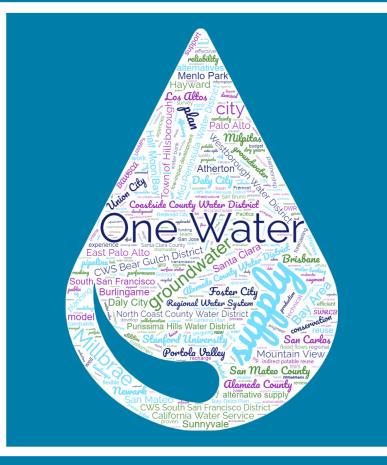
# One Water Reliability Roundtable Series Report Bay Area Water Supply and Conservation Agency







nage source: https://bawsca.org/





### One Water Reliability Roundtable Series Report

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#### **BAWSCA**

#### One Water Reliability Roundtable Series Report

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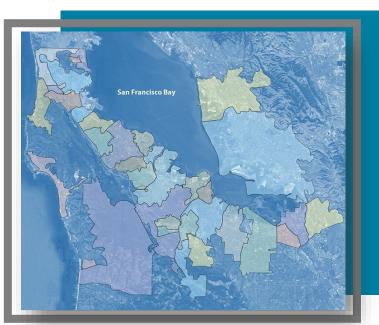


#### 1 INTRODUCTION

#### 1.1 Who is BAWSCA?

The Bay Area Water Supply and Conservation Agency (BAWSCA) is a special disrict that was formed in 2003 to represent the interests of 16 cities, 8 water districts, and 2 private water providers in Alameda, San Mateo and Santa Clara Counties (member agencies) that purchase water on a wholesale basis from the San Francisco Public Utilities Comission (SFPUC) Regional Water System (RWS).

BAWSCA is governed by a 26-member Board of Directors comprised of representatives from each member agency.

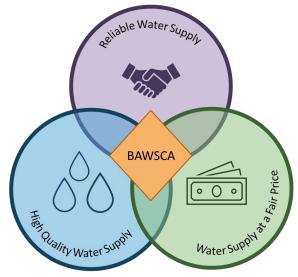


BAWSCA is also the only entitive with the authority to directly represent the needs of its member agencies that depend on the RWS in matters related to the RWS, providing the ability for the customers of the regional system to work with San Francisco on an equal basis to ensure the water system gets fixed, and to collectively and efficiently meet local responsibilities.

Among other things, BAWSCA provides regional water supply planning and conservation program services to enhance the water supply reliability for its member agencies, and has the authority to:

- Coordinate water conservation, supply, and recycling activites for its agencies
- Aquire water and make it available to other agencies on a wholesale basis
- Finance projects, including improvements to the RWS
- Build facilities in collaboration with other local public agenices or on its own to carry out the agency's purposes

BAWSCA's mission is to ensure a reliable and high quality water supply at a fair price for its 26 member agencies and the water customers they serve.





#### 1.2 The One Water Reliability Roundtable Series

The One Water Reliability Roundtable Series (Roundtable Series) was a series of four interactive stakeholder meetings led by BAWSCA that occurred between May 2022 and February 2023. The meetings brought together different water professionals spanning across the BAWSCA service area including its member agencies, non-governmental organizations (NGOs), counties, wastewater agencies, and other leaders and experts in water related fields. The Roundtable Series was facilitated by BAWSCA as assisted by EKI Environment and Water, Inc. (EKI).

#### 1.3 Goals/Purpose/Objectives

There are currently numerous water supply and conservation projects and programs underway throughout the BAWSCA service area. These projects cover an array of different strategies for increasing supply reliability, including recycled water efforts, stormwater and flood water control concepts, groundwater supply investigations, and more. All of these projects have the potential to create local and regional water supply benefits. By learning more about the interests and work of each participating organization, opportunities for collaboration, funding, and execution can be identified. The purpose of the Roundtable Series was to provide participants with an opportunity for networking, information sharing, and learning through presentations by the BAWSCA and EKI team, presentations from guest speakers, and breakout room discussions that offered a space for smaller and more intimate discussions. More explicitly, the three primary goals of the Roundtable Series were to: (1) understand how existing and planned projects in the region fit within the One Water concept, (2) identify the potential for collaborative opportunities, and (3) offer ideas for how entities could potentially support, help finance, permit, approve, and expand projects or programs that have the potential to offer multiple benefits.



#### **Goals:**

- 1. Understand how projects fit within the One Water concept.
- 2. Identify potential collaborative opportunities.
- 3. Consider how entities can best support, help finance, permit/approve and/or expand projects or programs that have the potential to offer multiple benefits.

To achieve the first goal, the Roundtable Series included guest speakers to discuss their current projects and to detail the process taken to achieve a successful One Water effort. Participants were asked to fill out Project Information Forms, discussed further in Section 4.2, to describe how their agency's projects fit into the One Water concept.

To achieve the second goal, breakout discussions occurred towards the end of each workshop, in which topics from the Roundtable Series were discussed in depth. The breakout discussions also provided an opportunity for information sharing and connection among participants. Participants engaged in discussions about various water supply projects under consideration, which allowed opportunities for potential collaboration to be discussed.

To help address the third goal, ideas on how BAWSCA or other agencies can help finance and support projects and programs were brainstormed in breakout room discussions to gather input from participants with different perspectives. A funding summary table was provided to workshop participants to inform them of financing and funding opportunities (Section 5.4).



#### 2 ROUNDTABLE SERIES FRAMEWORK

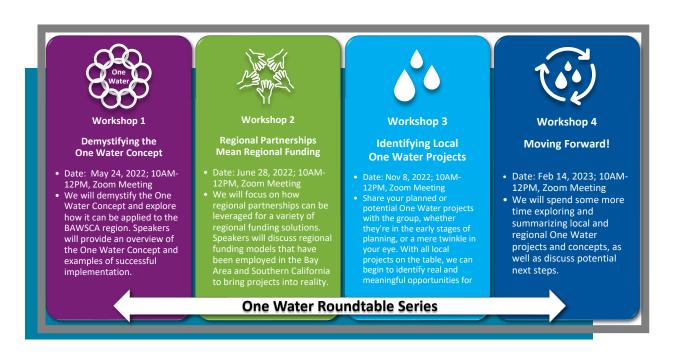
#### 2.1 Workshop Meetings and Topics Covered

Four Roundtable Series meetings were conducted that covered various topics related to the One Water concept and its applicability to water supply reliability for the BAWSCA region. Each meeting started with introductory presentations by the BAWSCA and EKI team on the main topics of the workshop, followed by one or two guest speakers that offered a more detailed perspective. Workshop presentation slides can be found in **Attachment A**. Two poll questions were asked at each the meeting to encourage engagement from participants. The results of the poll questions are documented and discussed throughout this report.

After the presentations, workshop participants were separated into smaller breakout rooms to discuss the information presented to them during the workshop and to participate in more focused, intimate conversations. Questions and responses used for the breakout sessions can be found throughout this report and the workshop breakout sessions slides can be found in **Attachment A**.

The first workshop, titled "Demystifying the One Water Concept," focused on defining the One Water concept and how it could be applied to the BAWSCA region. The second workshop, titled "Regional Partnerships Mean Regional Funding," centered on regional funding models and how those could be applied to One Water projects. The third workshop, titled "Identifying Local One Water Projects," provided a forum for local agencies to share the different types of One Water projects being developed in the BAWSCA region and identify opportunities for collaboration. The final workshop, titled "Moving Forward," summarized the topics discussed in the Roundtable Series and discussed possible next steps.

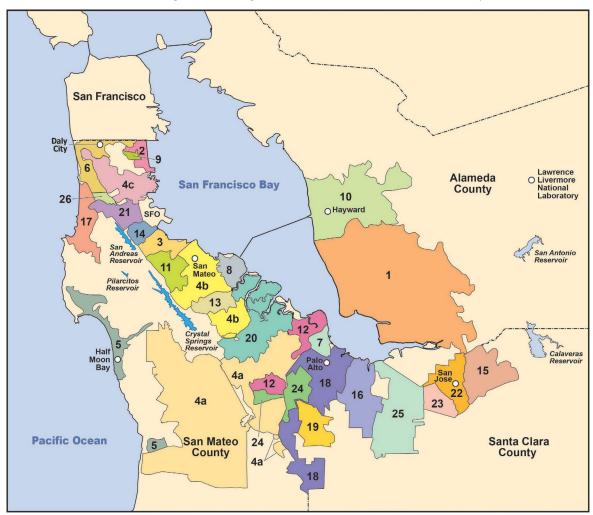
The graphic below summarizes the schedule of the four meetings along with the topics covered in each workshop. Each workshop's meeting minutes can be found in **Attachment B**.





#### 2.2 Participants

All the member agencies, illustrated in the map below, were invited to participate in the Roundtable Series. Out of the 26 member agencies, 19 agencies attended at least one workshop.



#### Legend

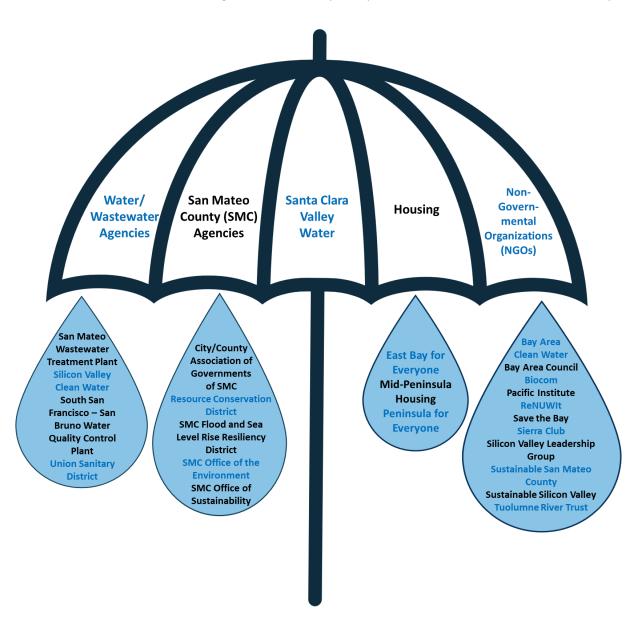
- Alameda County Water District
- 2 City of Brisbane
- 3 City of Burlingame
- 4a CWS Bear Gulch
- 4b CWS Mid-Peninsula
- 4c CWS South San Francisco
- 5 Coastside County Water District
- 6 City of Daly City
- 7 City of East Palo Alto
- 8 Estero Municipal Improvement District
- 9 Guadalupe Valley MID
- 10 City of Hayward
- 11 Town of Hillsborough
- 12 City of Menlo Park

- 13 Mid-Peninsula Water District
- 14 City of Millbrae
- 15 City of Milpitas
- 16 City of Mountain View
- 17 North Coast County Water District
- 18 City of Palo Alto
- 19 Purissima Hills Water District
- 20 City of Redwood City
- 21 City of San Bruno
- 22 San Jose Municipal Water System
- 23 City of Santa Clara
- 24 Stanford University
- 25 City of Sunnyvale
- 26 Westborough Water District

Sources: BAWSCA, San Mateo County General Plan



In addition to the member agencies, 19 additional agencies and organizations were invited to the Roundtable Series to offer their perspectives in these discussions. The organizations invited are listed below. Out of the 19 non-member agencies invited to participate, five attended at least one workshop.





## 3 ROUNDTABLE SERIES WORKSHOP #1: DEMYSTIFYING THE ONE WATER CONCEPT

The first Roundtable Series workshop "Demystifying the One Water Concept" took place virtually on May 24, 2022. The focus of the workshop was to achieve a common understanding of the definition, benefits, and interconnections of the One Water concept and explore how it could be applied to the BAWSCA region.

According to the Water Research Foundation's 2017 Blueprint for One Water Project<sup>1</sup>, One Water is defined as "an integrated planning and implementation approach to managing finite water resources for long-term resilience and reliability, meeting both community and ecosystem needs."

In other words, One Water is a planning strategy that considers the "whole picture," meaning the full water cycle and all the beneficial users of the resource. The One Water concept intends to break down barriers between different agencies / water users to see if there is a more optimal approach to handling and utilizing water resources and doing so with partnerships and collaborations between agencies and other stakeholder entities like the ones presented in the Roundtable Series.

#### 3.1 Interactive Poll #1

The interpretations of the One Water concept are wide and diverse, so participants at the first Roundtable Series meeting were asked to "Define One Water planning" to gauge the general understanding of the concept. On the following page are some of their responses summarized in the color gradient boxes along with a word cloud image, in which the size of the word correlates to the frequency in which it appeared in the responses.

Common themes from the participants responses included:

- Collaboration to address water issues and achieve solutions.
- Comprehensive plans for management of all water types.
- Sustainable approach to beneficial management of water supply sources.
- Considering the intersectionality of different water types, end uses, and the community.
- Valuing all water types (wastewater, stormwater, recycled water, groundwater, runoff, freshwater) and viewing them collectively.

8

<sup>&</sup>lt;sup>1</sup> https://www.waterrf.org/research/projects/blueprint-one-water



Planning of projects that can provide more than just a water supply benefit

Water is water, doesn't matter the type Multi-benefit integral water planning viewing a community as a watershed, not just the natural features

Cohesive plan for use of all available water types appropriately

Water supply, wastewater, and stormwater all working together for multiple benefits Sourcing the right water for the right use

Considering the intersectionality of water uses and needs at one time

A community values water and sees opportunity to capture and reuse at every phase of the water cycle

Thinking of and looking at all cycles of water as one resource (including wastewater, storm water, fresh water)

Valuing all water, inclusivity, sustainable water supply

Working together to address water issues

Gathering multiple stakeholders together to achieve bigger and more unified solutions

Comprehensive water supply management

Viewing water, wastewater, and runoff as part of our urban water and contributing to water supply Integrated planning across water and land use sectors to maximize water benefits for all uses

A proactive approach on everything water

Using all water sources beneficially

Integrated approach to planning for water issues

A sustainable approach to managing water supply

Collaborative planning of water management beyond institutional boundaries looking at all water types





#### 3.2 Interactive Poll #2

After introducing a common lense to define the One Water concept, BAWSCA and EKI posed a second poll question asking the participants: "How is your organization currently doing One Water planning?" The responses are listed below in color gradient text boxes and in the corresponding word cloud image showcasing common words and themes from the responses.

Some common themes identified from the participant responses include:

- Currently developing One Water plans or One Water frameworks.
- Recycled water programs/expansion.
- Stormwater capture projects.
- Groundwater recharge projects.

# Participating in Coastside One Water

Implemented an Integrated Water Infrastructure Program

Updating our Long-Term Water Supply Strategy and further hosting these Roundtable workshops Participating in Coastside One Water, looking for green infrastructure project opportunities that have other water co-benefits

Development of a Sustainable
Water Management Plan
utilizing a One Water
Framework and sustainability
principles for water planning
through 2060

Using green infrastructure and exploring recycled water Promoting water recycling and groundwater recharge

Working on funding a Residential Laundry to Landscape Program for San Mateo County

My firm designs onsite wastewater systems and eco-resorts that use only rain

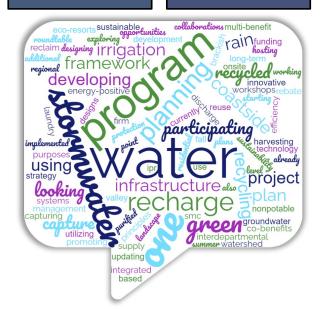
Regional multi-benefit stormwater capture project planning, green stormwater infrastructure planning, rainwater harvesting rebate program

Valley Water is currently developing watershed level plans based on the One Water framework We already do stormwater capture for groundwater recharge, reclaim brackish discharge from our groundwater protection program, and are looking at indirect potable reuse for additional recharge

Water Recycling, water use efficiency, purified water Capturing stormwater for irrigation in the summer and fall and designing innovative non-potable reuse using energy-positive technology

Interdepartmental collaborations, developing One Water Plan

Recycled water program for irrigation purposes





#### 3.3 Guest Speakers

As part of the Roundtable Series, guest speakers were invited to share their own perspectives on the One Water concept and to showcase these perspectives with case studies and current projects. The first speaker, Inge Wiersema from Carollo Engineers, presented on the One Water Los Angeles (LA) 2040 Plan. The second guest speaker, Lisa Bilir from the City of Palo Alto (Palo Alto), presented on the efforts that Palo Alto is undertaking to develop and implement a One Water Plan and the associated project portfolio to meet future water supply needs of the City.

• One Water LA 2040 Plan, presented by Inge Wiersema of Carollo Engineers: Wiersema discussed the importance of collaboration and communication for the success of both near- and long-term One Water projects. A near-term project Wiersema discussed, titled the LA Zoo Master Plan, is an inter-departmental collaborative effort between the LA Zoo, LA Sanitation & Environment (LASAN), and LA Department of Water and Power (LADWP). This effort consists of an integrated water management plan that uses recycled water for irrigation and animal exhibits, stormwater capture in the parking lot and throughout the zoo, and water conservation with drought tolerant landscaping and high efficiency fixtures. This project demonstrates how entities who may not necessarily be responsible for water supply, such as the LA Zoo, can collaborate with multiple other agencies to create a project that benefits all parties involved.

Wiersema also discussed LA's long-term One Water project, the One Water LA 2040 Plan. One of the purposes of the project was to decide on the best course of action and long-term One Water project to increase LA's local water supply. To accomplish this task, 27 One Water opportunities were evaluated and scored by City of LA staff and technical advisors. Stakeholders were also actively engaged to weigh in on the evaluation criteria and weighting factors to determine which concepts to move forward with. In the end, six long-term concepts were selected that would best meet LA's goals and benefit as many stakeholders as possible.

One of the main reasons for the success in this process was the constant stakeholder engagement. Multi-level institutional and stakeholder collaboration included a steering committee, a strategic planning group, special topic groups, stakeholder workshops, focused meetings, and an advisory group to achieve active and engaged stakeholder involvement. There was also cross-sector collaboration that involved 14 city departments and six regional agencies. All in all, over 500 stakeholders and over 200 organizations took part in this multiple year effort to determine which long-term integration opportunities would best suit LA's collective water goals and needs and be included in the One Water LA 2040 Plan.

Palo Alto's One Water Plan, presented by Lisa Bilir of the City of Palo Alto: Bilir described Palo Alto's One Water Plan as an adaptable roadmap for implementing prioritized water supply and conservation portfolio alternatives with a planning horizon of 20-years. Bilir discussed three projects that are being considered as part of the Palo Alto's One Water Plan.

The first project, titled the Northwest County Recycled Water Strategic Plan, was a study in partnership with Santa Clara Valley Water District (Valley Water) that investigated how to best expand the Regional Water Quality Control Plant's (RWQCP's) Recycled Water Program. The study developed and evaluated a series of potable and non-potable water reuse opportunities throughout the RWQCP service area through the 2030 planning horizon.

The second project was Palo Alto's Green Stormwater Infrastructure (GSI) Plan. This plan described how Palo Alto could gradually integrate GSI features into the city and how GSI could slow down and clean stormwater runoff.



Lastly, Bilir discussed an update to Palo Alto's Demand Management and Conservation Program. In partnership with Valley Water, Palo Alto developed conservation measures in an effort to reduce demand and conserve water in the city.

The next steps for Palo Alto's One Water Plan, which is anticipated to be completed by the end of 2023, include developing evaluation criteria for assessing water supply and conservation portfolio alternatives, such as the projects mentioned above, developing and evaluating future water supply and conservation portfolio alternatives, and gathering and utilizing stakeholder input.

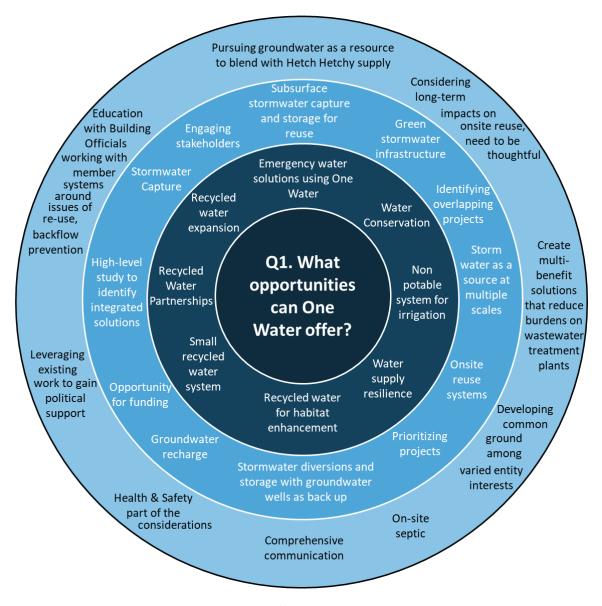
#### 3.4 Breakout Discussions

After the guest speaker presentations, participants were divided into four breakout rooms where they introduced themselves and their organization and discussed three questions posed:

- What opportunities can One Water offer?
- What are some obstacles to One Water planning and what can be done to overcome these obstacles?
- If there were absolutely no barriers, what One Water projects would you like to see in the Bay Area?

The answers from the breakout rooms for each question are summarized in the following pages.





When asked what opportunities One Water can offer, participants responded with some common themes such as:

- Water supply resilience.
- Recycled water partnerships and expansions.
- Groundwater resources and how to protect them.
- Stormwater capture for reuse or groundwater recharge.
- New partnerships, stakeholder engagement, and greater collaboration among different entities.
- Expanded education and communication.
- Integrated solutions.



#### What are some obstacles to One What can be done to overcome Q2 Water planning? these obstacles? Synergistic solutions, developing community Jurisdictional and institutional boundaries support and community outreach Community disengagement, reluctance to embrace Hands-on approach, involve leaders of the alternative supply solutions community, increase public education Engage regulator in process of planning, urgency, Regulatory hurdles for permitting projects because of water quality issues, timeframe, etc. practicability Funding across multiple organizations for planning or Start having discussions early, negotiate costprojects - who pays how much? sharing, target funding that is multi-benefit Working across agencies/organizations can be a Identify common objectives to work more challenge effectively together, "safe space" for discussion Public perception regarding direct potable reuse, changing Getting input from multiple organizations on what people are used to perception solutions Balance between innovation and risk aversion Implement pilot projects sharing examples of what has been done, lesson learned, Lack of knowledge of solutions Silos of water sectors, interagency collaboration, developing Getting groups and leaders together in one room, describe the future

From the responses, some of the most prominent reasons why participants are hesitant to implement One Water planning are due to jurisdictional, institutional, or regulatory boundaries, interagency collaboration, and resource and knowledge gaps.



This question was simply to gauge what type of projects participants would ultimately like to see if the obstacles mentioned in the previous breakout room question were easily overcome. Some common responses include onsite, direct, and indirect potable and non-potable reuse, desalination, and developing diversified water supplies.

