

# **Title XVI – Water Reclamation and Reuse**

## **WaterSMART: Water Recycling and Desalination Planning**

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**Funding for Fiscal Year 2023**

**Notice of Funding Opportunity No. R23AS00076**

**San José-Santa Clara Purified Water Program Feasibility Study**

**Santa Clara Valley Water District**

**February 2023**

Santa Clara Valley Water District

Point of Contact:

David Tucker

Associate Engineer

Recycled and Purified Water Unit

5750 Almaden Expressway

San José, CA 95118

[Dtucker@valleywater.org](mailto:Dtucker@valleywater.org)

Tel: 408-630-3203

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## List of Abbreviations

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AF	acre-feet	RWA	raw water augmentation
AFY	acre-feet per year	RWF	San José-Santa Clara Regional Wastewater Facility
AWPF	advanced water purification facility		
CalEPA	California Environmental Protection Agency	RWS	SFPUC's Regional Water System
CEC	constituent of emerging concern	SB	Senate Bill
CEQA	California Environmental Quality Act	SBWR	South Bay Water Recycling
CoRe Plan	Countywide Water Reuse Master Plan	SFPUC	San Francisco Public Utilities Commission
CVP	Central Valley Project	SJ-SC	San José-Santa Clara
DDT	dichlorodiphenyltri-chloroethane	SJMWS	San José Municipal Water System
FAC 09-01	Reclamation Manual Directives and Standards, Cost Estimating	SWP	State Water Project
Feasibility Study	San José Purified Water Program Feasibility Study	TWA	treated water augmentation
GWR	groundwater recharge	UWMP	urban water management plan
LGRS	Los Gatos Recharge System	Valley Water	Santa Clara Valley Water District
MGD	million gallons per day	WSMP	Water Supply Master Plan 2040
NEPA	National Environmental Policy Act	WTP	water treatment plant
NOFO	Notice of Funding Opportunity	WTR 11-01	U.S. Bureau of Reclamation Manual Directives and Standards WTR 11-01
NPDES	National Pollutant Discharge Elimination System	WTR 11-02	U.S. Bureau of Reclamation Manual Directives and Standards WTR 11-02
NPR	non-potable reuse	WTR TRMR 128	Reclamation Manual Directives and Standards Temporary Reclamation Manual Release WTR TRMR 128
NPR+	blend of tertiary treated effluent and purified water to improve recycled water quality	WWTP	wastewater treatment plant
O&M	operations and maintenance		
O3/BAC	ozone and biologically activated carbon		
PCB	polychlorinated biphenyl		
PR	potable reuse		
Reclamation	U.S. Bureau of Reclamation		
RO	reverse osmosis		
ROC	reverse osmosis concentrate		

# WaterSMART: Water Recycling and Desalination Planning

## Technical Proposal and Evaluation Criteria

### Executive Summary

#### Applicant

Santa Clara Valley Water District, San José, California.

David Tucker, Associate Engineer, Recycled and Purified Water Unit, Santa Clara Valley Water District, 5750 Almaden Expressway, San José, CA 95118, [Dtucker@valleyWater.org](mailto:Dtucker@valleyWater.org), Tel: 408-630-3203.

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#### Project Summary and Location

***Summarize the project in one paragraph. Specify the work proposed, including how funds will be used to accomplish specific activities, and briefly identify how the proposed activities contribute to accomplishing the goals and objectives of this NOFO.***

The Santa Clara Valley Water District (Valley Water) serves nearly two million people in Santa Clara County by providing a reliable and safe supply of water. As the region faces water supply challenges driven by recurring droughts, growth in population and businesses, and variabilities of imported water, Valley Water is looking to invest in locally sourced, reliable, sustainable, and efficient water supplies such as recycled and purified water. The study area encompasses portions of the City of San José and City of Santa Clara as shown in Figure 1. Valley Water identified and evaluated several reuse opportunities in the region as part of the recently completed

Countywide Water Reuse Master Plan (CoRe Plan), including a potential new advanced water purification facility (AWPF) adjacent to the existing Silicon Valley Advanced Water Purification Center (SVAWPC) and the San José-Santa Clara Regional Wastewater Facility (RWF) in San José

for potable reuse through either groundwater recharge, raw water augmentation, or treated water augmentation. Valley Water and its partners, the City of San José and City of Santa Clara (Partner Agencies), would use funds from this notice of funding opportunity (NOFO) to further assess this project opportunity through the development of a Title XVI Feasibility



Figure 1. San José Purified Water Feasibility Study Area (North County)

Study. Developing a feasibility study would align with the goals and objectives of this NOFO by advancing planning, environmental, and preliminary design activities related to a new AWPf and conveyance infrastructure. A feasibility study is anticipated to take up to 24 months to complete, concluding by October 2025. The proposed project will not modify and/or directly involve any federal facility or federal land but would potentially alleviate reliance on water deliveries from the Central Valley Project (CVP).

## Technical Project Description

*The project description should describe the proposed work, including specific activities that will be accomplished. Describe the project. As part of this discussion, please address the following:*

- *Applicant Category: Funding Group I or Funding Group II*
- *Eligibility of Applicant: Please write a narrative summary indicating how the applicant meets the eligibility requirements, as described in Section C.1. Eligible Applicants.*
- *Goals: Discuss the goals and objectives for the proposed activities.*
- *Approach: Provide a comprehensive description of your planned approach*

Valley Water is a special district that provides water resources management (water supply, groundwater sustainability, flood protection, and stream stewardship) for the County. Under this grant application, Valley Water is seeking funding assistance for the following items:

- Development of a project feasibility study that meets all the requirements of the U.S. Bureau of Reclamation (Reclamation) Manual Directives and Standards WTR 11-01 (WTR 11-01) and draft requirements for Reclamation Manual Directives and Standards Temporary Reclamation Manual Release WTR TRMR 128 (WTR TRMR 128);
- Completion of the Financial Capability Determination that meets the criteria of Reclamation Manual Directives and Standards WTR 11-02 (WTR 11-02); and
- Consultation and coordination on actions needed to complete the environmental documentation needed for National Environmental Policy Act (NEPA) compliance.

The proposed study will focus on assessing the feasibility of constructing a new AWPf in San José for potable reuse through groundwater recharge, raw water augmentation, and/or treated water augmentation. Since the total project cost is anticipated to be greater than \$500 million, Valley Water is seeking funding under Funding Group II.

If deemed feasible, the proposed facility would help Valley Water reach the goal of at least 10% of the total County water demands being met by drought-resilient recycled and purified water. The project would also support the Valley Water Board of Director's long-term goal of producing up to 24,000 acre-feet per year (AFY) of purified water for potable reuse (drinking water) by the year 2040. Beyond these reuse specific goals, the proposed study would offer Valley Water and the Partner Agencies an avenue to explore ways to further leverage existing infrastructure, build on existing planning studies, and serve as a basis for further collaboration, interagency agreements, and governance related to residuals management, permitting, and land use decisions.

## **San José-Santa Clara Purified Water Program Feasibility Study, Financial Capability Determination, and Pre-Final Design Activities and Coordination**

The following is the proposed San José-Santa Clara Purified Water Program Feasibility Study scope of work that provides the entire planning, engineering, environmental, economic, public information, and administrative management tasks needed to undertake the Feasibility Study investigations. Also included is the scope to complete the Financial Capability Determination that Reclamation requires before disbursing Federal funding for construction activities. The products of this scope of work are the Feasibility Study and Financial Capability Determination. As noted in the following discussion, significant information will be drawn from the planning and preliminary engineering work conducted ahead of the preparation of this Feasibility Study. A more formal consultation with Reclamation is needed to develop the scope and timetable to complete the environmental documentation needed for NEPA compliance.

### **Task 1 – Project Management**

#### **Task 1.1 Administration**

Valley Water is responsible for the overall management responsibilities. The prime consultant, hired specifically for this project, will manage, compile invoicing, conduct administration and documentation of subconsultants' activities, and report directly to Valley Water. Valley Water and the prime consultant will hold periodic progress status meetings and up to three stakeholder workshops to be scheduled at specific milestones during the Feasibility Study development process.

#### **Task 1.2 Stakeholder Engagement and Outreach**

Stakeholder engagement and outreach is critical to all phases of the project. It supports planning, environmental, and project development and includes the following activities:

- Support of project public outreach and communication needs.
- Stakeholder engagement and relations.
- Public meetings and workshops support.

### **Task 2 – Title XVI Feasibility Study and Report**

The scope of work supports Valley Water's intent to prepare a Feasibility Study that will identify the most feasible program alternatives in accordance with U.S. Bureau of Reclamation's WTR 11-01. The tasks below follow the outline of WTR 11-01 and WTR TRMR 128 and define the product of the Feasibility Study Report. The sequence of report sections does not necessarily represent the time sequence of tasks to conduct the study. The study will build on planning and preliminary engineering work that has been completed to date.

#### **Task 2.1 Introductory Information**

Basic information regarding the project, Valley Water, and the study area will be summarized based on planning and preliminary engineering studies completed to date and updated with available new information.

#### **Task 2.2 Statement of Problems and Needs**

This task provides a description of the study area's key water resource management problems and needs for which water reclamation, recycling, or desalination may provide a

solution. Valley Water plans to leverage information from other studies and current drought and climate data to inform development of the water supply picture in the study area.

The statement of problems and needs will describe:

- **Problem and Need for a Water Reclamation, Recycling, or Desalination Project.** A broad view of the study area’s water resources, including challenges such as growing population, reduction of surface water supplies, groundwater resources, climatic change, and increasingly stringent wastewater discharge requirements.
- **Current and Projected Water Supplies.** Current and projected water supplies for the study area will be **described and quantified.**
- **Current and Projected Water Demands.** A summary of current and projected water demands through 2040; water use by general end use category (e.g., municipal, environmental, agricultural); population served and associated water quality requirements.
- **Water Quality Concerns for the Current and Projected Water Supply.** A summary of water quality issues pertaining to water supply (mainly groundwater) and wastewater.
- **Current and Projected Wastewater and Disposal Options other than the Proposed Title XVI project and Plans and Project Costs for New Wastewater Facilities.** A summary of current and projected wastewater amounts (annual and monthly) and disposal options; wastewater disposal locations; planned wastewater facility improvements and/or expansions, including projected costs.

### **Task 2.3 Water Reclamation, Recycling, or Desalination Opportunities**

This task will summarize the opportunities for water reclamation, recycling, and desalination providing information for federal requirements specified in WTR 11-01 listed below:

- Uses and market for water reuse.
- Water market available to use recycled water to be produced.
- Considerations that may prevent water reclamation, recycling, or desalination program implementation.
- Water and wastewater agencies with jurisdiction in the potential service area or over source water for reuse.
- Potential reuse source water origin, including impaired surface and groundwaters.
- Location of source water facilities.
- Current water reuse volumes, treatment technologies, and opportunities for developing improved technologies.

