSULTANT personal information as defined in California Civil Code section 1798.81.5(d) about a California resident ("Personal Information"), CONSULTANT shall maintain reasonable and appropriate security procedures to protect that Personal Information, and shall inform City immediately upon learning that there has been a breach in the security of the system or in the security of the Personal Information. CONSULTANT shall not use Personal Information for direct marketing purposes without City's express written consent.

25.9 All unchecked boxes do not apply to this agreement.

25.10 The individuals executing this Agreement represent and warrant that they have the legal capacity and authority to do so on behalf of their respective legal entities.

25.11 This Agreement may be signed in multiple counterparts, which shall, when executed by all the parties, constitute a single binding agreement

IN WITNESS WHEREOF, the parties hereto have by their duly authorized representatives executed this Agreement on the date first above written.

**CITY OF PALO ALTO**

\_\_\_\_\_  
City Manager (Required on contracts over \$85,000)

APPROVED AS TO FORM:

\_\_\_\_\_  
Senior Asst. City Attorney  
(Required on Contracts over \$25,000)

**MNS ENGINEERS, INC.**

By:  \_\_\_\_\_  
D7A4F4B73D14468...

Name: James A. Salvito \_\_\_\_\_

Title: President and CEO \_\_\_\_\_

Attachments:

- EXHIBIT "A": SCOPE OF SERVICES
- EXHIBIT "B": SCHEDULE OF PERFORMANCE
- EXHIBIT "C": COMPENSATION
- EXHIBIT "C-1": SCHEDULE OF RATES
- EXHIBIT "D": INSURANCE REQUIREMENTS

## **EXHIBIT “A” SCOPE OF SERVICES**

### **BACKGROUND:**

The City of Palo Alto (City) Regional Water Quality Control Plant (RWQCP) produces approximately 234 million gallons of tertiary-treated recycled water annually with the majority of the demand occurring May - August. Recycled water is a sustainable alternative to potable water for various uses such as landscape irrigation, soil compaction, and dust control. To expand use of recycled water to include cooling towers and irrigation of salt-sensitive vegetation, it is desirable to reduce the total dissolved solids (TDS) concentration to 400 – 500 ppm; a significant decrease from the formally adopted goal of 600 ppm.

Consequently, the Cities of Palo Alto and Mountain View in collaboration with the Santa Clara Valley Water District are looking for a consultant to conduct a feasibility study for installation of an advanced water purification system at the RWQCP to produce recycled water with lower TDS that can be blended with the existing tertiary-treated recycled water in order to achieve an instantaneous TDS concentration of  $450 \pm 50$  mg/L.

The City, as the lead, the Santa Clara Valley Water District and the City of Mountain View as “Clients” have prepared a scope of services, found below, that includes necessary tasks for completion of the project.

### **SCOPE OF SERVICES:**

**CONSULTANT** shall provide the services listed below:

#### **1.0 Project Administration and Schedule**

CONSULTANT shall complete all services for Tasks 2.0 – 6.0 within 6 months of the Notice to Proceed. CONSULTANT shall complete all work for this project by December 31, 2017. CONSULTANT shall provide updated schedules upon request from the City and Clients as well as at the presentations described under Task 5.0.

#### **2.0 Data & Information Collection**

CONSULTANT shall meet with City and Client Staff to collect key data and information pertaining to this study. CONSULTANT shall attend three (3) in-person meetings with City and Client Staff for data and information collection.

CONSULTANT shall utilize the pilot data collected by Stanford University during two recent study periods as well as results from the Long Range Facilities Plan (2012) and the Biosolids Facility Plan (2014). The Long Range Facilities Plan evaluated future mainstream wastewater treatment processes through year 2062, associated space planning, as well as projected flows and loads; similarly the Biosolids Facility Plan evaluated future solids treatment processes needed through year 2045 and associated space planning. Projected recycled water demands to be provided to the CONSULTANT by the City and Clients.

CONSULTANT shall collect information on desirable TDS concentrations for the expected major uses of this recycled water (e.g., cooling towers, irrigation, dual plumbing, etc.). CONSULTANT shall provide meeting attendees with summary minutes and electronic copies of any supplemental materials used during the meeting no later than seven (7) calendar days from the meeting.

### **3.0 Feasibility Study**

CONSULTANT shall conduct a feasibility study of an advanced water purification system (microfiltration followed by reverse osmosis or equivalent) located at the RWQCP to produce sufficient purified water with an instantaneous TDS concentration of  $450 \pm 50$  mg/L after blending with the existing tertiary-treated recycled water.

#### **3.1 Near Term Recycled Water Demands (2019)**

CONSULTANT shall include at a minimum the following evaluations conducted for near term (2019) projected flows and loads, as determined under Task 2.0, to the City's recycled water program:

##### **3.1.1 Technology Evaluation**

CONSULTANT shall evaluate different treatment options available and recommend the treatment option best suited to the RWQCP requirements and space limitations. CONSULTANT shall include a disinfection step per Title 22 requirements as part of the advanced water purification system; CONSULTANT shall evaluate current disinfection facilities for potential use in meeting these requirements.

##### **3.1.2 Location and Storage Evaluation**

CONSULTANT shall evaluate size requirements and different locations within the footprint of the existing RWQCP property for siting of the proposed advanced water purification system. CONSULTANT shall include an evaluation of RWQCP existing facilities, including the ultraviolet disinfection channel, for transport and temporary storage of flow for the system. CONSULTANT shall include any and all facilities (including additional storage and in-situ instrumentation) needed to blend the purified water with the existing tertiary-treated recycled water. CONSULTANT shall provide schematics illustrating size requirements and potential locations.

##### **3.1.3 Scalability Evaluation**

CONSULTANT shall evaluate the ability for the proposed advanced water purification system to be scaled up to meet long term, as well as interim, demands for increased recycled water production.

##### **3.1.4 Reverse Osmosis Concentrate Disposal Evaluation**

CONSULTANT shall coordinate any reverse osmosis concentrate evaluation with that of the Santa Clara Valley Water District's Reverse Osmosis Concentrate Management Plan project. CONSULTANT shall qualitatively evaluate at least three (3) different reverse osmosis (RO) concentrate disposal options including the RWQCP final effluent outfall

and adjacent salt-water wetlands. CONSULTANT shall include an evaluation of any potential impacts to NPDES Permit compliance and RWQCP influent and effluent nutrient loads from the RO concentrate disposal options.

**3.1.5 Cost Estimate**

CONSULTANT shall calculate and provide a Class 5 cost estimate per the AACE International classification system. The cost estimate shall be appropriate for a feasibility study for a project definition of 0 – 2 percent and an expected accuracy of -50 to +100 percent. CONSULTANT shall include in the cost estimate the disposal of RO concentrate via the RWQCP final effluent outfall.

**3.1.6 Sensitivity Analysis**

CONSULTANT shall analyze changes to Tasks 3.1.1 – 3.1.5 for a comparable system that meets an instantaneous TDS concentration of 600 ± 50 mg/L in place of the 450 ± 50 mg/L TDS goal concentration.

**3.1.7 Greenhouse Gas Emissions & Energy Evaluation**

CONSULTANT shall evaluate the proposed advanced water purification system for impacts to the RWQCP’s greenhouse gas emissions and energy use.

**3.1.8 Nutrient Load Evaluation**

CONSULTANT shall evaluate the proposed advanced water purification system for impacts to the RWQCP’s influent and effluent nutrient loads. CONSULTANT shall account for any increases in nutrient loads from the proposed RO concentrate disposal method within this evaluation.

**4.0 CEQA & Other Regulatory Requirements**

CONSULTANT shall evaluate any CEQA and other potential regulatory requirements that may apply to the future construction and operation of the proposed advanced water purification system. CONSULTANT shall include a CEQA checklist and a list of permits required.

**5.0 Presentation of Results**

CONSULTANT shall present progress and results to the City and Clients at 50, 80, and 100 percent project completion. At which point the Cities and District will provide feedback that the CONSULTANT will incorporate into the project and summary report.

CONSULTANT shall provide presentation attendees with summary minutes and electronic copies of any supplemental materials used during the presentations no later than seven (7) calendar days from the presentation.

**6.0 Deliverables**

**6.1 Schedules**

CONSULTANT shall provide updated project schedules per Task 1.0.

## **6.2 Meeting Minutes**

CONSULTANT shall provide meeting minutes and associated supplemental materials per Tasks 2.0 and 5.0 (and Task 7.1 if conducted).

## **6.3 Draft & Final Reports**

CONSULTANT shall compile and summarize the results from Tasks 2.0 - 5.0 (and Tasks 7.2 -7.5 if conducted) into a report and submit that report to the City and Clients. CONSULTANT shall provide draft reports at 50, 80, and 95 percent project completion to the City for review at least fourteen (14) calendar days prior to the corresponding presentations. The City and Clients will review and provide feedback which the CONSULTANT shall incorporate into subsequent drafts and presentation materials.

## **6.4 Schematics & Site Plans**

CONSULTANT shall provide schematics and preliminary site plans per Tasks 3.1.1 and 3.1.2 (and Tasks 7.2 – 7.5 if conducted) within the final report under Task 6.3.

## **7.0 Optional Tasks**

CONSULTANT shall perform the optional tasks described in the section below only if authorized by the City's project manager. This decision will be based on the results of the core tasks. The City's project manager shall notify CONSULTANT in writing of the decision to conduct optional tasks.

### **7.1 Stakeholder Meetings**

CONSULTANT shall present results to stakeholders at 80 and 95 percent project completion. CONSULTANT shall incorporate feedback provided by the City and Clients after the 80 percent project completion presentation under Task 5.0 prior to the 80 percent project completion stakeholder meeting. Stakeholders include, but are not limited to, residents, nongovernmental organizations, the City of Palo Alto Regional Water Quality Control Plant partner cities, and the San Francisco Bay Regional Water Quality Control Board.

### **7.2 Feasibility Study - Long Term Recycled Water Demands (2040)**

CONSULTANT shall include at a minimum the following evaluations conducted for long term (2040) projected flows and loads to the City's recycled water program. CONSULTANT shall account for expected increases in TDS due to such issues as water conservation, population growth, and economic growth.