## 4 ROUNDTABLE SERIES WORKSHOP #2: REGIONAL PARTNERSHIPS MEAN REGIONAL FUNDING

The second Roundtable Series workshop titled "Regional Partnerships Mean Regional Funding" was conducted virtually on June 28, 2022. The purpose of this workshop was to: (1) demonstrate how regional partnerships could be leveraged to secure regional funding and other collaborative opportunities and (2) explore how other agencies accomplish regional funding and the type of work and collaboration necessary to achieve it.

#### 4.1 Overview of BAWSCA Funding

Workshop #2 started with a BAWSCA presentation on the background of how the agency receives its funding and its role in helping its member agencies receive funding.

BAWSCA's primary source of funding to pay the agency's operating expenses is through imposing assessments proportional to member agencies' water delivery amounts. Additionally, individual water supply contracts between San Francisco and the member agencies provides two other potential funding sources for BAWSCA.

The first potential source of funding is from the use of excess funds from the WSA Balancing Account. The Balancing Account records the difference between the actual SFPUC costs attributable to the member agencies and the amount billed to the member agencies in each year. When there is a positive balance for three consecutive years and it represents 10% or more of the wholesale revenue requirement for the most recent fiscal year, those excess funds can be used for the member agencies' preferred application, including water conservation or supply projects administered by or through BAWSCA.

Another potential source of funding is from a Water Management Charge. A Water Management Charge is a special assessment on member agencies to collect funding for a specific project or program with regional benefits. To date, this funding source has been utilized by BAWSCA once to fund it's 2015 Long Term Reliable Water Supply Strategy (2015 Strategy).

There are also other outside funding and financing opportunities available to BAWSCA and its member agencies such as local funding and financing opportunities and state and federal grants and loans.

#### 4.2 Project Information Form Overview

In preparation for the third workshop, which is discussed in more detail in Sections 5 and 6, EKI presented on the components and purpose of the Project Information Forms (PIFs). The PIFs were designed to collect information from all member agencies and Roundtable Series participants regarding what types of water supply projects are being planned, in-progress, or at a conceptual level within each agency. The purpose of gathering this information was for BAWSCA, its member agencies, and Roundtable Series participants to be aware of other projects happening in the Bay Area, and to identify opportunities for collaboration.

EKI introduced and explained each section of the PIF and encouraged the Roundtable Series participants to complete them. EKI and BAWSCA then followed up with one-on-one conversation with each entity to support completion of the PIFs.



#### 4.3 Interactive Poll #1

After detailing how BAWSCA secures its funding and helps its member agencies secure funding, BAWSCA asked the participants of the Roundtable Series to answer the question "What funding sources/models has your organization used to develop One Water projects?" The responses are listed below with the corresponding word cloud image.

Project partnerships with share of cost based on water benefits to each

Fees from related service

Grants and general funds

Water, stormwater, and wastewater treatment funds

Customer revenue and debt issuance

Federal and state grants

Private clients

Debt financing for distributed infrastructure

State department funding Green infrastructure bonds



Common themes from the participants' responses include grants and general funds from the state and federal government and debt financing.

#### 4.4 Guest Speakers

The first speaker of this second Roundtable Series workshop, Heather Dyer from the San Bernadino Valley Municipal Water District (SBVMWD), presented on the collaborations and funding strategies used at SBVMWD to achieve a reliable water supply. The second presenter, Reid Bogert from the City/County Association of Government of San Mateo County (C/CAG), spoke on the future funding and financing options for San Mateo County's (SMC's) countywide GSI investments.

 Maximizing Water Resources Through Collaborative Opportunities, Partnerships, and Funding, presented by Heather Dyer of SBVMWD: SBVMWD's water supply is mostly groundwater, so to ensure a reliable water supply portfolio there is a need to diversify the local supply when purchased water is not as reliable. To do this, SBVMWD is undergoing collaborations to help



achieve a reliable water supply portfolio for the agency. Dyer discussed one such collaboration, the Local Resources Investment Program (LRIP), in further detail.

The LRIP provides a financial incentive to retailers in SBVMWD's service area for implementation of projects that provide a new source of supplemental water to the area, such as recycled water or stormwater capture projects. One such project, the East Valley Water District's Sterling Natural Resources Center Project, produces up to 11,000 acre-feet per year (AFY) of recycled water. The demand management (e.g., financial) incentive for this project is that SBVMWD will pay \$173 for each acre-foot (AF) of water not taken out of the groundwater basin or each AF of recycled water that recharges the groundwater basin, i.e. \$173/AF of water saved. This investment program makes economic sense for SBVMWD as the agency ultimately pays less to invest in these local projects than it would to purchase additional water supplies. The LRIP provides an incentive for retailers to advance projects that benefit the SBVMWD service area by increasing local (and therefore regional) water supply reliability.

SBVMWD is also exploring future collaborations to further the agency's efforts towards a reliable water supply portfolio. The agency is collaborating with Watershed Connect, a regional infrastructure program and network of future water infrastructure projects worth around \$600 million and designed to achieve water supply reliability. This multi-phase program includes water capture, recharge, storage, treatment, and conveyance projects. Watershed Connect will collectively maximize the use and reuse of local water resources to offer synergistic benefits, such as climate resilience, drought resilience, improved water quality, enhanced infrastructure, and long-term ecological health.

 Advancing Regional-Scale Stormwater Management in SMC, presented by Reid Bogert of C/CAG: C/CAG identified the need to upgrade SMC's stormwater management system. The six main drivers and objectives for advancing regional-scale stormwater management in the county include limited resources, existing stormwater infrastructure deficiencies, water quality improvement, climate resiliency, beneficial use of stormwater, and equity and community engagement.

C/CAG went through an identification process for recognizing potential regional stormwater projects throughout SMC. Once projects were identified as having the potential to perform and succeed, C/CAG had to determine how to fund these projects. One such funding route included developing a stormwater credit trading feasibility analysis. The feasibility analysis evaluated the potential demand and supply for GSI projects. The demand would include new developments that may have site constraints that make on-site stormwater controls infeasible or expensive; therefore, purchasing credits could prove to be a less expensive option for meeting stormwater management compliance. The supply would come from non-residential sites with some amount of pervious area or space for green infrastructure with co-benefits such as non-regional project drainage, good soil drainage, flood prone areas, and potential for groundwater recharge, among others.

C/CAG also evaluated other innovative approaches to funding and financing stormwater infrastructure projects, such as a non-balloted stormwater fee, which is a property-related fee to fund capital improvement and ongoing operations and maintenance (O&M). Another approach to funding is establishing an enhanced infrastructure multi-jurisdictional district that captures property tax increment revenues within the district. C/CAG found that approximately \$61 million could be generated for SMC over the next 20 years based on a 1% tax increment. Water and wastewater rates can also be a co-funding source for multi-benefit GSI projects that could provide



water supply and wastewater benefits. All three of these funding options may have the ability to fund regional and parcel scale GSI projects and can serve as security for debt financing options to pay for capital projects.

#### 4.5 Interactive Poll #2

After the guest presentations, Roundtable Series participants were then asked: "Which funding sources/models do you want to learn more about?" The responses can be found below.

Regional/ Direct payment **Funding** Federal and for local collaborative **Initiatives** State Grants projects opportunities Enhanced State Models like the "acre Infrastructure foot" initiative Revolving **Credit Trading** described in SBVMWD **Financing Districts Funds** presentation (EIFDs) Community based Infrastructure public private loans partnerships onal/collaborati

#### 4.6 Breakout Sessions

The Roundtable Series participants were separated into breakout rooms to discuss and share their thoughts on the information presented by BAWSCA, EKI, and the two guest speakers. The questions posed in these breakout rooms were:

- 1. What funding sources/models could better incentivize the development of local/regional One Water projects?
- 2. What are three challenges to secure funding for One Water projects, and what can be done to overcome those obstacles?
- 3. What role could BAWSCA or other local/regional organizations play in securing or facilitating funding for One Water projects?

A summary of the responses to these questions is illustrated below.

payment



Identifying benefits to collaboration, either within own interests departments, Q1: What funding between private and public sources/models could better incentivize water agencies Incentivizing the development of local local/regional One projects Water projects? State and Customer government funding, grants rates, fee to cover multibased, parcel benefit projects, tax, local ability to secure revenue outside funding

Challenges

Q2: What are some challenges to securing funding for One Water projects and what can be done to overcome these obstacles?

Finding enough partners to help secure outside funding

Collaboration amongst groups to help communication and expand connections; necessity of drought helps drives need for collaboration

Stakeholder coordination – many different suppliers across bay area

Formalization of stakeholder collaboration can help secure funding

Finding the good, initial project to help kickoff process and set example for partners Identifying areas with high need; high return on investment

Lack of knowledge on the funding process and/or costs basis – regulators, public and governing boards, decisions makers

Increased education and transparency

Combing funding sounds great – but each have all their own requirements, reporting, legal, agreements, administrative requirements

Staff and resources to facilitate

Unfunded mandate (rate payers may not understand or know about the project benefits), getting buy-in from the community

Education, public outreach, collaborative approach with stakeholder engagement (external and internal)

Project size doesn't seem like it's worth the administrative burden to apply for funding or developing partnerships (in-house is often easier/faster), state grant or loans can be burdensome

Aggregating projects, do it alone! Simplifying/streamlining processes. Build in steps that are actionable

Initial funds to match State and government funds

Allow no matching requirements

Quantifying the benefits to link to financial contributions

Have the right people working together and provide additional analysis to quantify those benefits

There are a lot of projects we are interested in participating in but are cost effective (and difficult to quantify) outside of water supply

Regional collaboration – communicating the benefits to other groups



## 5 ROUNDTABLE SERIES WORKSHOP #3: IDENTIFYING LOCAL "ONE WATER" PROJECTS

The third workshop titled "Identifying Local One Water Projects" was held on November 8, 2022. During this workshop, results and analysis from the Project Information Forms were presented to the Roundtable Series participants. Current and upcoming funding opportunities applicable to member agencies were also presented along with a guest speaker detailing their One Water supply project.

#### 5.1 Interactive Poll #1

BAWSCA started off Workshop #3 by recapping the purposes and discussions from the previous two workshops and posing the first interactive poll: "What One Water project did you submit with the Project Information Form?" The responses and corresponding word cloud to this question are illustrated below.

New groundwater wells

Local salt removal facility

One Water Plan

Chlorine booster station

Regional potable ReUse project

Master Planning

Groundwater sustainability implementation

Laundry to Landscape program

Regional stormwater capture projects

SF Peninsula Potable ReUse Project

Recycled water expansion

Mixers/ disinfectant project

Rain barrel rebate, rain garden rebate

Producing templates and case studies of successes and challenges for One
Water



#### 5.2 Summary of Project Information Forms

As previously discussed, the PIFs were used to document the local and/or regional One Water projects/programs that are currently in planning or in development and support identification of potential

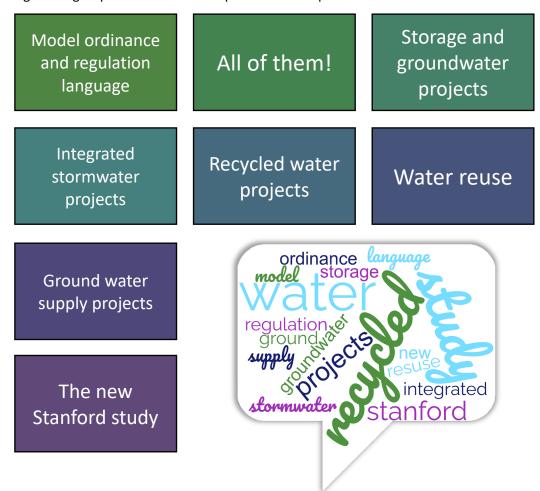


opportunities to support or expand implementation. Information from the PIFs was also used to quantify the collective water supply benefits.

At the time of Workshop #3, not all of the member agencies had submitted a PIF, but EKI provided an update on the number and type of local agency projects and their anticipated yield (final results are presented in Section 6.4 and **Attachment C**).

#### 5.3 Interactive Poll #2

After hearing about the other projects being planned throughout the region, participants were asked "What One Water project are you most excited to learn about?" to gauge what projects seemed interesting to the group as a whole. The responses to that question are shown below.



#### 5.4 Inventory of Grant/Funding Opportunities for One Water Projects

The Roundtable Series Workshop #2 revealed that participants view securing funding as one of the biggest challenges for implementing One Water projects. Part of successfully securing funding is being aware of the current and upcoming opportunities and having the staff or consultant resources within or available to the agency to respond quickly and effectively to solicitations.

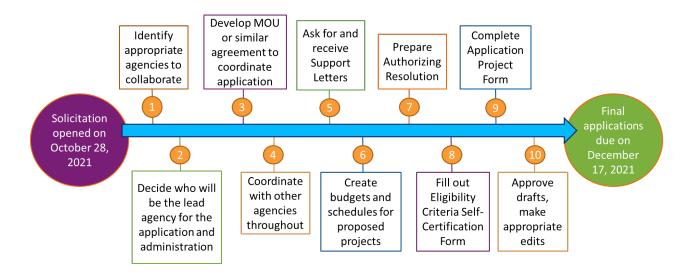
EKI presented on both current and upcoming funding opportunities from the California Department of Water Resources (DWR), United States Environmental Protection Agency (EPA), United States Bureau of



Reclamation (USBR), and the California State Water Resources Control Board (SWRCB) that were timely and pertinent to One Water projects in the BAWSCA region. Tables summarizing these funding opportunities can be found in **Attachment D.** 

A case study on DWR's 2021 Urban and Multibenefit Drought Relief Grant Program (DWR Grant Program) was presented by EKI to demonstrate how responsiveness and collaboration are essential to successfully securing a grant. Several BAWSCA agencies jointly submitted an application for the DWR Grant Program as it was not only more cost effective to apply as a group, but it also gave the opportunity to exhibit how their projects and programs collectively support the diversification of the supply portfolios of the agencies and increase of local and regional resiliency of their supplies in the face of drought.

The time between the DWR Grant Program announcement and submission was a mere seven-week period, and the five agencies partnered in this application (North Coast County Water District [NCCWD], Mid-Peninsula Water District [MPWD], Purissima Hills Water District [PHWD], City of Brisbane, and City of East Palo Alto) had to coordinate swiftly and effectively. The steps that had to be taken for a successful DWR Grant Program application are shown below.

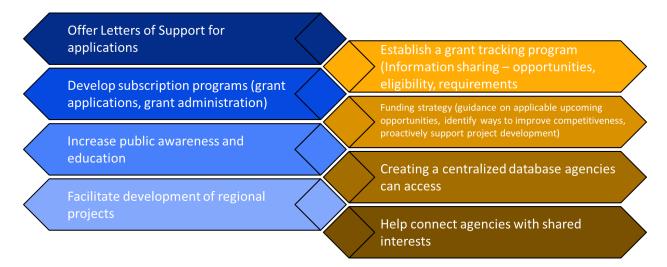


In the end, NCCWD was awarded \$6.6 million from the DWR Grant Program to develop a local groundwater supply project intended to diversify the district's water portfolio so it would not be 100% reliant on supplies from the SFPUC RWS.

This case study demonstrated that collaborative efforts between project sponsors and agencies like BAWSCA can be successful in securing project funding.

A list of potential ways BAWSCA can help its member agencies receive funding was also presented - a majority of the ideas were suggestions from One Water participants during Workshop #2.





#### 5.5 Guest Speaker

The guest speaker for Workshop #3, Manisha Kothari from SFPUC, presented on potable reuse projects that the agency is currently exploring, including the benefits, challenges, and feasibility of potable reuse to increase water supply reliability in the RWS.

• Purified Water Planning in SFPUC's Service Area, presented by Manisha Kothari of SFPUC: SFPUC is currently working to understand how purified water could work within the RWS and how it can be used in future dry years for SFPUC to achieve a sustainable supply. The agency has been looking into both indirect potable reuse (IPR) and direct potable reuse (DPR) and has a few projects planned. However, there are some associated overarching factors that need to be explored for these projects to be successfully implemented.

First is public acceptance and SFPUC's need to demonstrate the safety of the projects to gain public trust. Second are the treatment needs necessary depending on the feed quality of the water, the receiving water needs, the anticipated discharge requirements, and what to do with the concentrated brine. Third, there are operational needs such as the ability to store and deliver water associated with these projects and operational readiness of project personnel to be trained and certified to operate these advanced water treatment operations. Lastly is the issue of cost. These IPR and DPR projects are comparatively more expensive than other water supply options as they are expensive to build, which is why having access to grants and funds mentioned previously in this workshop are imperative for these projects to move forward.

To address some of these concerns, SFPUC has drafted near-, medium-, and long-term goals to sustain engagement with the public. The near-term (less than two years) strategy involves procuring a mobile treatment unit to introduce treatment plant operators to advanced treatment and serves as a vehicle for the SFPUC to outreach to communities directly where they are located. The medium-term (within two to five years) strategy involves a permanent potable reuse feature in the SFPUC headquarters to demonstrate San Francisco's commitment to reusing water. This permanent feature would allow outreaching to decision makers, public officials, and others who come to the SFPUC headquarters. The long-term (within five to ten years) strategy entails a full-scale demonstration project that is widely accessible to the public. This demonstration project involves building operational capacity, providing training and certification opportunities, building confidence of regulators, and engaging in broad public engagement and education. Overall, for



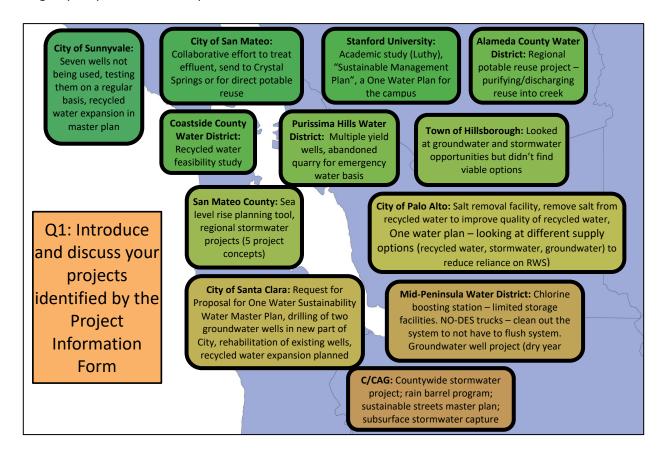
SFPUC's IPR and DPR projects to be further explored and eventually implemented, there must be continued and ongoing engagement, education, and collaboration with the public.

#### 5.6 Breakout Sessions

After the guest presentation, workshop participants were separated into four breakout rooms where the following questions were discussed:

- 1. Introduce and discuss your projects identified by the Project Information Form.
- 2. Notice any opportunities for collaboration? Inspired by any of the projects? If so, in what ways?
- 3. From these past three workshops, what has been most helpful to you and what would you have liked done differently?

The group responses to these questions are illustrated below.

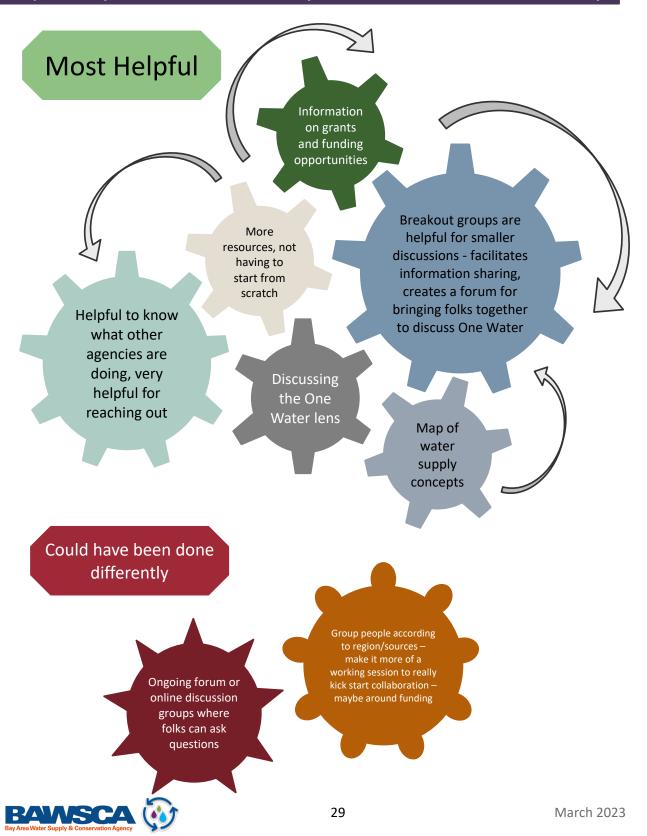




Alameda County NO-DES truck -Call out the Letters of support Water District Indirect potable Milpitas has geographic nexus of for grant project includes implemented them reuse for certain applications, recently - other collaboration groundwater projects, agencies are interested with Alameda funding point people to recharge in obtaining further Resource opportunities each other information **Conservation District** Look for Having context of NGOs can be a PREP project, stormwater other projects in vehicle to share The area can recycled projects as information with Help with water projects source of the public stakeholder recharge engagement **Partnerships** Chlorine boosting Need to make sure with local station collaboration that groundwater (Purissima Hills landowners, projects consider Water District / top-down potential impacts of Mid-Pen Water District) watershed sea level rise restoration Q2: Notice any Technical advisory Smaller agencies with committees to work limited funding opportunities for through barriers need to tailor and streamline work, larger collaboration? studies are helpful for processes their work Inspired by any of Valley Water the projects? If so, recharge to basin all wells need to be coordinated with in what ways? them



## Q3: From these past three workshops, what has been most helpful to you and what would you have liked done differently?

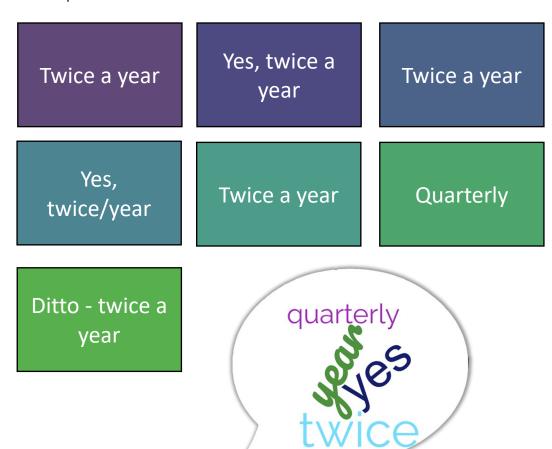


#### 6 ROUNDTABLE SERIES WORKSHOP #4: MOVING FORWARD!

The fourth and final workshop in the Roundtable Series looked back to all the topics and ideas discussed in the previous three workshops and looked ahead to the future of the Roundtable Series. This workshop, titled "Moving Forward!" introduced BAWSCA's Long-Term Reliable Water Supply Strategy (Strategy) and how the Roundtable Series will be incorporated into updating it, gave participants an update on the PIF work effort and an update on the available funding opportunities, included a guest presentation from the Alameda County Water District (ACWD) on its potable reuse feasibility project, and ended with breakout rooms intended to engage participants and compile ideas for the future of the Roundtable Series.