### **Task 2.4 Analysis of Alternatives and Feasibility Study Report**

The following information is required by WTR 11-01 and WTR TRMR 128 for the analysis and selection of alternatives. These topics are required in the Feasibility Study Report.

#### **Task 2.4.1 Non-Federal Funding Future Actions**

This task provides a baseline for the “no project” alternative by identifying actions Valley Water might take if no federal funding is provided.

### **Task 2.4.2 Project Objectives**

In coordination with Valley Water, the prime consultant will develop a draft framework for decision-making to use throughout the evaluation and selection of alternatives. The methodology includes selecting project objectives (e.g., unit cost of product water, regulatory complexity, environmental impacts, water quality, operational complexity, public support, etc.) and assigning weighting factors for each objective to evaluate and score alternatives.

### **Task 2.4.3 Alternatives Considered**

Based on the planning and preliminary engineering work completed to date, three alternatives including the No Project alternative will be formulated to meet project objectives. These alternatives will receive a reconnaissance-level analysis, and the project objectives will be applied to support collaborative selection of the proposed project alternative in Task 2.4.4. The following subtasks will be conducted to develop information and costs for the three alternatives:

- **Alternative Formulation.** Formulate conceptual alternatives to meet objectives and **to develop an equitable benefit to Valley Water.** Per WTR TRMR 128, alternatives will identify and evaluate trade-offs among stakeholders and resources. Determine the viability of an alternative through an evaluation of its acceptability, efficiency, effectiveness, and completeness. Consider impacts of climate change in the trade-off analysis and the comparison of alternatives.
- **Layout of Alternatives.** Project layouts of the pipeline routes and locations of the treatment, wells, storage, pumping facilities, and environmental projects.
- **Cost Estimates.** Estimated costs will include capital, annual operation and maintenance, replacement, and life-cycle costs.

### **Task 2.4.4 Proposed Project Description**

The proposed project **will require more detailed definition than the alternatives in** Task 2.4.3. The proposed Project will be selected by Valley Water (in collaboration with its Partners) applying the objectives discussed in Task 2.4.2. The following subtasks will be conducted on the proposed project:

- **Layout of Alternative.** Develop project layouts of the pipeline routes and locations of the treatment, storage, well, environmental projects and pumping facilities.
- **Geotechnical Review.** Address existing geologic and geotechnical conditions in a regional and project-**specific context for the proposed infrastructure.** Describe geologic conditions including topography, stratigraphy, faulting, and seismicity.
- **Hydraulic Analysis.** Evaluate the hydraulics of the proposed distribution system to **determine the hydraulic grade line under anticipated peak demand month flows.**
- **Cost Estimates.** Develop cost estimates including capital, annual operation and maintenance, replacement, and life-cycle costs as required for feasibility studies in Reclamation Manual Directives and Standards, Cost Estimating (FAC 09-01) and in alignment with the requirements specified in WTR TRMR 128.
- **Discharge Requirements.** Describe anticipated effluent treatment and disposal water quality requirements for the proposed project.



- **Alternative Measures or Technologies.** Identify and summarize alternative measures, or technologies available to the proposed project for water reclamation, distribution, and reuse.

#### **Task 2.4.5 Economic Analysis**

An economic analysis for the project will be conducted, including:

- A life-cycle cost analysis to compare the three alternatives to determine the most cost-effective alternative. The life-cycle costs analysis calculates annual capital costs of implementing alternatives over a 30-year and 100-year period of analysis using the current real discount rate and adds annual operations and maintenance costs.
- The economic benefits of the proposed project alternative relative to the No Project alternative using other water supply options, assuming costs are readily available. Water supply benefits of the proposed alternative will be calculated using the avoided costs from the non-recycled water alternative most likely to be implemented in the absence of the project.

In addition, the prime consultant will perform a non-quantifiable benefits analysis to qualitatively describe the difficult-to-quantify benefits such as drought tolerant water supply and other social or environmental benefits. These qualitative benefits will be incorporated as part of the justification for the Project in conjunction with the comparison of project costs.

#### **Task 2.4.6 Recommended Project Alternative**

Following Tasks 2.4.3 and 2.4.5, the prime consultant will score and rank the alternatives in coordination with Valley Water and perform a sensitivity analysis to determine the effects of scores and/or weighting on resulting ranks. Based on the outcome of this exercise, the prime consultant will recommend a project alternative.

#### **Task 2.4.7 Environmental Considerations and Potential Effects**

This task will provide an overview of anticipated potential environmental effects, regulatory requirements, and compliance measures. The analysis will focus on the selected Project alternative. Final environmental analysis (not part of this task) will be completed after a finding of feasibility. The following topics required by WTR 11-01 will be addressed at a reconnaissance level:

- **Potentially significant impacts,**
- **Potentially significant environmental effects,**
- Status of required environmental compliance measures,
- Measures necessary to comply with NEPA and other laws,
- Water supply and water quality,
- Public involvement, and
- Potential effects on historic properties.

#### **Task 2.4.8 Legal and Institutional Requirements**

This task will describe the project’s institutional framework, interactions with other agencies **and legal requirements. Significant information will be derived from the** planning-level engineering work completed to date. **Specific topics to be addressed include:**

- Water rights issues

- Legal and institutional issues
- Multi-jurisdictional or interagency agreements
- Permitting procedures
- Current and projected wastewater discharge requirements
- Rights to wastewater

#### **Task 2.4.9 Financial Capability of Sponsor**

Under this task, the prime consultant will summarize Valley Water’s financial capability to fund or repay their respective share of costs. The following information will be addressed:

- Proposed schedule for implementing the recommended project alternative.
- Willingness of the project sponsor to pay for its share of capital costs and the full operation, maintenance, and replacement costs.
- A plan for funding the recommended project alternative’s construction, operation, maintenance and replacement costs, including analyzing the project sponsor’s funding for such costs.
- Description of funding sources and restrictions on such sources.

Detailed analysis will be provided in the separate Financial Capability Report (Task 3 of this grant proposal) to demonstrate that Valley Water (the non-federal project sponsor) is **financially capable of funding the non-federal** share of the project’s costs before a funding agreement covering construction can be executed.

#### **Task 2.4.10 Research Needs**

Develop and summarize **potential research needs identified during the feasibility study.**

#### **Task 2.4.11 Independent Peer Review**

The feasibility study will be independently peer reviewed. The number of reviews, reviewers, and nature of commentary including comment resolution will be summarized.

### **Task 3 – Financial Capability Determination**

The purpose of the Financial Capability Determination is to develop a Reclamation-approved **financial analysis. Prior to federal funds being disbursed for project construction activities, a financial capability determination must be approved by Reclamation to ensure non-federal partners can provide their cost share. This task reflects an update to and expansion of information provided in the feasibility report.**

- Update Valley Water’s **financial statement data** to enable Reclamation reviewers to compare project investment costs to existing capital assets, project operation costs to current operation costs, and annual project revenue to existing revenues.
- Update **project cost allocation to reflect the current cost estimate, which defines the federal and non-federal shares for the Valley Water.**
- Collect information on the **non-federal financing plan and status from Valley Water** through emails and phone conference calls, or possibly at a meeting. The plans should include details and documentation both for funding of the non-federal share of construction (e.g., loans, grants, bonds) and for any required annual debt service and annual project operations costs (e.g., user fees and tax assessments).

- Coordinate with Reclamation and possibly meet with Reclamation staff to better understand review requirements identified in WTR 11-02; this shall be an opportunity to propose a level analysis based on what Valley Water has available and can provide.
- **Submit a draft financial capability report to Valley Water for their review.** If requested, Valley Water meetings will be scheduled to discuss comments. After making revisions based on Valley Water review, **the financial capability report will be submitted to Reclamation. Responses to Reclamation questions and comments will be prepared, and the financial capability report will be revised as necessary.**

#### **Task 4 – Pre-Final Design Activities and Coordination**

This task will allow Valley Water and the Partner Agencies to work with the Consultant on any site-specific investigations to gather design data, environmental and cultural resources compliance activities, as-needed pre-final design tasks, and other project related assessments that contribute towards project implementation.

#### **Task 5 – Grant Administration**

Administration and reporting will be done in coordination with Valley Water as the primary **fiscal agent for this** feasibility study. Administration consists of assisting all involved agencies with completing the feasibility study grant agreements and preparing semi-annual reports for the duration of this feasibility study.

#### **Technical Proposal: Evaluation Criteria**

##### **Evaluation Criterion 1 – Project Planning and Analysis (30 points)**

##### **Subcriterion No. 1a – Water Recycling Needs and Opportunities (15 Points)**

###### *1. Describe the problems and needs in the project area.*

Valley Water supplies wholesale water to Santa Clara County’s approximately 2 million residents and diverse water users, and a safe, reliable supply of clean water is vital for the environmental, economic, and social well-being of the county. Currently, about half of the water used in Santa Clara County is imported from outside the county, primarily through the State Water Project (SWP) and CVP (total about 40%) and the San Francisco Public Utilities Commission’s (SFPUC) Regional Water System (RWS) to retailers in the northern part of the county (about 10%). Local supplies make up the balance of overall water use, with about 30% local surface water and groundwater, 5% recycled water, and 15% water conservation. Northern San José and Santa Clara face future water supply reliability challenges related to a temporary, interruptible supply from SFPUC’s RWS.

Valley Water’s supply portfolio is vulnerable to future severe droughts since it relies primarily on imported and local surface water and has limited drought resilient supplies. The greatest challenge to Valley Water’s water supply reliability is multiple dry years when its main sources of supply become depleted as drought conditions persist. During the 2012-2016 drought and the ongoing current drought, Valley Water has faced challenges to meet its Level of Service goal due to greatly reduced local and imported water supply and had to rely on water use reductions and emergency transfers/ purchases to mitigate drought risks. Valley Water’s water supply challenges are expected to become greater with anticipated climate change, recurring droughts, growing population and businesses, and increasing

uncertainty about imported supply reliability. The past and ongoing droughts highlight the importance of and need for drought resilient supply such as water recycling and desalination to improve long-term water supply reliability. Therefore, it is imperative that Valley Water prepare for future droughts with more resilient water supply alternatives to continue providing Silicon Valley with safe, clean water for a healthy life, environment, and economy.