#### **7.2.1 Technology Evaluation**

CONSULTANT shall evaluate different treatment options available and recommend the treatment option best suited to the RWQCP requirements and space limitations. CONSULTANT shall include a disinfection step per Title 22 requirements as part of the advanced water purification system; CONSULTANT shall evaluate current disinfection facilities for potential use in meeting these requirements.

**7.2.2 Location and Storage Evaluation**

CONSULTANT shall evaluate size requirements and different locations within the footprint of the existing RWQCP property for siting of the proposed advanced water purification system. In addition, CONSULTANT shall evaluate whether off-site locations would more suitable. CONSULTANT shall include an evaluation of the use of existing RWQCP facilities, including the ultraviolet disinfection channel, for transport and temporary storage of flow for the system. CONSULTANT shall include any and all facilities (including additional storage and in-situ instrumentation) needed to blend the purified water with the existing tertiary-treated recycled water. CONSULTANT shall provide schematics illustrating size requirements and potential locations.

**7.2.3 Reverse Osmosis Concentrate Disposal Evaluation**

CONSULTANT shall evaluate whether the RO Concentrate disposal options discussed under Task 3.1.4 are sufficient to meet the future projected demand or if other options should be considered.

**7.2.4 Cost Estimate**

CONSULTANT shall calculate and provide a Class 5 cost estimate per the AACE International classification system. The cost estimate shall be appropriate for a feasibility study for a project definition of 0 – 2 percent and an expected accuracy of -50 to +100 percent. CONSULTANT shall include in the cost estimate the disposal of RO Concentrate via the RWQCP final effluent outfall.

**7.2.5 Greenhouse Gas Emissions & Energy Evaluation**

CONSULTANT shall evaluate the proposed advanced water purification system for impacts to the RWQCP's greenhouse gas emissions and energy use.

**7.2.6 Nutrient Load Evaluation**

CONSULTANT shall evaluate the proposed advanced water purification system for impacts to the RWQCP's influent and effluent nutrient loads. CONSULTANT shall account for any increases in nutrient loads from the proposed RO Concentrate disposal method within this evaluation.

**7.3 Alternative Comparisons to Near Term Feasibility Option**

**7.3.1 Potable Water Blending Alternative**

CONSULTANT shall include a comparison of the results from Task 3.1 to the facilities needed, associated costs, and other impacts if the RWQCP were to blend its existing tertiary-treated recycled water to an instantaneous TDS concentration of  $450 \pm 50$  mg/L with potable water in place of the water from the advanced water purification system. Blending locations are to include the following: RWQCP, Stanford Research Park, and City of Mountain View.

**7.3.2 No Project Alternative**

CONSULTANT shall include a comparison of the results from Task 3.1 to the facilities needed, associated costs, and other impacts of the no project alternative of utilizing potable water to meet the projected increase in recycled water demand (anything above the current, 2014, recycled water demand).

#### **7.4 Pre-Design**

CONSULTANT shall produce design parameters and associated schematics for 10 percent project definition for the proposed advanced water purification system to achieve an instantaneous TDS concentration of  $450 \pm 50$  mg/L after being blended with the existing tertiary-treated recycled water. CONSULTANT shall define these parameters for the following projections:

7.4.1 **Near Term – 2019:** incorporates estimated near term increases in recycled water demand (mainly from Mountain View and the Water District)

7.4.2 **Long Term – 2040:** incorporates estimated long term increases in recycled water demand due to Palo Alto expansions and other sources of demand

#### **7.4.3 Scalability Evaluation**

CONSULTANT shall include in the pre-design the ability for the system to be scaled up to meet the long term, as well as interim, demands for increased recycled water production.

#### **7.4.4 Cost Estimate**

CONSULTANT shall calculate and provide a Class 4 cost estimate per the AACE International classification system. The cost estimate shall be appropriate for a feasibility study for a project definition of 1 – 15 percent and an expected accuracy of -30 to +50 percent.

#### **7.4.5 Schematics & Site Plans**

CONSULTANT shall provide schematics and preliminary site plans indicating sizing requirements, locations, and process connections needed for systems evaluated under Task 7.4.

#### **7.5 Indirect & Direct Potable Reuse Evaluation**

CONSULTANT shall evaluate facilities needed and associated cost estimates to expand the proposed advanced water purification system to produce indirect and direct potable reuse water.

## **EXHIBIT “B” SCHEDULE OF PERFORMANCE**

CONSULTANT shall perform the Services so as to complete each milestone within the number of days/weeks specified below. The time to complete each milestone may be increased or decreased by mutual written agreement of the project managers for CONSULTANT and CITY so long as all work is completed within the term of the Agreement. CONSULTANT shall provide a detailed schedule of work consistent with the schedule below within 2 weeks of receipt of the notice to proceed.

Milestones	Completion No. of Months/ Date from NTP
Task 1	Completed by December 31, 2017
<b>(Project Administration and Schedule)</b>	
Task 2 <b>(Data and Information Collection)</b>	6 months
Task 3 <b>(Feasibility Study)</b>	6 months
Task 4 <b>(CEQA and Regulatory Compliance)</b>	6 months
Task 5 and Task 6 <b>(Presentation and Results)</b>	6 months
Optional: Task 7.1 <b>(Stakeholder Meetings)</b>	TBD
Optional: Task 7.2 <b>(Feasibility Study Long Term Recycled Water Demands (2040))</b>	TBD
Optional: Task 7.3 <b>(Alternative Comparisons to Near-Term Feasibility Option)</b>	TBD
Optional: Task 7.4 <b>(Preliminary Design)</b>	TBD
Optional: Task 7.5 <b>(Indirect and Direct Potable Reuse Evaluation)</b>	TBD

## **EXHIBIT “C” COMPENSATION**

The CITY agrees to compensate the CONSULTANT for professional services performed in accordance with the terms and conditions of this Agreement, and as set forth in the budget schedule below. Compensation shall be calculated based on the hourly rate schedule attached as exhibit C-1 up to the not to exceed budget amount for each task set forth below.

The compensation to be paid to CONSULTANT under this Agreement for all services described in Exhibit “A” (“Basic Services”) and reimbursable expenses shall not exceed \$296,250.00. CONSULTANT agrees to complete all Basic Services, including reimbursable expenses, within this amount. In the event CITY authorizes any Additional Services, the maximum compensation for Services, Reimbursable expenses and Additional Services shall not exceed \$325,875.00. Any work performed or expenses incurred for which payment would result in a total exceeding the maximum amount of compensation set forth herein shall be at no cost to the CITY.

CONSULTANT shall perform the tasks and categories of work as outlined and budgeted below. The CITY’s Project Manager may approve in writing the transfer of budget amounts between any of the tasks or categories listed below provided the total compensation for Basic Services, including reimbursable expenses, does not exceed \$296,250.00 and the total compensation for Additional Services does not exceed \$29,625.00.

<b>BUDGET SCHEDULE</b>	<b>NOT TO EXCEED AMOUNT</b>
Task 1 <b>(Project Administration and Schedule)</b>	\$22,040.00
Task 2 <b>(Data and Information Collection)</b>	\$11,980.00
Task 3 <b>(Feasibility Study)</b>	\$65,880.00
Task 4 <b>(CEQA and Regulatory Compliance)</b>	\$18,160.00
Task 5 and Task 6 <b>(Presentation and Results)</b>	\$36,440.00
Task 7.1-Optional <b>(Stakeholder Meetings)</b>	\$4,640.00
Task 7.2- Optional <b>(Feasibility Study - Long Term Recycled Water Demands (2040))</b>	\$37,560.00

Task 7.3- Optional <b>(Alternative Comparisons to Near-Term Feasibility Option)</b>	\$15,730.00
Task 7.4- Optional <b>(Preliminary Design)</b>	\$70,580.00
Task 7.5-Optional <b>(Indirect and Direct Potable Reuse Evaluation)</b>	\$13,240.00
Sub-total Basic Services	\$296,250.00
Reimbursable Expenses	\$0
Total Basic Services and Reimbursable expenses	\$ 296,250.00
Additional Services (Not to Exceed)	\$ 29,625.00
Maximum Total Compensation	\$325,875.00

### **REIMBURSABLE EXPENSES**

The administrative, overhead, secretarial time or secretarial overtime, word processing, photocopying, in-house printing, insurance and other ordinary business expenses are included within the scope of payment for services and are not reimbursable expenses. CITY shall reimburse CONSULTANT for the following reimbursable expenses at cost. Expenses for which CONSULTANT shall be reimbursed are:

- A. Travel outside the San Francisco Bay area, including transportation and meals, will be reimbursed at actual cost subject to the City of Palo Alto's policy for reimbursement of travel and meal expenses for City of Palo Alto employees.
- B. Long distance telephone service charges, cellular phone service charges, facsimile transmission and postage charges are reimbursable at actual cost.

All requests for payment of expenses shall be accompanied by appropriate backup information. Any expense anticipated to be more than \$0 shall be approved in advance by the CITY's project manager.

