



**COUNCIL MEETING**

12/12/16

☒ Received Before Meeting

**20**

**TO:** HONORABLE CITY COUNCIL

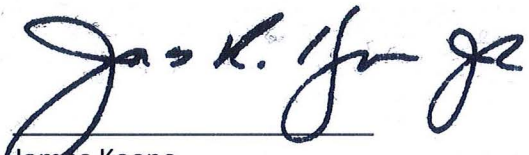
**FROM:** JAMES M. SARTOR, DIRECTOR OF PUBLIC WORKS

**DATE:** DECEMBER 12, 2016

**SUBJECT:** **AGENDA ITEM NUMBER 20** - Approval of: 1) A Professional Services Agreement With RMC Water and Environment for Development of a Recycled Water Strategic Plan in a Total Amount Not-to-Exceed \$2,000,000; and 2) A Cost Share Agreement With the Santa Clara Valley Water District Under Which the District Will Fund 90 Percent of Strategic Plan Consultant Costs; and 3) An Amendment to the Fiscal Year 2017 Budget Appropriation for the Wastewater Treatment Fund

Attached is the final Attachment B: DRAFT 6053857 AGREEMENT Recycled Water Strategic Plan Cost Share with the signatures of the Santa Clara Valley Water District; it was not available at the time of report finalization.

  
\_\_\_\_\_  
James M. Sartor  
Director  
Public Works

  
\_\_\_\_\_  
James Keene  
City Manager

**COST SHARING AGREEMENT  
BETWEEN CITY OF PALO ALTO AND SANTA CLARA VALLEY WATER DISTRICT  
REGARDING THE NORTHWEST COUNTY RECYCLED WATER STRATEGIC PLAN PROJECT**

This NORTHWEST COUNTY RECYCLED WATER STRATEGIC PLAN 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, 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. The City of Palo Alto and Santa Clara Valley Water District may be referred to in this AGREEMENT individually as a "Party" or collectively as the "Parties".

**RECITALS**

- A. WHEREAS, the Santa Clara Valley Water District ("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, the City of Palo Alto ("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, the City operates the RWQCP in compliance with California Regional Water Quality Control Board recycled water requirements; and
- D. WHEREAS, the City is interested in developing a plan to expand and understand the potable and non-potable reuse options available to the recycled water system at the RWQCP by developing a Northwest County Recycled Water Strategic Plan ("Strategic Plan"); and
- E. WHEREAS, on October 11, 2016, the District's Board of Directors approved a District contribution of up to 90 percent of the cost (not-to-exceed \$1,800,000) of a consultant contract awarded by the City for the development of the Strategic Plan; and
- F. 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
- G. WHEREAS, City is currently undertaking procurement efforts to award a consultant contract ("Consultant Contract") to one or more qualified consultants to provide professional services for preparation of the Strategic Plan and other related services; and
- H. WHEREAS, District and City acknowledge that there is mutual benefit to develop the Strategic Plan, and; therefore, agree to share in the financial costs and responsibilities to support retaining qualified consultants or firms to render professional services to develop the Strategic Plan; and

- I. Funding provided under this AGREEMENT does not commit either party to a particular course of action that would likely result in a physical change to the environment, and; therefore, execution of this AGREEMENT is not subject to California Environmental Quality Act 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 services that will be funded by this AGREEMENT consist of development of the Strategic Plan, which includes planning and preliminary design related to expansion of the Recycled Water Program, a Northwest Santa Clara County indirect potable reuse feasibility study, and identification of funding sources. The consultant services also include providing support on regulatory permitting efforts; and undertaking public outreach. A copy of the scope of work ("Scope of Work") for the consultant services is attached to this AGREEMENT as Attachment A. The tasks and deliverables identified in the Scope of Work have been approved by both Parties.
- 1.2 The City, as the primary agency for ensuring the development of the Strategic Plan and completion of the other deliverables specified in the Scope of Work, is responsible for undertaking procurement efforts consistent with its procurement rules, procedures and policies to award a Consultant Contract to one or more consultants who will perform the Scope of Work.
- 1.3 The City will direct and manage the consultant in its performance of the Scope of Work, seeking review, feedback and technical support from the District in the process. The District may provide its input to the Strategic Plan and other deliverables as it deems necessary.
- 1.4 The District approves the City awarding a Consultant Contract via a competitive selection process consistent with the City's procurement rules, procedures and policies to retain qualified consultants to perform the Scope of Work.
- 1.5 The City agrees to confer with the District regarding any issues the performance of the Consultant Contract raised by the City or the District. If the consultant breaches the Consultant Contract or substantially fails to perform and the City elects not to pursue legal remedies, the City agrees to confer in good faith with the District regarding potential assignment of rights under the Consultant Contract to the District.
- 1.6 The City agrees that the District shall have an irrevocable license to use all Consultant 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 City shall ensure the Scope of Work is completed to both Parties' satisfaction.
- 1.8 Both Parties agree that undisputed consultant invoices from the consultant performing work pursuant to the Scope of Work will be paid 90% by the District, and 10% by the City. The District's total for all payments shall not exceed \$1,800,000, unless a higher amount is agreed



to by the District in the form of a written amendment to this AGREEMENT. The City's estimated costs for the consultant to complete the Scope of Work, including development of the Strategic Plan, is \$2,000,000. The City shall not approve any expenditure exceeding this amount without the District's written consent.