***2. Describe the current and projected water supplies and demands in the project area; include a discussion on supply and demand imbalances.***

Currently, countywide demand is approximately 310,000 AFY on average and projected to increase to 345,000 in 2045, as estimated by a 2020 Valley Water demand study. Demand increases will largely be driven by population increase and economic growth. In any given year, actual availability of each of Valley Water's existing sources of supply depends on hydrology, groundwater recharge operations, and conditions, among other factors. Generally, Valley Water's existing supply is sufficient to meet county-wide demand during normal years, but during critical dry years and multiple-year droughts, Valley Water faces water shortages and must rely on short-term actions such as calls for water use reduction and emergency transfers. To meet future demand, Valley Water plans to invest in maintenance of existing supplies and infrastructure and in a diverse suite of cost-effective projects including recycled water and potable reuse, stormwater capture, conservation, and new storage identified in its Water Supply Master Plan 2040 (WSMP). Valley Water's current projected future demand scenarios indicate that Valley Water will experience a water shortage starting 2030 without adding water supply sources. Recycled and purified water is identified as an essential component of Valley Water's water supply portfolio to ensure water supply reliability for the County through 2040.

Climate change impacts such as warming temperatures, shrinking snowpack, increasing weather extremes, and prolonged droughts pose significant challenges for water resources management. Climate change will impact both Valley Water's demands and sources of supply. As weather becomes drier and warmer in the future, Valley Water's long-range planning analysis indicates that climate change may increase annual demands to approximately 360,000-375,000 acre-feet (AF) by mid-century primarily by increasing outdoor irrigation needs across all water use sectors and cooling needs in the commercial, industrial, and institutional sector. On the supply side, climate change will impact water supply by changing the volume, timing, and quality of water that is available, both locally and statewide (imported water). Therefore, climate change will make Valley Water's problems worse by increasing its service area demand while decreasing its surface water supply. Through long-range master planning, Valley Water has been incorporating climate change impacts into demand projections and future supply analysis. In fact, climate change is one of key drivers of Valley Water's long-term investment. Water supply modeling indicates that locally developed and renewable water supplies such as the proposed AWPf are the most drought and climate resilient projects, and Valley Water is prioritizing investments in developing a water reuse program.

***3. Describe how the planning activities will investigate potential uses and markets for reclaimed or desalinated water.***

Currently, reclaimed water in northern Santa Clara County is used for municipal and industrial purposes, which helps free up other potable water supplies. There is existing steady demand for recycled water for applications including irrigation, dual plumbed toilets

and urinals, and cooling towers. In the future, purified water is envisioned to be expanded to support indirect and/or direct potable reuse.

To identify feasible opportunities for expanding reuse, Valley Water led development of a CoRe Plan for Santa Clara County. Through development of the CoRe Plan, Valley Water and participating partners (four wastewater treatment plants [WWTP] in the county) evaluated a wide range of water reuse opportunities. As part of this effort, Valley Water and participating partners built upon and integrated existing planning-level studies and reports to identify water reuse projects (potable and non-potable) that demonstrate regional benefit, contribute to regional resilience, and attain Valley Water’s potable reuse goal. Reuse projects were combined into alternatives (portfolios), primarily distinguished by wastewater source (i.e., Partner Agencies’ facilities) and reuse type, and then evaluated for feasibility. The CoRe Plan evaluated reuse alternatives that expand existing recycled water distribution systems for non-potable reuse (NPR) and explored full advanced treatment (purification) for potable reuse through groundwater recharge (GWR), raw water augmentation (RWA), and/or treated water augmentation (TWA).

The proposed feasibility study will further build on the work completed as part of the CoRe Plan, considering changes that have occurred following the plan’s finalization (e.g., regulatory framework for direct potable reuse, including RWA and TWA).

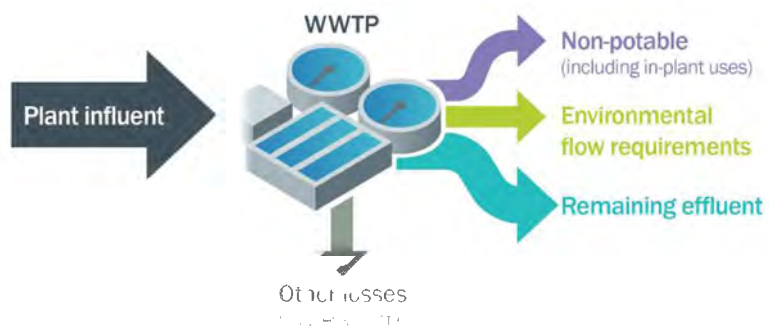
**4. Describe the source water considered for the project, including location, capacities, existing flows, treatment processes, and quantities of impaired water to meet the new recycled water demands.**

The source water to be considered under the proposed feasibility study is treated effluent from the RWF which is the largest advanced WWTP west of the Mississippi River. The RWF (Figure 1) treats wastewater flows from the cities of San José and Santa Clara (co-owners of the RWF); the cities of Milpitas, Cupertino, Los Gatos, Saratoga, and Monte Sereno; and County Sanitation District Nos. 2-3.

Valley Water and San José established an agreement in 2010 to construct the SVAWPC. The SVAWPC began operations in 2014 and currently produces purified water that is blended into the South Bay Water Recycling (SBWR) system to improve recycled water quality and reduce total dissolved solids, referred to as NPR+ (i.e., improved recycled water quality for non-potable reuse).

During the CoRe Plan development, Valley Water coordinated with San José to use a flow balance approach to estimate the availability of source water (treated effluent) for purification to support potable reuse (Figure 2).

Figure 3 displays future WWTP influent projections from 2019 and effluent needed to meet SBWR’s future NPR+ projections through 2040. Because no environmental flows or other losses were identified for the RWF, the remaining effluent available for discharge, blending, or additional reuse is calculated simply as the difference between the projected WWTP influent flows and NPR+ demands



**Figure 2. Flow balance approach for assessing availability of source water remaining for purification**

and estimated at 71 to 79 million gallons per day (MGD) on average (based on the range of influent projections). Wastewater availability may be impacted if environmental flow requirements are identified in the future.

As of 2019, the estimated remaining effluent available exceeded the ~30 MGD AWP feed flow needed to produce 24 MGD of purified water (considering treatment losses and a 90% online factor) and achieve Valley Water’s goal of developing 24,000 AFY for potable reuse. Despite seasonal flow variability, historical influent data suggest the RWF has sufficient effluent to produce 24 MGD of purified water year-round, though some effluent may be needed for future discharge, blending, or other uses.

The existing SVAWPC produces purified water for blending with tertiary effluent from the RWF to improve the water quality of SBWR’s non-potable recycled water.

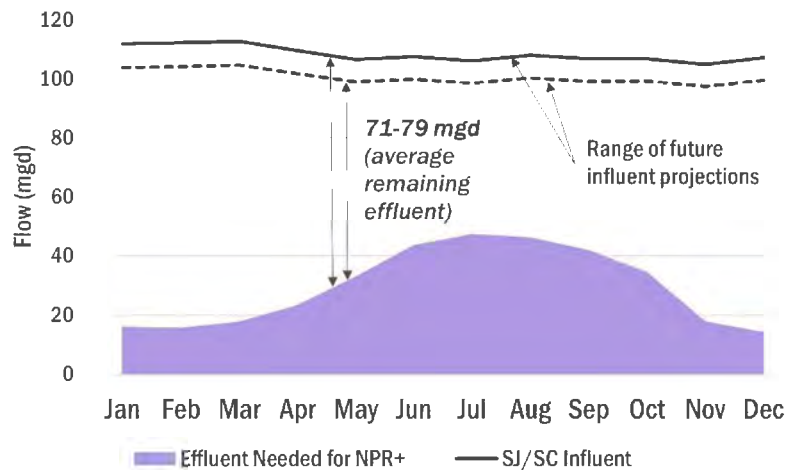


Figure 3. Projected flow conditions at RWF considering projected influent and SBWR NPR+ demands (2019 projections)

### Subcriterion No. 1b – Evaluation of Project Alternatives (15 Points)

#### 1. Describe the objectives that all alternatives will be designed to meet. What other water supply alternatives and project alternatives will be investigated?

Alternatives will be evaluated by comparing them to one another based on the following criteria that reflect key objectives:

- **Economics**, including a comparison of each alternative’s total unit cost (e.g., cost per acre-foot [\$/AF]) reflecting capital, operations and maintenance (O&M), and replacement (over an extended time period) costs of new treatment and conveyance facilities; estimated life-cycle costs as a present value and funding capability.
- **Groundwater management and countywide supply reliability**, including a comparison of each alternative’s potable reuse water supply (AFY) based on future estimated flows and design capacity; the number of delivery points included in the alternative; seasonality of potable reuse (PR) supply and delivery point capacity; the dry year drought reliability; and the ability to protect groundwater basin quality.
- **Environmental benefits/impacts and sustainability**, including energy consumption, used as a proxy for reducing carbon footprint and greenhouse gas emissions; environmental protection, from a discharge and reverse osmosis concentrate (ROC) management perspective; and environmental protection, from a more general California Environmental Quality Act (CEQA) and NEPA perspective.
- **Ease of implementation and permitting/regulatory considerations**, including each alternative having willing partner(s) interested in collaborating, providing ownership of wastewater, offering operational simplicity, minimizing difficulty in obtaining permits for PR, minimizing difficulty in obtaining permits for environmental regulations (including



ROC management and CEQA), being ready to proceed/reducing delays, gaining public acceptance/support, and supporting environmental and social justice/equity.

- **Engineering feasibility**, including using tested and proved technology, and meeting other water quality requirements without difficulty, such as source control and/or monitoring requirements.

***2. Describe how the planning activities will develop project alternatives (water supply sources, reuse strategies, or treatment technologies) that have been or will be investigated.***

The proposed feasibility study report will provide a framework for decision-making and integrated actions to increase the region's water supply reliability through water reuse. The approach for developing alternatives will include:

1. **Determine reuse supply availability.** Identify sources and amounts of water available for reuse; amount needed for environmental flows; the appropriate split between NPR and PR; and regional, Valley Water, and local-level benefits from NPR and PR.
2. **Identify projects for regional integration.** Formulate several project alternatives composed of project elements in two general categories: conveyance/ distribution facilities (i.e., pipelines and pump stations) and treatment facilities. Collaborate with partners on residuals management, permitting, and land use decisions. Optimize use of existing supply and infrastructure, improve system reliability and flexibility, and explore redefining sewersheds.
3. **Develop alternative layouts and cost estimates.** Determine treatment locations, treatment level, delivery points (where treated water is delivered for reuse), pipeline routes, wells, storage, and pumping facilities. Cost estimates will include capital, annual operation and maintenance, replacement, and life-cycle costs.
4. **Evaluate trade-offs and viability of project alternatives.** Determine acceptability, efficiency, effectiveness, and completeness of alternatives, and the climate change impacts of each alternative. Analysis includes effects on the environment and legal/institutional requirements.
5. **Solicit input and generate regional support via coordination, third-party review, and stakeholder outreach.** Improve public perception of water reuse through outreach programs.