#### 6.1 Interactive Poll #1

The final workshop started with a reiteration of the purposes and goals of the Roundtable Series to refresh participants' minds. BAWSCA wanted to gauge the consensus on whether the Roundtable Series seemed valuable to the participants and if a continuation of the Roundtable Series would be worthwhile. BAWSCA therefore posed to the participants the first polling question: "Would you like to see more One Water Roundtable Workshops in the future? If so, at what frequency (quarterly, twice a year, etc.)?" The consensus was that participants did wish to see the Roundtable Series continue, mainly on a twice-a-year basis. The full responses can be found below.





#### 6.2 Interactive Poll #2

A second poll question was asked to provide insight into the potential format for the next round of the Series: "For possible future One Water Roundtable Workshops, would you prefer them to be virtual, hybrid, or in-person, and why?" The responses are shown below and mainly favored a hybrid or virtual model.

A few times a year, but I think there needs to be another mechanism for geographic coordination on water that helps any agency developing a water-related projects consider broader collaborative multi-benefit water opportunities

Virtual - more convenient

Virtual/hybrid for flexibility

Hybrid - more flexibility

Zoom

Hybrid

virtual/hybrid

conjectionity

person of times

person of times

In person

#### 6.3 BAWSCA's Long-Term Reliable Water Supply Strategy

BAWSCA gave a presentation on its upcoming Long-Term Reliable Water Supply Strategy. The 2015 Strategy consisted of a five-year effort to identify appropriate water management actions that provide long-term water supply reliability for the region. Work included a comprehensive assessment of the regional water supply reliability needs through 2040 and an evaluation of potential supply projects that could be implemented, ultimately providing a suite of actions to be taken by BAWSCA. These recommended actions included:

 Lead water transfer development and implementation including identifying and evaluating water storage options.



- Facilitate desalination partnerships and pursue outside funding for related studies.
- Support agency-identified projects (i.e., recycled water, groundwater) and local capture and reuse
- Participate in regional planning studies in cooperation with others.
- Continue monitoring regional water supply investments and policies.

For each recommended action, several work efforts to be performed by BAWSCA were proposed to further 2015 Strategy implementation. Since 2015, BAWSCA's annual budget and work plan has been aligned with the 2015 Strategy.

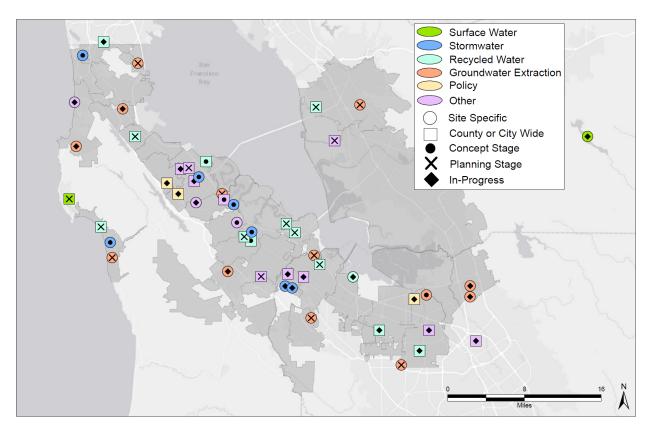
Since 2015, several important changes have occurred such that an update to the 2015 Strategy is warranted. Some of the primary changes include: (1) updated water demand studies; (2) updated Urban Water Management Plans (UWMPs); (3) updated Tier 2 Plan for SFPUC RWS supply allocations during water shortages cause by drought; (4) new water supply projects for member agencies have come online, as well as future plans not envisioned in 2015; (5) increased regulatory pressures that could impact existing supply reliability; (6) advancement of large regional supply projects such as the Los Vaqueros Reservoir Expansion Project; and (7) preparation by SFPUC of an Alternative Water Supply Plan which informs BAWSCA and its member agencies of their future supply reliability plans.

The updated Strategy will include two phases: Phase 1 will consist of scoping for the Strategy update and will include a Request for Proposals for consultant assistance. Scoping of the Strategy is anticipated to begin in spring 2023 and extend into fall of the coming fiscal year (FY). BAWSCA's current FY budget and proposed FY 2023-24 budget includes funding for the scoping effort. Phase 1 will also include a review of various water supply documents prepared by BAWSCA, member agencies, SFPUC, and others, stakeholder engagement, and technical support. Phase 2 will consist of the Strategy update itself and is anticipated to commence in FY 2023-24 and extend into FY 2024-25. BAWSCA envisions that a stakeholder task force will be needed for the update, and that engagement with the task force and the public at large will likely include workshops and presentations. These workshops and presentations may be held separately or could be conducted as part of future Roundtable Series workshops.

#### 6.4 Updated Project Information Form Summary

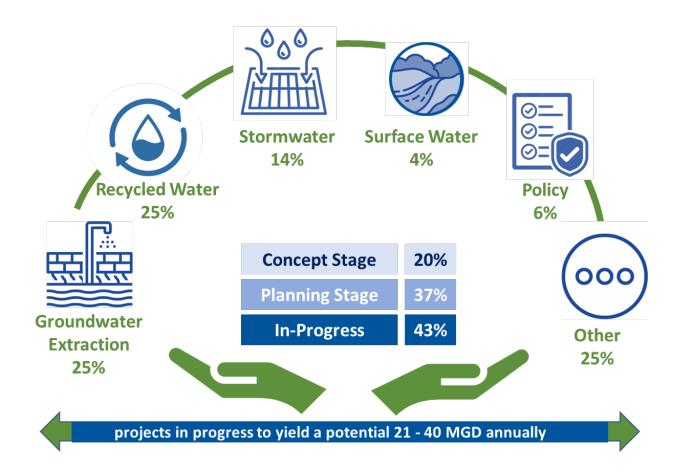
EKI gave an update on the status of the Project Information Forms and the grant/funding opportunities previously presented during Workshop #3. As discussed in Section 4.2, the PIFs were designed to collect information from all member agencies and Roundtable Series participants regarding what types of water supply projects are being planned, already in progress, or are at a conceptual level throughout the BAWSCA service area. As of February 2023, a total of 51 projects have been identified that include a broad range of supply projects including recycled water, groundwater extraction, and stormwater, among others. A figure showing the distribution of the location and type of projects is presented below. **Attachment C** includes copies of all PIFs and a summary table of the project information.





The total potential additional yield from all identified projects was estimated to be between 21 and 40 million gallons per day (MGD), the majority of which would be derived from groundwater extraction and recycled water projects. As shown below, approximately 37% of identified projects are in the planning stage, 43% are in-progress, and another 20% are in the conceptual stage.





#### 6.5 Updated Grant/Funding Opportunities for One Water Projects

EKI also provided an update to the grant and funding opportunities information initially provided during Workshop #3. As discussed in Section 5.4, funding opportunities from DWR, EPA, USBR, and SWRCB were discussed and summarized (**Attachment D**). The primary updates and changes to the summary table included new grant programs, removal of outdated programs, and updated solicitation dates for programs that were introduced at the previous workshop but had an unknown application opening date.

#### 6.6 Guest Speaker

Kelsi Oshiro from ACWD presented the results of a feasibility evaluation of a purified water project in collaboration with SFPUC and the Union Sanitary District (USD).

• Purified Water Feasibility Evaluation (PWFE), presented by Kelsi Oshiro of ACWD: ACWD is in the process of completing a PWFE with the goal to identify recommended purified water alternatives, including a high-level cost estimate, and submit the finished draft report to the USBR Title XVI and eventually submit to the SWRCB Water Recycling Funding Program. Alternatives were evaluated with and without USDs Enhanced Treatment & Site Upgrade (ESTU) program. A draft recommended alternative included a combined IPR/DPR train as Phase 1 and DPR as Phase 2. This recommendation assumed the ETSU program would be complete. The recommended alternative is anticipated to produce about 7,600 AFY of advanced treated purified water for recharge into the Niles Cone groundwater basin via Quarry Lakes. Water would be pumped at ACWD's existing groundwater facilities and demineralized at a new reverse osmosis



(RO) facility to match Hetch Hetchy water quality. This may provide ACWD an opportunity to increase use of local groundwater supply and decrease imported water from SFPUC to help achieve its hardness goals. Total capital costs ranged from approximately \$369 million to \$517 million for Phase 1 and \$536 million to \$696 million for both Phase 1 and Phase 2.

The PWFE also includes a limnological study to characterize existing Quarry Lakes water quality and the effect of adding purified water. The study suggested that water quality from the advanced water purification facility (AWPF) would improve in Quarry Lakes, and suggested short- and long-term monitoring plans that would help gather additional water quality data for Quarry Lakes, including blue-green algae issues. Next steps include completing a more detailed model, continuing to implement the short-term monitoring plan, and implementation of a long-term monitoring plan.

A siting study as part of the PWFE determined that the final location of the AWPF can impact project costs but would not restrict or change the primary project benefit of developing new regional water supplies. The decision to pursue both Phase 1 and Phase 2 of the alternative will be made at a later date by the partner agencies involved and could be impacted by capital and operational costs, available grant and loan funding, and final DPR regulations.

#### 6.7 Breakout Sessions

After the presentations by BAWSCA, EKI, and guest ACWD, participants were divided into three breakout rooms to start a conversation about the Roundtable Series experience. Facilitators wanted to gauge what worked well in the workshops and what people enjoyed about the Roundtable Series, and what participants would like to see more of in future workshops. More specifically, the participants were asked:

- What concepts covered in these workshops stood out the most to you? Any memorable guest speaker or presentation? If so, why?
- What topics/ideas would you like future Roundtable discussions to cover?
- What could the Roundtable team have done differently to increase outreach for the workshops/encourage more participation?
- And the same question from Workshop #3 "From these past three workshops, what has been most helpful to you and what would you have liked done differently?" was asked once more since participants ran out of time to fully engage in this question at the last workshop.

The outcomes of the discussions of these prompts can be found below:





#### Q2: What topics/ideas would you like future Roundtable discussions to cover? **Alternatives** Recycled water Stormwater Get more agencies can take Public/stakeholder discussions, case capture – potential wastewater outreach advantage of agencies involved impacts to studies beyond RWS landscape Governance – how Laundry to Sharing of tips and can we make it work landscape projects tricks, as well as better to achieve and funding for Water reuse projects that are results; how to projects going on them integrate When looking at Grant funding /joint funding opportunity funding applications, lessons learned, etc., Surface water and - "What is the water storage especially for recycled perfect project for this?" water and groundwater Need to make topics Identify the compelling audience vou want to **Avoiding** target workshop Make it more Roundtable could be overload clear what Can focus more a forum to announce particular to on specific the topics will new projects certain sectors projects and be (stakeholder opportunities outreach) and Different levels of opportunities to find collaboration honest conversation alliances and support Combine depending on who is Increase with existing in the room (i.e., wastewater in-person invested stakeholders agency It's challenging events vs stakeholders who involvement remembering past events you want buy in from) since they're spaced out, perhaps an email, survey Santa or other form of outreach Ask people Clara/Alameda that can help participants why they county agency re-engage/remind them stopped involvement Maybe of what was discussed at coming, did make them the last roundtable they know shorter about it? Q3: What Could the Roundtable Team Have Done Differently to



Increase Outreach for the Workshops/Encourage More Participation?

#### Q3: From these past three workshops, what has been most helpful to you and what would you have liked done differently? Most Helpful Hybrid format can and speakers, be beneficial to enjoyed hearing improve Surprised by the engagement, if what other agencies total water supply quarterly, can have are doing, not just opportunity one in person Bay Area, but represented by around the State projects presented and submitted through PIFs Virtual format Liked the is helpful breakout because it's rooms as an easier to fit in important Liked the focus part of the the schedule topic areas for process each meeting/clear outcome for each session Could have been done differently More involvement with non-water Equity component individuals or could be explored, agencies to show conservation them the types of Would like more of a programs that discussions being everyone, how do we advance things and discussion of multitarget lower conducted regarding benefits. Looking at where water planning not just look groundwater recharge is available, location of retrospectively? watersheds, assets, etc. to see where there's opportunities for more More NGO/noncollaboration. Could help water agencies bring the public along. Make sure people don't (e.g. wastewater Keep it to feel lost if they haven't and storm water participated previously, 90 agencies) so encourage on-going minutes participation participation, maybe through website links, max etc. It is hard to find info on the BAWSCA site Tracking offline collaboration to track effects



#### **7 FINDINGS AND NEXT STEPS**

Based on the Roundtable Series the following key findings are summarized:

- There is significant interest in, and activity towards, developing local projects to increase supply diversity and resiliency within the BAWSCA service area. As discussed in Section 6.4, a total of 51 projects were identified to be in some stage of development across the region, totaling between 21 and 40 MGD of potential supply. Project types included recycled water, groundwater extraction, stormwater, surface water, and policy projects, among others. Approximately 40% of identified projects were in the planning stage, 40% were in-progress, and another 20% were in the conceptual stage. Participants expressed strong interest in continuing to track project implementation progress to support information sharing and to pursue opportunities for collaboration.
- There is interest in having BAWSCA continue to facilitate the Roundtable Series as a means to continue to gather and share information regarding project development, funding, governance, and implementation. Roundtable participants expressed hesitancy to implement One Water planning due to jurisdictional, institutional, or regulatory boundaries; lack of opportunities for interagency collaboration; and resource and knowledge gaps. There was interest expressed in BAWSCA maintaining an inventory of projects and other tools (e.g., ordinances and policies) that others were developing to support efficiency, coordination, and information sharing. Numerous ideas were presented by participants for future topics.
- Funding appears to be a significant and common hurdle. Participants expressed that they lacked resources to track and respond to grant and other funding opportunities. BAWSCA could provide significant value to local agencies by assisting in identification of grant opportunities that aligned with agency projects and by helping agencies with the preparation of grant applications, letters of support, and other funding opportunities. Agencies were also interested in the exploration of alternative project funding models to support the development of local projects to increase local and regional supply resiliency, such as those discussed during Workshop #2.

Based on the feedback received during the Roundtable Series, the following potential next steps have been identified.

- BAWSCA will consider incorporating semi-annual workshops into its future workplan to support
  on-going participation in the Roundtable Series. Refinements to the structure will be considered
  (e.g., hybrid or virtual, timing, duration, topics), as well as expanded stakeholder outreach.
- BAWCSA will consider expanding its agency support to include grant tracking, education, and potential support for grant preparation (e.g., via a subscription program).
- Information gathered as part of the Roundtable Series (e.g., the Project Information Forms) will
  inform the forthcoming scoping and development of the update to BAWSCA's Long-Term Reliable
  Water Supply Strategy.



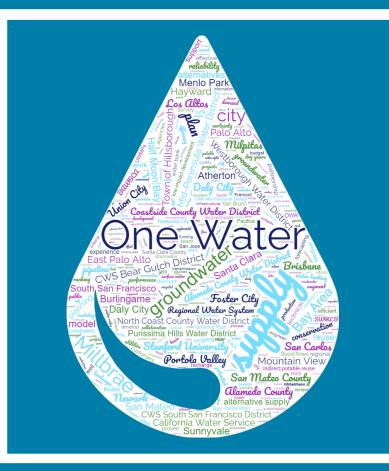
## One Water Reliability Roundtable Series Report

**Bay Area Water Supply and Conservation Agency** 

**Attachments** 







nage source: https://bawsca.org/





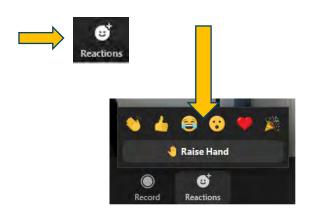
#### Attachment A

**Workshop Presentations and Breakout Session Slides** 

## Meeting Instructions While We Gather

- You have been muted upon entry
- Please feel free to <u>Unmute</u> yourself to say "Hi" and test your sound connection
- Please <u>Mute</u> yourself during meeting when you are not talking
- During the meeting, BAWSCA staff will mute your sound and video if necessary
- The **Raise Hand** feature will be used for questions
- \*NEW\* To get the <u>Raise Hand</u> button, Click on <u>Reactions</u> button at the bottom of your screen and Select <u>Raise Hand</u>
- The <u>Chat</u> function is enabled
- If you have technical difficulties, please text Lourdes at 650-799-3854









"A multicounty agency authorized to plan for and acquire supplemental water supplies, encourage water conservation and use of recycled water on a regional basis."

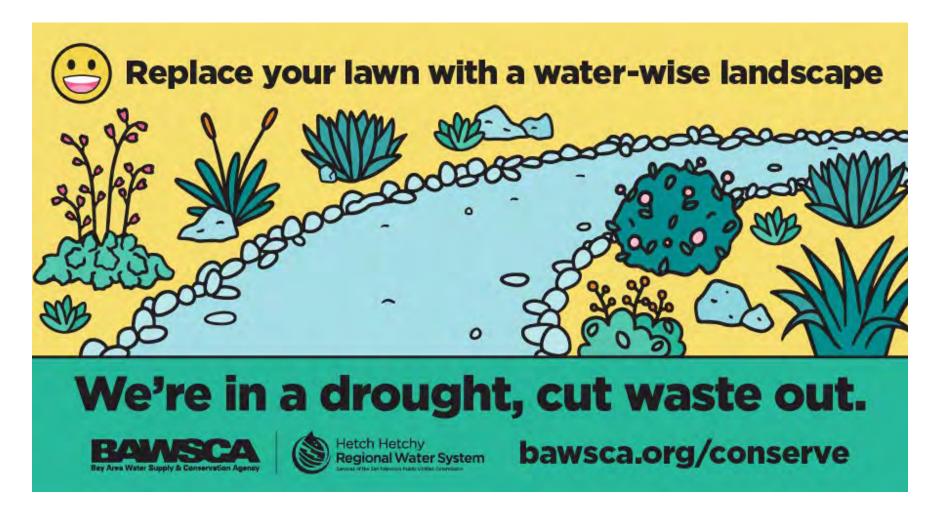
[BAWSCA Act, AB2058 (Papan-2002)]

# Water Supply Reliability Roundtable

Workshop I: Demystifying the One Water Concept
May 24, 2022



### Call to Order & Welcome

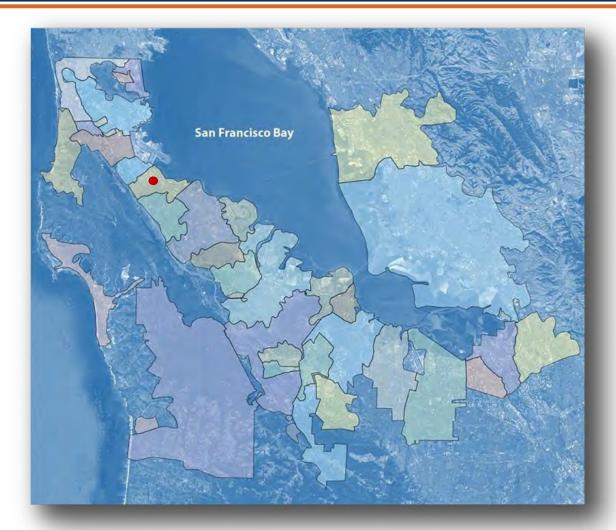




# What is BAWSCA? (Bay Area Water Supply and Conservation Agency)

Special District formed in 2003 to represent the interests of:

- 26 water suppliers in San Mateo,
   Santa Clara, and Alameda Counties
- I.8 million residents and over 40,000 businesses, and countless community organizations
- All rely on the San Francisco (Hetch Hetchy) Regional Water System





# BAWSCA's 26 Member Agencies are Served by the Regional Water System

#### **Alameda County**

Hayward, Alameda County Water District

#### **Santa Clara County**

Milpitas, San Jose, Santa Clara, Sunnyvale, Mountain View,
 Palo Alto, Purissima Hills WD, Stanford University

#### **San Mateo County**

 East Palo Alto, Menlo Park, Redwood City, Cal Water Service Company, Mid-Peninsula WD, Coastside CWD, Foster City (Estero), Burlingame, Hillsborough, Millbrae, San Bruno, Brisbane, Guadalupe Valley MID, North Coast CWD, Westborough CWD, Daly City

**BAWSCA** Board of Directors is comprised of an elected or appointed representative from each member agency





# Introduction & Purpose of the Roundtable Water Supply Reliability Roundtable





### The Purpose and Goals of Roundtable Discussions

 <u>Purpose</u>: Provide an opportunity for collaboration among interested stakeholders

### • <u>Goal</u>:

- Understanding of how projects can fit within the one-water concept
- Identification of collaborative opportunities
- Identify how entities can best support, help finance, permit/approve, and/or expand projects or programs that have the potential to offer multiple benefits



### Roundtable Meeting Series



Workshop I

Demystifying the One Water Concept

- •Date: May 24, 2022; I0AM-I2PM, **Zoom Meeting**
- •We will demystify the One Water Concept and explore how it can be applied to the BAWSCA region. Speakers will provide an overview of the One Water Concept and examples of successful implementation.



Workshop 2

**Regional Partnerships Mean Regional Funding** 

- •Date: June 28, 2022; 10AM 12PM, Zoom Meeting
- •We will focus on how regional partnerships can be leveraged for a variety of regional funding solutions. Speakers will discuss regional funding models that have been employed in the Bay Area and Southern California to bring projects into reality.



Workshop 3

**Identifying Local** "One Water" Projects

- •Date:TBD September 2022, In-Person
- •Share your organization's planned or potential One Water projects with the group, whether they're in the early stages of planning, or a mere twinkle in your eye. With all local projects on the table, we can begin to identify real and meaningful opportunities for One Water collaborations and funding opportunities. If conditions allow, a networking mixer will follow the Roundtable Workshop.



Workshop 4 **Moving Forward!** 

- •Date:TBD October 2022, In-Person
- •We will spend some more time exploring and summarizing local and regional One Water projects and concepts, as well as discuss potential next steps. If conditions allow, a networking mixer will follow the Roundtable Workshop.