- 1.9 The term of this AGREEMENT is from the date of its execution through the consultant's completion of the Scope of Work. The Consultant Contract is expected to be executed in December 2016 and is estimated to terminate on the latter of December 2020, 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 both: the City's Assistant Public Works Director in accordance with the City's protocol for extending and adding funds in contracts, and the District's Chief Executive Officer in accordance with the District's policies.

## SECTION II DUTIES

- 2.1 The District and City shall adhere to the following procedures for the City's invoicing and the District's payment of the City's invoices for the District's 90% contribution towards the payment of consultant invoices for professional services provided pursuant to 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 and invoiced by the consultant per the terms of the Consultant Contract, on a monthly basis. The City's invoice shall include a copy of the consultant's invoice for which the City seeks the District's 90% cost share contribution, and a statement that the City has reviewed the consultant'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 to enable the District to evaluate whether the amount the consultant invoiced for services rendered under the Scope of Work is reasonably justified. The City's invoices shall specify the total portion of the District's \$1,800,000 not-to-exceed commitment that has been billed as of the invoice date.
  - b. The District agrees to review the consultant's invoice, services and deliverables to determine if the task(s) invoiced by the Consultant are within the Scope of Work and completed in a manner satisfactory to the District. Subject to a \$1,800,000 not-to-exceed amount, the District agrees to pay to the City 90% of the amounts stated in all undisputed consultant invoices within 45 days from the date the District receives a City invoice for that amount. 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. Both Parties agree to confer in good faith towards resolution of concerns regarding disputed consultant invoices, and both Parties will endeavor to resolve all disputed consultant invoices within 30 days from the date District provides its written explanation of its dispute.
  - 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 payment's due date of its intent to make a late payment, including the date of when the payment will be made. In recognition of the fact that the City will invoice the District in arrears, monthly, for the consultant's work, the District agrees that no undisputed payment will be submitted to the City more than 60 days late.

- d. If the City does not receive an undisputed payment within the due dates set forth in subsections (b) and (c) of this Section 2.1, the City shall provide the District with written notice of the late payment. The District shall have a grace period of 30 days from the date it receives such written notice to pay the undisputed payment. If the District fails to make such payment within the 30 day grace period, the City may terminate this Agreement. Termination of this Agreement will be in addition to, and not in lieu of, other remedies available to the City.

### 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 Scope of Work 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, errors and omission insurance, and other 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 performing the Scope of 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 the cost sharing and completion of the Scope of Work, including development of the Strategic Plan. 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 the completion of the Scope of Work 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 Contracts upon a thirty (30) day written notice. Once the Consultant Contract has been awarded, the AGREEMENT can be terminated only upon the mutual written consent and terms acceptable to both Parties.

#### SECTION V NOTICES

- 5.1 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

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

Approved as to form and legality:

Signature: \_\_\_\_\_  
Amy Bartell  
Senior Deputy City Attorney

#### Santa Clara Valley Water District

Signature:   
Norma J. Camacho / NATION CHAIR  
Interim Chief Executive Officer, ACTING

Approved as to form and legality:

Signature:   
Anthony T. Fulcher  
Senior Assistant District Counsel



## **Attachment A**

### **Scope of Work for the Consultant Contract**

The City of Palo Alto (Palo Alto or City) currently supplies tertiary-treated recycled water to several City-owned parks and facilities, Caltrans, a commercial fill truck standpipe at the City of Palo Alto Regional Water Quality Control Plant (RWQCP), and the City of Mountain View. Part of the project under consideration entails business plan development and preliminary design of a pipeline that would expand the use of tertiary recycled water to large landscape areas and potential dual plumbing systems in South Palo Alto including the Stanford Research Park. The Palo Alto City Council (Council) certified the Program Environmental Impact Report (EIR) on September 28, 2015. <http://www.cityofpaloalto.org/civicax/filebank/documents/49079> The City, as lead, in collaboration with the Santa Clara Valley Water District (District) now seeks a CONSULTANT to conduct numerous recycled water preliminary planning studies as well as to usher Phase III of the recycled water system expansion through financial planning, preliminary design and funding, culminating in a Recycled Water Strategic Plan.

#### **GENERAL**

The CONSULTANT shall act as the project manager for Phase III of the recycled water delivery system, an expansion to the Stanford Research Park. The CONSULTANT shall also support the City and District's efforts to produce a Recycled Water Strategic Plan. The project requires the CONSULTANT to have a breadth of knowledge and experience to provide various services as described below. The CONSULTANT team should have experience in grant-writing for state and federal funds and possess a full spectrum of engineering and financial planning expertise. The CONSULTANT must be knowledgeable of laws and regulations related to recycled water and water rate-making including California Proposition 218. The CONSULTANT shall put together a flexible team with flexible time allocation to accommodate the needs of the project. The CONSULTANT's project manager will report to Samantha Engelage, City of Palo Alto Engineer. The CONSULTANT is not expected to navigate the projects through City processes, but is expected to provide all needed support documents.