***3. Provide a general description of the selected project, including project features, benefits, anticipated costs, and analyses conducted.***

A San José-Santa Clara Purified Water Project centers on using available effluent from the RWF to feed a new AWPf adjacent to the existing SVAWPC. At this location, SVAWPC staff could potentially support new AWPf operation due to proximity. A benefit of using RWF effluent as source water is that its flows are more than sufficient to meet Valley Water's goal for yield. Depending on the form of potable reuse selected, purified water could be delivered to one or more of the following delivery points:

- **For GWR:** Valley Water's Los Gatos Recharge System (LGRS). Estimated capital cost is \$655M (in 2019 \$).
- **For RWA:** Valley Water's Penitencia Water Treatment Plant (WTP), and from there, existing infrastructure could support operational flexibility, such as delivery to LGRS or Rinconada WTP (with additional costs for improvements needed to connect existing systems), pending regulatory approval. Estimated capital cost is \$650M (in 2019 \$).

- **For TWA:** Northern parts of Santa Clara and San José could receive purified water for TWA to supplement water supply. For other water retailers, purified water would flow south through either: (a) the existing Milpitas Pipeline, serving several turnouts upstream of Piedmont Valve Yard before blending with other treated supplies and distributing via the East Pipeline, or (b) a new dedicated pipeline before blending with other treated supply and distributing via the Milpitas Pipeline (flowing north) and the East Pipeline. Existing infrastructure could support potential operational flexibility, such as delivery to LGRP or Rinconada WTP (with additional costs for improvements needed to connect existing systems), pending regulatory approval. Estimated capital cost is \$555M to \$605M (in 2019 \$).

Valley Water has performed preliminary engineering, regulatory review, and cost estimating for these alternatives.

**4. Include a preliminary schedule showing major tasks, milestones, and dates for the planning, design, and construction activities related to the project.**

The schedule for the 24-month project is presented in Figure 4.

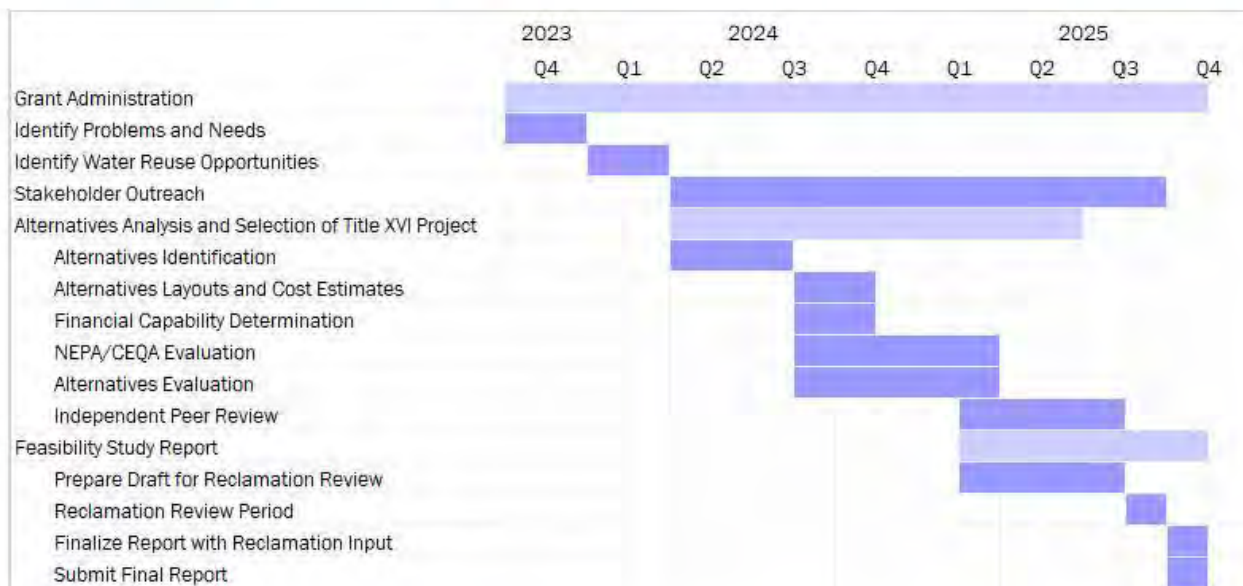


Figure 4. San José-Santa Clara Purified Water Feasibility Study Schedule

**Evaluation Criterion 2 – Stretching Water Supplies (20 points)**

**1. Describe the potential for the project to reduce, postpone, or eliminate the development of new or expanded non-recycled water supplies.**

Valley Water's demands are projected to increase from current 310,000 AFY to 345,000 AFY in 2045, as documented in the 2020 Demand Study. Population growth will largely drive this demand and the Association of Bay Area Governments projects an increase in population of approximately 500,000 for Santa Clara County. Valley Water's long-range planning indicates without new supply, Valley Water could face water shortage starting in 2030. To help meet this demand, Valley Water's Board of Directors set an initial goal of meeting 10% of the County's total water demands through reuse by 2025 and a goal of producing 24,000 AFY of purified water for potable reuse by 2040.



The City of San José's 2020 UWMP also anticipates an increase in water demand based on the proposed development identified in the San José's General Plan (Envision San José 2040). Population in the areas served by the San José Municipal Water System (SJMWS) is projected to increase by approximately 90,000 over the next 25 years (starting in 2020). Over the last 20 years (2000-2020), SJMWS averaged approximately 440 new service connections per year. In 2020, the SJMWS service area water use totaled 17,546 acre-feet (AF) of potable water and 4,097 AF of recycled water. Based on the population and jobs growth rates outlined in their General Plan, San José projects potable water use will increase to 33,552 AF and recycled water use to 7,413 AF.

Valley Water's proposed AWPf has the potential to produce 24 MGD for groundwater recharge and yield about 24,000 AFY of supply. It could offset demand for potable water supplies and, therefore, have the potential to reduce, postpone, or eliminate the development of new or expanded non-recycled water supplies.

***2. Describe the potential for the project to alleviate pressure on existing water supplies and/or facilities.***

Valley Water manages water supply and storage with a combination of local groundwater basins, local reservoirs, imported water, and water reuse.

Natural groundwater recharge provides about 61,000 AFY on average for Santa Clara County. Water supply modelling assumes groundwater can be drawn down to the severe stage of the Water Shortage Contingency Plan, but this does not represent a sustainable long-term groundwater condition.

Valley Water manages local reservoirs which are currently constrained by operating restrictions for seismic safety and are only able to supply an average of about 44,000 AFY. By 2040, surface water supplies are projected to provide about 83,000 AFY.

Imported water makes up a significant portion of water supply in Santa Clara County. Valley Water has a contract for 100,000 AFY of SWP water and 152,500 AFY of CVP water. However, there is declining Delta-conveyed imported water reliability and Valley Water anticipates allocations to drop to an average of 133,000 AFY by 2040.

In addition, the City of San José operates the South Bay Water Recycling (SBWR) Program which delivers disinfected tertiary treated wastewater through a distribution system consisting of over 150 miles of pipeline. Valley Water contributes a small amount of purified water for blending with SBWR supply from its adjacent SVAWPC.

Valley Water's proposed AWPf will positively impact supply sources by reducing the demand for imported water supply and water stored in reservoirs and groundwater aquifers. The project may specifically benefit the Los Gatos recharge ponds and connected groundwater aquifer by enhancing supply with advanced purified water conveyed through a newly constructed pipeline. The AWPf could also offset demand with RWA contributions to Valley Water's Penitencia WTP and TWA contributions through blending with other treated supplies and distributing via the existing or new pipelines.

***3. Describe the potential for the project to make water available to address a specific concern. Explain the specific concern and its severity. Also explain the role of the project being investigated in addressing that concern and the extent to which the project will address it.***

The proposed Valley Water AWPf will address water supply reliability and shortage concerns. Valley Water supplies are vulnerable to drought, climate change, and outage of supply

infrastructure. Valley Water's WSMP predicts a shortage by 2030 and identifies expansion of recycled and purified water as a primary strategy to address this shortage. Operational and regulatory constraints related to dam safety, flood risk, and flow levels for fisheries and water quality can also impact water supplies. Additionally, SJMWS projects that a dry year or multiple dry years would result in a supply shortage that would trigger the need to implement conservation measures. SJMWS could experience cumulative supply shortages between approximately 5-10% during a multi-year drought.

The proposed AWPf would serve as an alternative supply to provide reliability during periods of drought which could offset the projected dry-year supply shortfalls for San José and Santa Clara. The AWPf would be able to generate supply by purifying tertiary treated water from the RWF and conveying purified water to the Los Gatos recharge system. During dry periods, the recharge system recedes and opens more space for purified water to recharge the groundwater aquifer. The Los Gatos recharge system and associated groundwater aquifers would be able to provide supply of indirect potable reuse to meet demands while maintaining sustainable groundwater levels.

***4. Describe the potential for the project to help create additional flexibility to address drought. Will water made available by the project being investigated continue to be available during periods of drought? To what extent is the water made available by the project being investigated more drought resistant than alternative water supply options? Explain.***

The AWPf would create additional flexibility to address drought with a sustainable source of water that is available in all years and more drought resistant than other water supply options that are typically impacted by droughts. If constructed, the AWPf would produce 24 MGD for groundwater recharge and yield about 24,000 AFY of supply in all years. Because the source is tertiary treated wastewater that is further purified, it will be available during drought periods. It is more drought resistant than alternative water supplies because it is not dependent on rainfall and is less vulnerable to surface water supply constraints such as minimum flow requirements.

### **Evaluation Criterion 3 – Environment and Water Quality (20 points)**

***1. Describe the project's potential to improve the quality of surface water or groundwater.***

In the 1990s, projected population growth and the effluent discharge limitations set by the RWF's National Pollutant Discharge Elimination System (NPDES) permit inspired San José and Valley Water to collaborate on the SBWR system to reuse tertiary treated effluent from the RWF for non-potable purposes. Originally, SBWR was constructed to comply with regulations protecting salt marsh habitat by reducing effluent discharges to the San Francisco Bay. In short order, SBWR's water supply benefits became evident.

The NPDES permit for the RWF limits dry weather influent flow to no more than 167 MGD to limit treated effluent releases and protect the brackish estuarine water quality in the South San Francisco Bay. The proposed project may improve surface water quality in Artesian Slough, Coyote Creek, and the South San Francisco Bay by reducing the volume of effluent discharged by the RWF and diverting it to the proposed new AWPf for reuse.

Artesian Slough, where the RWF outfall discharges effluent, is not listed as impaired, although South San Francisco Bay is listed as impaired by chlordane, dieldrin, dioxin compounds, dichlorodiphenyltrichloroethane (DDT), invasive species, furan compounds, mercury, polychlorinated biphenyl (PCB), dioxin-like PCBs, and selenium. The RWF discharge

is not a significant source of chlordane, DDT, dieldrin, or invasive species, but effluent limitations on mercury, PCBs, dioxins, and furans in effluent must be monitored.