### **One Water Roundtable Series**





Hosted by BANSCA with support from environment & water



### Who has been Invited to Participate?

- All BAWSCA member agencies / Cities
- Wastewater agencies (located in San Mateo, Santa Clara and Alameda counties)
- San Mateo County agencies
  - C/CAG
  - San Mateo County Office of the Environment
  - SMC Office of Sustainability
  - SMC Flood and Sea Level Rise Resiliency District
  - Resource Conservation District
- Valley Water (representing a subset of Santa Clara County interests)
- NGOs
  - Multiple environmental NGOs
  - Multiple business NGOs
  - ReNUIT
- A complete list of those invited is provided at <a href="https://bawsca.org/water/reliability/Roundtable">https://bawsca.org/water/reliability/Roundtable</a>



### Roundtable Format

- Length/Frequency:
  - 2-hour workshops (May, June, September and October of 2022)
- Meeting Format:
  - Topic-specific speakers to support education
  - Breakout sessions to support collaboration
- <u>Venue = Hybrid Approach</u>:
  - The roundtable may meet in person in Fall 2022 depending on circumstances
- Organizer:
  - BAWSCA will serve in the role of roundtable organizer
  - C/CAG has provided significant assistance
- Consultant Support:
  - BAWSCA has hired EKI to support the roundtable efforts



### Work Product and Outcome

### • Work Product:

- A document summarizing the Roundtable discussions
- A technical memorandum detailing current funding / grant opportunities
- A website that will provide a resource for providing updates as to projects and programs underway by the parties <a href="https://bawsca.org/water/reliability/Roundtable">https://bawsca.org/water/reliability/Roundtable</a>
- Individual Participant Input Desired:
  - For BAWSCA, there is the desire to use input from the roundtable to help scope the next update of its Long-Term Reliable Water Supply Strategy
  - Other participant agencies and organizations will have their own possible use and expectations of the roundtable



## Demystifying the One Water Concept





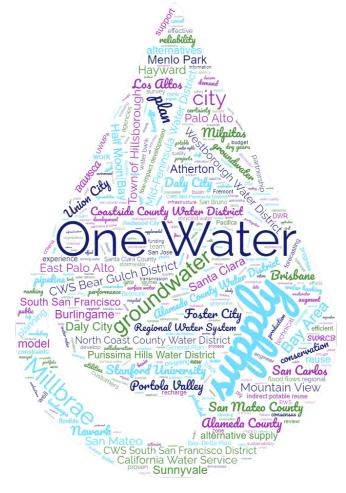
# How would you define "One Water" planning?





Type your message into the chat.

After 1 minute, everyone will hit "send" together.



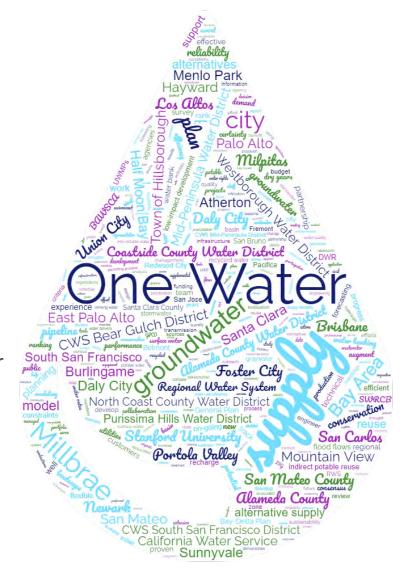




# Defining One Water

One Water is an integrated planning and implementation approach to managing finite water resources for long-term resilience and reliability, meeting both community and ecosystem needs.

--Water Research Foundation, Blueprint for One Water

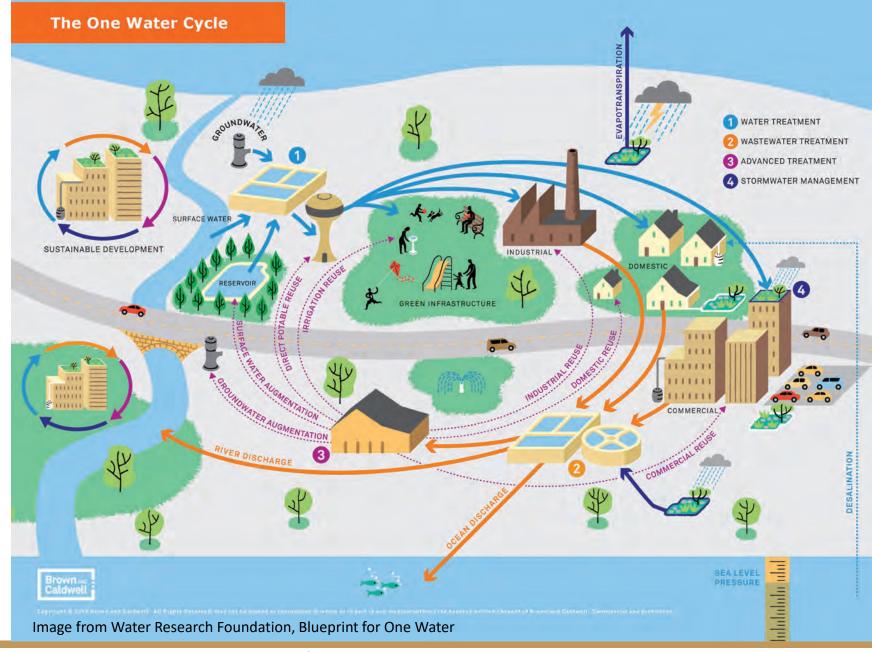






## **One Water** Considers the "Whole Picture"

- Full water cycle, and all users
- Emphasizes all water has value
- Broad view not just the aspect a given agency has responsibility for
- Partnerships and collaboration are central to its success

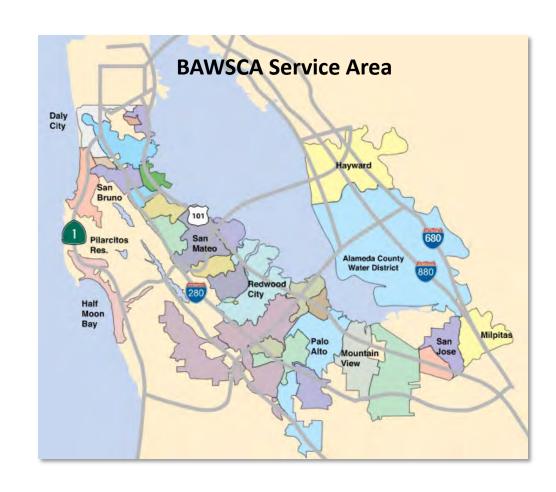






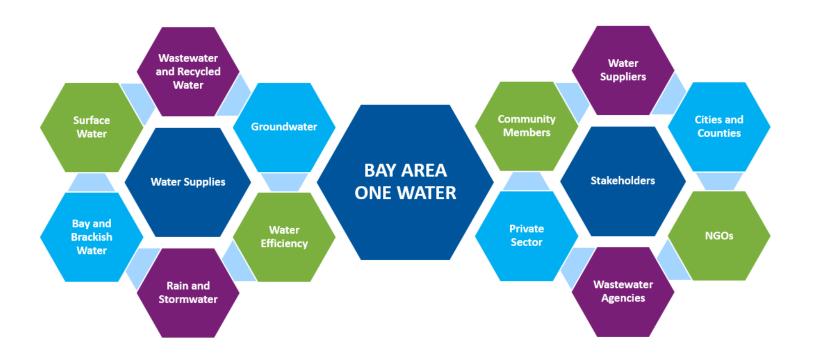
## **Benefits of One Water Process**

- Greater resilience and reliability
- Opportunities to optimize regional infrastructure
- Sustainable community development
- New regulatory flexibility or opportunity
- Economic growth opportunity
- Increased coordination among agencies/departments









### One Water is Specific to a Time and a Place

- No "one-size" fits all map for One Water
- Emphasizes collaborative process encouraging stakeholders to work together to solve water challenges
- Takes into account changing water supply reliability, environmental needs, shifting regulatory frameworks
- Looks at stakeholders and resources available



# One Water is for Everyone

- Likely already involved in One Water-type planning
  - Integrated Regional Water Management
  - Water, Wastewater, Recycled Water Master Plans
  - Green Infrastructure
  - Groundwater Sustainability Plans
  - Anything that breaks down the "silos" in water and thinks about the system as a whole
- One Water builds upon existing plans to identify efficiencies and increased cohesion between stakeholders
- End result can take on many forms, such as a separate comprehensive plan or a framework for guiding collaborative actions
- Results depends on the entities involved and their varying needs and opportunities

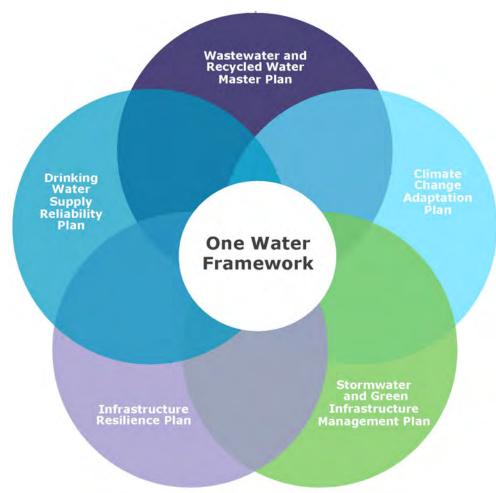
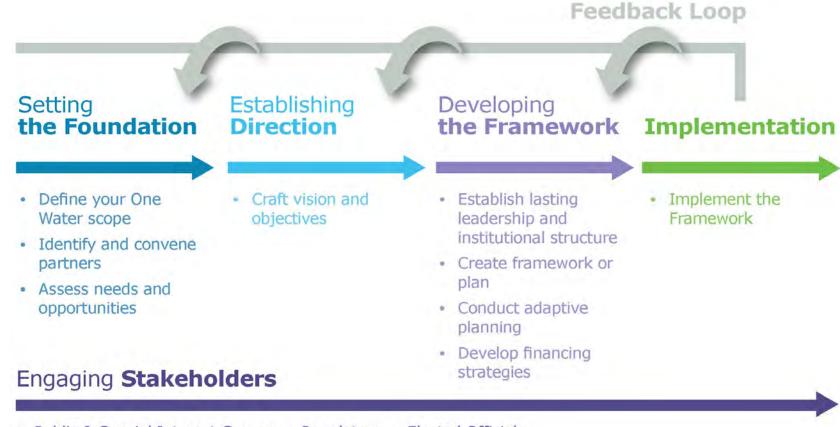


Image from Water Research Foundation, Blueprint for One Water





# Steps to One Water Planning



Public & Special Interest Groups
 Regulators
 Elected Officials

Image from Water Research Foundation, Blueprint for One Water







## Learn More about One Water

- Blueprint for One Water Water Research Foundation
- One Water Plan Valley Water
- One Water LA 2040 Plan City of Los Angeles
- One Water Roadmap US Water Alliance
- OneWaterSF SFPUC

















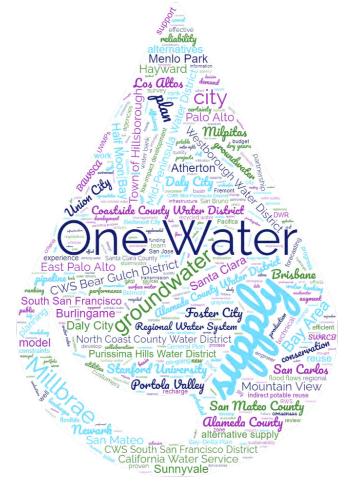
# How is your organization currently doing One Water planning?





Type your message into the chat.

After 1 minute, everyone will hit "send" together.





### One Water LA 2040 Plan





### // Presentation Outline

### One Water LA: Setting the Stage for a Sustainable Future

- Project Background
- Near-Term Integration Opportunities
- Long-Term Integration Opportunities
- Stakeholder Engagement
- Outcomes, Benefits and Lessons Learned
- Q&A









# // The City of Los Angeles faces many challenges One Water Plan Drivers

### **Population Growth**



Heavy dependence on imported water



**Aging Infrastructure** 



More Stringent Stormwater Regulations



**Climate Change Threats** 



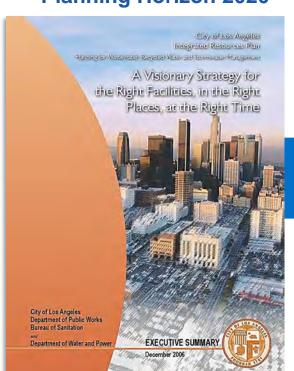
Limited Funding & Resources



# // To manage all water as "One Water" the City initiated the One Water LA 2040 Plan

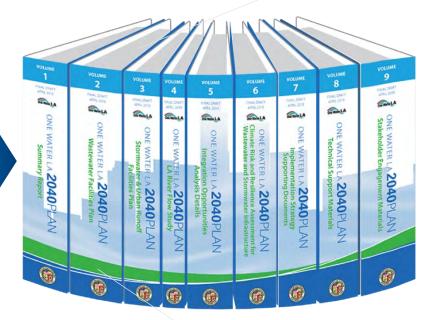
**2006 Integrated Resources Plan** 

**Planning Horizon 2020** 



One Water LA 2040 Plan

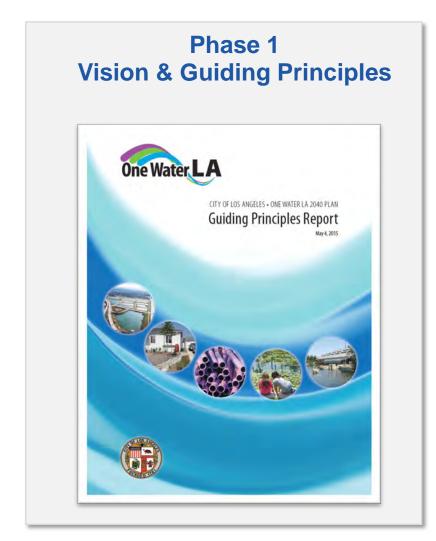
**Planning Horizon 2040** 



LA's Sustainable City Plan



# // The Plan was developed in two phases and consists of many plan elements



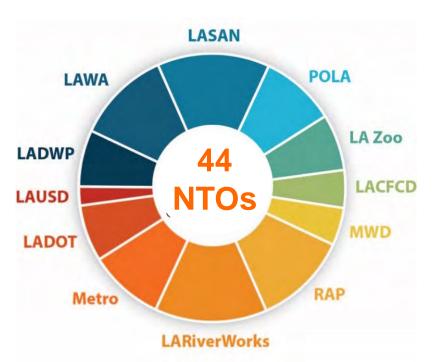




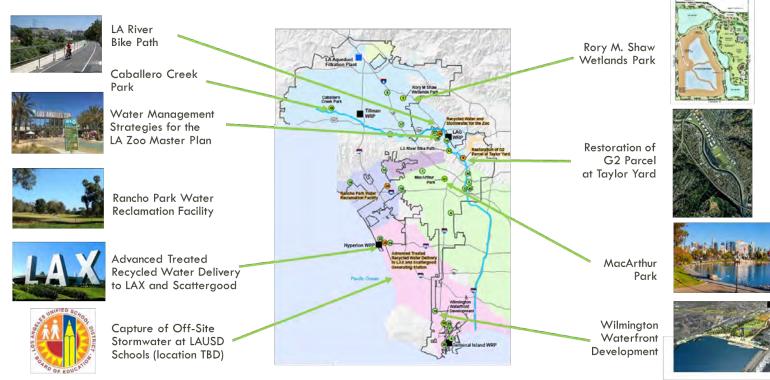
### // One Water LA 2040 Plan

# One Water LA

### **Near-Term Integration Opportunities**



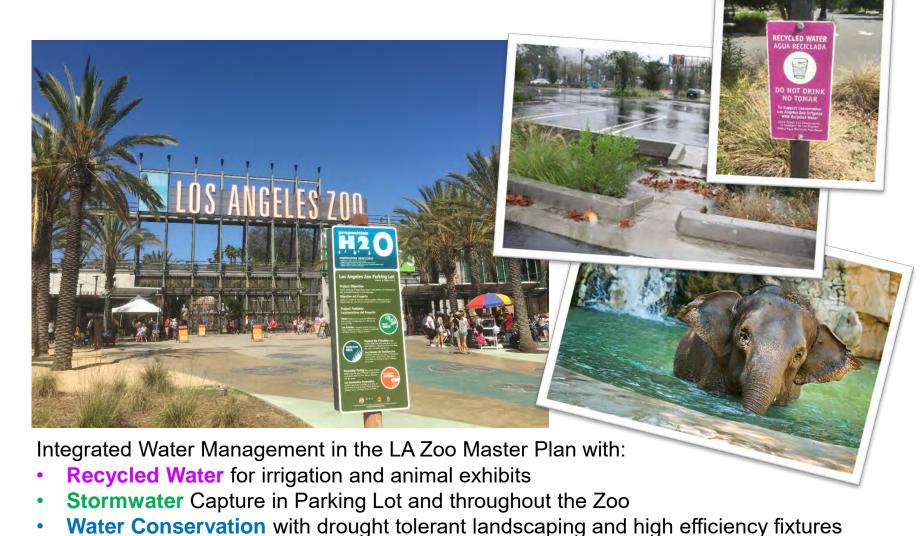
#### **Top 10 Near-Term Integration Opportunities**



### // Near-Term Integration Opportunities

### LA Zoo Master Plan







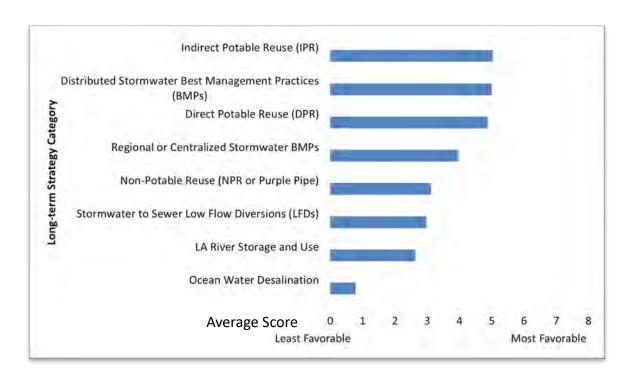
## From Sustainability Plan Goals to Plan Recommendations

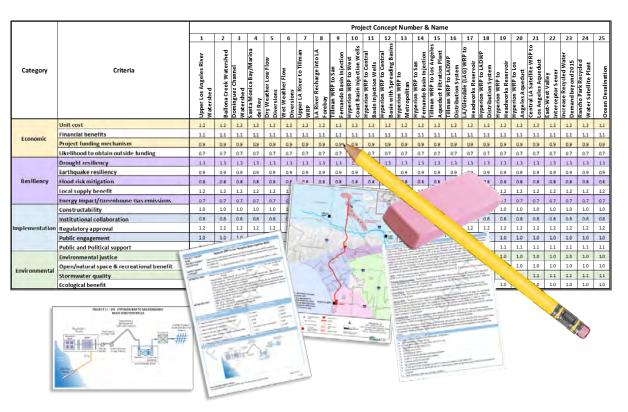


## The Plan recommendations reflect the community priorities

Online Survey with 300+ Stakeholders to gain on input on the relative importance of 8 water management strategies.

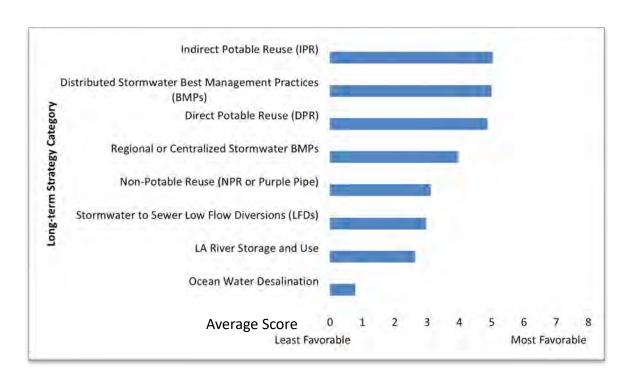
A broad team of City staff and technical advisors evaluated and scored all **27 concept options**.





## The Plan recommendations reflect the community priorities

Online Survey with 300+ Stakeholders to gain on input on the relative importance of **8 water management strategies** 



Stakeholders provided input on the One Water portfolio evaluation criteria and Weighting Factors



## One Water LA 2040 Plan

Green New Deal Goal: 70% by 2035

Goal: Increase local water supply from 15% to 50%

#### Targets

#### Long-Term Outcomes

#### Sourcing:

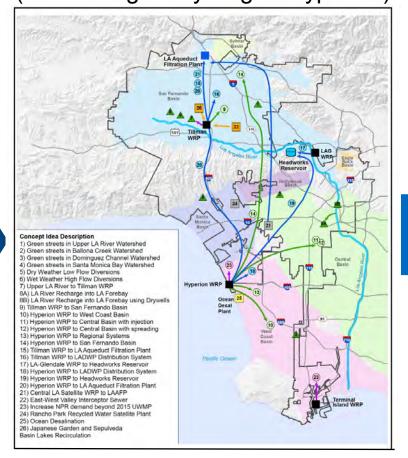
Reduce Department of Water & Power (DWP) purchases of Imported water by 50% by 2025, and source 50% of water locally by 2035, including 150,000 acre-feet per year (AFY) of storm water capture.