The CONSULTANT team shall keep its work properly organized at all times. As much as possible, records shall be in electronic format compatible with the RWQCP's software. Records of work will be available to the RWQCP and District at all times, and the City will have ownership rights of all records and documents. The CONSULTANT will not share City and District documents or information with anyone outside of the organizations, except the CONSULTANT program team, without the City and District's written approvals. Any preliminary design performed by CONSULTANT under this Agreement will be the property of the City and District and they have the right to allow the design engineer to use the preliminary design documents to complete the final design.

#### **TASK DESCRIPTIONS**

##### **Task 1.0 Project Coordination & Administration**

- CONSULTANT shall provide management of all task activities under this Agreement, including project team assignments; meeting preparation and attendance; maintenance and monitoring of the budget and schedule; quality assurance and quality control of all deliverables; and coordination of all sub-consultants.
- Consultant shall develop a work flow diagram with key decision points noted.
- CONSULTANT shall make Task 2.0 a priority for completion and meet the following deadlines:
  - Task 2.3 and 2.4 to be completed no later than 6 months from approval of Task 2.1

- Research and identification of near-term funding sources as defined under Task 2.5 shall be completed within 3 months from completion of Task 2.1
- Task 3.1 completed no later than 3 months from issuance of the Notice to Proceed
- Task 3 subtasks (optional tasks excluded) completed no later than 18 months from issuance of Notice to Proceed.
- Task 3 optional subtasks completed no later than 9 months of written authorization to proceed from the City and District
- All other tasks shall be completed by December 31, 2020.
- CONSULTANT shall set deadlines for funding, permitting, and preliminary design.
- CONSULTANT shall attend and coordinate routine update meetings with the City, District, and other stakeholders to occur no less than quarterly throughout the project.
- CONSULTANT shall develop and maintain a comprehensive overall project budget tracking system for the project.

#### Task 1.1 Project Coordination & Administration Deliverables

- CONSULTANT shall produce a master schedule for the project including phasing of work, critical paths, and milestones.
- CONSULTANT shall provide the City and District with summary minutes and supplemental materials used during the update meetings no later than five (5) working days from the update meeting.
- CONSULTANT shall provide progress, schedule, and budget updates to City and District staff on a monthly basis and as requested by the City and District.

#### Task 1.2 Optional Tasks

- CONSULTANT shall conduct the Optional tasks only at City and District discretion and upon written notification by the City.

##### *Optional Task 1.2 Stakeholder Meetings*

- A Stakeholder meeting shall be held at 80 and 95 percent project completion.
- CONSULTANT shall present project progress results to stakeholders at 80 and 95 percent project completion. CONSULTANT shall incorporate feedback provided by the City, District, and other stakeholders at the progress presentations. Stakeholders include, but are not limited to, residents, nongovernmental organizations, the RWQCP partner agencies, and the San Francisco Bay Regional Water Quality Control Board.

### **Task 2.0 Recycled Water Phase III Expansion Project**

#### Task 2.1: Phase III Expansion Work Plan

- Prior to conducting any work on this task, CONSULTANT shall produce a draft work plan detailing the proposed course of action to meet the task requirements for City and District approval.
- CONSULTANT shall present the work plan to the City and District during a meeting to be held within ten (10) working days of draft submittal. The City and District will provide comments within fourteen (14) working days of draft submittal.
- CONSULTANT shall provide revised work plan to the City and District within five (5) working days of receiving comments.
- City and District will approve/disapprove of the revised work plan within five (5) working days of receiving the finalized work plan and CONSULTANT shall then commence work on the tasks or commence work on a revised work plan that addresses the reasons for the City and/or District's disapproval, as applicable.



#### Task 2.2: Phase III Expansion Project Coordination and Planning

- CONSULTANT shall produce a master schedule for Task 2.0 including the phasing of work, critical paths, and milestones specific to the Phase III Expansion Project.
- CONSULTANT shall set deadlines for business plan, design, permitting, and securing outside funding specific to the Phase III Expansion Project.
- CONSULTANT shall develop and maintain a comprehensive overall task budget tracking system specific to the Phase III Expansion Project.
- CONSULTANT shall provide progress, schedule, and budget updates to City and District staff on a monthly basis, for the duration of Task 2.0 and no later than 6 months from the issuance of the Notice to Proceed.