The Regional Water Quality Control Board and State Water Board acknowledge that discharges to Artesian Slough are not supportive of estuarine habitat and that relocating the discharge north of the Dumbarton Bridge is not economically or environmentally sound. Thus, the water boards allow discharges to Artesian Slough. The San Francisco Bay south of the Dumbarton Bridge is a unique water body, with a limited capacity to assimilate wastewater. Due to limited circulation, wastewater discharges to this area may take several months to reach the ocean. In addition, the unique wetlands and ambient conditions of South San Francisco Bay sometimes result in natural dissolved oxygen levels lower than the Basin Plan's receiving water limit of a minimum of 5.0 mg/L. The limited assimilative capacity of South San Francisco Bay necessitates effluent BOD and TSS limitations that are more restrictive than those required for secondary treatment. Diverting as much flow as possible for reuse as part of the proposed project is expected to yield water quality and habitat benefits.

In addition to surface water quality benefits, purified water will likely be used, at least in part, to augment the Santa Clara Valley groundwater subbasin. If used to recharge, purified water may improve groundwater quality incrementally over time with respect to specific contaminants. Purified water from the Silicon Valley Advanced Water Purification Center, which also uses RWF source water and is treated using FAT, is of higher quality for many constituents than Santa Clara Valley groundwater samples on average, and the proposed project's purified water will be required to meet all drinking water quality Maximum Contaminant Levels and secondary Maximum Contaminant Levels set by the US Environmental Protection Agency. Contaminants such as chloride, chromium-6, arsenic, barium, nickel, total dissolved solids, and nitrate are present in groundwater and levels of these are expected to be lower in the project's purified water used for groundwater augmentation.

## ***2. Describe the potential for the project to improve effluent quality beyond levels necessary to meet State or Federal discharge requirements.***

The role of the WWTP has shifted in the context of PR. Whereas it has historically sought to make waters suitable for environmental discharge, it is now viewed as the first and critical barrier to creating a high-quality and consistent feedwater for the AWP (Olivieri et al. 2016, Tchobanoglous et al. 2015). The State Expert Panel recommended that WWTPs feeding direct potable reuse AWP provide both biological nutrient removal and tertiary filtration (Olivieri et al. 2016). Improvements to water quality may:

- provide greater degrees of pathogen reduction or inactivation,
- decrease the concentration of organic compounds and constituents of emerging concern (CECs), and/or
- improve the performance of downstream processes.

Ozone and biologically activated carbon (O<sub>3</sub>/BAC) pre-treatment included in the proposed treatment train can also improve the quality of the overall effluent stream released to the Bay, including blended ROC. O<sub>3</sub>/BAC breaks down, biodegrades, and removes organic compounds before the reverse osmosis (RO) separates those compounds into the concentrate stream. With O<sub>3</sub>/BAC pre-treatment, both the RO feed and the concentrate have lower concentrations of organic contaminant material. This additional benefit of O<sub>3</sub>/BAC pre-

treatment may allow for easier RO concentrate management and discharge, particularly regarding the control of toxic organic compounds and CECs (Kenny, J. et al. 2018).

***3. Describe the potential for the project to improve flow conditions in a natural stream channel.***

Los Gatos Creek flow may be used to recharge Los Gatos Recharge Ponds, and if purified water from the proposed project is used for recharge, creek flows could be maintained at higher levels and used for additional habitat restoration purposes.

If purified water is used for GWR, RWA, or TWA, reliance on imported water from the CVP and SWP could be reduced. Although the individual project won't make a huge impact toward restoring flows immediately, it can contribute towards maintaining flows in stream channels throughout the state such as the Trinity River, Sacramento River, San Joaquin River, Feather River, Tuolumne River, and the Sacramento-San Joaquin Delta.

***4. Describe potential for the project to restore or enhance habitat for non-listed fish and wildlife species.***

Leaving water in Los Gatos Creek could enhance habitat for non-listed species such as ducks (American Wigeon, Ring-necked Duck, Lesser Scaup, Bufflehead, Common Goldeneye, Hooded and Common Merganser), Common Gallinule, Wilson's snipe, Gulls (Ring-billed, California, Herring, Iceland, Glaucous-winged), herons and egrets, Belted Kingfisher, and Cedar waxwing (Santa Clara Valley Audubon Society, 2022).

Streams that feed the CVP, SWP, and SFPUC RWS provide water and habitat for many non-listed waterfowl, turtles, insects, and fish, and leaving water in those streams may enhance habitat for a variety of wildlife that use the streams.

***5. Describe potential for the project to provide water or habitat for federally listed threatened or endangered species.***

Leaving water in Los Gatos Creek would enhance habitat for federally-listed species such as Central California Coast steelhead DPS, Pacific lamprey, Southern coastal roach, Western Pond turtle, tricolored blackbird, golden eagle, western snowy plover, northern harrier, white-tailed kite, peregrine falcon, San Francisco common yellowthroat, bald eagle, and San Francisco dusky-footed woodrat.

The Delta is home to over 750 animal and plant species, many of them threatened or endangered. Leaving water in streams that feed the CVP, SWP, and SFPUC RWS could provide water and habitat for federally listed threatened or endangered species such as Central California Coast steelhead DPS, Central Valley fall-run Chinook salmon ESU, Pacific lamprey, Southern coastal roach, and Western Pond turtle.

**Evaluation Criterion 4 – Department of Interior Priorities (15 points)**

***Please describe how the project will address climate change. Provide specific details and examples on how the project will address the impacts of climate change and help combat the climate crisis.***

To adapt to increasing uncertainties and secure a reliable, sustainable water supply for the region's future, Valley Water's Board of Directors set a goal to meet at least 10% of Santa Clara County's total water demands with recycled and purified water for non-potable and potable reuse by 2025 to improve resilience to future uncertainties, including drought and climate change. The Board also established a long-term goal of producing a total of 24,000 AFY of purified water for potable reuse (drinking water) to bolster supplies. Complementing



the potable reuse goal, Valley Water estimates that 28,000 AFY of 2045 demand will be met with recycled water for NPR.

This project will produce a locally sourced, drought-resistant, and climate-resilient water supply that addresses future shortages predicted by Valley Water's WSMP and may reduce reliance on the CVP and SWP. In addition, this project will help protect the groundwater basin and prevent further land subsidence in the Santa Clara County.

***Does this proposed project strengthen water supply sustainability to increase resilience to climate change? Does the proposed project contribute to climate change resiliency in other ways not described above?***

Valley Water currently relies on imported water for about half of its total supply, which is especially vulnerable to the effects of climate change. To ensure long-term water supply reliability in facing of climate change, Valley Water must diversify local water supply, and expand climate resilient, local sources of water, such as reuse and water conservation. NPR is a fit-for-use strategy that reduces use of potable supply for purposes that do not involve human consumption and/or contact. While NPR is an important aspect of water resources management, the focus of this feasibility study relates to purifying water for potable reuse, which offers the promise of a new drought-resistant local supply to improve climate change resilience and address future shortages. The delivery point(s) for purified water will be evaluated through this feasibility study to determine the most beneficial type of reuse for strengthening resilience in the face of climate change impacts.

***Will the proposed project serve or benefit a disadvantaged or historically underserved community? Benefits can include, but are not limited to, public health and safety by addressing water quality, new water supplies, or economic growth opportunities.***

Yes. The proposed project would directly benefit communities are identified as disadvantaged by developing a new potable water supply. The purified water would reduce dependence on imported water supplies and improve regional reliability by introducing a new local drought-resistant source. Furthermore, this additional water supply will reduce dependence on groundwater and protect the groundwater basin from further land subsidence in the low-lying areas of the Santa Clara County.

***Please describe how the community is disadvantaged based on a combination of variables (see NOFO).***

In 2012 Senate Bill (SB) 535 established initial requirements for minimum funding levels to disadvantaged communities as part of California's Cap and Trade Program that was authorized by the California Global Warming Solutions Act of 2006. As part of SB 535, the California Environmental Protection Agency (CalEPA) was tasked with identifying these communities based on geographic, socioeconomic, public health, and environmental hazard criteria. As shown in Figure 5, several of these communities can be found in both San José and Santa Clara. Communities in the red shaded areas are disproportionately affected by environmental pollution and other hazards that can lead to negative public health effects exposure, or environmental degradation and contain areas with concentrations of people that are of low income, high unemployment, low levels of homeownership, high rent burden, sensitive populations, and/or having low levels of educational attainment.

***If the proposed project is providing benefits to an underserved community, provide sufficient information to demonstrate that the community meets the underserved definition in E.O. 13985.***

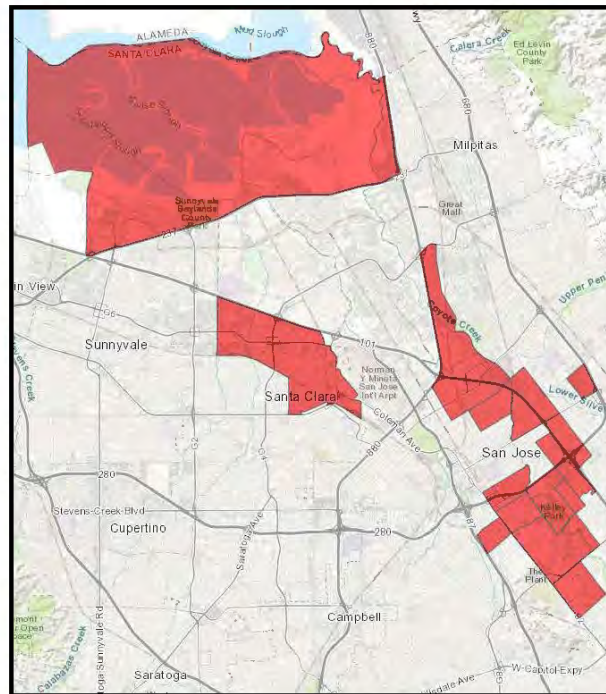
As shown in Figure 5, the study area contains large portions of communities that are considered disadvantaged per the criteria under SB 535. The policies under SB 535 are aimed at improving public health, quality of life and economic opportunity in California’s most burdened communities, and at the same time, reducing pollution that causes climate change. Many of these areas are home to minorities, high concentrations of people with low income, low levels of homeownership, and high rent areas. These are the same populations E.O. 13985 defines as being “undeserved communities”.

***Does the proposed project directly serve and/or benefit a Tribe? Will the project improve water management for an Indian Tribe?***

The proposed project does not directly benefit a Tribe, although benefit opportunities can be examined as part of the Feasibility Study.

***Does the proposed project support Tribal resilience to climate change and drought impacts or provide other Tribal benefits such as improved public health and safety by addressing water quality, new water supplies, or economic growth opportunities?***

There are no Tribal communities in the project area, although opportunities for Tribal benefits can be examined as part of the Feasibility Study.