### **ADDITIONAL SERVICES**

The CONSULTANT shall provide additional services only by advanced, written authorization from the CITY. The CONSULTANT, at the CITY's project manager's request, shall submit a detailed written proposal including a description of the scope of services, schedule, level of effort, and CONSULTANT's proposed maximum

compensation, including reimbursable expense, for such services based on the rates set forth in Exhibit C-1. The additional services scope, schedule and maximum compensation shall be negotiated and agreed to in writing by the CITY's project manager and CONSULTANT prior to commencement of the services. Payment for additional services is subject to all requirements and restrictions in this Agreement

## EXHIBIT "C-1" SCHEDULE OF RATES

		Est. Hours	Hourly Rate	Extended Rate
<b>1 - Project Administration and Schedule</b>				
	MNS Principal Engineer - Rincon	24	\$220	\$ 5,280
	MNS Principal Engineer - Aranda	40	\$220	\$ 8,800
	GHD - Jamal Awad	20	\$250	\$ 5,000
	GHD - Rick Guggianna (Elect.)	8	\$210	\$ 1,680
	GHD - Admin	16	\$80	\$ 1,280
<b>Total Not to Exceed Task 1</b>		<b>108</b>		<b>\$ 22,040</b>
<b>2 - Data and Information Collection</b>				
	MNS Principal Engineer - Aranda	12	\$220	\$ 2,640
	MNS Senior Project Engineer - Panofsky	16	\$170	\$ 2,720
	GHD - Jamal Awad	12	\$250	\$ 3,000
	GHD - Pat Collins (Env)	4	\$205	\$ 820
	GHD - Process Engineer	12	\$180	\$ 2,160
	GHD - Admin	8	\$80	\$ 640
<b>Total Not to Exceed Task 2</b>		<b>64</b>		<b>\$ 11,980</b>
<b>3 - Feasibility Study</b>				
	MNS Principal Engineer - Aranda	40	\$220	\$ 8,800
	MNS Senior Project Engineer - Panofsky	40	\$170	\$ 6,800
	MNS Assistant Engineer - Packard	16	\$115	\$ 1,840
	GHD - Jamal Awad	40	\$250	\$ 10,000
	GHD - Pat Collins (Env)	112	\$205	\$ 22,960
	GHD - Process Engineer	58	\$180	\$ 10,440
	GHD - Richard Mackenzie (Elect/I&C)	12	\$180	\$ 2,160
	GHD - Rick Guggianna (Elect.)	0	\$210	\$ -
	GHD - CAD	16	\$120	\$ 1,920
	GHD - Admin	12	\$80	\$ 960
<b>Total Not to Exceed Task 3</b>		<b>346</b>		<b>\$ 65,880</b>
<b>4 - CEQA and Regulatory Compliance</b>				
	MNS Principal Engineer - Aranda	8	\$220	\$ 1,760
	GHD - Pat Collins (Env)	80	\$205	\$ 16,400
<b>Total Not to Exceed Task 4</b>		<b>88</b>		<b>\$ 18,160</b>
<b>5 - Presentation of Results</b>				
	MNS Principal Engineer - Aranda	32	\$220	\$ 7,040
	MNS Senior Project Engineer - Panofsky	32	\$170	\$ 5,440
	MNS Assistant Engineer - Packard	60	\$115	\$ 6,900
	GHD - Jamal Awad	20	\$250	\$ 5,000
	GHD - Pat Collins (Env)	8	\$205	\$ 1,640
	GHD - Process Engineer	20	\$180	\$ 3,600
	GHD - Richard Mackenzie (Elect/I&C)	14	\$180	\$ 2,520
	GHD - Rick Guggianna (Elect.)	6	\$210	\$ 1,260
	GHD - CAD	20	\$120	\$ 2,400
	GHD - Admin	8	\$80	\$ 640
<b>Total Not to Exceed Task 5</b>		<b>220</b>		<b>\$ 36,440</b>
<b>TOTAL NOT TO EXCEED (TASKS 1-6)</b>		<b>826</b>		<b>\$ 154,500</b>

Task 6 costs are included in the above

**EXHIBIT “C-1”  
SCHEDULE OF RATES**

<b>7.1 - Stakeholder Meetings</b>				
	MNS Principal Engineer - Aranda	12	\$220	\$ 2,640
	GHD - Jamal Awad	8	\$250	\$ 2,000
<b>Total Not to Exceed Task 7.1</b>		<b>20</b>		<b>\$ 4,640</b>
<b>7.2 - Feasibility Study - Long Term Recycled Water Demands (2040)</b>				
	MNS Principal Engineer - Rincon	0	\$220	\$ -
	MNS Principal Engineer - Aranda	14	\$220	\$ 3,080
	MNS Senior Project Engineer - Panofsky	56	\$170	\$ 9,520
	MNS Assistant Engineer - Packard	16	\$115	\$ 1,840
	GHD - Jamal Awad	20	\$250	\$ 5,000
	GHD - Pat Collins (Env)	20	\$205	\$ 4,100
	GHD - Process Engineer	56	\$180	\$ 10,080
	GHD - Richard Mackenzie (Elect/I&C)	8	\$180	\$ 1,440
	GHD - Rick Guggianna (Elect.)	2	\$210	\$ 420
	GHD - CAD	12	\$120	\$ 1,440
	GHD - Admin	8	\$80	\$ 640
<b>Total Not to Exceed Task 7.2</b>		<b>212</b>		<b>\$ 37,560</b>
<b>7.3 - Alternative Comparisons to Near-Term Feasibility Option</b>				
	MNS Principal Engineer - Aranda	8	\$220	\$ 1,760
	MNS Senior Project Engineer - Panofsky	32	\$170	\$ 5,440
	MNS Assistant Engineer - Packard	32	\$115	\$ 3,680
	GHD - Jamal Awad	12	\$250	\$ 3,000
	GHD - Pat Collins (Env)	2	\$205	\$ 410
	GHD - Process Engineer	8	\$180	\$ 1,440
<b>Total Not to Exceed Task 7.3</b>		<b>94</b>		<b>\$ 15,730</b>
<b>7.4 - Preliminary Design</b>				
	MNS Principal Engineer - Aranda	64	\$220	\$ 14,080
	MNS Senior Project Engineer - Panofsky	112	\$170	\$ 19,040
	MNS Assistant Engineer - Packard	72	\$115	\$ 8,280
	GHD - Jamal Awad	22	\$250	\$ 5,500
	GHD - Process Engineer	56	\$180	\$ 10,080
	GHD - Richard Mackenzie (Elect/I&C)	32	\$180	\$ 5,760
	GHD - CAD	52	\$120	\$ 6,240
	GHD - Admin	20	\$80	\$ 1,600
<b>Total Not to Exceed Task 7.4</b>		<b>430</b>		<b>\$ 70,580</b>
<b>7.5 - Indirect and Direct Potable Reuse Evaluation</b>				
	MNS Principal Engineer - Aranda	24	\$220	\$ 5,280
	GHD - Jamal Awad	8	\$250	\$ 2,000
	GHD - Pat Collins (Env)	8	\$205	\$ 1,640
	GHD - Process Engineer	24	\$180	\$ 4,320
<b>Total Not to Exceed Task 7.5</b>		<b>64</b>		<b>\$ 13,240</b>
<b>TOTAL NOT TO EXCEED (TASK 7)</b>		<b>820</b>		<b>\$ 141,750</b>

## EXHIBIT "D" INSURANCE REQUIREMENTS

CONTRACTORS TO THE CITY OF PALO ALTO (CITY), AT THEIR SOLE EXPENSE, SHALL FOR THE TERM OF THE CONTRACT OBTAIN AND MAINTAIN INSURANCE IN THE AMOUNTS FOR THE COVERAGE SPECIFIED BELOW, **AFFORDED BY COMPANIES WITH AM BEST'S KEY RATING OF A:-VII, OR HIGHER, LICENSED OR AUTHORIZED TO TRANSACT INSURANCE BUSINESS IN THE STATE OF CALIFORNIA.**

AWARD IS CONTINGENT ON COMPLIANCE WITH CITY'S INSURANCE REQUIREMENTS, AS SPECIFIED, BELOW:

REQUIRED	TYPE OF COVERAGE	REQUIREMENT	MINIMUM LIMITS	
			EACH OCCURRENCE	AGGREGATE
YES YES	WORKER'S COMPENSATION EMPLOYER'S LIABILITY	STATUTORY STATUTORY		
YES	GENERAL LIABILITY, INCLUDING PERSONAL INJURY, BROAD FORM PROPERTY DAMAGE BLANKET CONTRACTUAL, AND FIRE LEGAL LIABILITY	BODILY INJURY	\$1,000,000	\$1,000,000
		PROPERTY DAMAGE	\$1,000,000	\$1,000,000
		BODILY INJURY & PROPERTY DAMAGE COMBINED.	\$1,000,000	\$1,000,000
YES	AUTOMOBILE LIABILITY, INCLUDING ALL OWNED, HIRED, NON-OWNED	BODILY INJURY	\$1,000,000	\$1,000,000
		- EACH PERSON	\$1,000,000	\$1,000,000
		- EACH OCCURRENCE	\$1,000,000	\$1,000,000
		PROPERTY DAMAGE	\$1,000,000	\$1,000,000
		BODILY INJURY AND PROPERTY DAMAGE, COMBINED	\$1,000,000	\$1,000,000
YES	PROFESSIONAL LIABILITY, INCLUDING, ERRORS AND OMISSIONS, MALPRACTICE (WHEN APPLICABLE), AND NEGLIGENT PERFORMANCE			
		ALL DAMAGES		\$1,000,000
YES	<b>THE CITY OF PALO ALTO IS TO BE NAMED AS AN ADDITIONAL INSURED:</b> CONTRACTOR, AT ITS SOLE COST AND EXPENSE, SHALL OBTAIN AND MAINTAIN, IN FULL FORCE AND EFFECT THROUGHOUT THE ENTIRE TERM OF ANY RESULTANT AGREEMENT, THE INSURANCE COVERAGE HEREIN DESCRIBED, INSURING NOT ONLY CONTRACTOR AND ITS SUBCONSULTANTS, IF ANY, BUT ALSO, WITH THE EXCEPTION OF WORKERS' COMPENSATION, EMPLOYER'S LIABILITY AND PROFESSIONAL INSURANCE, <b>NAMING AS ADDITIONAL INSUREDS CITY, ITS COUNCIL MEMBERS, OFFICERS, AGENTS, AND EMPLOYEES.</b>			

I. INSURANCE COVERAGE MUST INCLUDE:

- A. A PROVISION FOR A WRITTEN THIRTY (30) DAY ADVANCE NOTICE TO CITY OF CHANGE IN COVERAGE OR OF COVERAGE CANCELLATION; AND
- B. DEDUCTIBLE AMOUNTS IN EXCESS OF \$5,000 REQUIRE CITY'S PRIOR APPROVAL.

II. CONTACTOR MUST SUBMIT CERTIFICATES(S) OF INSURANCE EVIDENCING REQUIRED COVERAGE.

III. ENDORSEMENT PROVISIONS, WITH RESPECT TO THE INSURANCE AFFORDED TO "ADDITIONAL INSUREDS"

A. PRIMARY COVERAGE

WITH RESPECT TO CLAIMS ARISING OUT OF THE OPERATIONS OF THE NAMED INSURED, INSURANCE AS AFFORDED BY THIS POLICY IS PRIMARY AND IS NOT ADDITIONAL TO OR CONTRIBUTING WITH ANY OTHER INSURANCE CARRIED BY OR FOR THE BENEFIT OF THE ADDITIONAL INSUREDS.