#### Task 2.3 Phase III Expansion Business Plan Development

- CONSULTANT shall produce a 20-year annual recycled water demand projection for the project area (refer to other attachment for Phase III Background & Map) taking into account potential changes in landscaping, land use, new dual-piped buildings coming online, groundwater recharge, indirect potable reuse, direct potable reuse, and other future potential changes in demand with the possibility of advanced treatment options.
- CONSULTANT shall perform risk assessment of the Phase III Expansion cost-effectiveness taking into account all the potential changes in demand, the potential changes in current water source costs and availability, as well as several scenarios for secured external funding.
- CONSULTANT shall identify and calculate a value for other potential uses for the pipeline if the risk assessment finds that there is a nontrivial possibility that the Phase III Expansion could prove not cost-effective in the future.
  - In coordination with Task 3.3, CONSULTANT shall include in Task 2.3 a high-level, feasibility evaluation of utilizing the Phase III expansion for IPR/DPR within Palo Alto and focused on Palo Alto utilization. As part of this, CONSULTANT shall include a high-level feasibility evaluation of the routing of a dedicated IPR pipeline in Palo Alto that would benefit potential future groundwater production in Palo Alto. In addition, CONSULTANT shall evaluate the potential challenges of siting a DPR treatment plant at the RWQCP site including but not limited to: space requirements for additional treatment steps and minimum likely storage requirements for DPR-treated water before entering the drinking water distribution system.
- CONSULTANT shall integrate the factors of the risk assessment to develop cost-based recycled water rates and fees given several scenarios and subject to Proposition 218 requirements.
- CONSULTANT shall integrate the factors of the risk assessment to provide a business plan for the Phase III Pipeline Expansion.

#### Task 2.4 Phase III Expansion Preliminary Design

- CONSULTANT shall produce a preliminary (15 percent) engineering design that will focus on defining concepts for trenchless crossings and pump station development with the City identifying up to two alternative supply pump station and booster pump station sites and two Zone 2 sites for evaluation. CONSULTANT shall include minor updates to the 2008 Facilities Plan for other Phase III elements, as requested by City.
- CONSULTANT shall utilize the 2008 Recycled Water Facility Plan (found at: <http://www.cityofpaloalto.org/civica/x/filebank/documents/15103>), the 2015 EIR (found at: [http://www.cityofpaloalto.org/gov/depts/uti/residents/resources/water\\_resources/recycled\\_water.asp](http://www.cityofpaloalto.org/gov/depts/uti/residents/resources/water_resources/recycled_water.asp)) and Dec 2014 South Bay Water Recycling –Strategic and Master Planning Report (found at: <http://www.valleywater.org/EkContent.aspx?id=184&terms=recycled+water>).

- CONSULTANT shall coordinate and provide information needed for environmental documents.
- CONSULTANT shall produce a Class 4 project cost estimate given preliminary design per AACE International Classification System. The cost estimate shall be appropriate for a project definition of 15 percent and an expected accuracy of -15 to +20 percent.

#### Task 2.5 Phase III Expansion Securing of Outside Funding

- CONSULTANT shall research and identify near-term funding sources for the Phase III Expansion Project as outlined in the 2008 City of Palo Alto Recycled Water Facility Plan.
- CONSULTANT shall complete all necessary work to apply for funding on behalf of the City and District leveraging past successful grant funding received.
- CONSULTANT shall track all applications and provide additional information or materials as needed.
- CONSULTANT shall maintain and submit all reports necessary to claim any secured funding.
- CONSULTANT shall maintain a clear, organized record of all applications and all secured funding specific to the Phase III Expansion Project.
- CONSULTANT shall coordinate and strategize applications for funding the Phase III Expansion Project in light of other tasks under this Agreement and potential collaborative funding opportunities.

#### Task 2.6 Phase III Expansion Deliverables

- CONSULTANT shall produce a Task 2.0 Work Plan per Task 2.1.
- CONSULTANT shall produce & update a Task 2.0 Schedule per Task 2.2.
- CONSULTANT shall consolidate results from Tasks 2.3 – 2.4 into a standalone Phase III Expansion Business Plan, Preliminary Design, & Secured Funding Effort Report, including a summary of the efforts undertaken in Task 2.5 to date.
- CONSULTANT shall provide the City and District with draft reports at 80 and 95 percent completion for review. CONSULTANT shall incorporate feedback from City and District for each of the above reports into subsequent draft and final reports.

#### Task 2.7 Optional Tasks

- CONSULTANT shall conduct optional tasks only at the City's discretion, with District concurrence, and upon written notification by the City and District.

##### *Optional Task 2.7.a Phase III Expansion Extended Design for Project Definition of 30 to 40 percent*

- CONSULTANT shall produce an engineering design consistent with 30 to 40 percent project definition that will focus on the pipeline, including tree reconnaissance and alignment refinement.
- CONSULTANT shall provide recommendations of key points and specifications for full construction bid package.
- CONSULTANT shall produce a Class 3 cost estimate according to AACE International Classification System with an accuracy of  $\pm 10$  percent.
- CONSULTANT shall provide City and District with construction draft design documents at 80, and 95 percent completion for review.
- CONSULTANT shall incorporate feedback from City and District for each of the above items into subsequent draft designs no later than ten (10) working days after submittal.



- CONSULTANT shall identify and evaluate any CEQA and other potential regulatory requirements that may apply to the future construction and operation of the proposed pipeline expansion using the EIR completed in 2015.
- CONSULTANT shall include a CEQA checklist, if needed, and a list of permits required for construction.
- CONSULTANT shall provide recommendations of key points for full design bid package.