**Figure 5. Senate Bill 535 Disadvantaged Communities in Study Area as of 2022**

**Evaluation Criterion 5 – Watershed Perspective (15 points)**

***1. Will the proposed project implement a regional or state water plan or an integrated resource management plan? Explain.***

Yes. The project concepts being proposed for this feasibility study were included in both Valley Water’s WSMP and the recently completed CoRe Plan. The WSMP establishes Valley Water’s strategy for providing a reliable and sustainable water supply in a cost-effective manner. It informs investment decisions by describing the type and level of water supply investments Valley Water is planning to make through 2040. Included in the WSMP are a portfolio of water supply projects that include potable reuse concepts that this feasibility study would aim to help implement. This water reuse project was also included in the CoRe Plan. The CoRe Plan is a regional planning effort that saw Valley Water partner with cities, water retailers, and stakeholders in the County to integrate and expand recycled and purified water as a local, reliable, environmentally adaptive, drought-resilient water supply. The feasibility study would further assess this potential project and move it closer to implementation. The overarching framework for the CoRe Plan was Valley Water’s WSMP.

The proposed project help advance the goals and objectives of the San Francisco Bay Area Integrated Regional Water Management Plan by improving water supply reliability and quality through development of new drought-resilient source of water supply.

***2. Will the project help meet water supply needs of a large geographic area, region, or watershed? Explain.***

Yes. Purifying recycled water would provide a drought-resilient, locally controlled water supply that would help Valley Water meet the needs of the County (area spanning over 1,300 square miles, see Figure 1) now and into the future. This project would not only help reduce regional reliance on imported water supplies but by increasing the amount of purified water, this project would stimulate more conjunctive use which would help promote the long-term sustainability of the region's groundwater basins.

***3. Will the proposed project promote collaborative partnerships to address water-related issues? Explain. Describe stakeholder involvement in the project planning process.***

Yes. The proposed feasibility study would promote continued collaborative efforts around this potable reuse project. Valley Water and the Cities of San José and Santa Clara have a long history of collaboration on recycled water, including the construction of the SVAWPC which opened in 2014. Planning for this project started in 2018 when Valley Water and the Partner Agencies began work on the CoRe Plan, a collaborative strategy to integrate and expand recycled and purified water as a local, reliable, environmentally adaptive, drought-resilient water supply. The benefits that this project would provide the region are well documented under other criteria in this document. However, of equal importance are the benefits of learning to work together as a region – beyond service areas, political, and district boundaries – to understand that all agencies, wastewater agencies, water districts, cities, and other relevant stakeholders need to work together on water supply reliability.

As conducted in the CoRe plan, stakeholders will be invited to participate early in the process and at key decision points to help build support and pave the way towards implementation. This approach will allow parties to collaborate on, refine, and construct a drought-resilient and sustainable water source that meets multiple needs for the region. It also facilitates leveraging local, state, and federal funding sources to realize projects and benefits that would be out of local entities' reach without regional collaboration.

***4. Will the project include public outreach/opportunities for the public to learn about the project? Explain.***

Yes. The proposed project will include an extensive public outreach and stakeholder engagement program. Valley Water's website (<https://www.valleywater.org/your-water/recycled-and-purified-water>) offers educational videos, photos, maps, project descriptions, access to reports and documents, and education about recycled and purified water. Valley Water and the Partner Agencies also run and operate the SVAWPC (<https://purewater4u.org/about-svawpc/>), which is the largest advanced water purification facility in Northern California. This facility has not only allowed for the testing and demonstration of advanced treatment technologies for producing purified water but is also being leveraged as a venue for potable reuse public education. Public awareness, understanding, and support are integral to the success of any potable reuse program and often present a greater challenge to implementation compared to technical feasibility. These challenges are not insurmountable; though, successful public outreach requires careful planning, cohesion among partners, commitment to consistent and transparent communication, and follow-through. The CoRe Plan identified various outreach objectives and potential future actions that will be considered when developing the public outreach program. Valley Water plans on developing this program in close collaboration with the Partner Agencies and their respective locally elected officials and policymakers.



## Required Permits or Approvals

The permits required for the construction of the proposed project will depend on the final design selected. The project will likely need to procure the federal, state, and regional/local permits summarized in Table 1 (ESA, 2022).

Table 1. Anticipated Permits and Approvals	
Anticipated Permit or Approval	Agency
<b>Federal</b>	
Clean Water Act section 404 permit	U.S. Army Corps of Engineers
Endangered Species Act authorization	National Marine Fisheries Service U.S. Fish and Wildlife Service
Section 106 of the National Historic Preservation Act	California Office of Historic Preservation
<b>State</b>	
Section 1602 lake and streambed alteration agreement	California Department of Fish and Wildlife
Right-of-way permit	California Department of Transportation
Approval prior to change of discharge, place of use, and purpose of use of treated wastewater Clean Water and Drinking Water State Revolving Fund loan	State Water Resources Control Board
Clean Water Act section 401 water quality certification Porter-Cologne Water Quality Control Act NPDES permit and waste discharge requirements Construction General Permit and Industrial General Permit coverage	Central Coast Regional Water Quality Control Board
Title 22 section 60320.108, Groundwater Replenishment Regulations	San Francisco Bay Regional Water Quality Control Board and State Water Resources Control Board, Division of Drinking Water
<b>Regional and Local</b>	
Project approval – CEQA lead agency Well permit(s)	Valley Water
Project approval – CEQA responsible agency Building Permit Sewer Use Permit Permanent easement and encroachment permit, approval of traffic control plans	City of San José and City of Santa Clara
Permit to construct and permit to operate emergency stationary diesel engines	Bay Area Air Quality Management District
Santa Clara Valley Habitat Conservation Plan and Natural Communities Conservation Plan compliance	Santa Clara Valley Habitat Agency
Grading permit, approval of traffic control plans	Santa Clara County



## Project Budget

### Funding Plan and Letters of Commitment

*Describe how the non-Federal share of project costs will be obtained. Reclamation will use this information when making a determination that the applicant meets the cost share requirements identified in C.3 Cost Sharing Requirements.*

The non-federal share of funding for project costs will be covered through Valley Water revenue from the sale of water to its customers. Table 2 summarizes funding sources for the proposed project requesting federal funds through this funding opportunity.

Table 2. Total Project Cost	
Funding Sources	Amount
Federal: Requested Reclamation funding	\$381,249
Non-federal	\$1,143,747
<b>TOTAL</b>	<b>\$1,524,996</b>

*Project funding provided by a source other than the applicant shall be supported with letters of commitment from these additional sources. Letters of commitment shall identify the following elements:*

- The amount of funding commitment.*
- The date the funds will be available to the applicant.*
- Any time constraint on the availability of funds.*
- Any other contingencies associated with the funding commitment.*

*Commitment letters from third-party funding sources should be submitted with your project application. If commitment letters are not available at the time of the application submission, provide a timeline for submitting all commitment letters. Cost-share funding from sources outside the applicant's organization (e.g., loans or State grants) should be secured and available to the applicant prior to award.*

*Reclamation will not execute a financial assistance agreement until non-Federal funding has been secured or Reclamation determines that there is enough evidence and likelihood that non-Federal funds will be available to the applicant after executing the agreement.*

### Funding Commitment Letters

No time constraints apply to the non-federal share of project costs, and there are no other contingencies associated with this funding commitment.

In addition to Valley Water's commitment to fund this project, the City of San José and the City of Santa Clara will provide non-federal funding in the form of in-kind staff support, as documented in the funding commitment letter(s) below.

Further, Valley Water, San José, and Santa Clara recently executed a Letter of Intent (signed January 31, 2023) to reflect their collective intent to negotiate in good faith a collaborative agreement for the development of a joint water reuse project(s) that expands upon the existing collaborative efforts related to the SVAWPC for the purpose of improving water supply reliability in the Santa Clara County in the face of climate change impacts.

February 27, 2023

Bureau of Reclamation  
Financial Assistance Operations Section  
Attn: NOFO Team  
P.O. Box 25007, MS 84-27133  
Denver, Colorado 80225

**RE:** Funding Commitment Letter for Valley Water's San José-Santa Clara Purified Water Project Feasibility Study Application for Funding Assistance under WaterSMART: Water Recycling and Desalination Planning (NOFO No. R23AS00076)

Dear Application Review Committee members:

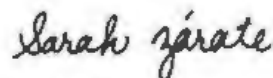
The City of San José is submitting this letter documenting its funding commitment in support of the San José-Santa Clara Purified Water Project Feasibility Study grant application submitted to the Bureau of Reclamation's WaterSMART Water Recycling and Desalination Planning funding opportunity for Fiscal Year 2023.

The City of San José is in full support of the development of the Santa Clara Valley Water District's (Valley Water's) San José-Santa Clara Purified Water Project Feasibility Study and agrees with Valley Water that regional solutions are needed to build drought resilience. The City of San José has worked with Valley Water (the county's primary water resources agency) since 1992 to develop recycled water to offset use of the potable water supply.

- The amount of funding commitment – We are committed to providing staff support equating to a value of \$27,000 to continue ongoing water reuse planning efforts and evaluate the feasibility of further expanding reuse for our Silicon Valley communities and improve reliability through a drought-resilient supply.
- The date the funds will be available to the applicant – Our in-kind staff support will be available upon execution of the grant agreement between Valley Water and Reclamation, estimated to be October 2023, and subject to the same terms and conditions in the grant.
- Any time constraints on the availability of funds – Our in-kind staff support will continue through the 24-month duration of developing the feasibility study.
- Any other contingencies associated with the funding commitment – No other contingencies apply.

We thank you for your consideration.

Sincerely,



Sarah Zárate  
Director, Office of Administration, Policy, and  
Intergovernmental Relations



February 21, 2023

Bureau of Reclamation  
Financial Assistance Operations Section  
Attn: NOFO Team  
P.O. Box 25007, MS 84-27133  
Denver, Colorado 80225

**Subject:** Funding Commitment Letter for Valley Water's San José-Santa Clara Purified Water Project Feasibility Study Application for Funding Assistance under WaterSmart: Water Recycling and Desalination Planning (NOFO No. R23AS00076)

Dear Application Review Committee members:

The City of Santa Clara is submitting this letter documenting its funding commitment in support of the San José-Santa Clara Purified Water Project Feasibility Study grant application submitted to the Bureau of Reclamation's WaterSMART Water Recycling and Desalination Planning funding opportunity for Fiscal Year 2023.

The City of Santa Clara is in full support of the development of Valley Water's San José-Santa Clara Purified Water Project Feasibility Study and agrees with Valley Water that regional solutions are needed to build drought resilience. The City of Santa Clara has worked with Valley Water (the county's primary water resources agency) since 1992 to develop recycled water to offset use of the potable water supply.