B. CROSS LIABILITY

THE NAMING OF MORE THAN ONE PERSON, FIRM, OR CORPORATION AS INSURED UNDER THE POLICY SHALL NOT, FOR THAT REASON ALONE, EXTINGUISH ANY RIGHTS OF THE INSURED AGAINST ANOTHER, BUT THIS ENDORSEMENT, AND THE NAMING OF MULTIPLE INSURED, SHALL NOT INCREASE THE TOTAL LIABILITY OF THE COMPANY UNDER THIS POLICY.

C. NOTICE OF CANCELLATION

1. IF THE POLICY IS CANCELED BEFORE ITS EXPIRATION DATE FOR ANY REASON OTHER THAN THE NON-PAYMENT OF PREMIUM, THE CONSULTANT SHALL PROVIDE CITY AT LEAST A THIRTY (30) DAY WRITTEN NOTICE BEFORE THE EFFECTIVE DATE OF CANCELLATION.
  
2. IF THE POLICY IS CANCELED BEFORE ITS EXPIRATION DATE FOR THE NON-PAYMENT OF PREMIUM, THE CONSULTANT SHALL PROVIDE CITY AT LEAST A TEN (10) DAY WRITTEN NOTICE BEFORE THE EFFECTIVE DATE OF CANCELLATION.

**NOTICES SHALL BE EMAILED TO:**

**[InsuranceCerts@CityofPaloAlto.org](mailto:InsuranceCerts@CityofPaloAlto.org)**

**COST SHARING AGREEMENT  
BETWEEN CITY OF PALO ALTO AND SANTA CLARA VALLEY WATER DISTRICT  
REGARDING THE ADVANCED WATER PURIFICATION SYSTEM FEASIBILITY STUDY  
PROJECT**

This ADVANCED WATER PURIFICATION SYSTEM FEASIBILITY STUDY COST SHARING AGREEMENT ("AGREEMENT") is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 2016, by and between the City of Palo Alto, a chartered municipal corporation ("City"), and the Santa Clara Valley Water District, an independent special district located in the state of California, duly organized, existing, and acting pursuant to the laws thereof ("District"). City and District may be referred to in this AGREEMENT individually as a "Party" or collectively as the "Parties".

**RECITALS**

- A. WHEREAS, District develops, stores, manages, distributes, sells and delivers water for domestic, industrial and agricultural uses, as the primary water supply and groundwater management agency in Santa Clara County; and
- B. WHEREAS, City owns and operates the Palo Alto Regional Water Quality Control Plant (RWQCP) and manages a recycled water program ("Recycled Water Program"), and
- C. WHEREAS, City operates the RWQCP in compliance with California Regional Water Quality Control Board recycled water requirements; and
- D. WHEREAS, the City is interested in evaluating the feasibility of an advanced water purification system by conducting a Feasibility Study for the Recycled Water Program ("Feasibility Study"); and
- E. WHEREAS, City and District desire to financially support the production and use of recycled water in Santa Clara County consistent with each Party's separate and distinct interests: for wastewater treatment and disposal for the City, and water quality and supply for the District, as well as to coordinate and cooperate to achieve the most cost effective, environmentally beneficial utilization of recycled water to meet both water supply and wastewater treatment and disposal needs; and
- F. WHEREAS, the potential beneficiaries of the Feasibility Study include the City of East Palo Alto and other minor areas in the San Mateo County tributary to the RWQCP; and
- G. WHEREAS, the City's cost sharing obligation under this AGREEMENT covers the benefits to be derived by East Palo Alto, and other member agencies of the East Palo Alto Sanitary District that are outside of Santa Clara County; and
- H. WHEREAS, the City, acting as the lead agency, intends to award a consultant contract for one or more qualified consultants or firms to provide professional services for preparation of the Feasibility Study for the advanced water purification system ("Consultant Contract"); and
- I. WHEREAS, District and City acknowledge the mutual benefit of this project and agree to share in the financial costs and leadership responsibilities to support qualified consultants or firms for professional services in the preparation of the Feasibility Study to assist in evaluating advanced water purification as a component of the Recycled Water Program.

- J. Funding provided under this AGREEMENT does not include construction work tasks and is for planning and design purposes only, and is therefore not subject to CEQA review.

## AGREEMENT PROVISIONS

NOW, THEREFORE, for and in consideration of the mutual promises and covenants contained herein, the City and District hereby agree as follows:

### SECTION I SCOPE OF WORK

- 1.1 The consultant scope of work ("Consultant Services") that will be funded as by this AGREEMENT consists of a feasibility study for an advanced water purification system (microfiltration followed by reverse osmosis or equivalent) located at the RWQCP to produce sufficient purified water with a total dissolved solids ("TDS") concentration of  $450 \pm 50$  mg/L after blending with the existing tertiary-treated recycled water. A copy of the draft consultant scope of work is attached to this AGREEMENT as Attachment A ("Scope of Work").
- 1.2 The City as the lead agency for the Feasibility Study will be responsible for managing the procurement process for procuring the Consultant Services in adherence with the City procurement procedures and policies.
- 1.3 The District will provide review and technical support to the City who will prepare the above mentioned Feasibility Study.
- 1.4 The District approves the City entering into a Consultant Contract for the scope of work as Attachment A.
- 1.5 City agrees to confer with the District regarding any issues of contract performance raised by the City or the District. If the consultant breaches the contract or substantially fails to perform and the City elects not to pursue contract remedies, the City agrees to confer in good faith with the District regarding potential assignment of contractual rights to the District.
- 1.6 The City agrees that the District shall have an irrevocable license to use all contract deliverables, including but not limited to documentation, reports, recommendations, and all other work product developed as part of the Scope of Work. The City agrees that the District and City may both have access to and use of all work product developed under the Scope of Work.
- 1.7 The completion of the Feasibility Study will be performed by a Consultant Contract awarded by competitive bid in accordance with the applicable law and administered by the City pursuant to its contract documents and policies. The Feasibility Study will be completed to the City and District's satisfaction.
- 1.8 Both Parties agree that cost sharing of the Feasibility Study will be funded 80% by the District, with the remainder 20% funded by the City of Palo Alto and the City of Mountain View under a separate cost sharing agreement. The City has completed their consultant procurement process and the estimated cost for this Feasibility Study is \$325,875. The City shall not approve any expenditures exceeding this amount without the District's written consent.

- 1.9 Palo Alto agrees that no portion of the District's cost share will be used to benefit areas outside of Santa Clara County.
- 1.10 The term of this AGREEMENT is from the date of its execution through the consultant(s)'s completion of the final Scope of Work approved by the District. The Consultant Contract containing the Scope of Work is expected to be executed in April 2016 and is estimated to expire on the latter of December 2017 or the date the Scope of Work is completed by the consultant. If it is deemed necessary, the Consultant Contract may be extended and additional funding added upon the approval of the City's Assistant Public Work Director in accordance with the City's protocol for extending and adding funds in contracts and the District's authorized representative in accordance with the District's policies.

## SECTION II DUTIES

- 2.1 Once a consultant has been selected as agreed to by both the City and District, and the City shall enter into a Consultant Contract with said consultant to perform the Feasibility Study to the satisfaction of both Parties The District agrees to pay an amount not to exceed 80% of the total undisputed costs the consultant invoices the City for performance of the Consultant Contract's Scope of Work.
- 2.2 The District and City shall follow the following procedures for the City's invoicing and the District's payment of the City's invoices of the District's 80% contribution towards the payment of consultant services rendered under the Consultant Contract:
- a. The City agrees to invoice the District in arrears for the tasks described in the Scope of Work that were completed by the consultant(s) per the terms of the Consultant Contract, on a monthly basis. The City's invoice shall include a copy of the consultant(s)'s invoice(s) for which the City seeks the District's 80% cost share contribution, and a statement that the City has reviewed the consultant(s)'s invoice and as determined that it is accurate and reflects the services to be provided under the Scope of Work. Upon request by the District, the City shall provide the District with any deliverables or work product prepared by the consultant(s) to enable the District to evaluate whether the amount the consultant(s) invoiced for services rendered under the Scope of Work is reasonably justified.
  - b. The District agrees to review the consultant(s)'s invoice, services and deliverables to determine if the task(s) invoiced by the Consultant are within the Scope of Work and were completed in a manner satisfactory to the District. The District may provide its input to the Feasibility Study as it deems necessary. The District agrees to pay to the City 80% of the amounts stated in the City's invoice within 45 days from the date on which said invoice was received. If the District disputes any portion of the City's invoice, District shall provide the City with a written explanation of why it does not believe the invoiced amount is appropriate. The City agrees to confer in good faith with the District towards resolution of District concerns regarding amounts paid.
  - c. If the District determines it will be late making a payment, it shall notify the City's Director of Public Works in writing at least two business days before the payments due date of its intent to make a late payment, including the date of when the payment will be made.

SECTION III  
INDEMNIFICATION AND INSURANCE

- 3.1 In lieu of and notwithstanding the pro rata risk allocation, which might otherwise be imposed between the Parties pursuant to Government Code Section 895.6, the Parties agree that all losses or liabilities incurred by a Party shall not be shared pro rata but, instead, District and City agree that, pursuant to Government Code Section 895.4, each of the Parties hereto shall fully indemnify and hold each of the other Party, including its officers, board members, employees, and agents, harmless from any claim, expense or cost, damage or liability imposed for injury (as defined in Government Code Section 810.8) occurring by reason of the negligent acts or omissions or willful misconduct of the indemnifying Party, its officers, employees, or agents, under or in connection with or arising out of any work, authority, or jurisdiction delegated to such Party under this AGREEMENT. No Party, nor any officer, board member, or agent thereof shall be responsible for any damage or liability occurring by reason of the negligent acts or omissions or willful misconduct of the other Party hereto, its officers, board members, employees, or agents, under or in connection with or arising out of any work authority or jurisdiction delegated to such other Party under this AGREEMENT.
- 3.2 District and the City shall each require any consultant, contractor, or any other person or entity performing any part of the work set forth in Section 1 to secure and maintain in full force and effect at all times while undertaking the work and until the work is accepted by District and City, public liability and property damage insurance in forms and limits of liability acceptable to both City and District, naming City and District and their respective officers, employees and agents as additional insured from and against all damages and claims, loss, liability, cost or expense arising out of or in any way connected with undertaking the work.