### **Task 3.0 Northwest County Indirect Potable Reuse Feasibility Study**

The purpose of the Indirect Potable Reuse (IPR) Feasibility 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 whether increased groundwater utilization by the City is viable, and if so, to evaluate the feasibility of indirect potable reuse of advanced treated recycled water. This study will also evaluate impacts to groundwater resources from potential pumping or recharge projects to ensure continued sustainable groundwater management.

#### **Task 3.1 Work Plan & Schedule**

- Prior to conducting any work on this task, the CONSULTANT shall produce a draft work plan detailing the proposed course of action and schedule to meet the task requirements and incorporating stakeholder feedback and comments for City and District approval.
- CONSULTANT shall include in the work plan, amongst other details, an outline of the needed elements for the assessment under Task 3.2.
- CONSULTANT shall present the work plan to the City, District, & stakeholders during a meeting to be held within ten (10) working days of draft submittal. The City, District, & stakeholders will provide comments within fourteen (14) working days of draft submittal.
- CONSULTANT shall provide revised work plan to the City & District within five (5) working days of receiving comments.
- City & District will approve/disapprove of the revised work plan within ten (10) working days of receiving the finalized work plan and CONSULTANT shall then commence work on the tasks or commence work on a revised work plan that addresses the reasons for the City and/or District's disapproval, as applicable.

#### **Task 3.2 Groundwater Use Assessment**

- CONSULTANT shall review and analyze currently available information and data on the Santa Clara and San Mateo Plain Subbasins (California Department of Water Resources Basins 2-9.02 and 2-9.03, respectively) in the RWQCP service area (Palo Alto, Stanford, Mountain View, Los Altos, Los Altos Hills, and East Palo Alto). The review and analysis topics will include groundwater and surface water divides, recharge areas, water quality, and the general structure of the aquifers, aquitards, and other geologic units, general groundwater quality, as well as other relevant information.
  - This assumes that data will be available from San Mateo County and that the City will provide available data on its potable supply wells.
  - This assumes that data is available in electronic formats (i.e., Excel, Access) and that this evaluation will rely on existing data and reports.
- CONSULTANT shall evaluate the hydrogeology and groundwater conditions in the RWQCP service area and surrounds, including defining the aerial extent, thickness and hydraulic properties of subsurface layers, surface water/groundwater interaction, quantifying seasonal fluctuations in upper and lower aquifer groundwater levels, inflows and outflows, basin storage, and evaluating hydraulic connectivity between the upper and lower aquifers and between adjacent subbasins.



- CONSULTANT shall provide a groundwater balance analysis focusing on the City in addition to the analyses above for the RWQCP service area. The groundwater system is comprised of multiple water-bearing zones, and the analysis shall include the identification and estimate of inflows and outflows in the different zones (e.g., in the shallow aquifer and deeper production aquifer). The groundwater balance analysis shall also include a schematic diagram showing the conceptual aquifer system, and uncertainty analysis. The analysis shall identify significant sources of groundwater inflows and outflows, including, but not limited to, natural and managed recharge, private and municipal wells, groundwater remediation systems, temporary and on-going dewatering sites, and surface water/groundwater interactions, as well as an evaluation of the extent which shallow groundwater recharges the deeper aquifer(s).
- CONSULTANT shall include geologic cross sections using existing data (e.g., well boring logs) that delineate water-bearing zones, aquitards, and depth to bedrock.
- CONSULTANT shall evaluate the feasibility of increased pumping to meet 25, 50, or 100 percent of the City's water demands and identify additional infrastructure needed to meet demands at each level.
- CONSULTANT shall evaluate whether increased pumping at these levels would result in adverse impacts, including excessive drawdown in adjacent wells, regional land subsidence, salt water intrusion, significant depletions of surface water, or drawing contaminants from known contaminant release sites into municipal wells (e.g. Superfund sites, dry cleaners, fuel leaks, and other toxic release sites).
- CONSULTANT shall evaluate different water year (hydrologic) scenarios and potential increased pumping in adjacent cities in conjunction with evaluating the feasibility of increased pumping to meet the City's future water demands.
- CONSULTANT shall identify data gaps and recommendations for further study as it relates to increased groundwater use.