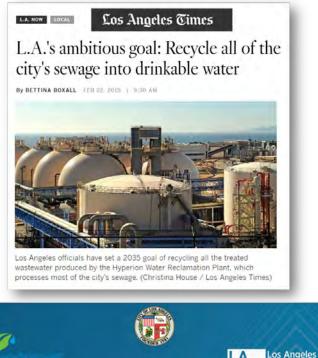
441,871 acre-feet purchased from the Metropolitan Water District between July 2013 and June 2014

Source: City of Los Angeles, Department of Water and Power

# From 27 to 6 Long-term Concepts (incl. 90 mgd recycling at Hyperion)



# From 90 to 220 mgd recycling at Hyperion







## // Stakeholder Engagement

Bold leadership - setting the stage for integration, collaboration, and innovation



**Adel Hagekhalil** (LASAN's Assistant Director) and **Marty Adams** (LADWP's Chief Operating Officer) provided strong visionary leadership for One Water LA

## // Stakeholder Engagement

## Multi-level Institutional and Stakeholder Collaboration

Over 30 representatives from City departments & regional agencies

STEERING COMMITTEE

10 stakeholders representing a diversity of groups & interests

ADVISORY GROUP STRATEGIC PLANNING GROUP Monthly meetings for input from Executive Management and Senior advisors

Over 40 one-on-one meetings with departments & regulatory agencies

FOCUSED MEETINGS

SPECIAL TOPIC GROUPS

TEAM

STAKEHOLDER

WORKSHOPS

250+ stakeholders and 15 workshops held to date

More than 15 in-depth discussions around 5 special topics:

- Partnerships & collaboration
- Stormwater management
- Communication & outreach
- Decentralized/on-site treatment
- Funding & cost-benefit

## // One Water Steering Committee

## New Vehicle for Institutional Collaboration

#### **Steering Committee Members**

- 14 City Departments
- 6 Regional Agencies

#### **Key Accomplishments**

- Developed Vision, Objectives, & Guiding Principles
- Identified existing integration opportunities
- Identified policies to streamline integration between departments & agencies
- Created awareness to integrate water elements in projects & programs

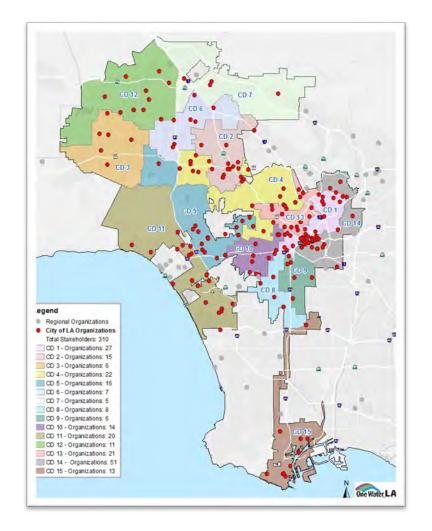


## // Stakeholder Engagement

## Broad engagement from start to finish and beyond

500+ 200+ Stakeholders Organizations



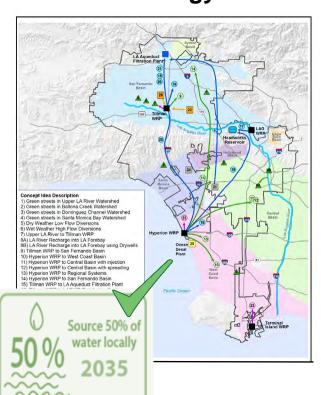




### // One Water LA 2040 Plan

## **Project Benefits**

# Long-Term Climate Resilient Water Supply Strategy



# Proactive Climate Resilience Improvements Save Hundreds of Millions







# Improved Institutional Collaboration & Community Support



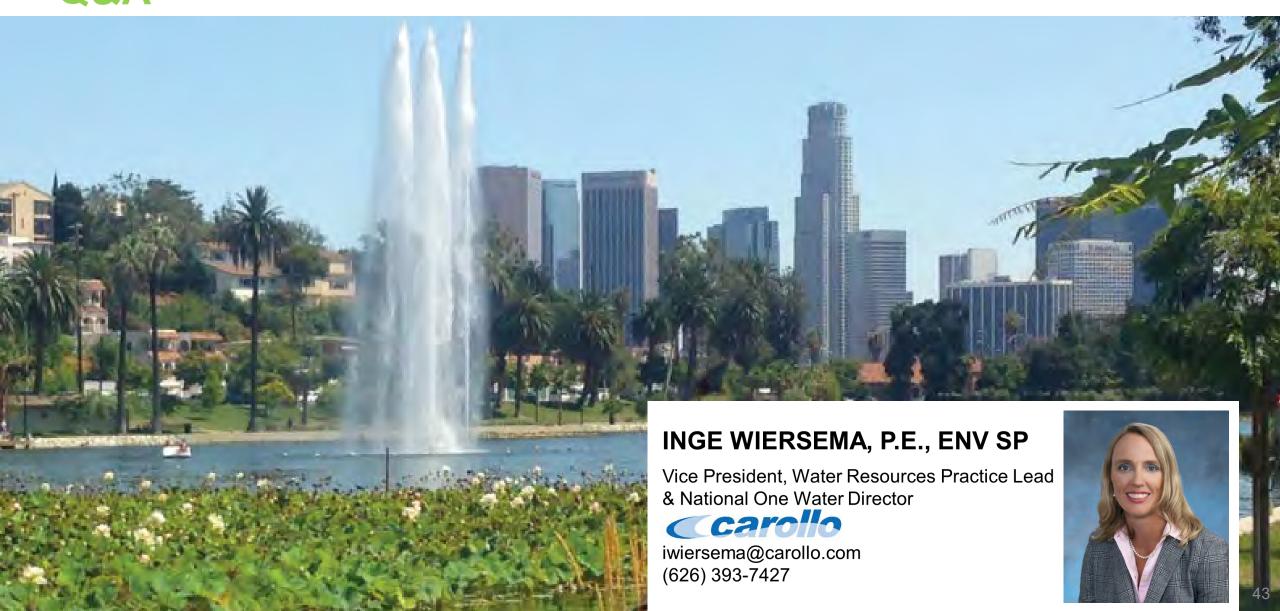


# Cost Sharing and Funding Opportunities





# One Water, Setting the Stage for a Sustainable Future. Q&A



### Palo Alto's One Water Plan









### **Palo Alto Council Policies**





Goals and Key Actions in 7 areas including Water

Commitment to developing alternative water supplies to preserve and protect Tuolumne River



## **Key Action: One Water Plan**

PALO ALTO

- Develop a "One Water" Portfolio for Palo Alto
  - Water supply and conservation options
  - Mindset that all water has value
  - More resilient to impacts of climate change
  - Managing water in ways that respect and respond to natural flows of watersheds and natural ecosystem, geology and hydrology
  - Economic, environmental and social benefits
  - Stakeholder engagement





### "One Water" Goal



Council adoption of a One Water supply plan that is a 20-year adaptable roadmap for implementation of prioritized water supply and conservation portfolio alternatives.



### One Water Role in Palo Alto Planning





# Northwest County Recycled Water Strategic Plan (in Partnership with Valley Water)

- How best to expand RWQCP Recycled Water Program
  - Feasibility of various potable and nonpotable water reuse opportunities
  - Ranked by cost and non-cost criteria
- Study Area:
  - RWQCP service area
  - Additional areas within Menlo Park & East Palo Alto
- Time Period
  - Through 2030

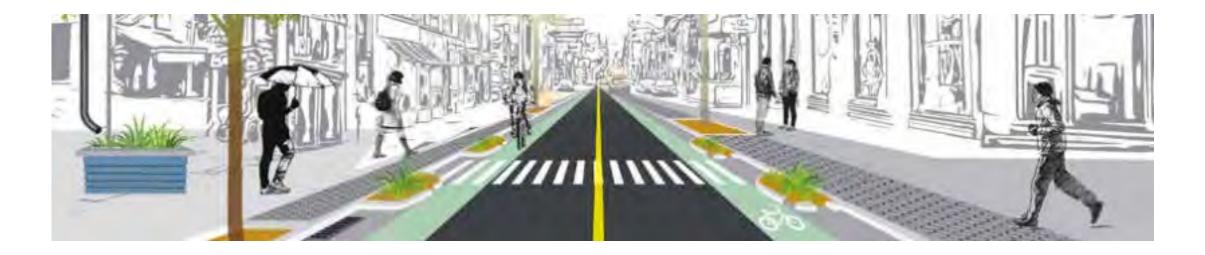




## Green Stormwater Infrastructure (GSI) Plan



- GSI can slow and clean stormwater runoff
- GSI Plan describes how Palo Alto will gradually integrate GSI features
- One Water Plan will consider GSI also as a water supply option



## **Demand Management/Conservation**



#### (In partnership with Valley Water)

- Landscape replacement
- Irrigation system controllers
- Grey water system rebate
- Indoor and outdoor Surveys
- Free showerheads, faucet aerators and toilet flappers
- Green Buildings and Landscaping
- Education and Outreach
  - Workshops
  - Bill inserts, e-blasts, social media





## One Water RFP – Key Tasks





- Develop evaluation criteria for Assessing Water Supply and Conservation Portfolio Alternatives
- Develop and Evaluate Future Water Supply and Conservation Portfolio Alternatives
- Stakeholder Input
- Final Report and Excel-based tool





## **Timeline and Next Steps**



- Scope Input from Utilities Advisory Commission at June 2021 meeting
- RFP issued November 17, 2021
- Intent to Award issued February 28, 2022
- Contract review by Council scheduled June 20, 2022
- Develop plan with lots of stakeholder input
- Council approval of One Water Plan mid 2023
- One Water email distribution list
  - 1) google "Palo Alto GovDelivery"
  - 2) create account
  - click on "One Water Plan"



https://public.govdelivery.com/accounts/CAPALO/subscriber/new?topic\_id=CAPALO\_282

## Breakout Session and Report Out





### Session Format

- You each will be assigned and moved to a breakout room at random
- The BAWSCA/EKI team will facilitate each breakout room discussion
- The session will be interactive, utilizing an approach that asks each participant to type directly onto the screen / slides shown as we move through the discussion
- At the conclusion of the breakout session, we will regroup and report out
- 45 minutes is reserved for the breakout session



## Plan for Next Roundtable Workshop





## Roundtable Workshop 2

- How to fund projects and programs is a critical in the planning and development process
- Our region can benefit by learning how others have approached this topic
- Speakers will discuss regional funding models they've identified or contemplated
- Do attendees have particular questions or requests as we finalize plans for the coming workshop?



Workshop 2

Regional Partnerships Mean Regional Funding

- Date: June 28, 2022; I0AM I2PM, Zoom Meeting
- •We will focus on how regional partnerships can be leveraged for a variety of regional funding solutions. Speakers will discuss regional funding models that have been employed in the Bay Area and Southern California to bring projects into reality.



## Adjournment to Next Meeting

# Next Roundtable Workshop

June 28

10 am - noon

Format: Zoom



## Introduce yourself and your organization

#### Canyon Oakland San Francisco Alameda San Leandro Daly City **HELLO** South San Francisco Steven Salazar Pacifica San Brun City of San Bruno Millbrae Burlingame

San

Mateo

#### **HELLO**

Danville

Kirsten Struve Valley Water

Union City

Newark

Pleasanton

#### **HELLO**

Kim Springer City/County Association of Governments of San Mateo County

#### **HELLO**

Livermore

**Thomas Niesar** 

**Alameda County** Water District

#### **HELLO**

Cathleen Brennan

**Coastside County** Water District



#### **HELLO**

Fremont

Lisa Bilir

City of Palo Alto **Utilities Department** 



El Granada

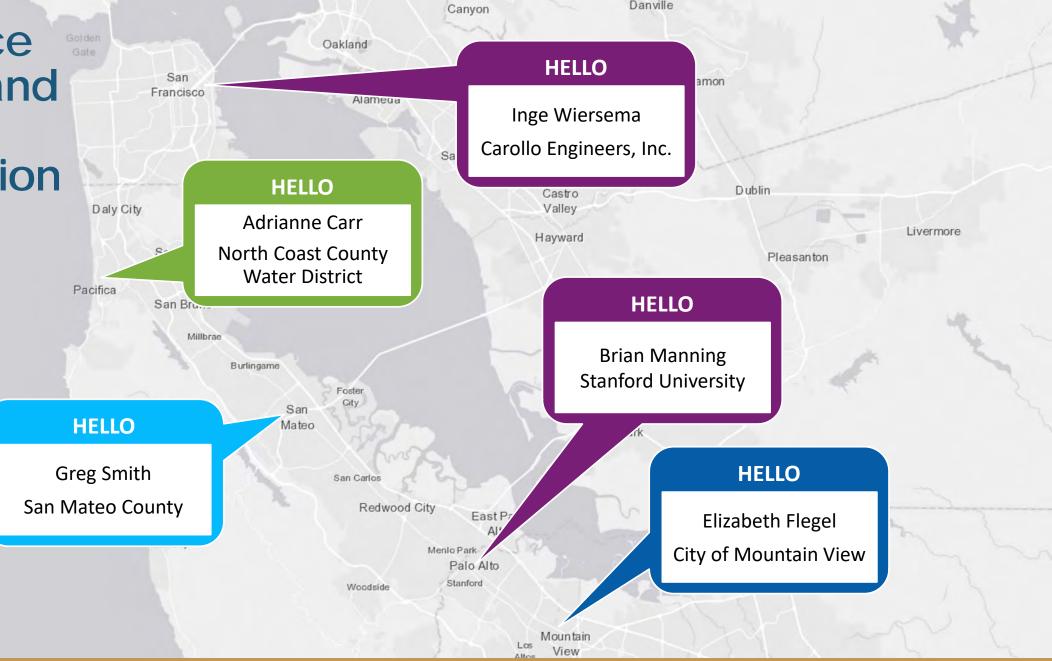
Moon Bay

Mountain

Hayward

Foster

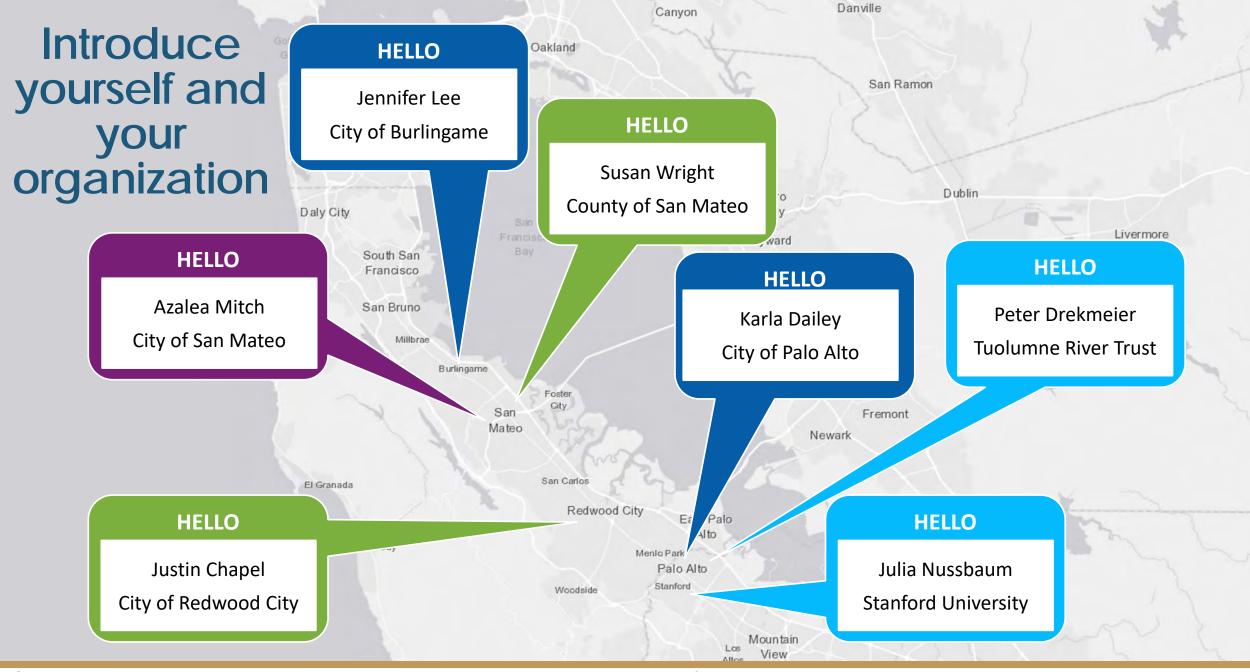
## Introduce yourself and your organization



Danville











## Introduce yourself and your organization

**HELLO** 

**Reid Boger** 

City/County Association

of Governments of San

**Mateo County** 

#### Danville Canyon Oakland San Francisco Alameda **HELLO** San Leandro Carol Steinfeld Castro Daly City Valley Loma Prieta Chapter Hayward of the Sierra Club South Franci Pacifica **HELLO** San Bruno Millbrae Mansour Nasser Burlingame City of Sunnyvale Foster San Mateo San Carlos El Granada Redwood City East Palo Palo Alto

**HELLO** 

Livermore

**HELLO** 

Sal Navarro

City of Hayward

emont

Dublin

**HELLO** 

Shilpa Mehta

City of Santa Clara

Milpitas

Jeff Provenzano City of San Jose

#### **HELLO**

Scott Jaw

City of Menlo Park



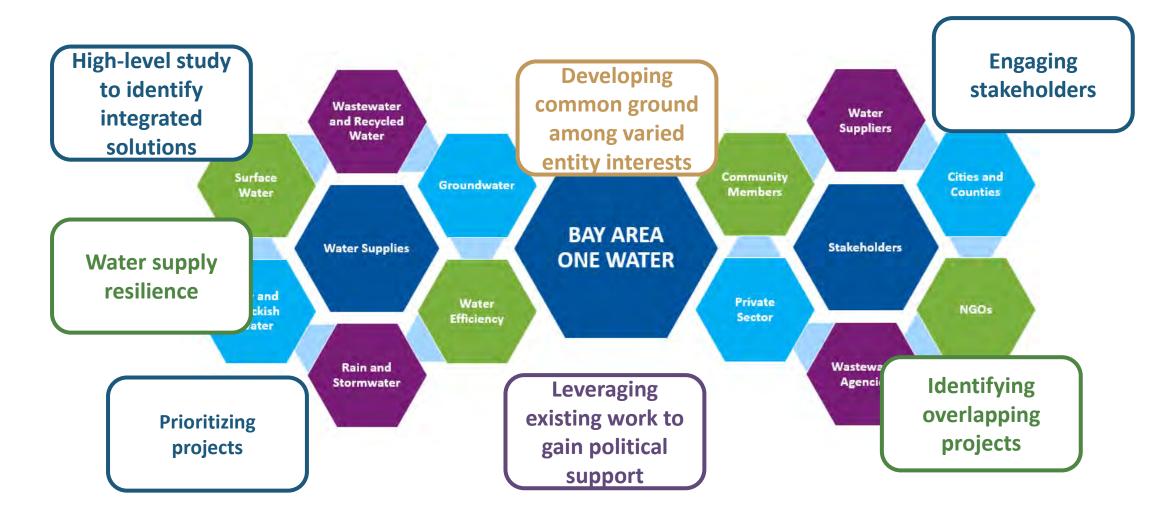


Mountain

Stanford

Woodside

## What opportunities can One Water offer?





## What opportunities can One Water offer?

**Education with Building** Officials, working with member systems around issues of re-use, backflow prevention

On-site septic; groundwater recharge

**Small recycled** water system

> Water **Conservation**

Wastewater, Stormwater capture, **Drinking water** 

**Recycled water;** wastewater sale to **Valley Water – source** of Pure Water program

Surface

Water

Bay and

Brackish

Water

**Health & Safety** part of the considerations

Wastewater

**Groundwater (reducing it** because demand & take or pay) – longer term trajectory of demand may rebound

Stormwater diversions and storage w/ groundwater wells as back up

> Non potable system for irrigation

Partner with Pacific on recycled water (RW); would like to increase use of RW on golf course, but issue with permitting and piping; potable reuse?? Maybe if there was an option to do augment groundwater recharge, but limited opportunity

historic water diversion on a creek, been using it for conservation (Water Right); focused on conservation

Feel reactive to requests for distributed systems / understanding interaction between on-site vs centralized; what is understanding on intersection; may really reduce demand conversion to recycled water use reduces demand by 75%

> **Pursuing groundwater** as a resource to blend with Hetch Hetchy supply

Harvesting fog? Starting research with **UC Santa Cruz and** Virginia Tech as fog catcher project

stewater

encies







# What opportunities can One Water offer?

**Recycled Water Partnerships** (regional group)

**Stormwater Capture** 

**Recycled water** for habitat enhancement

Comprehensive communication connected to the sources







# What opportunities can One Water offer?

**Onsite reuse** systems

**Emergency** water solutions using One Water

**Recycled water** expansion

> **Considering long**term impacts on onsite reuse. Need to be thoughtful.

Create multi-benefit solutions that reduce burdens on wastewater Wastewater treatment plants and Recycled Water

Surface Groundwater Water

**Water Supplies** 

Rain and Stormwater

Green stormwater infrastructure (GSI)

**BAY AREA ONE WATER** 

Water Efficiency

> **GSI** integrated to recycled water system for nonpotable uses

**GSI** for infiltration to groundwater

Community

Members

Private

Sector

Get the most out of stormwater as a source at multiple scales

Cities and Counties

stormwater capture and storage for reuse

Subsurface

Stakeholders

Wastewater

Agencies

Water

Suppliers

NGOs

**GSI** trucked to water trees and urban forestry

**GSI** for new development







Bay and

Brackish

Water

# What are 3 obstacles to One Water planning?

# What can be done to overcome those obstacles?

Jurisdictional and Institutional Boundaries

Synergistic solutions
Developing community support
Community outreach

Community Disengagement
Reluctance to embrace alternative supply solutions

Hands-on approach
Involve leaders of the community
Increase public education

State/legislative barriers

(Group did not have time to discuss)





# What are 3 obstacles to One Water planning?

# What can be done to overcome those obstacles?

Regulatory hurdles for permitting projects because of water quality issues; timeframe, etc.

Engage regulator in process of planning; urgency, practicability

Funding across multiple organizations for planning or projects – who pays how much?

Start having discussions early; negotiate costsharing; Target funding that is multi-benefit

Working across agencies/organizations can be a challenge

Identify common objectives to work more effectively together
"Safe space" for discussion





# What are 3 obstacles to One Water planning?

# What can be done to overcome those obstacles?

Public Perception (e.g. taste) regarding direct potable reuse – changing what people are used to

Getting input from multiple organizations on perception solutions

Difficulty in regional planning on One Water solutions

Working together on equitable funding

Balance between innovation and risk aversion

Implement pilot projects





## What are 3 obstacles to One Water planning?

## What can be done to overcome those obstacles?

Lack of knowledge of solutions

Roundtables, knowledge sharing, technical expertise. Sharing examples of what has been done. Lesson learned. Ideas of what can be done. Culture of learning and listening.

Resource gap (e.g., personnel, funding, etc.)

Grants (Fed or State).

Silos of water sectors. Interagency collaboration. Developing a collaborative plan with multiple agencies. Interdepartmental silos.

Getting groups together in one room. Describe the future. Getting the leaders in the room.



Regional **Desalination** 

**Direct potable** 

reuse

Non-potable fill stations

If there were absolutely no Oakland barriers, what water San Alameda **Integrated** projects would you like to purple-pipe network see in the Bay Area? Daly City Hayward South San Francisco More greywater **Utility-owned** reuse Water supply Union City conservation San Fremont Mateo Newark **Consistent** El Granada **Statewide** dwood City **Indirect potable** East Palo messaging reuse Moon Menlo Park Palo Alto Milpitas Stanford Mountain







Livermore

**Direct Potable Re-use** put it in Crystal Springs or put it in the pipe

San Francisco Oakland

Alameda

If there were absolutely no barriers, what water projects would you like to see in the Bay Area?

Pleasanton

**Diversity between** supplies (e.g., 4 supplies +

conservation)

South San an Bruno Millbrae Burlingame

Foster San

Mateo

Desal, but too much energy; public perception & environmental concerns

Hayward

Newark

you don't always know when you start where you will

Livermore

end up

El Granada

Daly City

Moon Bay

**Diversity** decreases risk

Woodside

East Palo Alto

alo Alto

Stanford

Milpitas

Mountain







**Direct potable** reuse

**Indirect potable** reuse (Crystal Springs)

**Graywater** opportunities

Stormwater capture and reuse





**Onsite reuse** residential scale

San Francisco

El Gran

**District** scale/cluster onsite system

If there were absolutely no barriers, what water projects would you like to see in the Bay Area?