SECTION IV  
ADDITIONAL PROVISIONS

- 4.1 A Party's waiver of any term, condition or covenant, or breach of any term, condition, or covenant shall not be construed as a waiver of any other term, condition or covenant or breach of any other term, condition or covenant.
- 4.2 This AGREEMENT contains the entire AGREEMENT between DISTRICT and CITY relating to work effort. Any prior agreements, promises, negotiations, or representations not expressly set forth in this AGREEMENT are of no force or effect.
- 4.3 If any term, condition or covenant of this AGREEMENT is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions of this AGREEMENT shall be valid and binding on DISTRICT and CITY.
- 4.4 This AGREEMENT shall be governed and construed in accordance with the laws of the State of California.
- 4.5 This AGREEMENT may be executed in counterparts and will be binding as executed.
- 4.6 The term of this AGREEMENT will commence upon execution of the AGREEMENT by both parties and terminate upon work effort acceptance by City and District and receipt by City of payment in full by District.
- 4.7 All changes or extensions to this AGREEMENT must be in writing in the form of an amendment approved by both parties.

- 4.8 This AGREEMENT is entered into only for the benefit of the parties executing this AGREEMENT and not for the benefit of any other individual, entity, or person.
- 4.9 Either District or City may terminate the AGREEMENT at any time prior to award of the consultant contract/s for the work effort upon a thirty (30) day written notice. Once the consultant contract(s) for the work effort has been awarded, the AGREEMENT can be terminated only upon the mutual written consent and terms acceptable to both Parties.

**SECTION V  
NOTICES**

Notices given under this AGREEMENT may be delivered by first class mail addressed to the appropriate Party at the following addresses:

**TO DISTRICT:** Santa Clara Valley Water District  
5750 Almaden Expressway  
San Jose, CA 95118  
Attn: Hossein Ashktorab, Manager, Recycled and Purified Water Program

**TO CITY:** City of Palo Alto  
Department of Public Works, RWQCP  
2501 Embarcadero Way  
Palo Alto, CA 94303  
Attn: Karin North, Watershed Manager

IN WITNESS WHEREOF, the Parties have executed this AGREEMENT as of the date first set forth above.

**City of Palo Alto**

**Santa Clara Valley Water District**

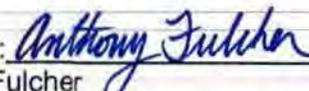
Signature: \_\_\_\_\_  
Name:  
Title

Signature:   
Norma J. Camacho  
Interim Chief Executive Officer

Approved as to form and legality:

Approved as to form and legality:

Signature: \_\_\_\_\_  
Name:  
Title

Signature:   
Anthony Fulcher  
Senior Assistant District Counsel

**Attachment A  
Consultant Scope of Work**

**Advanced Water Purification System Feasibility Study  
Scope Summary**

**Background**

The City of Palo Alto (City) Regional Water Quality Control Plant (RWQCP) produces approximately 234 million gallons of tertiary-treated recycled water annually with the majority of the demand occurring May - August. Recycled water is a sustainable alternative to potable water for various uses such as landscape irrigation, soil compaction, and dust control. To expand use of recycled water to include cooling towers and irrigation of salt-sensitive vegetation, it is desirable to reduce the total dissolved solids (TDS) concentration to 400 to 500 parts per million (ppm); a significant decrease from the formally adopted goal of 600 ppm. Consequently, the Cities of Palo Alto and Mountain View in collaboration with the Santa Clara Valley Water District (District) are looking for a consultant (CONSULTANT) to conduct a feasibility study for installation of an advanced water purification system at the RWQCP to produce recycled water with lower TDS that can be blended with the existing tertiary-treated recycled water in order to achieve an instantaneous TDS concentration of  $450 \pm 50$  mg/L.

The City, as the lead, the District and the City of Mountain View as "Clients" have prepared a scope of work, found below, that includes necessary tasks for completion of the project. The scope of work shall be used by the CONSULTANT as a basis for preparation of the proposals. Additional tasks or modifications to the scope of work that the CONSULTANT feels will produce a more useful and/or cost effective project should be included in the proposal for the City and Clients to consider.

CONSULTANT chosen to perform work under this contract will not be precluded from participating in future design or construction services that may result from this work.

**Scope of Work**

**1.0 Project Administration & Schedule**

CONSULTANT shall include in their proposal a draft schedule with key milestones from Tasks 2.0 - 6.0 below. CONSULTANT shall complete all work for Tasks 2.0 - 6.0 within 6 months of the Notice to Proceed. CONSULTANT shall complete all work for this project by December 31, 2017. CONSULTANT shall provide updated schedules upon request from the City and Clients as well as at the presentations described under Task 5.0.

**2.0 Data & Information Collection**

CONSULTANT shall meet with City and Client Staff to collect key data and information pertaining to this study. CONSULTANT shall include in their proposals attendance in at least three (3) in-person meetings with City and Client staff for data and information collection. CONSULTANT shall utilize the pilot data collected by Stanford University during two recent study periods as well as results from the Long Range Facilities Plan (2012) and the Biosolids Facility Plan (2014). The Long Range Facilities Plan evaluated future mainstream wastewater treatment processes through year 2062, associated space planning, as well as projected flows and loads; similarly the Biosolids Facility Plan evaluated future solids treatment processes needed through year 2045 and associated space planning. Projected recycled water demands to be provided to the CONSULTANT by the City and Clients. CONSULTANT shall collect information on desirable TDS concentrations for the expected major uses of this recycled water (e.g., cooling towers, irrigation, dual plumbing, etc.). CONSULTANT shall provide meeting attendees with summary minutes and electronic copies of any supplemental materials used during the meeting no later than seven (7) calendar days from the meeting.

### 3.0 Feasibility Study

CONSULTANT shall conduct a feasibility study of an advanced water purification system (microfiltration followed by reverse osmosis (RO) or equivalent) located at the RWQCP to produce sufficient purified water with an instantaneous TDS concentration of  $450 \pm 50$  mg/L after blending with the existing tertiary-treated recycled water.

#### 3.1 Near Term Recycled Water Demands (2019)

CONSULTANT shall include at a minimum the following evaluations conducted for near term (2019) projected flows and loads, as determined under Task 2.0, to the City's recycled water program:

##### 3.1.1 Technology Evaluation

CONSULTANT shall evaluate different treatment options available and recommend the treatment option best suited to the RWQCP requirements and space limitations. CONSULTANT shall include a disinfection step per Title 22 requirements as part of the advanced water purification system; CONSULTANT shall evaluate current disinfection facilities for potential use in meeting these requirements.

##### 3.1.2 Location and Storage Evaluation

CONSULTANT shall evaluate size requirements and different locations within the footprint of the existing RWQCP property for siting of the proposed advanced water purification system. CONSULTANT shall include an evaluation of RWQCP existing facilities, including the ultraviolet disinfection channel, for transport and temporary storage of flow for the system. CONSULTANT shall include any and all facilities (including additional storage and in-situ instrumentation) needed to blend the purified water with the existing tertiary-treated recycled water. CONSULTANT shall provide schematics illustrating size requirements and potential locations.

##### 3.1.3 Scalability Evaluation

CONSULTANT shall evaluate the ability for the proposed advanced water purification system to be scaled up to meet long term, as well as interim, demands for increased recycled water production.

##### 3.1.4 RO Concentrate Disposal Evaluation

CONSULTANT shall coordinate any RO concentrate evaluation with that of the District's RO Concentrate Management Plan project. CONSULTANT shall qualitatively evaluate at least three (3) different RO concentrate disposal options including the RWQCP final effluent outfall and adjacent salt-water wetlands. CONSULTANT shall include an evaluation of any potential impacts to the National Pollutant Discharge Elimination System Permit compliance and RWQCP influent and effluent nutrient loads from the RO concentrate disposal options.

##### 3.1.5 Cost Estimate

CONSULTANT shall calculate and provide a Class 5 cost estimate per the AACE International classification system. The cost estimate shall be appropriate for a feasibility study for a project definition of 0 - 2 percent and an expected accuracy of -50 to +100 percent. CONSULTANT shall include in the cost estimate the disposal of RO concentrate via the RWQCP final effluent outfall.

##### 3.1.6 Sensitivity Analysis

CONSULTANT shall analyze changes to Tasks 3.1.1 - 3.1.5 for a comparable system that meets an instantaneous TDS concentration of  $600 \pm 50$  mg/L in place of the  $450 \pm 50$  mg/L TDS goal concentration.

##### 3.1.7 Greenhouse Gas Emissions & Energy Evaluation

CONSULTANT shall evaluate the proposed advanced water purification system for impacts to the RWQCP's greenhouse gas emissions and energy use.

### **3.1.8 Nutrient Load Evaluation**

CONSULTANT shall evaluate the proposed advanced water purification system for impacts to the RWQCP's influent and effluent nutrient loads. CONSULTANT shall account for any increases in nutrient loads from the proposed RO concentrate disposal method within this evaluation.

## **4.0 CEQA & Other Regulatory Requirements**

CONSULTANT shall evaluate any CEQA and other potential regulatory requirements that may apply to the future construction and operation of the proposed advanced water purification system. CONSULTANT shall include a CEQA checklist and a list of permits required.

## **5.0 Presentation of Results**

CONSULTANT shall present progress and results to the City and Clients at 50, 80, and 100 percent project completion. At which point the Cities and District will provide feedback that the CONSULTANT will incorporate into the project and summary report.

CONSULTANT shall provide presentation attendees with summary minutes and electronic copies of any supplemental materials used during the presentations no later than seven (7) calendar days from the presentation.

## **6.0 Deliverables**

### **6.1 Schedules**

CONSULTANT shall provide updated project schedules per Task 1.0.

### **6.2 Meeting Minutes**

CONSULTANT shall provide meeting minutes and associated supplemental materials per Tasks 2.0 and 5.0 (and Task 7.1 if conducted).

### **6.3 Draft & Final Reports**

CONSULTANT shall compile and summarize the results from Tasks 2.0 - 5.0 (and Tasks 7.2 - 7.5 if conducted) into a report and submit that report to the City and Clients. CONSULTANT shall provide draft reports at 50, 80, and 95 percent project completion to the City for review at least fourteen (14) calendar days prior to the corresponding presentations. The City and Clients will review and provide feedback which the CONSULTANT shall incorporate into subsequent drafts and presentation materials.