#### Task 3.3 Indirect Potable Reuse (IPR) Feasibility Evaluation

- CONSULTANT shall identify current natural groundwater recharge areas in the northwestern Santa Clara Subbasin, and identify potential areas for artificial recharge based on favorable geological conditions within the RWQCP's service area.
- CONSULTANT shall identify areas within the RWQCP's service area that fall within the northwest Santa Clara Subbasin on the scale of acres (versus parcel) of highest recharge, quantify recharge rates, identify current and near-term groundwater demand, and assess potential for IPR.
- CONSULTANT shall evaluate IPR from the perspective of the City as a utility as well as that of the RWQCP as a wholesaler. In the IPR utility evaluation, the CONSULTANT shall evaluate based on the City of Palo Alto borders and projected uses. In the IPR wholesaler evaluation, the CONSULTANT shall evaluate based on the RWQCP as a regional plant with multiple partners. The wholesaler evaluation will include a look at the potential intertie with Sunnyvale and East Palo Alto IPR opportunities.
- CONSULTANT shall provide schematics (e.g., maps and cross sections) indicating identified locations.
- CONSULTANT shall perform screening level calculations using Darcy's law or similar approach to evaluate the movement and underground retention time of IPR water.
- CONSULTANT shall review the potential for IPR projects to create nuisance conditions by raising the water table into basements, elevator shafts, underground parking, street undercrossings, or flooding storm drains and sanitary sewers.
- CONSULTANT shall determine water quality parameter guidelines for IPR recycled water that would not adversely affect groundwater quality in the basin and ensure consistency with basin management objectives as defined in the 2012 Groundwater Management Plan prepared by the District, or subsequent versions.

- CONSULTANT shall evaluate the potential for IPR to introduce contaminants into the aquifer as well as evaluate the potential to increase mobilization and/or dissolution of contaminants. Contaminants of concern include salts, emerging contaminants, petroleum hydrocarbons and chlorinated hydrocarbons. Naturally-occurring compounds of potential concern may include arsenic, selenium and chromium and other metals.
- CONSULTANT shall evaluate the potential for injected or percolated water to discharge into creeks.
- CONSULTANT shall utilize existing data including that from the City emergency groundwater wells, the District well monitoring, the State Water Resources Control Board's GeoTracker database, and other existing databases. This assumes that the District will provide assistance in acquiring District data in electronic format (i.e., Excel, Access) and will agree to share the data developed to date for the District's IPR Study (model refinements are ongoing and subject to change during the course of this project).
- CONSULTANT shall identify possible IPR scenarios (e.g., injection wells, percolation ponds, etc.) that should be evaluated in more detail in subsequent studies for potential application in the identified potential IPR areas.
- If IPR is determined to be feasible, CONSULTANT shall produce a recommended implementation strategy for IPR within the portions of the RWQCP service area that fall within the northwest Santa Clara Subbasin.
- CONSULTANT shall include in the implementation strategy an overview of required permits and a CEQA checklist, other IPR regulatory constraints, monitoring requirements, on-going maintenance requirements, and associated cost estimates.
- CONSULTANT shall provide Class 5 cost estimates per 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 identify data gaps and recommendations for further study.

#### Task 3.4 Groundwater Study Deliverables

- CONSULTANT shall produce a Task 3 Work Plan & Schedule per Task 3.1.
- CONSULTANT shall produce a Groundwater Use Assessment Report per Task 3.2.
- CONSULTANT shall consolidate results from Tasks 3.2 – 3.6 into a standalone Northwestern Santa Clara County Indirect Potable Reuse Feasibility Study Report.
  - CONSULTANT shall provide the City, District, & stakeholders with draft reports at 80 and 95 percent completion for review.
  - CONSULTANT shall incorporate feedback from the City, District, & stakeholders into each of the Reports above and into subsequent draft and final reports.

#### Task 3.5 Refined Numerical Groundwater Model

- The model elements and format shall be proposed by the CONSULTANT via a work plan incorporating stakeholder feedback and comments, to be approved by the City and District prior to beginning this task.
- CONSULTANT shall use the hydrogeologic evaluation completed under Task 3.2 to develop a numerical groundwater model or refine an existing numerical groundwater model for use in forecasting future impacts to the aquifers, and for making calculations to satisfy regulations related to groundwater replenishment reuse projects (e.g. travel times). Future impacts could include those due to increased groundwater development, groundwater replenishment, wet and dry year extremes, or a combination thereof. Adequate model calibration to measured data (e.g., water levels) per industry standards (e.g. ASTM 5981-96) must be demonstrated to the satisfaction of the District and City.

- CONSULTANT shall propose and evaluate up to five (5) potential groundwater use scenarios, in addition to a baseline scenario reflecting current groundwater demand under dry, average and wet water years.
- CONSULTANT shall determine artificial recharge rates sufficient to maintain the system in balance under each scenario in the event natural recharge is not sufficient.

#### Task 3.6 IPR Modeling Scenarios & Parcel Identification

- The model scenarios and identification format/procedure shall be proposed by the CONSULTANT via a work plan incorporating stakeholder feedback and comments to be approved by the City and District prior to beginning this task.
- CONSULTANT shall use the Refined Numerical Groundwater Model produced under Task 3.5 to run different IPR scenarios to ultimately identify ideal IPR opportunities (e.g., salt water intrusion mitigation, injection wells, percolation basins, etc.) and consider regulatory constraints to identify potential parcels for IPR projects.

#### Task 3.7 Optional Tasks

- CONSULTANT shall conduct optional tasks only at the City's discretion, with District concurrence, and upon written notification by the City and District.

##### *Optional Task 3.7.a Fulfilling Data Gaps in Numerical Groundwater Model*

- CONSULTANT will identify data needed to complete the numerical groundwater model in Task 3.5 and prepare a work plan for a field investigation to satisfy the data requirements. The work plan shall incorporate stakeholder feedback and comments and be approved by the City and District prior to beginning this task.
- CONSULTANT shall conduct the field investigation identified in the work plan and document the results in a standalone report.