GIS hub to track flow opportunity

> **Direct** and indirect potable reuse

**Producing own** potable water



San

Mateo

Foster

Hayward

Eas

Palo Alto

Stanford

projects are evaluated for Union City possible integration

All water

Fremor

Newark

**Stormwater** capture

**Development of** alternate water supply systems

Livermore

Milpitas

Mountain





**Desalination** 

Millbrae

Burlingame



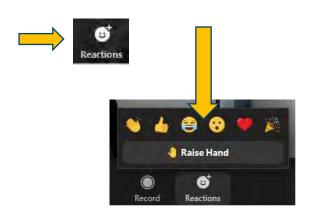
Woodside

Redwood City

# Meeting Instructions While We Gather

- You have been muted upon entry
- Please feel free to <u>Unmute</u> yourself to say "Hi" and test your sound connection
- Please <u>Mute</u> yourself during meeting when you are not talking
- During the meeting, BAWSCA staff will mute your sound and video if necessary
- The **Raise Hand** feature will be used for questions
- \*NEW\* To get the <u>Raise Hand</u> button, Click on <u>Reactions</u> button at the bottom of your screen and Select <u>Raise Hand</u>
- The <u>Chat</u> function is enabled
- If you have technical difficulties, please text Kyle Ramey at 650-787-1793









"A multicounty agency authorized to plan for and acquire supplemental water supplies, encourage water conservation and use of recycled water on a regional basis."

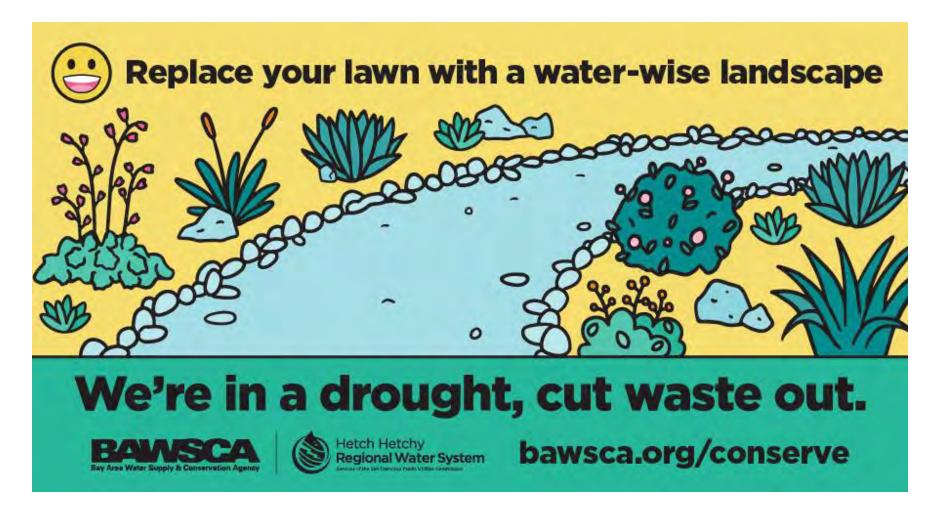
[BAWSCA Act, AB2058 (Papan-2002)]

# Water Supply Reliability Roundtable

Workshop 2: Regional Partnerships Mean Regional Funding
June 28, 2022



## Call to Order & Welcome





# Introduction & Purpose of Meeting Two





## Roundtable Workshop Series



Workshop 1

**Demystifying the One Water Concept** 

- Date: May 24, 2022; 10AM-12PM, **Zoom Meeting**
- •We will demystify the One Water Concept and explore how it can be applied to the BAWSCA region. Speakers will provide an overview of the One Water Concept and examples of successful implementation.



Workshop 2

**Regional Partnerships Mean Regional Funding** 

- •Date: June 28, 2022; 10AM -12PM, Zoom Meeting
- •We will focus on how regional partnerships can be leveraged for a variety of regional funding solutions. Speakers will discuss regional funding models that have been employed in the Bay Area and Southern California to bring projects into reality.



Workshop 3

**Identifying Local** "One Water" Projects

- Date: September 20, 2022; 1PM -3PM, Zoom meeting (although may be inperson if conditions warrant)
- Share your organization's planned or potential One Water projects with the group, whether they're in the early stages of planning, or a mere twinkle in your eye. With all local projects on the table, we can begin to identify real and meaningful opportunities for One Water collaborations and funding opportunities. If conditions allow, a networking mixer will follow the Roundtable Workshop.

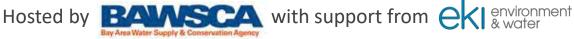


Workshop 4 **Moving Forward!** 

- Date: TBD October 2022, In-Person
- •We will spend some more time exploring and summarizing local and regional One Water projects and concepts, as well as discuss potential next steps. If conditions allow, a networking mixer will follow the Roundtable Workshop.

#### **One Water Roundtable Series**









# Purpose and Goals of Roundtable Discussions

 <u>Purpose</u>: Provide an opportunity for collaboration among interested stakeholders

### • <u>Goal</u>:

- Understanding of how projects can fit within the one-water concept
- Identification of collaborative opportunities
- Identify how entities can best support, help finance, permit/approve, and/or expand projects or programs that have the potential to offer multiple benefits



# Purpose of Workshop 2 Discussions

- Explore how the development of successful regional projects requires regional funding options
- Identify approaches to regional funding by:
  - Learning how BAWSCA funds its operations
  - Sharing how participants fund their current projects
  - Hearing from two agencies regarding their approach to regional funding
  - Discussing options to explore for future regional efforts
- Review the approach to collecting information on local water-one projects (in preparation for workshop 3)



# BAWSCA is a Special District Created by the California State Legislature to Represent the Water Users in Three Counties that Rely on RWS

- BAWSCA was enabled in 2002 by Assembly Bill (AB) 2058
- BAWSCA represents the interests of 24 cities and water districts and two private utilities in Alameda, San Mateo and Santa Clara counties that purchase water on a wholesale basis from San Francisco's Regional (Hetch Hetchy) Water System (RWS).
- BAWSCA is governed by a 26-member Board of Directors comprised of representatives from each member agency
- BAWSCA is the only entity having the authority to directly represent the needs of the cities, water districts and private utilities (wholesale customers) that depend on the RWS
- BAWSCA has the authority to coordinate water conservation, supply and recycling activities for its agencies; acquire water and make it available to other agencies on a wholesale basis; finance projects, including improvements to the regional water system; and build facilities jointly with other local public agencies or on its own to carry out the agency's purposes



# BAWSCA Work Plan Designed to Deliver Results and Achieve BAWSCA's Goal

- BAWSCA's Goal: A Reliable Supply of High-Quality Water at a Fair Price
- Fail Price work efforts go toward:
  - Activities required by BAWSCA's revenue bonds
  - Management of the Water Supply Agreement between the San Francisco and the Wholesale Customers to protect members' and their customers' interests
- Reliable Water Supply work efforts go toward:
  - Implementation of BAWSCA's Long-Term Water Supply Strategy
  - Participation in and support of projects and programs that have a regional water supply benefit
  - Monitoring and evaluation of SFPUC's efforts to rebuild (WSIP) and Maintain (CIP) the RWS
  - Representation and protection of members' and their water customers' interests in regulatory actions impacting RWS
  - Provide support to member agencies in State required water supply planning efforts
  - Development and implementation of core and subscription-based water conservation programs
  - Maintaining a close relationships with BAWSCA's allies
  - Maintaining a dialogue with responsible environmental and other groups/organizations
- High Quality Water work efforts go toward:
  - Coordinating with member agencies in their discussions with the SFPUC regarding water quality topics and concerns



# BAWSCA's Primary Source of Funding Authorized Through Its Enabling Legislation (AB 2058)

- Primary Funding: Annual assessments on member agencies
  - AB 2058 authorizes the BAWSCA Board to impose assessments sufficient to pay the agency's operating expenses included in the annual budget
  - Assessments shall be based on, and proportional to, BAWSCA member agencies' water delivery amounts described in Section 81460 of AB 2058
- WSA provides two other potential funding sources for BAWSCA that are available only under special circumstances or special reasons
- Potential source: Use of excess funds from WSA Balancing Account
  - Balancing Account (BA) records the difference between the actual SFPUC costs attributable to the Wholesale Customers and the amount billed to the Wholesale Customers in each year
  - When a positive balance is maintained for three successive years and represents 10% or more of the Wholesale Revenue Requirement for the most recent fiscal year, the fund may be used for the Wholesale Customers' preferred application, exercised through BAWSCA, for six purposes that include water conservation or supply projects administered by or through BAWSCA
  - A positive balance in the BA is occasionally used to fund BAWSCA's water conservation or water supply project expenses under limited circumstances (Section 6.05.B.2.a of the WSA)
- Potential source: Water Management Charge a special assessment on member agencies
  - Used to collect funding for a specific project or program of regional benefit
  - This funding source has only been used once



## Outside Funding and Financing Opportunities

#### Federal Grants and Loans

- U.S. Bureau of Reclamation WaterSMART Program Grants
- Clean Water Act State Revolving Fund (SRF) Loans (States provide 20% match)
- Water Infrastructure Finance and Innovation Act (WIFIA) Loans (low, fixed interest rates) to supplement SRF Loans
- Other grants and loans sometimes flows through State Revolving Funds (e.g., Infrastructure Investment and Jobs Act)

#### State Grants and Loans

- Clean Water State Revolving Fund (SRF) Loans (low, fixed interest rates) to supplement WIFIA Loans
- Voter approved grants (e.g., Proposition 84: California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access for All Act of 2018, and Proposition 1: Water Quality, Supply, and Infrastructure Improvement Act of 2014)

#### Local Funding and Financing

- Revenue bonds (common for traditional, centralized infrastructure)
- Property-related stormwater fee and/or parcel tax
- Tax increment revenues
- Water and Wastewater rates



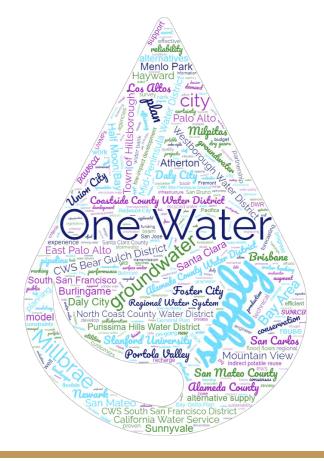
# What funding sources/models has your organization used to develop One Water Projects?





Type your message into the chat.

After 1 minute, everyone will hit "send" together.





# San Bernardino Valley Municipal Water District's Approach to Regional Funding

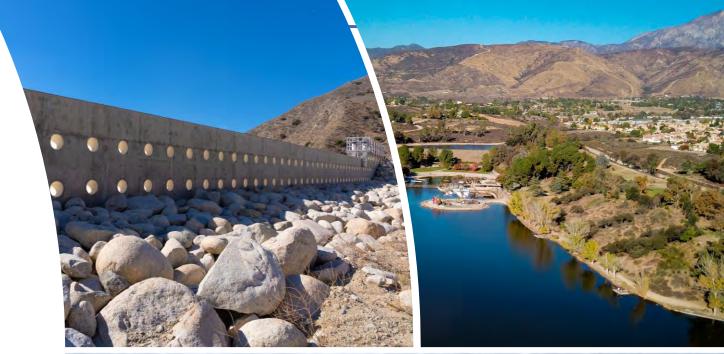




# Maximizing Water Resources through Collaborative Opportunities: Partnerships and Funding

Heather Dyer, MBA, MS
Chief Executive Officer/General Manager
heatherd@sbvmwd.com

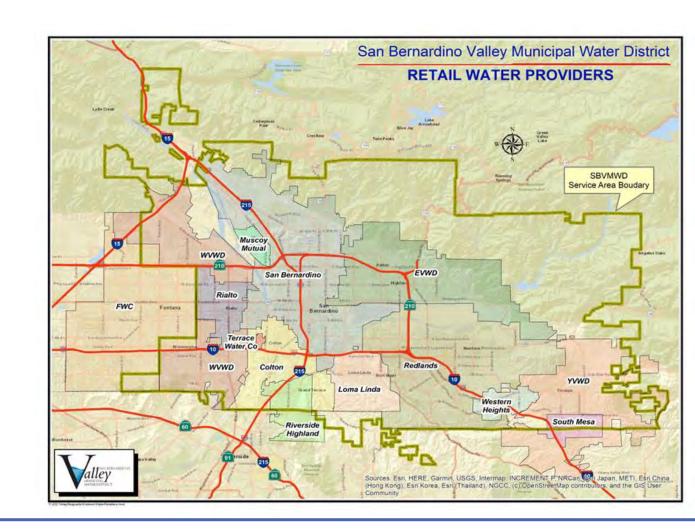






## Who is Valley District?

- Water wholesaler, State Water Contractor
- Provide for the supplemental water needs of 710,000 people
- Governed by a five-member Board of Directors
- 31 staff; diverse technical specialists planning for future watershed resilience

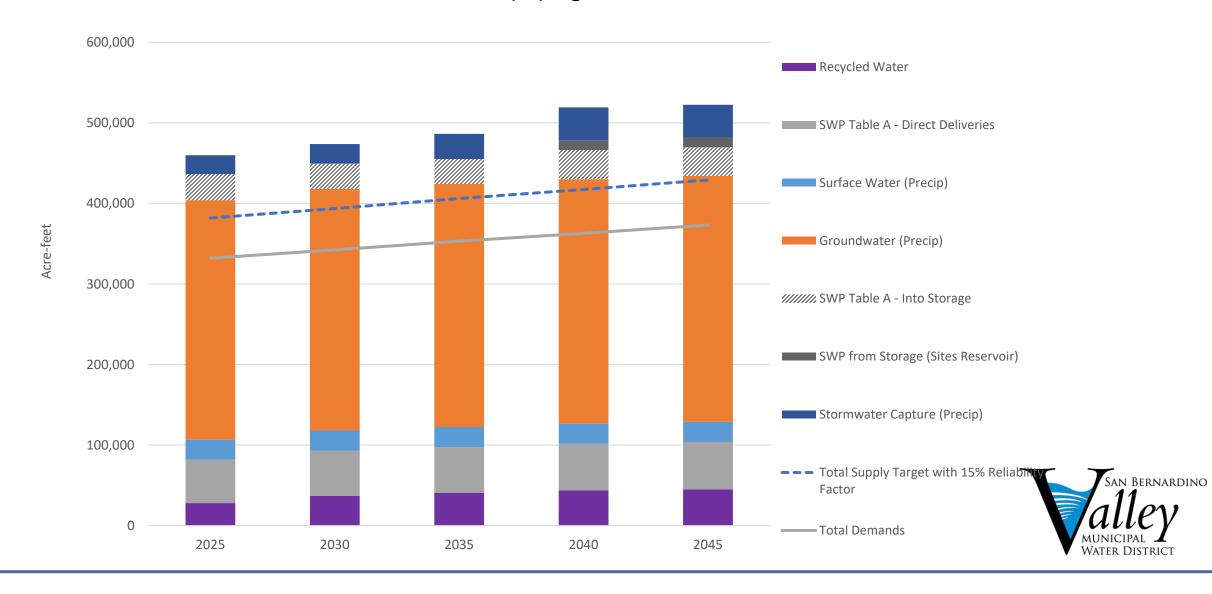


## What we do...

- Ensure a reliable water supply to the region we serve, forever.
  - Resilience
  - Stewardship
  - Vision
  - Foresight
  - Strategy



# Reliable Water Supply Portfolio



## Proactive Water Resources Planning

- Stormwater capture maximizing local resources
- Recycled Water drought proof supply
- Conjunctive Use Projects shared infrastructure/ shared resources
- Groundwater management Proactive & adaptive







## **Current Collaborations**

- Enhanced Stormwater Capture/ Recharge Project
- Cooperative Groundwater
   Recharge (Groundwater Council)
- Hydroelectric Facilities
- Local Resources Investment Program







## Example 1: Local Resources Investment Program

- Financial incentive to retailers
  - New sources of supplemental water
- Projects include recycled water and stormwater capture
- Project I: East Valley Water
   District's Sterling Natural Resources Center
  - Up to 11,000-acre feet per year of recycled water
  - Demand Management Incentive: \$173/acre-foot of water saved





## **Future Collaborations**

- Watershed Connect
- Regional Recycled Water System





## **WATERSHED CONNECT**

## Achieving resilience through integrated infrastructure

- Interconnected and integrated funding opportunity
- A long-term funding tool for water infrastructure
  - ~\$600M worth of water infrastructure over decades
  - Capture, recharge, storage, treatment, and conveyance projects
  - Maximize use and reuse of local water resources
- Maximize value, offer synergistic benefits





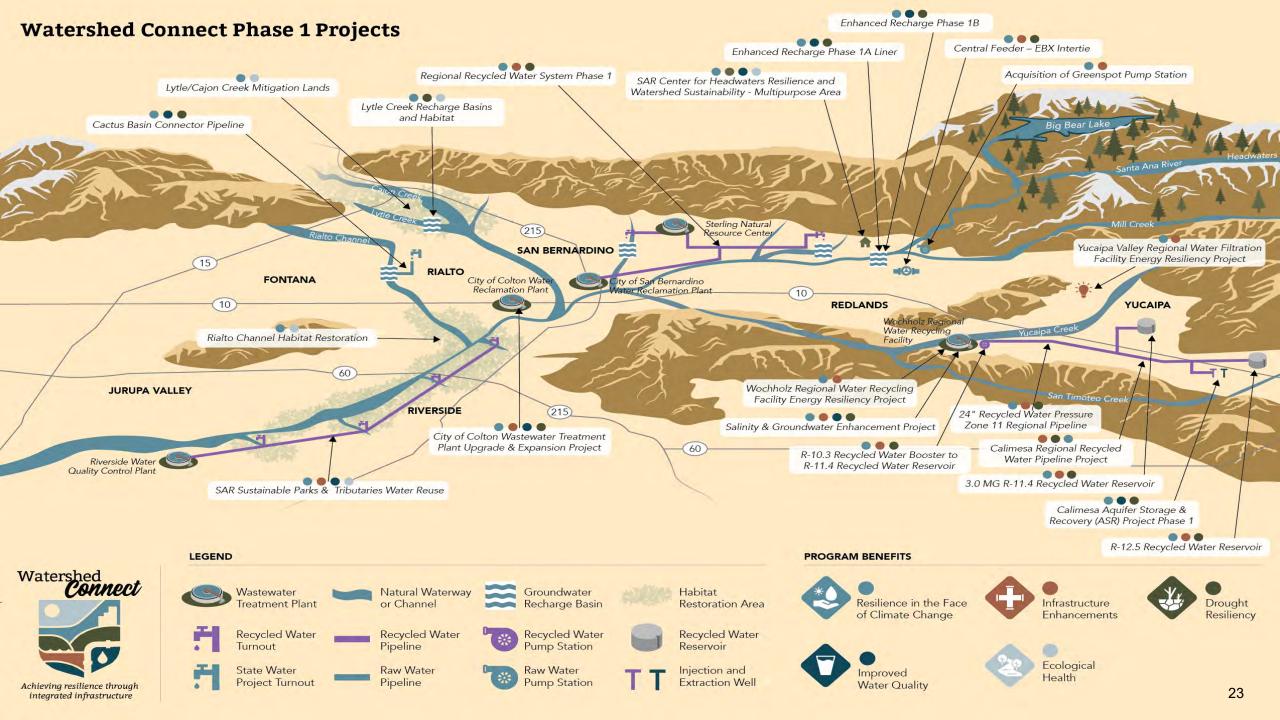












## Benefits



Resiliency in the face of climate change: The collection of forward-looking recycled water, stormwater capture, groundwater storage, alternative energy, and ecosystem restoration projects will improve water supply security. Investments in alternative water supplies, emergency storage, and system redundancies enhance the regions' resilience to climate threats.



Drought Resiliency: The program's ambitious stormwater capture, groundwater recharge, and water reuse projects position the region to sustain short and long-term droughts.



Improved Water Quality: Advanced treatment upgrades will improve regional water quality by reducing the amount of salt, nutrients, and emerging contaminants introduced to surface waters and groundwater basins. Proposed stormwater capture and treatments projects will produce high-quality water for blending with groundwater supplies high in total dissolved solids.



#### Infrastructure Enhancements:

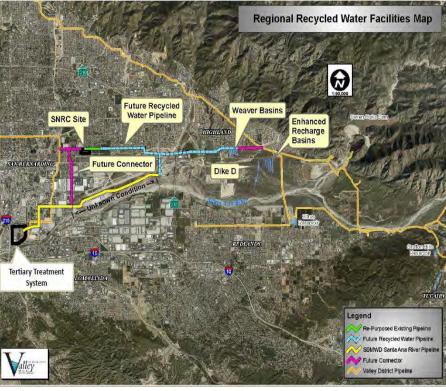
Modernization of existing infrastructure combined with new conveyance systems are planned to create enhanced water resources. Upgrades, including pipeline protection initiatives and solar energy projects, will reduce climaterelated vulnerabilities and ensure reliable services during natural disasters.



Ecological Health: The proposed habitat mitigation and restoration initiatives enhance the health of the Upper SAR Watershed, supporting the region's urban, environmental, recreational, and economic needs.