### **6.4 Schematics & Site Plans**

CONSULTANT shall provide schematics and preliminary site plans per Tasks 3.1.1 and 3.1.2 (and Tasks 7.2 - 7.5 if conducted) within the final report under Task 6.3.

## **7.0 Additional Tasks**

CONSULTANT shall conduct the additional tasks only at the discretion of the City and Clients. The City and Clients shall notify CONSULTANT in writing of the decision to conduct additional tasks.

### **7.1 Stakeholder Meetings**

CONSULTANT shall present results to stakeholders at 80 and 95 percent project completion. CONSULTANT shall incorporate feedback provided by the City and Clients after the 80 percent project completion presentation under Task 5.0 prior to the 80 percent project completion stakeholder meeting. Stakeholders include, but are not limited to, residents, nongovernmental organizations, the City's RWQCP partner cities, and the San Francisco Bay Regional Water Quality Control Board.

### **7.2 Feasibility Study - Long Term Recycled Water Demands (2040)**

CONSULTANT shall include at a minimum the following evaluations conducted for long term (2040) projected flows and loads to the City's recycled water program.

CONSULTANT shall account for expected increases in TDS due to such issues as water conservation, population growth, and economic growth.

**7.2.1 Technology Evaluation**

CONSULTANT shall evaluate different treatment options available and recommend the treatment option best suited to the RWQCP requirements and space limitations. CONSULTANT shall include a disinfection step per Title 22 requirements as part of the advanced water purification system; CONSULTANT shall evaluate current disinfection facilities for potential use in meeting these requirements.

**7.2.2 Location and Storage Evaluation**

CONSULTANT shall evaluate size requirements and different locations within the footprint of the existing RWQCP property for siting of the proposed advanced water purification system. In addition, CONSULTANT shall evaluate whether off-site locations would more suitable. CONSULTANT shall include an evaluation of the use of existing RWQCP facilities, including the ultraviolet disinfection channel, for transport and temporary storage of flow for the system. CONSULTANT shall include any and all facilities (including additional storage and in-situ instrumentation) needed to blend the purified water with the existing tertiary-treated recycled water. CONSULTANT shall provide schematics illustrating size requirements and potential locations.

**7.2.3 Reverse Osmosis Concentrate Disposal Evaluation**

CONSULTANT shall evaluate whether the RO Concentrate disposal options discussed under Task 3.1.4 are sufficient to meet the future projected demand or if other options should be considered.

**7.2.4 Cost Estimate**

CONSULTANT shall calculate and provide a Class 5 cost estimate per the AACE International classification system. The cost estimate shall be appropriate for a feasibility study for a project definition of 0 – 2 percent and an expected accuracy of -50 to +100 percent. CONSULTANT shall include in the cost estimate the disposal of RO Concentrate via the RWQCP final effluent outfall.

**7.2.5 Greenhouse Gas Emissions & Energy Evaluation**

CONSULTANT shall evaluate the proposed advanced water purification system for impacts to the RWQCP's greenhouse gas emissions and energy use.

**7.2.6 Nutrient Load Evaluation**

CONSULTANT shall evaluate the proposed advanced water purification system for impacts to the RWQCP's influent and effluent nutrient loads. CONSULTANT shall account for any increases in nutrient loads from the proposed RO Concentrate disposal method within this evaluation.

**7.3 Alternative Comparisons to Near Term Feasibility Option**

**7.3.1 Potable Water Blending Alternative**

CONSULTANT shall include a comparison of the results from Task 3.1 to the facilities needed, associated costs, and other impacts if the RWQCP were to blend its existing tertiary-treated recycled water to an instantaneous TDS concentration of  $450 \pm 50$  mg/L with potable water in place of the water from the advanced water purification system. Blending locations are to include the following: RWQCP, Stanford Research Park, and City of Mountain View.

**7.3.2 No Project Alternative**

CONSULTANT shall include a comparison of the results from Task 3.1 to the facilities needed, associated costs, and other impacts of the no project alternative of utilizing potable water to meet the projected increase in recycled water demand (anything above the current, 2014, recycled water demand).

#### **7.4 Pre-Design**

CONSULTANT shall produce design parameters and associated schematics for 10 percent project definition for the proposed advanced water purification system to achieve an instantaneous TDS concentration of  $450 \pm 50$  mg/L after being blended with the existing tertiary-treated recycled water. CONSULTANT shall define these parameters for the following projections:

**7.4.1 Near Term – 2019:** incorporates estimated near term increases in recycled water demand (mainly from City of Mountain View and the District)

**7.4.2 Long Term – 2040:** incorporates estimated long term increases in recycled water demand due to Palo Alto expansions and other sources of demand

#### **7.4.3 Scalability Evaluation**

CONSULTANT shall include in the pre-design the ability for the system to be scaled up to meet the long term, as well as interim, demands for increased recycled water production.

#### **7.4.4 Cost Estimate**

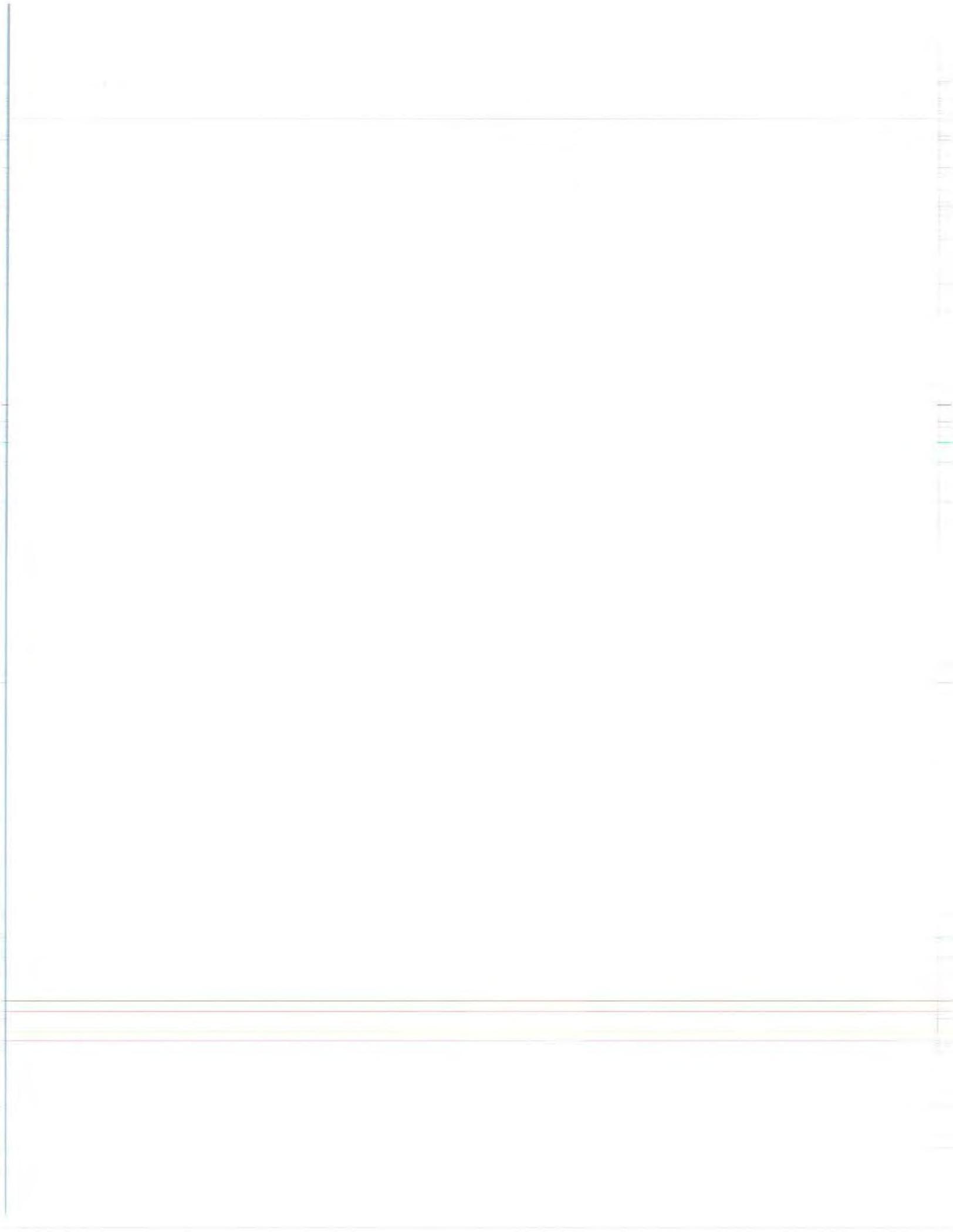
CONSULTANT shall calculate and provide a Class 4 cost estimate per the AACE International classification system. The cost estimate shall be appropriate for a feasibility study for a project definition of 1 – 15 percent and an expected accuracy of -30 to +50 percent.

#### **7.4.5 Schematics & Site Plans**

CONSULTANT shall provide schematics and preliminary site plans indicating sizing requirements, locations, and process connections needed for systems evaluated under Task 7.4.

#### **7.5 Indirect & Direct Potable Reuse Evaluation**

CONSULTANT shall evaluate facilities needed and associated cost estimates to expand the proposed advanced water purification system to produce indirect and direct potable reuse water.



**COST SHARE AGREEMENT BETWEEN  
THE CITY OF PALO ALTO AND THE CITY OF MOUNTAIN VIEW  
FOR A RECYCLED WATER ADVANCED TREATMENT FEASIBILITY STUDY**

This COST SHARING AGREEMENT (AGREEMENT), dated \_\_\_\_\_ for identification between the CITY OF PALO ALTO, a California Charter City and municipal corporation (hereinafter referred to as PALO ALTO) and the CITY OF MOUNTAIN VIEW, a California Charter City and municipal corporation (hereinafter referred to as MOUNTAIN VIEW), sets forth the respective roles of PALO ALTO and MOUNTAIN VIEW in regard to PALO ALTO's Recycled Water Advanced Treatment Feasibility Study (hereinafter referred to as STUDY).