##### *Optional Task 3.7.b IPR Strategic Plan*

- The exact content and format of the plan shall be proposed by the CONSULTANT via a work plan incorporating stakeholder feedback to be approved by the City and District prior to beginning this task.

### **Task 4.0 Recycled Water Strategic Plan**

The ultimate goal of this study component is to produce a guideline for an alternative reliable water supply for the RWQCP service area and adjacent cities, to augment supplies with recycled water during droughts or other hydrologic events, and to increase the reliance on locally available water supplies such as recycled water.

#### Task 4.1: Recycled Water Strategic Plan Work Plan & Schedule

- Prior to conducting any work on this task, the CONSULTANT shall produce a draft work plan detailing the proposed course of action and schedule to meet the task requirements, and incorporating stakeholder feedback and comments, for City and District approval..
- CONSULTANT shall present the work plan to the City, District, & stakeholders during a meeting to be held within five (5) working days of draft submittal. The City, District, & stakeholders will provide comments within fourteen (14) working days of draft submittal.
- CONSULTANT shall provide revised work plan to the City & District within five (5) working days of receiving comments.
- City & District will approve/disapprove of the revised work plan within ten (10) working days of receiving the finalized work plan and CONSULTANT shall then commence work on the tasks or commence work on a revised work plan that addresses the reasons for the City and/or District's disapproval, as applicable.



#### Task 4.2: Recycled Water Strategic Plan Evaluations

- CONSULTANT shall develop a comprehensive Recycled Water Strategic Plan, including feasibility report that meets the requirements of WTR11-01, Reclamation Manual; Directives and Standards.
- CONSULTANT shall review the 1992 Recycled Water Master Plan and identify potential new water recycling customers within the RWQCP service area and adjacent areas.
- CONSULTANT shall incorporate key findings from Tasks 2.0 – 3.0, the Advanced Water Purification System Feasibility Study, the Mountain View Recycled Water Expansion & Sunnyvale Intertie Projects, the District's previous studies of stream augmentation, the City's previous studies of contaminants of emerging concern, and other relevant studies conducted by the City, District, and other agencies into the Recycled Water Strategic Plan.
- CONSULTANT shall evaluate and develop rate structures to address cost recovery and encourage recycled water use, in compliance with the requirements of Proposition 218, as applicable.
- CONSULTANT shall also evaluate the long-term financial viability of the RWQCP Recycled Water Program given various scenarios of potable and non-potable recycled water demand, partnerships, and rates.
- CONSULTANT shall include at a minimum the following evaluations:
  - Existing recycled water demand (as defined as that projected through 2020) in the RWQCP service area and adjacent areas.
  - Future recycled water demands (as defined as that projected through 2030 and divided up into 5-year increments) within the RWQCP service area and adjacent areas (e.g., Sunnyvale intertie, etc.).
  - Recycled water use for potable reuse, non-potable reuse, and stream-flow augmentation within the RWQCP service area and adjacent areas and incorporate a ranking/ evaluation system to help prioritize future commitments and projects.
  - Identifying and recommending technologies that may further improve recycled water quality by incorporating the Advanced Water Purification System Feasibility Study and how these projects could be linked to the RWQCP's Long Range Facilities Plan.
  - Developing revenue and market projections based on current (2020) conditions and an expanded distribution system (2030) throughout the RWQCP service area and adjacent areas
  - Summary of funding opportunities discovered under Task 5.0 and a summary of the statewide regulatory constraints tracked by the District.
  - Identification of opportunities for regional coordination and interconnections including an analysis of efficiencies realized by using interconnections.
  - Summary of the agreements that would be required to achieve recommended regional interconnections and additional expansion taking into account local policies in addition to agreements to support recycled water and interconnections.

#### Task 4.3 Recycled Water Strategic Plan Deliverables

- CONSULTANT shall produce a Task 4 Work Plan & Schedule per Task 4.1.
- CONSULTANT shall consolidate results from Tasks 4.2 into a standalone Recycled Water Strategic Plan report.
  - CONSULTANT shall provide a report that can be used as a feasibility report that could be sent by the City to the Bureau of Reclamation for review and approval.
  - CONSULTANT shall incorporate any comments from the Bureau of Reclamation and issue a Project Feasibility Report.

- CONSULTANT shall provide the City, District, & stakeholders with draft reports at 80 and 95 percent completion for review.
- CONSULTANT shall incorporate feedback from the City, District, & stakeholders into each of these reports and into subsequent draft reports.

#### Task 4.4 Optional Tasks

- CONSULTANT shall conduct optional tasks only at the City's discretion, with District concurrence, and upon written notification by the City and District.

##### *Optional Task 4.4.a Mountain View Project Alignment*

- CONSULTANT shall conduct additional analyses as needed to incorporate work conducted separately by Mountain View on recycled water expansion into Task 4.2.