# Future Collaborations - Regional Recycled Water System







# Questions?

Heather D@sbvmwd.com 909-387-9200

SBVMWD.com
Facebook.com/SBValleyDistrict
Twitter.com/SBVMWD
LinkedIn



# City/County Association of Government's Countywide Green Infrastructure Funding Evaluation







# Advancing Regional-Scale Stormwater Management in San Mateo County

BAWSCA WATER SUPPLY RELIABILITY ROUNDTABLE - June 28, 2022





- 1. SMC Regional Collaborative Program Development
- 2. Funding and Financing Options
- 3. Pilot Program South San Francisco Regional SW Project
- 4. Q&A

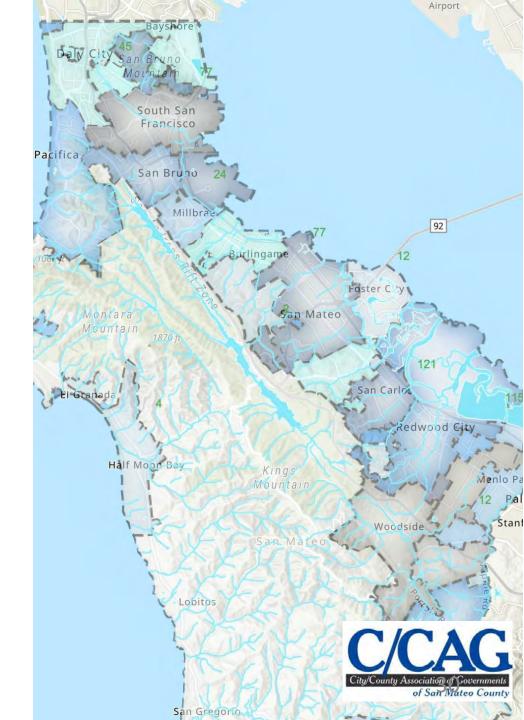


# SMCWPPP Background

The Countywide Stormwater Program has provided technical assistance to C/CAG's 21 member agencies and One Shoreline in compliance with statemandated municipal stormwater regulations since the early 1990s

#### Focus Areas:

- Local, countywide and regional compliance support
- Funded by countywide property fee (\$1.5M) and \$10 vehicle registration fee (\$1M)
- Focus on keypollutants:
  - Trash
  - PCBs/mercury
  - Pesticides
  - Emerging Contaminants



# Stormwater Management Scales

**Green Streets** 

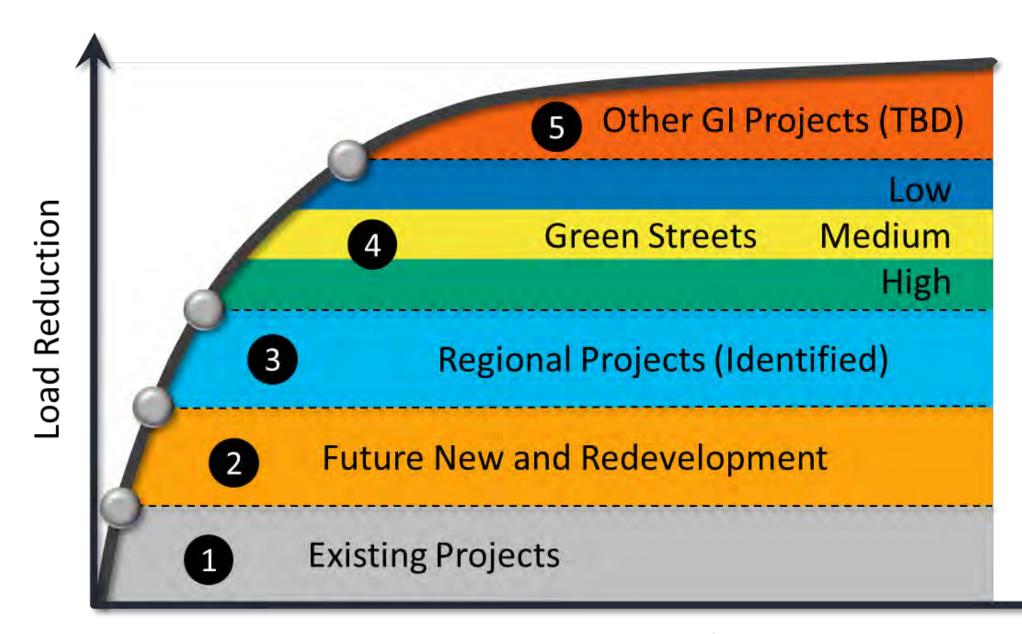


**Parcel-Scale** 



# **Regional Projects**





Implementation Cost (\$)



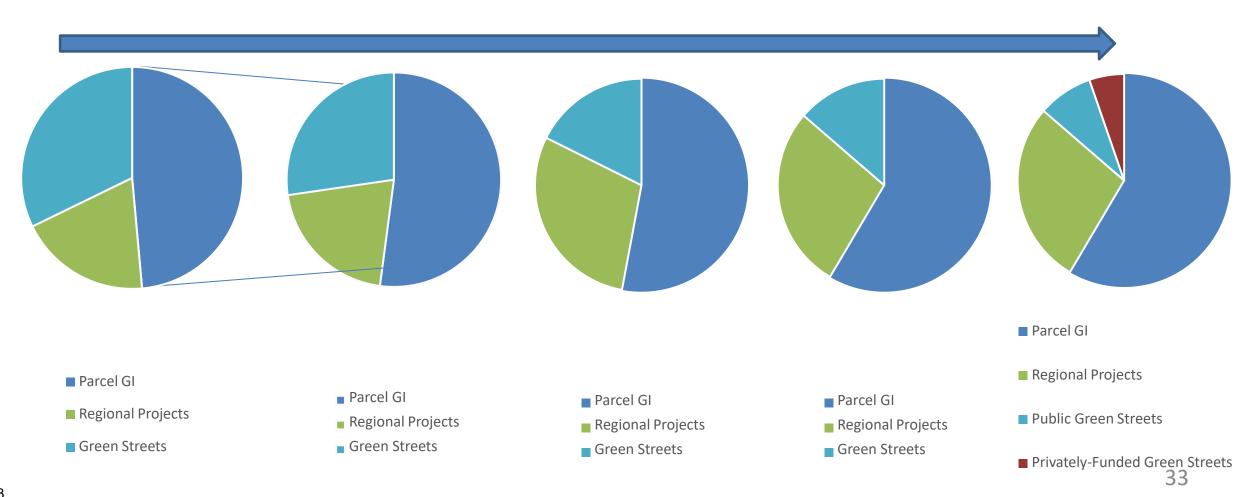
# Modeling Towards Collaboration

All for One (Each Agency does share)

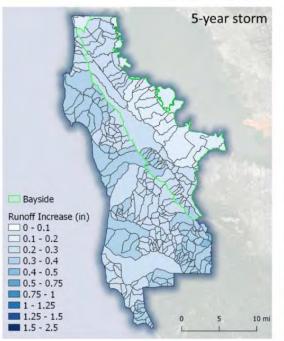
One for All (Target efforts countywide)

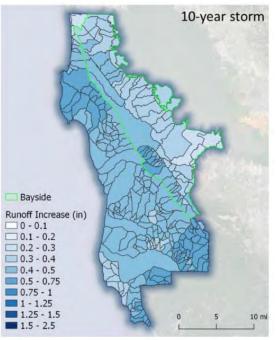
Advance Regional Projects (OneShoreline)

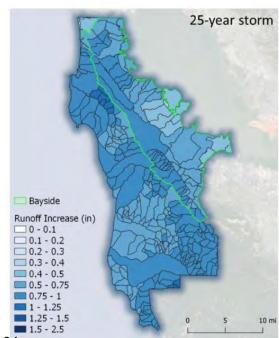
More Parcel GI (Require more projects do GI) Green Streets with Parcel GI (projects do green streets)

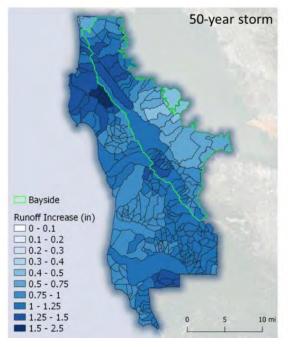


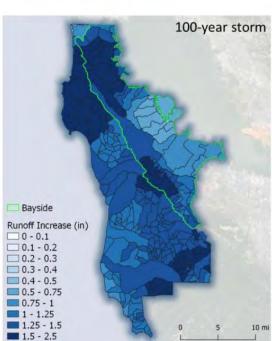
# 2-year storm Bayside Runoff Increase (in) 0 - 0.1 0.1 - 0.2 0.2 - 0.3 0.3 - 0.4 0.4 - 0.5 0.5 - 0.75 0.75 - 1 1 - 1.25 1.25 - 1.5 0 5 10 mi











# Climate Change

- Modeled countywide changes in precipitation using 10 Climate Change Models from CalAdapt at an 8.5 RCP and downscaled to countygrid
- 24% increase in storm depth for a future 10-year storm on bayside





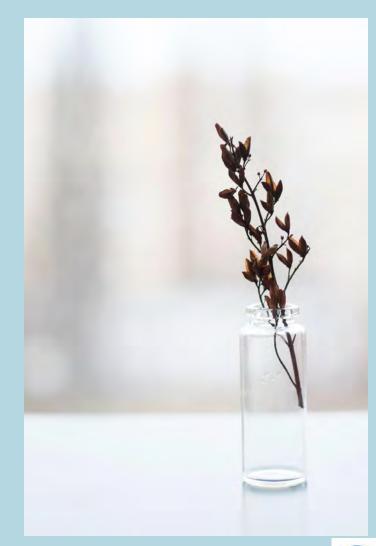


# Advancing Regional-Scale SW Management in SMC Project Partners

Broad group of stakeholders who likely represents the overall program development in future years

#### TAC Members:

- C/CAG, San Mateo County Office of Sustainability
- C/CAG Stormwater Committee (Member Agencies)
- Flood and Sea Level Rise Resiliency District
- Bay Area Water Supply & Conservation Agency
- Silicon Valley CleanWater
- Regional Water Quality Control Board
- Consultant Team Members







# Drivers and Objectives for Regional Stormwater Management

Multi-benefit with a focus on cost-efficiency

D1 - Limited Resources

D2 - Existing Stormwater Infrastructure Deficiencies

D3 - Water Quality

D4 - Climate Resiliency

D5 - Beneficial Use of Stormwater

D6 - Equity and Community Engagement



#### **PROJECT OBJECTIVE**



More efficiently use **limited resources** 



Support improvements to alleviate strain on existing stormwater infrastructures



Cost effectively comply with **water quality** regulatory requirements **PCBs** 



Cost effectively comply with **water quality** regulatory requirements **ACRES GREENED** 



Cost effectively comply with **water quality** regulatory requirements **TRASH** 



Supplement county **water supply** portfolio with stormwater, where feasible



Consider and, where appropriate, design for projected future impacts resulting from **climate change** 



Consider local **community benefits** and concerns in project implementation



Site and design projects to **equitably** serve and protect communities



Maximize other benefits, where possible

### BUSINESS CASE FINDINGS FOR REGIONAL COLLABORATIVE SCENARIO



Average cost savings of approximately 60% to 75% per acre greened



Additional opportunities for projects to provide flooding alleviation



Estimated cost savings of 75% to 95+% to achieve equivalent PCBs load reduction through GSI



Estimated cost savings of approximately 70% to 75% to provide equivalent acres greened along with reduced ongoing inspection costs



Roughly equivalent to jurisdiction-by-jurisdiction scenario based on available data and analysis



Opportunities for water supply to offset project costs



Estimated cost savings of 60% to 70% for equivalent climate change impact offset



Qualitative analysis, equivalent or better to jurisdiction-by-jurisdiction based on assessment



Qualitative analysis, equivalent or better to jurisdiction-by-jurisdiction based on assessment



Qualitative analysis, equivalent or better to jurisdiction-by-jurisdiction based on assessment



# Regional Project Identification Process

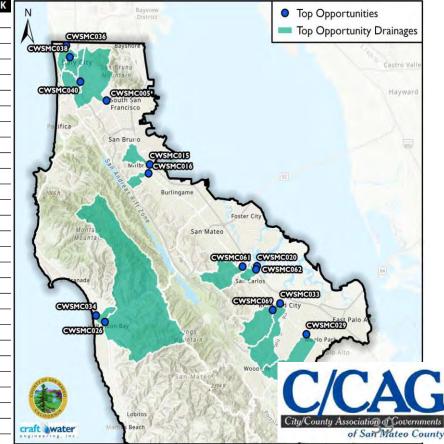
Project
Identification &
Characterization

Project Screening & Engineering Review

Project
Performance &
Prioritization



PEAKRDX_RANK	VOLRDX_RANK	PCBRDX_RANK	GRNAC_RANK	VOLMAN_RANK
40	1	1	2	4
40	28	2	20	34
19	22	3	23	42
40	8	4	29	18
40	2	5	1	3
40	3	6	3	5
40	9	7	5	7
40	6	8	17	11
40	4	9	7	9
40	12	10	4	6
40	11	11	26	19
13	27	12	30	31
40	7	13	10	10
40	35	14	35	33
40	14	15	15	12
30	32	16	49	37
29	31	17	46	32
40	10	18	13	14
40	13	19	21	22
4	46	20	42	29
31	43	21	52	41
40	16	22	27	24
40	30	23	6	8
40	24	24	8	13
40	20	25	12	17
40	15	26	11	16
40	18	27	9	23

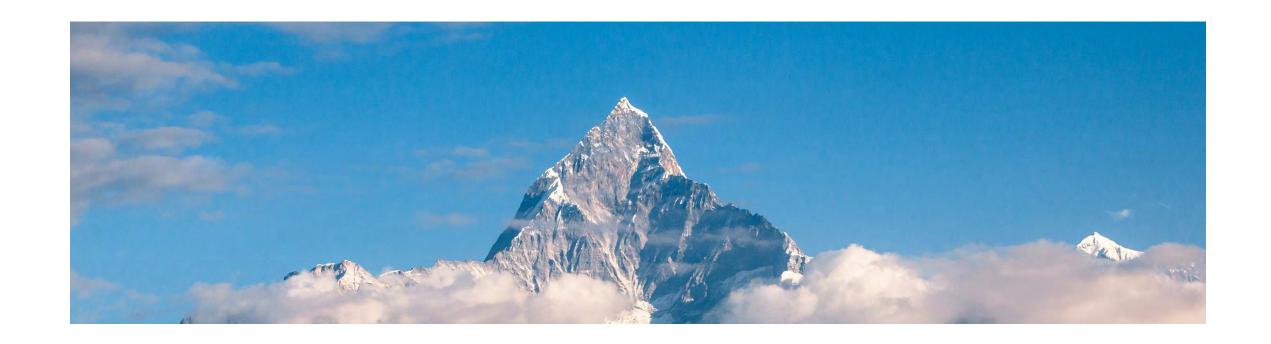


# Credit Trading Feasibility Analysis

Is there demand for a credit trading program in San Mateo County?

- Demand New/Redevelopment projections +feasibility/constraints
- Supply Non-residential sites with some amount of pervious area/space for GI + co-benefits (nonregional project drainage, good soil drainage, flood prone areas, potential to recharge, etc.)





Funding and
Financing Green
Stormwater
Investments

Evaluating innovative approaches

- Non-balloted approaches
- Enhanced Infrastructure Financing Districts

Looking to leverage C/CAG and/or Partners

- C/CAG as a JPA
- One Shoreline
- BAWSCA and/or member agencies



# HYPO: investing in Countywide GSI

Hypothetical spending plan over the next 20 years

- \$150M in regional-scale
- \$28.5M in parcel-scale
- \$71M in O&M

Total = \$250M

Exploring PayGo vs. Debt based on \$10M annual revenue

- PayGo shortfall to meet spending plan until year 12
- Debt financing \$178.5M in capital costs meets spending plan in year 1 and could save \$64 million over the first 20 years

### Non-Balloted Stormwater Fees



- Property-related stormwater fee to fund
  - ✓ Capital improvements
  - ✓Ongoing O&M
- A novel fee type supported by SB 231
- Legal authority may include ability to fund regionaland parcel-scale GSI
- Can serve as security for debt-financing options to pay for capital projects



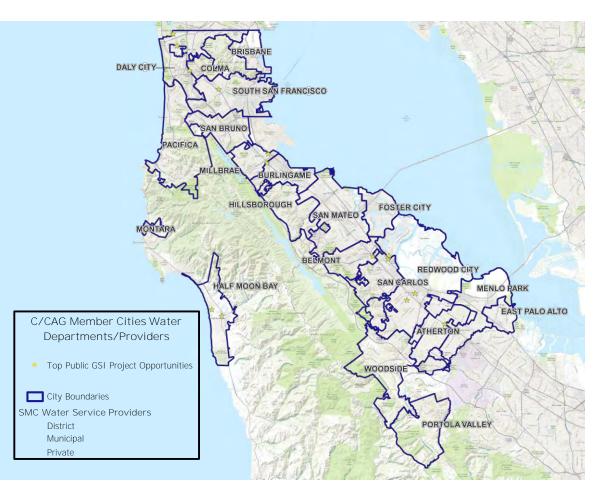
# Enhanced Infrastructure Financing District

- Establishes a multi-jurisdictional district to capture property tax increment revenues within the district
  - √\$61M estimated for San Mateo County over the next 20 years based on 1% tax increment
- Revenues for capital improvements only
- Legal authority may include ability to fund regionaland parcel-scale GSI
- Can serve as security for debt-financing options to pay for capital projects





### Water and Wastewater Rates

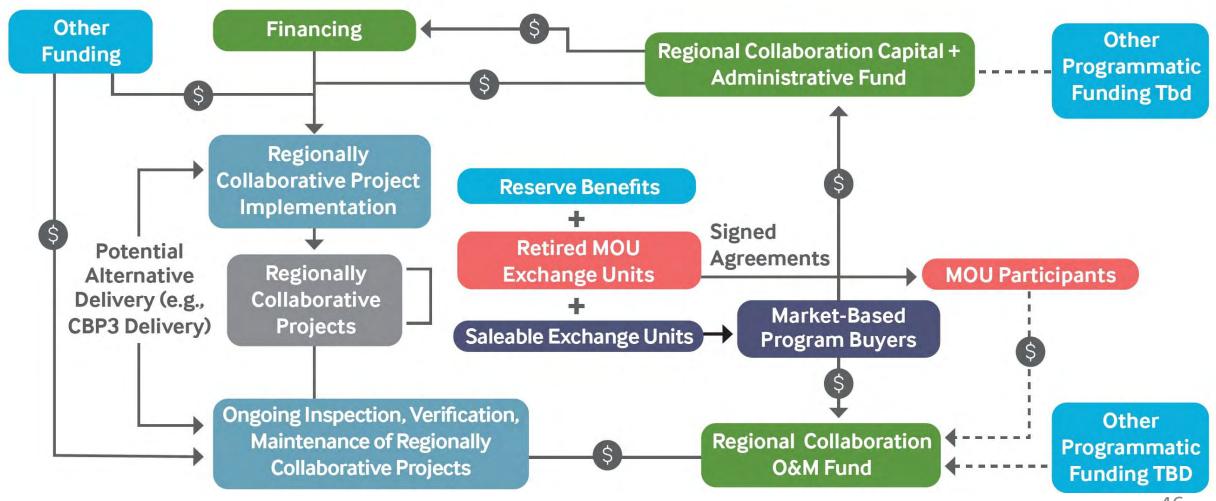


- Co-fund multiple benefit GSI projects with water and wastewater rates
- Potential GSI projects identified provide water supply and wastewater/sewer benefits
- Depending on agency type legal authority may include ability to fund regional- and parcel-scale GSI projects
- Can serve as security for debt-financing options to pay for capital projects



#### REGIONAL COLLABORATIVE

Geosyntec developed a Countywide Regional Collaborative framework with input from the project Technical Advisory Committee, which highlights the project's findings:





# Regional Scale

Orange Memorial Park Regional Project (SSF)

- Completed June 2022
- 7 jurisdictions/6,500 acres
- First in the region
- \$15.5M from Caltrans

#### Benefits

- 640 acre-feet/year volume managed
- 240 acre-feet/year recharged
- 15MG/year non-potable reuse
- New athletic field

































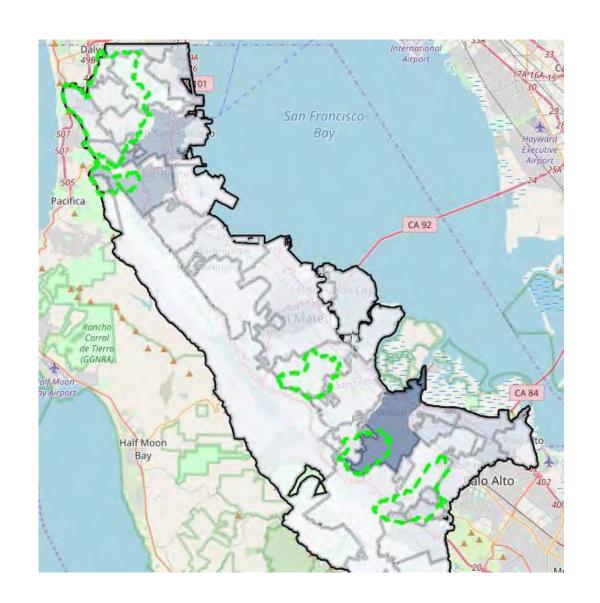
# Model for Collaboration and Cost-sharing

Table H-1 from the Tentative Order

### GSI Retrofit Requirements

- Each Permittee "shall implement, or cause to be implemented" green stormwater infrastructure (GSI) based on population.
- Table H-1 in the MRP shows the "greened acres" requirement bycity and countywide.

	2019 US Census	MRP 3 GSI Retrofit		County
	Bureau Population		% of	Total
Permittee	Estimate	(acres)	Total	(acres)
Atherton	7,137	0.43	1.0%	
Belmont	26,941	1.62	3.7%	
Brisbane	4,671	0.28	0.6%	
Burlingame	30,889	1.85	4.3%	
Colma	1,489	0.20	0.5%	
Daly City	106,280	5.00	11.5%	
East Palo Alto	29,314	1.76	4.1%	
Foster City	33,901	2.03	4.7%	
Half Moon Bay	12,932	0.78	1.8%	
Hillsborough	11,387	0.68	1.6%	
Menlo Park	34,698	2.08	4.8%	43.30
Millbrae	22,394	1.34	3.1%	43.30
Pacifica	38,546	2.31	5.3%	
Portola Valley	4,568	0.27	0.6%	
Redwood City	85,925	5.00	11.5%	
San Bruno	42,807	2.57	5.9%	
San Carlos	30,185	1.81	4.2%	
San Mateo	104,430	5.00	11.5%	
San Mateo County	64,832	3.89	9.0%	
South San Francisco	67,789	4.07	9.4%	
Woodside	5,458	0.33	0.8%	



# How to Scale-Up?

Once we have a pilot phase of a Collaborative Program in place, the next phase will be to expand project opportunities and partners

Projects currently in design/completed

- Orange Memorial Park (SSF) completed
- I-280/I-380 Interchange (San Bruno)
- Twin Pines Park (Belmont)
- Red Morton Park (Redwood City)
- Menlo Collage (Atherton/not pursued)





# Any Questions?

Reid Bogert, Senior Stormwater Program Specialist, <a href="mailto:rbogert@smcgov.org">rbogert@smcgov.org</a>



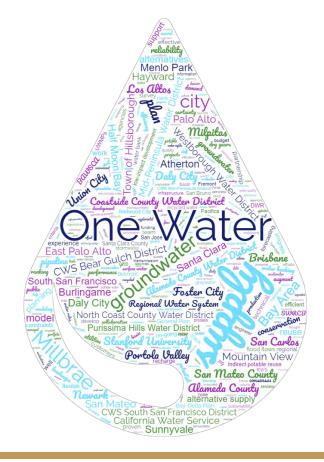
# What funding sources/models are you excited to learn more about in support of One Water projects?





Type your message into the chat.

After 1 minute, everyone will hit "send" together.





# Breakout Session and Report Out





### Session Format

- You each will be assigned and moved to a breakout room at random
- The BAWSCA/EKI team will facilitate each breakout room discussion
- The session will be interactive, utilizing an approach that asks each participant to type directly onto the screen / slides shown as we move through the discussion
- At the conclusion of the breakout session, we will regroup and report out
- 30 minutes is reserved for the breakout session



# Plan for Next Roundtable Workshop





# Roundtable Workshop 3

- What projects and programs is your agency developing and/or implementing
- Project and program information sharing is critical for developing partnerships and identifying multi-benefits
- Our region can benefit by learning what One Water projects are in the works locally



Workshop 3

Identifying Local "One Water" Projects

- •Date: Date: September 20, 2022; IPM 3PM, Zoom meeting (although may be inperson if conditions warrant)
- •Share your organization's planned or potential One Water projects with the group, whether they're in the early stages of planning, or a mere twinkle in your eye. With all local projects on the table, we can begin to identify real and meaningful opportunities for One Water collaborations and funding opportunities. If conditions allow, a networking mixer will follow the Roundtable Workshop.