**RECITALS**

WHEREAS, MOUNTAIN VIEW is a partner in and receives recycled water from the Regional Water Quality Control Plant (RWQCP); and

WHEREAS, PALO ALTO owns and operates the RWQCP and manages the recycled water program; and

WHEREAS, PALO ALTO operates the RWQCP recycled water program in compliance with California Regional Water Quality Control Board requirements; and

WHEREAS, PALO ALTO and MOUNTAIN VIEW are interested in conducting a feasibility study of a recycled water advanced treatment system; and

WHEREAS, PALO ALTO and MOUNTAIN VIEW desire to financially support the production and use of recycled water in Santa Clara County consistent with each agency's separate and distinct interests; and

WHEREAS, PALO ALTO and MOUNTAIN VIEW desire to coordinate and cooperate to achieve the most cost-effective and environmentally beneficial utilization of recycled water; and

WHEREAS, PALO ALTO, acting as the lead agency, intends to award a contract (CONTRACT) for one (1) or more qualified consultants or firms to provide professional services for preparation of the STUDY; and

WHEREAS, MOUNTAIN VIEW and PALO ALTO acknowledge the mutual benefit of this project and agree to share in the costs and responsibilities to support qualified consultants or firms for professional services in the preparation of the STUDY; and

WHEREAS, funding provided under this AGREEMENT does not include construction work tasks and is for planning and design purposes only, and is, therefore, not subject to CEQA review;

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein, PALO ALTO and MOUNTAIN VIEW hereby agree as follows:

1. **Scope of Work.** The purpose of this AGREEMENT is to fund the cost of a feasibility study for a recycled water advanced treatment system (microfiltration followed by reverse osmosis or equivalent) located at the RWQCP to produce advanced treated water to blend with existing tertiary-treated recycled water and produce a final product with a TDS concentration of  $450 \pm 50$  mg/L. The complete scope of work is included as Attachment A.

2 **Term.** The term of the AGREEMENT is from March 1, 2016 to December 31, 2017, until funds are depleted, or until the STUDY is accepted by PALO ALTO and MOUNTAIN VIEW, whichever occurs first. The term of the AGREEMENT may be extended by mutual consent of the parties in writing.

3. **MOUNTAIN VIEW's Responsibilities:**

a. Review and approve the scope of work prior to award of CONTRACT by PALO ALTO.

b. Provide review and technical support to PALO ALTO during the course of the STUDY.

c. Review project invoices and determine if tasks are adequately completed. Pending acceptance of the work, remit payment to PALO ALTO within forty-five (45) days from the date on which the invoice was received.

d. Fund ten percent (10%) of the costs of the STUDY, to a maximum of Fifty Thousand Dollars (\$50,000). The Santa Clara Valley Water District will fund eighty percent (80%) of the costs of the STUDY, to a maximum of Four Hundred Thousand Dollars (\$400,000), through a separate agreement with PALO ALTO.

4. **PALO ALTO's Responsibilities:**

a. Serve as the lead agency for the STUDY and be responsible for managing the procurement process for the consultant(s) in adherence with PALO ALTO's procurement procedures and policies.

b. Fund ten percent (10%) of the costs of the STUDY, to a maximum of Fifty Thousand Dollars (\$50,000). The Santa Clara Valley Water District will fund eighty percent (80%) of the costs of the STUDY, to a maximum of Four Hundred Thousand Dollars (\$400,000), through a separate agreement with PALO ALTO.

c. Invoice MOUNTAIN VIEW in arrears for the tasks described in the scope of work and completed by the consultant(s), on a monthly basis.

5. **Mutual Indemnification.** In lieu of and notwithstanding the pro-rata risk allocation which might otherwise be imposed between parties pursuant to Government Code Section 895.6, the parties agree that all losses or liabilities incurred by a party shall not be shared pro rata, but instead, PALO ALTO and MOUNTAIN VIEW agree that pursuant to Government Code Section 895.4, each of the parties hereto shall fully indemnify and hold each of the other parties, their officers, board members, employees, and agents harmless from any claim, expense or cost, damage, or liability imposed for injury (as defined by Government Code Section 810.8) occurring by reason of the negligent acts or omissions or willful misconduct of the indemnifying party, its officers, board members, employees, or agents, under or in connection with or arising out of any work, authority, or jurisdiction delegated to such party under the AGREEMENT. No party, nor any officer, board member, employee, or agent thereof shall be responsible for any damage or liability occurring by reason of the negligent acts or omissions or willful misconduct of other parties hereto, their officers, board members, employees, or agents, under or in connection with or arising out of any work, authority, or jurisdiction delegated to such other parties under this AGREEMENT.

6. **Document Review.** PALO ALTO and MOUNTAIN VIEW will, upon reasonable advance written notice, make available for inspection to the other party, records, books, and other documents relating to the program.

7. **Nondiscrimination.** PALO ALTO and its consultants shall afford equal employment opportunities for all persons without discrimination because of race, color, religion, sex, sexual orientation, political affiliation, national origin, ancestry, age, marital status, physical or mental disability, military status, gender identity and expression, or genetic information.

8. **Termination of AGREEMENT.** This AGREEMENT may be terminated by either party hereto for any reason upon ten (10) days' written notice to the other party. Should either party terminate pursuant to said notice, MOUNTAIN VIEW shall pay PALO ALTO for the cost invoiced to MOUNTAIN VIEW by the program consultant prior to the date of cancellation. In no event shall said costs exceed the maximum of Fifty Thousand Dollars (\$50,000) established in this AGREEMENT.

9. **Notice.** Any notice, payment, credit, or instrument required or permitted to be given hereunder shall be deemed received upon personal delivery or five (5) days after deposit in any United States mail depository, first-class postage prepaid, and addressed to the party for whom intended; or on the same day as a facsimile transmission is sent as long as original is placed in the mail on the same day.

TO MOUNTAIN VIEW: City of Mountain View  
Public Services Division  
Attn: Gregg Hosfeldt, Assistant Public Works Director  
231 North Whisman Road  
Mountain View, CA 94043

TO PALO ALTO: City of Palo Alto  
Department of Public Works, RWQCP  
Attn: Karin North, Watershed Manager  
2501 Embarcadero Way  
Palo Alto, CA 94303

Either party may change such address by notice given to the other party as provided in this Section 9.

10. **Amendments.** The AGREEMENT may only be amended by written agreement executed by both parties.

11. **Assignment.** Neither party is allowed to assign, sublet, or transfer this AGREEMENT or any of the rights or interests in this AGREEMENT without the written consent of the other party.

12. **Severability.** The partial or total invalidity of one or more parts of this AGREEMENT will not affect the intent or validity or remaining parts of this AGREEMENT.

13. **Governing Law.** This AGREEMENT is a contract under the laws of the State of California and for all purposes must be interpreted in accordance with such laws. The venue of any suit filed by either party shall be vested in the State courts of the County of Santa Clara.

14. **Signatures.** The individuals executing this AGREEMENT represent and warrant that they have the legal capacity and authority to do so on behalf of their respective legal entities.

15. **Entire AGREEMENT.** This AGREEMENT contains the entire understanding between the parties with respect to the subject matter herein. There are no

representations, agreements, or understandings (whether oral or written) between or among the parties relating to the subject matter of this AGREEMENT which are not fully expressed herein.

16. **Public Records.** The parties recognize and acknowledge that each party is subject to the California Public Records Act, California Government Code Section 6250 and following. Public records are subject to disclosure.

IN WITNESS WHEREOF, the City of Mountain View and the City of Palo Alto have executed this cost share agreement for a recycled water advanced treatment feasibility study, dated \_\_\_\_\_ for identification.

“MOUNTAIN VIEW”:  
CITY OF MOUNTAIN VIEW,  
a California Charter City and municipal  
corporation

“PALO ALTO”:  
CITY OF PALO ALTO,  
a California Charter City and municipal  
corporation

By: \_\_\_\_\_  
City Manager

By: \_\_\_\_\_  
Print Name: \_\_\_\_\_

By: \_\_\_\_\_  
Public Works Director

Title: City Manager

FINANCIAL APPROVAL:

By: \_\_\_\_\_  
Print Name: \_\_\_\_\_

\_\_\_\_\_  
Finance and Administrative  
Services Director

Title: City Attorney

APPROVED AS TO FORM:

\_\_\_\_\_  
City Attorney

# Update on Recycled Water Planning Efforts and Groundwater Studies in partnership with Santa Clara Valley Water District

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## **Executive Summary**

The purpose of this report is to provide Council an overview of the advances being made to develop alternative water supplies, both regionally and in Palo Alto. Alternative water supplies include:

- Recycled Water from wastewater plants like Palo Alto's;
- Purified Water from reverse osmosis plants like San Jose's;
- Increased groundwater use coupled with groundwater recharge;
- Local rainwater/storm drain system harvesting;
- Sub-regional wastewater "scalping" plants for small communities/districts; and
- Individual building use of graywater and treated blackwater.

Palo Alto is working through a variety of groups and committees to conduct planning for alternative water supplies. Key collaborators include Palo Alto's five Partners in its Regional Water Quality Control Plant (RWQCP), the other recipients of San Francisco PUC (Hetch-Hetchy) water, and other agencies in Santa Clara and San Mateo Counties. An important next step is the execution of several contracts to explore the potential use of key alternative supplies.

The first such contract is a feasibility study on the installation of an advanced water purification system, such as reverse osmosis, at the RWQCP. The second would update the 1992 Recycled Water Master Plan by studying groundwater recharge potential for indirect potable reuse, further utilization of recycled water by more RWQCP Partners, connections with the Sunnyvale distribution system, and other potential recycled water activities. The Santa Clara Valley Water District would provide much of the funding for this work and help manage the various tasks.

## **Background**

The RWQCP produces high quality recycled water which is a drought-proof, locally controlled, non-potable water supply. Recycled water will help reduce Palo Alto's reliance on imported water supplies. The RWQCP currently produces recycled water in excess of the current demand; therefore staff is working to expand the recycled water demand and distribution system. As such, the City of Palo Alto certified an Environmental Impact Report on September 28, 2015, to expand recycled water through South Palo Alto to Stanford Research Park ([CMR# 5962](#)). This proposed expansion project is phase III of the 1992 Recycled Water Master Plan. Additionally, the Santa Clara Valley Water District is seeking alternative water supplies from local wastewater treatment plants. There are three wastewater treatment plants that discharge into San Francisco Bay within Santa Clara County: (1) San Jose/Santa Clara Regional Wastewater Facility (San Jose RWF), (2) City of Sunnyvale and (3) the RWQCP. The Water District already has partner agreements with San Jose RWF and the City of Sunnyvale. Recently the Water District approved a partner arrangement with the City of Palo Alto to fund eighty percent of the Advanced Water Purification System Feasibility Study Contract. The Feasibility Study will evaluate alternatives including treatment to reduce improve recycled water quality.