##### *Optional Task 4.4.b RWQCP Wholesaler Business Plan*

- The business plan elements and approach shall be proposed by the CONSULTANT via a work plan which shall incorporate stakeholder feedback and comments and be approved by the City and District prior to beginning this task.
- CONSULTANT shall develop a business plan for RWQCP being a wholesaler of recycled water within South San Mateo County.

##### *Optional Task 4.4.c Assistance in Partner Agreements*

- CONSULTANT shall, as needed, draft partner agreements between different agencies on recycled water pipeline expansion projects.

##### *Optional Task 4.4.d Facility Assessment Plans*

- The plan elements and approach shall be proposed by the CONSULTANT via a work plan which shall incorporate stakeholder feedback and comments and to be approved by the City and District prior to beginning this task.
- CONSULTANT shall develop facility assessment plans for expanding recycled water within East Palo Alto, Stanford, Los Altos Hills, and Los Altos.

##### *Optional Task 4.4.e Business Plan – East Palo Alto and East Menlo Park*

- The business plan elements and approach shall be proposed by the CONSULTANT via a work plan which shall incorporate stakeholder feedback and comments and be approved by the City and District prior to beginning this task.
- CONSULTANT shall develop a business plan for expanding recycled water within East Palo Alto and East Menlo Park.

##### *Optional Task 4.4.f Business Plan – Los Altos*

- The business plan elements and approach shall be proposed by the CONSULTANT via a work plan which shall incorporate stakeholder feedback and comments and be approved by the City and District prior to beginning this task.
- CONSULTANT shall develop a business plan for expanding recycled water within Los Altos.

*Optional Task 4.4.g Business Plan – Los Altos Hills*

- The business plan elements and approach shall be proposed by the CONSULTANT via a work plan which shall incorporate stakeholder feedback and comments and be approved by the City and District prior to beginning this task.
- CONSULTANT shall develop a business plan for expanding recycled water within Los Altos Hills.

*Optional Task 4.4.h Business Plan – Stanford*

- The business plan elements and approach shall be proposed by the CONSULTANT via a work plan which shall incorporate stakeholder feedback and comments to be approved by the City and District, prior to beginning this task.
- CONSULTANT shall develop a business plan for expanding recycled water to Stanford.

**Task 5.0 Funding Identification & Assistance**

- CONSULTANT shall research and identify possible funding sources for the numerous recycled water projects under this scope of work, with funding for Phase III design and construction the priority.
- CONSULTANT, at the direction of the City and District, shall complete all necessary work to apply for funding on behalf of the City, District, and/or RWQCP partner agencies. The City and District will be responsible for compilation and submittal of subsequent administrative reports from any granted funding.
- CONSULTANT shall track all applications and provide additional information or materials as needed.
- CONSULTANT shall maintain and submit all reports necessary to claim any secured funding.
- CONSULTANT shall coordinate and strategize applications for funding in light of all tasks under this Agreement, City and District projects occurring simultaneously outside of this Agreement, as well as potential collaborative funding opportunities with other agencies.

**Task 5.1 Funding Identification & Assistance Deliverables**

- CONSULTANT shall produce and update a tracking sheet/record of funding opportunities, pending applications, & schedules under Task 5.0.
- CONSULTANT shall provide the City and District with copies of all submitted applications produced under Task 5.0.
  - CONSULTANT shall provide the City and District with draft applications for review and approval prior to submission.

**Task 6.0 Regulatory Support & Regional Coordination**

- CONSULTANT shall develop an overarching regulatory strategy for coordination with key regulatory agencies (e.g., Regional Water Quality Control Board and the State Board Division of Drinking Water). The goal of which will be to assess the regulatory agencies' comfort level with the proposed reuse plans and also to understand the technical data the agencies will expect to see during the permitting phase.
- CONSULTANT shall prepare applications and regulatory documents as needed and assist with permitting process.
- CONSULTANT shall update the City and District with respect to any relevant compliance requirements.
- CONSULTANT shall, upon City and District direction, aid in drafting of new ordinances or amending existing ordinances to encourage recycled water use.



- CONSULTANT shall evaluate regional opportunities to promote the use of recycled water within Santa Clara and South San Mateo Counties.

#### **Task 7.0 Public Outreach**

- CONSULTANT shall, at the discretion of the City and District, prepare informational material in collaboration with City & District Outreach Staff and assist staff with reports, presentations, and workshops for City management, District Board of Directors, City Commissions and Committees, City Council and RWQCP partner agencies as needed.
- CONSULTANT shall, as needed, provide administrative and/or technical support at public outreach events.
- CONSULTANT shall assist, as needed, in educational campaigns and stakeholder meetings on the benefits of recycled water to increase public perception and awareness of the potential expansion opportunities.

#### **Task 7.1 Public Outreach Deliverables**

- CONSULTANT shall produce and update a tracking sheet of outreach conducted throughout the year under Task 7.0 and provide the record to the City & District each year of the contract by December 31 of that year.
  - Tracking sheet shall include at a minimum the location, date, name, number of people, event theme, and any provided materials for each outreach event.
- CONSULTANT shall provide the City & District with electronic copies of all produced outreach materials.