- The amount of funding commitment – We are committed to providing staff support equating to a value of \$27,000 to continue ongoing water reuse planning efforts and evaluate the feasibility of further expanding reuse for our Silicon Valley communities and improve reliability through a drought-resilient supply.
- The date the funds will be available to the applicant – Our in-kind staff support will be available upon execution of the grant agreement between Valley Water and Reclamation, estimated to be October 2023.
- Any time constraints on the availability of funds – Our in-kind staff support will continue through the 24-month duration of developing the feasibility study.

Bureau of Reclamation Financial Assistance Operations Section  
Re: Funding Commitment Letter for Valley Water's San José-Santa Clara Purified Water Project  
Feasibility Study Application for Funding Assistance (NOFO No. R23AS00076)

February 21, 2023  
Page 2 of 2

- Any other contingencies associated with the funding commitment – No other contingencies apply.

Thank you for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to be a stylized name, possibly "M. J. ...".

Office of the City Manager  
City of Santa Clara

# Budget Proposal

The total project cost is the sum of all allowable costs, including all required cost-sharing and voluntary committed cost-sharing and third-party contributions that are necessary to complete the proposed activities. Include the following chart (table 1) to summarize all funding sources and denote in-kind contributions with an asterisk (\*).

The total project budget is \$1,524,996. Table 3 summarizes the non-federal and federal funding sources. Valley Water’s funding will be available October 2023, and no time constraints apply on the availability of funds through the duration of the two-year project schedule.

Table 3. Summary of Non-Federal and Federal Funding Sources	
Funding Sources	Amount
Non-Federal Entities	
1. Valley Water direct contribution	\$818,751
2. Valley Water in-kind contribution*	\$270,996*
3. City of San José, third-party in-kind contribution*	\$27,000*
4. City of Santa Clara, third-party in-kind contribution*	\$27,000*
<b>Non-Federal subtotal</b>	<b>\$1,143,747</b>
<b>REQUESTED Reclamation Funding</b>	<b>\$381,249</b>

\* Asterisk denotes in-kind contribution

The budget proposal should include detailed information on the categories listed below, and it must clearly identify all items of cost, including those that will be contributed as a non-Federal cost share by the applicant (required and voluntary), third-party in-kind contributions, and those that will be covered using the funding requested from Reclamation, and any requested pre-award costs (table 2).

## Budget Narrative

The total project cost is summarized in Table 4.

Source	Amount
Costs to be reimbursed with the requested Federal funding	\$381,249
Costs to be paid by the applicant	\$1,089,747
Value of third-party contributions	\$54,000
<b>Total project cost</b>	<b>\$1,524,996</b>

Total project cost is \$1,524,996. Table 5 summarizes the budget by category, while Table 6 presents a breakdown of costs and funding source for each category.

Budget Object Category	Total Cost	Federal Estimated Amount	Non-Federal Estimated Amount
a. Personnel	\$148,899		
b. Fringe Benefits	\$122,097		
c. Travel	\$0		
d. Equipment	\$0		
e. Supplies	\$0		
f. Contractual	\$1,200,000		
g. Construction	\$0		
h. Other Direct Costs	\$54,000		
i. Total Direct Costs	\$1,524,996		
j. Indirect Charges	\$0		
<b>Total Costs</b>	<b>\$1,524,996</b>	<b>\$381,249</b>	<b>\$1,143,747</b>
<b>Cost Share Percentage</b>		<b>25%</b>	<b>75%</b>

**Table 6. Budget Proposal for Valley Water**

Budget Item Description	Qty	Unit	Unit Cost	Reclamation Funding	Recipient Funding	Total Cost
<b>a. Personnel</b>	528	hours	--	\$-	\$148,899	\$148,899
Senior Project Manager, Hossein Ashktorab	96	hours	\$101.21/hour	--	\$9,716	\$9,716
Associate Engineer, David Tucker	960	hours	\$79.05/hour	--	\$75,888	\$75,888
Assistant Engineer	960	hours	\$61.74/hour		\$59,270	\$59,270
Administrative Assistant	96	hours	\$41.92/hour	--	\$4,024	\$4,024
<b>b. Fringe Benefits</b>	82	%	\$148,899	\$-	\$122,097	\$122,097
Senior Project Manager, Hossein Ashktorab	82	%	\$9,716	--	\$7,967	\$7,967
Associate Engineer, David Tucker	82	%	\$75,888		\$62,228	\$62,228
Assistant Engineer	82	%	\$59,270	--	\$48,602	\$48,602
Administrative Assistant	82	%	\$4,024	--	\$3,300	\$3,300
<b>c. Travel</b>				\$-	\$-	\$-
<b>d. Equipment</b>				\$-	\$-	\$-
<b>e. Supplies/Materials</b>				\$-	\$-	\$-
<b>f. Contractual</b>				\$381,249	\$818,751	\$1,200,000
Lead Consultant for Feasibility Study and Financial Capability Determination				\$381,249	\$568,751	\$950,000
Facilitator / Stakeholder Engagement and Outreach Consultant				--	\$100,000	\$100,000
Third Party Review				--	\$50,000	\$50,000
Consultant Pre-Final Design Activities and Coordination				--	\$100,000	\$100,000
<b>g. Construction</b>				\$-	\$-	\$-
<b>h. Other Direct Costs</b>				\$-	\$54,000	\$54,000
City of San José in-kind staff support				--	\$27,000	\$27,000
City of Santa Clara in-kind staff support				--	\$27,000	\$27,000
<b>i. Total Direct Costs</b>				\$381,249	\$1,143,747	\$1,524,996
<b>j. Indirect Costs</b>				\$-	\$-	\$-
<b>Total Project Costs</b>				\$381,249	\$1,143,747	\$1,524,996
<b>Cost Share Percentage</b>				25%	75%	100%

A narrative summary of costs follows. If selected for award, detailed supporting documentation of costs will be provided.

- Personnel:** The total cost for salaries and wages is \$148,899. Valley Water staff will include a Senior Project Manager, an Associate Engineer, an Assistant Engineer, and an Administrative Assistant. As the lead applicant, Valley Water will manage Task 5, Grant Administration and oversee the development of the Feasibility Study, Financial Capability Determination, and Pre-Final Design Activities (Tasks 1-4).

- **Fringe Benefits:** Fringe benefits are anticipated to cost \$122,097. The fringe benefit rate is 82% of staff salary. Fringe benefits for staff include health insurance, employer paid Medicare taxes, unemployment insurance, employer pension contributions, employer contributions to deferred compensation retirement accounts, life insurance, and disability insurance.
- **Travel:** Valley Water will not incur any travel related expenses for this planning project.
- **Equipment:** Valley Water will not incur any equipment related expenses for planning project.
- **Supplies:** Valley Water is not supplying any supplies for this portion of the project.
- **Contractual:** Valley Water will contract with consultants for the following:
  - Lead the development of the Feasibility Study and Financial Capability determination.
  - Facilitate stakeholder meetings and public outreach efforts.
  - Conduct reviews of technical assessments and overall planning efforts.
  - Assist with any pre-final design activities or other project related assessments that contribute towards project implementation.

Budgeted costs for the consultant will be fair and reasonable through assessment of qualifications, evaluation of rates, and prior experience of professional staff on projects of similar size and scope.

- **Construction:** Because this is a planning project, no construction related costs are anticipated.
- **Other Direct Costs:** As noted above, in addition to Valley Water's commitment to fund this project, the City of San José and the City of Santa Clara will provide non-federal funding in the form of in-kind staff support.
- **Total Direct Costs:** The total direct cost for this funding request is \$1,524,996.
- **Indirect Costs:** Valley Water will not include indirect costs for this portion of the project.
- **Total Costs:** The total cost of this funding request is \$1,524,996.



## **Overlap or Duplication of Effort Statement**

Valley Water is submitting a separate proposal under the Funding Opportunity No. R23AS00076 that will address the water reuse needs for South County through the development of the South County Water Reuse Program Feasibility Study. However, the feasibility studies described in each proposal will be developed by outside contracted consultants. While it is anticipated that some of the same Valley Water staff will work on both projects, their involvement will largely consist of project oversight and grant administration which will make up only a small portion of the overall grant award.

## **Uniform Audit Reporting Statement**

Valley Water was required to submit a Single Audit report for the 2021-2022 fiscal year and that report is available through the Federal Audit Clearinghouse website under the Employer Identification Number (EIN): 94-1695531.

## **Conflict of Interest Statement**

Valley Water, nor any potential subrecipients, have identified any conflicts of interest, including instances of employees, potential subrecipients, or contractors being related to, married to, or having a close personal relationship with any Federal employee in the Federal funding program or who otherwise may have been involved in the review and selection of the award. If a conflict of interest arises or is identified during the life of the Federal award, Valley Water will immediately provide written notification to the Water Recycling Program.

## **Letters of Support**

See the letters of support below from the following:

- City of Morgan Hill;
- City of Santa Clara;
- City of San José; and
- City of Sunnyvale.



CITY OF MORGAN HILL  
17555 PEAK AVENUE  
MORGAN HILL, CA 95037  
PHONE 408-779-7270  
FAX 408-779-3117

WWW.MORGANHILL.CA.GOV

February 8, 2023

Bureau of Reclamation  
Financial Assistance Operations Section  
Attn: NOFO Team  
P.O. Box 25007, MS 84-27133  
Denver, Colorado 80225

Subject: Letter of Support for Valley Water's San José-Santa Clara Purified Water Program Feasibility Study Application for Funding Assistance under WaterSMART: Water Recycling and Desalination Planning (NOFO No. R23AS00076)

Dear Application Review Committee members:

The City of Morgan Hill ardently supports the application that Santa Clara Valley Water District (Valley Water) is submitting on behalf of communities in northern Santa Clara County, California, to seek financial assistance through the Bureau of Reclamation's WaterSMART Water Recycling and Desalination Planning funding opportunity for Fiscal Year 2023.

Alongside representatives from San José and Santa Clara, the City of Morgan Hill participated in the Countywide Water Reuse Master Plan (CoRe Plan) effort completed by Valley Water in 2021 and understands the need to improve water supply reliability for communities in northern Santa Clara County. The northern portion of the county depends on imported surface water for drinking water, and water reuse is expected to become an integral component of Valley Water's water supply portfolio. Valley Water's San José-Santa Clara Purified Water Program Feasibility Study would involve an update to the 2021 CoRe Plan to reflect existing conditions.

This grant would also provide an opportunity to evaluate the feasibility of further expanding water reuse for Silicon Valley communities and improve reliability through a drought-resilient supply. Current regulations enable communities to use recycled water for drinking via a reservoir or aquifer, and in 2023, the State Water Board will establish direct potable reuse regulations that will allow suppliers to distribute recycled water without first putting it into a reservoir or aquifer.