As part of the effort to expand uses of recycled water, the City and Water District are developing a further understanding of the northwest county groundwater system to identify opportunities for enhanced groundwater recharge.

### **Discussion**

For the past year staff have been working with the Santa Clara Valley Water District and the RWQCP partner agencies to research expanding recycled water use opportunities in Northwest Santa Clara County. The City is working on updating the Recycled Water Master Plan to produce a strategic plan that will include the following information:

- Advanced Water Purification System Feasibility Study
- White paper on initial description of all water sources
- White paper on satellite and onsite treatment and reuse of black water, grey water, and stormwater
- Ongoing Palo Alto Potable Water Supply Resource Planning
- Mountain View Recycled Water Distribution Expansion and potential Sunnyvale Tie-In
- Palo Alto Recycled Water Phase III Expansion Project business plan

development, preliminary design, and securing of outside funding

- Northwest Santa Clara County Groundwater Study for Indirect Potable Reuse (IPR) Potential
- Palo Alto RWQCP Partner Agencies Recycled Water Expansion

In addition to the upcoming Recycled Water Strategic Plan, staff has been working on the following Recycled Water planning projects.

### **Advanced Water Purification System Feasibility Study (contract in process)**

To expand the use of recycled water to include cooling towers and the irrigation of salt-sensitive landscaping, staff is working to reduce the total dissolved solids (TDS) concentration. Consequently, the City has partnered with the City of Mountain View and the Santa Clara Valley Water District to jointly fund a feasibility study for installation of an advanced water purification system (AWPS) at the RWQCP (CMR #6458). The AWPS would produce virtually TDS-free water which could be blended with the current recycled water to achieve a TDS concentration of  $450 \pm 50$  parts per million (ppm).

### **White Paper on Initial Description of all Water Sources**

At the 2015 Council Meeting approving of the Environmental Impact Report (EIR) for the Phase III Recycled Water Expansion, Council requested further information on water sources as they pertain to the City of Palo Alto. Attached is an initial description of all water sources (potable and non-potable) potentially available to the City of Palo Alto (Attachment A). Potable water refers to water that meets drinking water standards and is considered safe to drink; while non-potable water refers to water that does not meet drinking water standards and is considered unsafe to drink.

### **White Paper on Satellite and Onsite Treatment and Reuse**

City staff has been tracking satellite and onsite treatment systems and reuse. Staff will be collecting information on similar efforts regionally and nationally, including the development of standardized design criteria and regulations. Currently, in the RWQCP service area, there are a few facilities that have reused gray water and stormwater for irrigation purposes. Stanford is currently researching an onsite treatment system.

### **Ongoing Palo Alto Potable Water Supply Resource Planning**

City staff is currently working on the Water Integrated Resources Plan (WIRP) that will discuss the variety of potable water supply resources and planning. The WIRP will include an assessment of alternative potable water supplies including the City's current water supply source from the San Francisco Public Utilities Commission's Region Water Supply System, groundwater, and treated water from the Santa Clara Valley Water District as well as demand-side management. Recycled water will be assessed both as a tool to reduce potable water demand and as a potential potable water supply through IPR and Direct Potable Reuse (DPR). The results of the groundwater study discussed below will be an important part of this analysis. All of these resources will be evaluated based on availability, cost, water quality, environmental impact and robustness in water emergencies and with respect to potential state regulations.

### **Mountain View Recycled Water Distribution Expansion and Sunnyvale Tie-in**

Mountain View currently receives the majority of the recycled water produced at the RWQCP. Mountain View has hired a consultant to research expanding the recycled water distribution system within its city limits and is working with Sunnyvale for a potential recycled water intertie. The City of Sunnyvale is rebuilding their wastewater treatment plant and plans on treating the majority of their flow to purified water for future IPR. Therefore, their existing recycled water customers will need a new source of recycled water which will potentially be provided by the RWQCP via the Mountain View—Sunnyvale intertie.

### **Palo Alto Recycled Water Phase III Expansion (RFP in process)**

The City is seeking a consultant to develop a business plan, preliminary design, and aid in securing funding for the Phase III Expansion project. This evaluation will help Council decide on pursuing Phase III Expansion of the recycled water pipeline. The City has drafted interim Recycled Water Guidelines to help facilitate new recycled water customers who are on the existing recycled water line near the RWQCP.

### **Northwest Santa Clara County Groundwater Study for Potential Indirect Potable Reuse (RFP in process)**

The purpose of the groundwater study is to compile baseline information on the current condition of aquifers in northwestern Santa Clara County and adjacent areas, including sources and quantities of recharge, groundwater pumping, and water quality. This information will be used to evaluate the feasibility of IPR of

advanced treated recycled water and identify opportunities for increased groundwater utilization of recycled water. This study will also evaluate impacts to groundwater resources from potential pumping or recharge projects to ensure continued sustainable groundwater management.

### **Palo Alto RWQCP Partner Agencies Recycled Water Expansion (RFP in process)**

City staff is seeking opportunities to expand recycled water within the RWQCP service area: East Palo Alto, Los Altos, Los Altos Hills, Mountain View, Stanford, and Palo Alto. The RWQCP's NPDES permit requires the treatment plant to have a recycled water program. Current recycled water demands and distribution systems were identified in the Recycled Water Master Plan that was completed in 1992. Since 1992, prolonged drought and increased economic activity has opened up new potential demand for recycled water in partner cities, including potential groundwater recharge opportunities. Consequently, staff is pursuing a consultant to re-evaluate the current and projected recycled water demand in the RWQCP service area.

### **Timeline**

Below is a tentative timeline for the recycled water projects:

- Cost sharing agreements with the Santa Clara Valley Water District and City of Mountain View for the Advanced Water Purification System Feasibility Study – April 2016
- Recycled water pipeline expansion within East Palo Alto, Palo Alto and Mountain View – Construction expected to begin in 2016
- Advanced Water Purification System Feasibility Study expected to be completed by end of 2016
- Recycled Water Strategic Planning and Groundwater Assessment contract expected to be approved in summer 2016; the following deliverables will be completed by December 2018:
  - Phase III Recycled Water Expansion Business Plan, Preliminary Design & Secured Funding Effort Report
  - IPR Feasibility Evaluation
  - Conceptual Groundwater Model
  - Northwest Santa Clara County Groundwater Study for Potential IPR Report

- Recycled Water Strategic Plan Report
- Funding Identification & Application(s)
- Public Outreach

### **Resource Impact**

The current recycled water program consists of five hard-piped City facilities and more than 60 permitted users of the recycled water truck fill station. The RWQCP is the wholesaler of recycled water within its service area. The City is currently negotiating private hard-piped recycled water customers along the existing distribution line, expanding recycled water into East Palo Alto and in South Palo Alto including Stanford Research Park.. City staff anticipate construction of the East Palo Alto recycled water expansion to commence in 2016; therefore, staff is needed to help manage future contractors. As mentioned previously the City is planning on managing larger recycled water planning contracts to improve the water quality, update recycled water strategic plan, and investigate the possibility of indirect potable reuse to recharge groundwater. The City is currently negotiating with the Santa Clara Valley Water District that they will fund eighty percent of the Advanced Water Feasibility Contract and the City is still negotiating how much the SCVWD will fund of the second contract that will update the recycled water strategic plan. The City currently does not have a dedicated staff person who works on recycled water. In order to expand the City's Recycled Water Program, a new Senior Engineer is required for future tasks including:

- Initiate and manage recycled water and water re-use consultant contracts
- Prepare a new Strategic Recycled Water Plan to complement the 1992 Recycled Water Master Plan
- Determine the need and timing for appropriate groundwater recharge and storage of purified water, based on modelling of the San Francisquito Creek cone
- Determine best method of brine disposal and management to allow for the addition of advanced recycled water treatment processes to the RWQCP's current treatment plant
- Develop RWQCP regulations and guidelines for the use and management of recycled water and purified water
- Serve as the principal point-of-contact for Partner Agencies to secure new or modified Recycled Water Service and determine amounts and timing of needs

- Serve as Public Health and Water Board Compliance Officer for water re-use programs, including inspection programs and cross-connection prevention programs
- Develop and manage Infrastructure Management System (IMS) for the Recycled Water wholesale water treatment and distribution system; track and manage system repairs and upgrades
- Develop Nutrient Credits and Offsets for Recycled Water Program
- Coordinate expanded water use and water quality reporting and monitoring with regulatory agencies, partner agencies, users, site supervisors, and customers.

Manage expanded recycled water system maintenance and utility locating services. The new Senior Engineer position would be funded partially by the partner agencies to the RWQCP, since it is a requirement in our discharge permit to have a recycled water program. Therefore Palo Alto will only fund one third of the Senior Engineer Position which costs approximately \$220,000. The projects that the Senior Engineer will manage will also be funded through cost-sharing agreements with the SCVWD, grants and state revolving funds.

### **Policy Implications**

Continuing the exploration of expanding recycled water is consistent with Council policy. The Recycled Water Program is consistent with the Council-adopted Water Integrated Resource Plan Guideline 3: “Actively participate in development of cost effective regional recycled water plans.” The project is consistent with Council direction to reduce imported water supplies and limit or reduce diversions from the Tuolumne River.

Council’s Sustainability Policy supports the development of recycled water, specifically in the Policy’s statement to “reduce resource use and pollution in a cost-effective manner while striving to protect and enhance the quality of the air, water, land and other natural resources.”

The City’s Comprehensive Plan contains Natural Environment Goal N-4: Water resources are prudently managed to sustain plant and animal life, support urban activities and protect public health and safety. Specifically, Program N-26 addresses the use of recycled water: implement incentives for the use of drought-tolerant landscaping and recycled water for landscape irrigation.

**Environmental Review**

Environmental Impact Report for Phase III of the recycled water pipeline project was approved in September 2015. Future Environmental Review will be required if the expanded recycled water pipeline is constructed.