The City of Morgan Hill is in full support of the development of the San José-Santa Clara Purified Water Program Feasibility Study and agrees with Valley Water that regional solutions are needed to build drought resilience. Financial support for the development of the Feasibility Study is needed.  
Sincerely,

A handwritten signature in blue ink, appearing to read "CT", is placed over a large, faint, light-green watermark of the City of Morgan Hill logo.

Christina Turner, City Manager



February 21, 2023

Bureau of Reclamation  
Financial Assistance Operations Section  
Attn: NOFO Team  
P.O. Box 25007, MS 84-27133  
Denver, Colorado 80225

**Subject:** Letter of Support for Valley Water's San José-Santa Clara Purified Water Project Feasibility Study Application for Funding Assistance under WaterSmart: Water Recycling and Desalination Planning (NOFO No. R23AS00076)

Dear Application Review Committee members:

The City of Santa Clara ardently supports the application that Santa Clara Valley Water District (Valley Water) is submitting on behalf of our communities in northern Santa Clara County, California, to seek financial assistance through the Bureau of Reclamation's WaterSMART Water Recycling and Desalination Planning funding opportunity for Fiscal Year 2023.

Santa Clara has worked with Valley Water (the county's primary water resources agency) for decades to develop recycled water to offset use of the potable water supply. The City of Santa Clara has supported the implementation and operation of the Silicon Valley Advanced Water Purification Center and the South Bay Water Recycling system for the expansion of nonpotable supply, and actively participated in the Countywide Water Reuse Master Plan (CoRe Plan) effort completed by Valley Water in 2021.

This grant would provide an opportunity to evaluate the feasibility of further expanding reuse for our Silicon Valley communities and improve reliability through a drought-resilient supply. Current state regulations enable communities to use recycled water for drinking via a reservoir or aquifer, and in 2023, the State Water Board will establish direct potable reuse regulations that will allow suppliers to distribute recycled water without first putting the water into a reservoir or aquifer.

Water reuse planning would begin with the development of a Collaborative Agreement presenting a scope of water reuse projects and/or capital improvements that would support each agency's goals to improve water supply reliability. The Agreement would describe an approach to share costs for joint recycled water projects and capital improvements; assign responsibility to operate and maintain facilities; recommend to our respective governing bodies how we can improve our current governance structure related to their joint recycled water

Bureau of Reclamation Financial Assistance Operations Section  
Re: Letter of Support for Valley Water's San José-Santa Clara Purified Water Project Feasibility Study  
Application for Funding Assistance (NOFO No. R23AS00076)

February 21, 2023  
Page 2 of 2

efforts; and set forth a fair process to resolve disputes. The Feasibility Study would then begin by updating the 2021 CoRe Plan to reflect existing conditions. Financial support for the development of the Feasibility Study is needed.

The City of Santa Clara is in full support of the development of Valley Water's San José-Santa Clara Purified Water Project Feasibility Study and agrees with Valley Water that regional solutions are needed to build drought resilience.

Sincerely,

A handwritten signature in black ink, appearing to be a stylized name, possibly "M. ...".

Office of the City Manager  
City of Santa Clara

February 27, 2023

Bureau of Reclamation  
Financial Assistance Operations Section  
Attn: NOFO Team  
P.O. Box 25007, MS 84-27133  
Denver, Colorado 80225

**RE:** Letter of Support for Valley Water’s San José-Santa Clara Purified Water Project Feasibility Study Application for Funding Assistance under WaterSMART: Water Recycling and Desalination Planning (NOFO No. R23AS00076)

Dear Application Review Committee members:

The City of San José ardently supports the application that Santa Clara Valley Water District (Valley Water) is submitting on behalf of our communities in northern Santa Clara County, California, to seek financial assistance through the Bureau of Reclamation’s WaterSMART Water Recycling and Desalination Planning funding opportunity for Fiscal Year 2023.

The City of San José has worked with Valley Water (the county’s primary water resources agency) for decades to develop recycled water to offset use of the potable water supply. The City of San José participates in the implementation and operation of the Silicon Valley Advanced Water Purification Center, contributes to management and operation of the South Bay Water Recycling system for the expansion of non-potable supply, and actively participated in the Countywide Water Reuse Master Plan (CoRe Plan) effort completed by Valley Water in 2021.

This grant would provide an opportunity to evaluate the feasibility of further expanding reuse for our Silicon Valley communities and improve reliability through a drought-resilient supply. Current state regulations enable communities to use recycled water for drinking via a reservoir or aquifer, and in 2023, the State Water Board will establish direct potable reuse regulations that will allow suppliers to distribute recycled water without first putting the water into a reservoir or aquifer.

Water reuse planning would begin with the development of a collaborative agreement presenting a scope of water reuse projects and/or capital improvements that would support each agency’s goals to improve water supply reliability.

The agreement would do the following:

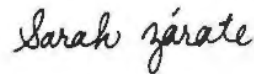
- describe an approach to share costs for joint recycled water projects and capital improvements;
- assign responsibility to operate and maintain facilities;

- recommend to our respective governing bodies how we can improve our current governance structure related to their joint recycled water efforts; and
- set forth a fair process to resolve disputes.

The Feasibility Study would then begin by updating the 2021 CoRe Plan to reflect existing conditions. Financial support for the development of the Feasibility Study is needed.

The City of San José is in full support of the development of Valley Water's San José-Santa Clara Purified Water Project Feasibility Study and agrees with Valley Water that regional solutions are needed to build drought resilience.

Sincerely,

A handwritten signature in cursive script that reads "Sarah Zárate".

Sarah Zárate  
Director, Office of Administration, Policy,  
and Intergovernmental Relations





February 15, 2023

Bureau of Reclamation  
Financial Assistance Operations Section  
Attn: NOFO Team  
P.O. Box 25007, MS 84-27133  
Denver, Colorado 80225

Corporation Yard  
221 Commercial Street  
Sunnyvale, CA 94088-3707  
TDD/TTY 408-730-7501  
[sunnyvale.ca.gov](http://sunnyvale.ca.gov)

**Re: Letter of Support for Valley Water's San José-Santa Clara Purified Water Project Feasibility Study Application for Funding Assistance under WaterSMART: Water Recycling and Desalination Planning (NOFO No. R23AS00076)**

Dear Application Review Committee members:

The City of Sunnyvale (City) supports the application that Santa Clara Valley Water District (Valley Water) is submitting on behalf of our communities in northern Santa Clara County, California, to seek financial assistance through the Bureau of Reclamation's WaterSMART Water Recycling and Desalination Planning funding opportunity for Fiscal Year 2023.

The City has worked with Valley Water (the county's primary water resources agency) for decades to develop recycled water to offset use of the potable water supply. The City participates in the expansion of nonpotable supply, and actively participated in the Countywide Water Reuse Master Plan (CoRe Plan) effort completed by Valley Water in 2021.

This grant would provide an opportunity to evaluate the feasibility of further expanding reuse for our Silicon Valley communities and improve reliability through a drought-resilient supply. Current state regulations enable communities to use recycled water for drinking via a reservoir or aquifer, and in 2023, the State Water Board will establish direct potable reuse regulations that will allow suppliers to distribute recycled water without first putting the water into a reservoir or aquifer.

Water reuse planning would begin with the development of a Collaborative Agreement presenting a scope of water reuse projects and/or capital improvements that would support each agency's goals to improve water supply reliability. The Agreement would describe an approach to share costs for joint recycled water projects and capital improvements; assign responsibility to operate and maintain facilities; recommend to our respective governing bodies how we can improve our current governance structure related to their joint recycled water efforts; and set forth a fair process to resolve disputes. The Feasibility Study would then begin by updating the





2021 CoRe Plan to reflect existing conditions. Financial support for the development of the Feasibility Study is needed. The City in full support of the development of Valley Water's San José-Santa Clara Purified Water Project Feasibility Study and agrees with Valley Water that regional solutions are needed to build drought resilience.

Sincerely,

*Ramana Chinnakotla*

Ramana Chinnakotla  
Director  
Environmental Services Department  
City of Sunnyvale

## **Official Resolution**

The Valley Water official resolution is attached on the following page.

**BOARD OF DIRECTORS  
SANTA CLARA VALLEY WATER DISTRICT  
RESOLUTION NO. 23-012**

**AUTHORIZING SUBMISSION OF A GRANT APPLICATION TO THE UNITED STATES BUREAU OF RECLAMATION WATERSMART WATER RECYCLING AND DESALINATION PLANNING GRANT PROGRAM FOR UP TO \$5,000,000 AND, IF AWARDED, DELEGATE AUTHORITY TO THE CHIEF EXECUTIVE OFFICER OR DESIGNEE, TO NEGOTIATE AND EXECUTE A GRANT AGREEMENT AND ANY AMENDMENTS THERETO, FOR A SAN JOSE-SANTA CLARA PURIFIED WATER PROGRAM FEASIBILITY STUDY**

WHEREAS, the Santa Clara Valley Water District (Valley Water) seeks external funding for a planning grant to support a San Jose-Santa Clara Purified Water Program Feasibility Study (Project) to evaluate and analyze the potential for large-scale water recycling projects; and

WHEREAS, the United States Bureau of Reclamation (USBR) WaterSMART: Water Recycling and Desalination Planning grant is currently accepting applications for projects such as Valley Water's; and

WHEREAS, as a condition of the grant application, USBR requires submission of a Resolution adopted by Valley Water's Board of Directors authorizing staff to submit the application.

NOW, THEREFORE BE IT RESOLVED that the Board of Directors of the Santa Clara Valley Water District does hereby:

1. Authorize the Chief Executive Officer (CEO), or designee, to apply for grant funds in the amount of \$5,000,000 and, if awarded, negotiate and execute a Grant Agreement with the U.S. Bureau of Reclamation (USBR) to support the San Jose-Santa Clara Purified Water Program Feasibility Study Project, provided all grant requirements can be met; and
2. Authorize the CEO, or designee, including the Chief Financial Officer (CFO) to sign and submit invoices to USBR for grant fund reimbursements, to be made pursuant to the Grant Agreement; and
3. Authorize the CEO or designee to provide management and support services required for the performance of the work and administration, pursuant to the Grant Agreement, as deemed necessary and appropriate.

PASSED AND ADOPTED by the Board of Directors of the Santa Clara Valley Water District by the following vote on February 14, 2023:

AYES: Directors Estremera, Santos, Beall, Eisenberg, Hsueh, Keegan, Varela

NOES: Directors None.

ABSENT: Directors None.

ABSTAIN: Directors None.

SANTA CLARA VALLEY WATER DISTRICT

DocuSigned by:  
  
 F600A8219490464  
 JOHN L. VARELA  
 Chair, Board of Directors

ATTEST: MICHELE L. KING, CMC

DocuSigned by:  
  
 7E1632DBD93E40C...  
 Clerk, Board of Directors