# Project Information Form Overview







Workshop 1

**Demystifying the One Water Concept** 

- •Date: May 24, 2022; 10AM-12PM, Zoom Meeting
- •We will demystify the One Water Concept and explore how it can be applied to the BAWSCA region. Speakers will provide an overview of the One Water Concept and examples of successful implementation.



#### Workshop 2

**Regional Partnerships Mean Regional Funding** 

- •Date: June 28, 2022; 10AM 12PM, Zoom Meeting
- We will focus on how regional partnerships can be leveraged for a variety of regional funding solutions. Speakers will discuss regional funding models that have been employed in the Bay Area and Southern California to bring projects into reality.



#### Workshop 3

**Identifying Local One Water Projects** 

- •Date: September 20, 2022; 1PM -3PM, Zoom meeting (although may be in-person if conditions warrant)
- •Share your planned or potential One Water projects with the group, whether they're in the early stages of planning, or a mere twinkle in your eye. With all local projects on the table, we can begin to identify real and meaningful opportunities for collaborations and funding opportunities. If conditions allow, a networking mixer will follow the Roundtable Workshop.



Workshop 4 **Moving Forward!** 

- Date: TBD Oct. 2022, In-Person
- We will spend some more time exploring and summarizing local and regional One Water projects and concepts, as well as discuss potential next steps. If conditions allow, a networking mixer will follow the Roundtable Workshop.

One Water Roundtable Series





# Project Information Form (PIF) Purpose

- Identify local and/or regional One Water projects/programs in planning or development
- Potentially identify opportunities to support or expand implementation

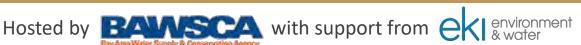




# PIF Components

**Contact Details Detailed Description of Project Cost / Funding Information** 3 **Scheduling Information** 4 **Additional Details** 5





# 1. Contact Details

What is the name of your project?

#### **Project Name**

Click or tap here to enter text.

#### **Agency**

Click or tap here to enter text.

#### Agency Primary/Lead Name & Contact Information

Enter name and credentials here.

Enter phone number here.

Enter email address here.

Tell us what agency you are from

Give the contact information of the primary point of contact for the project





## 2. Detailed Description of Project

#### PROJECT DESCRIPTION

Provide a detailed description of the proposed Project.

Click or tap here to enter text.

Provide the location, if applicable.

Click or tap here to enter text.

Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)).

Click or tap here to enter text.

The more details the better!

Are the outcomes of this project going to be felt agency/county/region wide? Or have a more local impact?

Quantify the beneficial outcome of this project in terms of acre-feet per year or MGD, whether that be from reduced demand, or added supply



## 2. Detailed Description of Project

PROJECT DESCRIPTION	
Project type (check all that apply).	
☐ Surface Water	Water Demand Reduction
☐ Transfer	☐ Conservation
$\Box$ Groundwater (Recharge)	$\square$ Land/Water Use Changes
☐ Stormwater	$\square$ Infrastructure/Capital Project
$\square$ Recycled Water (potable)	$\square$ Data Gap Filling/Monitoring
$\square$ Indirect potable reuse	$\square$ Policy Project
$\square$ Direct potable reuse	$\square$ Water Quality Improvement
$\square$ Recycled Water (non-potable)	$\square$ Other: Click or tap here to enter text.
☐ <b>Other:</b> Click or tap here to enter text.	
Source of Outside Water (if applicable):	
Click or tap here to enter text.	
Provide regulatory/legal authority requirements (describe all that apply).	
Permits (name of authority, type of permit):	
Click or tap here to enter text.	
California Environmental Quality Act (CEQA):	_
Click or tap here to enter text.	
Other:	
Click or tap here to enter text.	

Give specifics on the type of supply augmentation and/or demand reduction involved in the project

Identify regulatory/legal authority requirements







### 3. Cost Information

What will be the capital and/or upfront cost of the project?

What sources will fund those capital and/or upfront costs?

How much will the annual operations and maintenance (O&M) cost be per year?

How will those O&M costs be funded?

#### **COST INFORMATION**

Provide capital/up-front cost (\$).

Click or tap here to enter text.

Provide source(s) of funding for above capital/up-front cost.

Click or tap here to enter text.

Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).

Click or tap here to enter text.

Provide source(s) of funding for above O&M/on-going cost.

Click or tap here to enter text.







## 4. Scheduling and Timing Information

When is the project expected to be implemented?

When will expected supply and/or demand benefits be realized?

SCHEDULE/TIMING INFORMATION
Provide expected kickoff/start date.
Click or tap here to enter text.
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.
Click or tap here to enter text.
Or, $\square$ Add as an attachment





## 5. Additional Details

#### ADDITIONAL DETAILS

Provide as necessary.

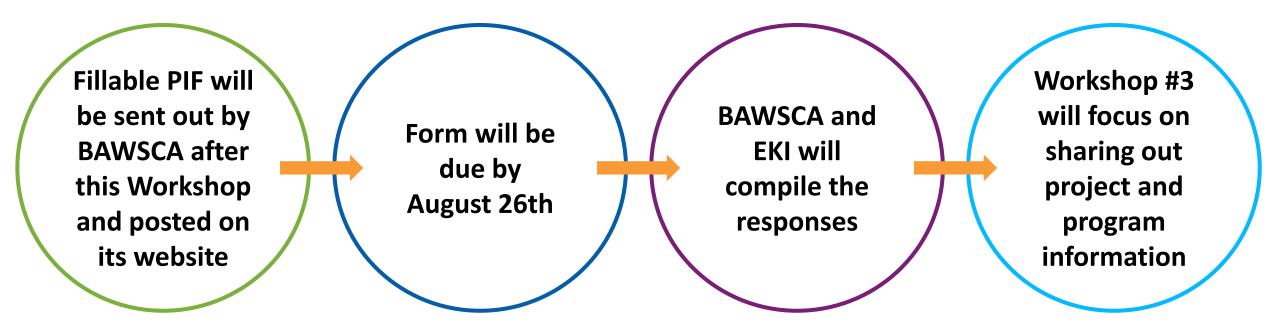
Click or tap here to enter text.

Opportunity to give any information you think would be important to know, wasn't asked of in the form, or would help clarify other responses in the form





## PIF Process and Schedule





#### Adjournment to Next Meeting

## Next Roundtable Workshop

September 20, 2022

I pm – 3 pm

Format: Zoom (although may be in person if conditions warrant)



#### Introduce yourself and your organization

#### **HELLO**

Carol Steinfeld Sierra Club



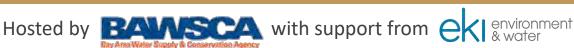


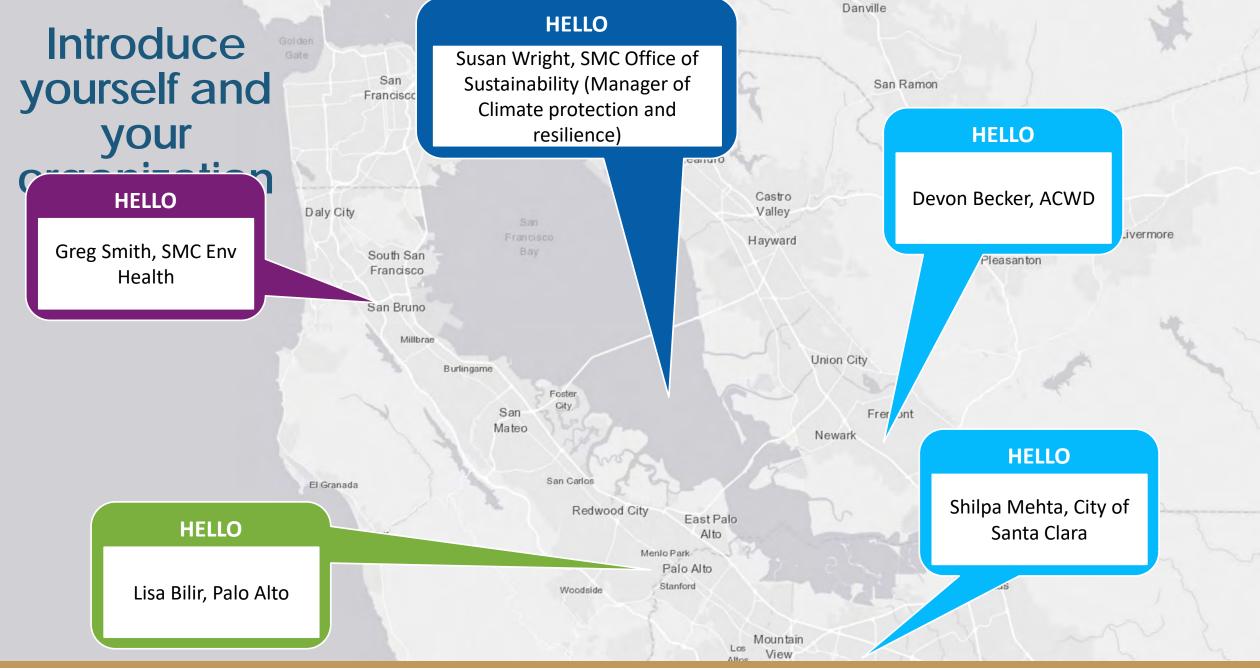




#### Danville Canyon Introduce Oakland yourself and San San Ramon Francisco **HELLO** your San Leandro Sal Navarro organization Dublin Hayward Castro Daly City Valley Livermore South San **HELLO** leasanton Francisco Pacifica **Dennis Murphy HELLO** illbrae Sus SV Kim Springer Burlingame Foster **CCAG** San Fremont Marco Newark **HELLO** San Carlos El Granada City East Palo **HELLO Natalie Semersky** Alto Moon Menlo Park Palo Alto Palo Alto Kirsten Struve Stanford Valley Water Mountain View

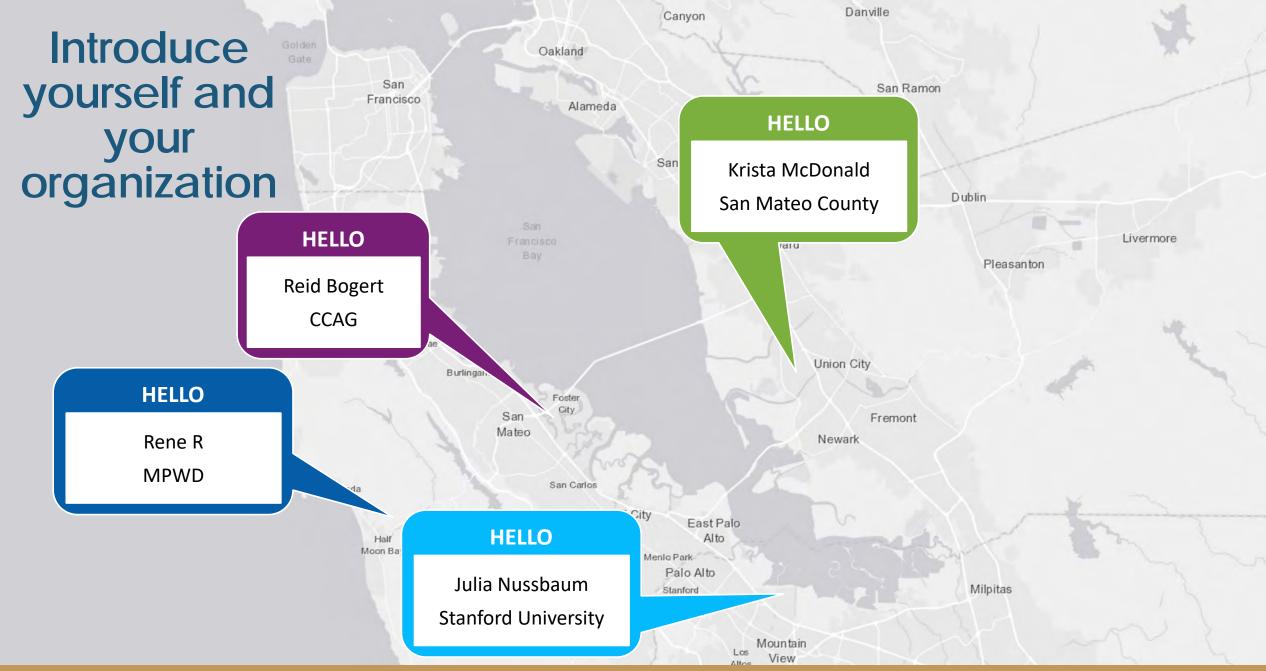




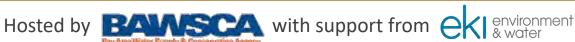


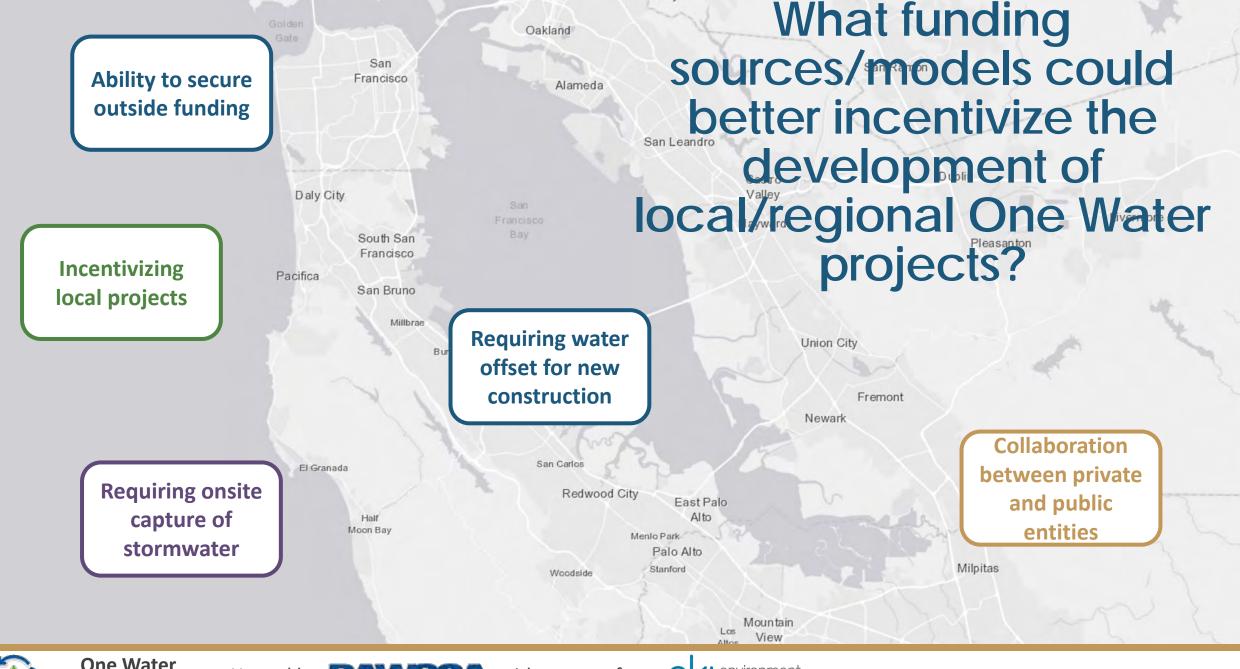












Canyon

Danville





"Flows to Bay"
EIFDs

Issues,
opportunities,
constraints need to
be better defined;
define best fit and
then ID projects

Daly City

Identifying benefits to various interests; combining sources

**Local funds/rates** 

can't pay for

anything

El Granada

South San Francisco San Bruno

Burlingame

San Foster City
Mateo

Missing "Gap Plan" for water needs and opportunity for conservation, housing and what that means, geographic look at options – what

capacity building we need

What funding sources/models could better incentivize the development of local/regional One Water projects?

Union City

Newark

Fremont

Milpitas

Los View







Fee based (typical from regulatory perspective) (covers direct costs)

**Looking at where water** customers benefit from stormwater projects

**Grants to cover** multi-benefit projects

> Regional approach, collaboration, benefits, etc. is interesting

Daly City South San Francisco Pacifica San Bruno Millbrae Burlingame San Mateo El Granada **Customer rates** 

What funding sources/models could better incentivize the development of local regional One Water projects?

Collaboration within own department

East Palo

Canyon

Fremont Newark

Union City

Danville

**Learning from** peers about what they're doing

Menlo Park Palo Alto Stanford Woodside

Redwood City

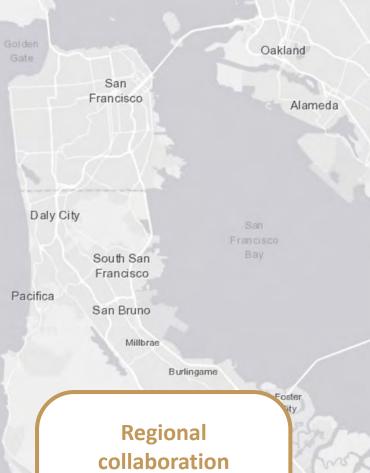
Mountain

Parcel tax for stormwater projects

State and government funding (no matching requirement- major constraint)

> **Debt tool for** capital projects

> > Habitat restoration funds



(wastewater, or even outside of the water agencies and water quality)

Union City East Palo Palo Alto Stanford

Canyon What funding sources/models could better incentivize the development of local regional One Water projects?

> Local revenue (i.e. property tax)

Fremont

Newark

Mountain





Voodside

Redwood City

# What are 3 challenges to securing funding for One Water projects?

# What can be done to overcome those obstacles?

Finding enough partners to help secure outside funding

Collaboration amongst groups to help communication and expand connections; necessity of drought helps drives need for collaboration

Stakeholder coordination – many different suppliers across bay area

Formalization of stakeholder collaboration can help secure funding

Finding the good, initial project to help kickoff process and set example for partners

Identifying areas with high need; high return on investment





# What are 3 challenges to securing funding for One Water projects?

# What can be done to overcome those obstacles?

Prop 218 – impacts funding for stormwater, because money needs to only be used for purpose of rate proposed, practically disallows stormwater

Repeal Prop 218? Look at WaterNow/CCAG for alternative funding mechanisms for stormwater; regional approach; maybe JPA approach for funding scale, etc.

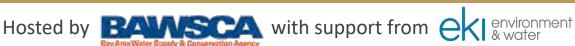
Perhaps lack of knowledge on the funding process and/or costs basis – regulators, public and governing boards, decisions makers;

Increased education and transparency

Combing funding sounds great – but each have all their own requirements, reporting, legal, agreements, administrative requirements

Staff and resources to facilitate





# What are 3 challenges to securing funding for One Water projects?

# What can be done to overcome those obstacles?

Education for partners, identifying partners

Having a consultant or someone to look at the bigger picture (same for below)

Unfunded mandate (rate payers may not understand or know about the project benefits), getting buy-in from the community

Education, public outreach, collaborative approach with stakeholder engagement (external and internal)

Project size doesn't seem like it's worth the administrative burden to apply for funding or developing partnerships (inhouse is often easier/faster), state grant or loans can be burdensome

Aggregating projects, do it alone!
Simplifying/streamlining processes. Build in steps
that are actionable



#### What are 3 challenges to securing funding for One Water projects?

#### What can be done to overcome those obstacles?

Initial funds to match State and government funds

Allow no matching requirements

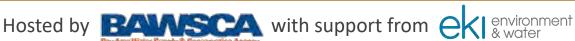
Quantifying the benefits to link to financial contributions

Have the right people working together and provide additional analysis to quantify those benefits

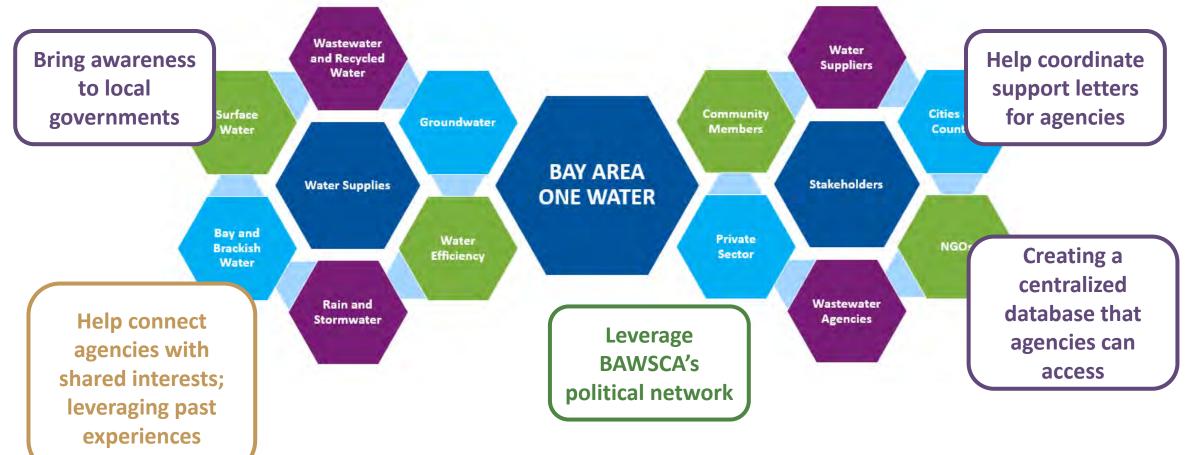
There are a lot of projects we are interested in participating in but are cost effective (and difficult to quantify) outside of water supply

Regional collaboration – communicating the benefits to other groups





# What role could BAWSCA or other local/regional organizations play in securing or facilitating funding for One Water Projects?



What role could BAWSCA or other local/regional organizations play in securing or facilitating funding for One Water Projects?

Increase awareness and education of funding opportunities; help smaller agencies know what is available

> **Letters of** support

we can generate support

Bay and Brackish Water

Surface

Water

Valley water has multiple funding sources; provides grants to local agencies and community organizations and partner with retailers; links back to mission

For the public – need to establish a need present the issues so

> "don't waste a good emergency"

> > **Information sharing** - opportunities, eligibility, grant requirements

One Shoreline Model, advocating for funding (external facing), education (internal facing)

**BAY AREA** ONE WATER

> Really need increased awareness and education to increase public interpretation of the value of the water resource

Water

Suppliers

Stakeholders

Cities

As an intern, I've just started learning about BAWSCA and the One Water project, but a role I think BAWSCA could play is outreach to agencies and giving opportunities for them to learn in depth the decisions and progress being made, whether through workshops, newsletters, or other.







What role could BAWSCA or other local/regional organizations play in securing or facilitating funding for One Water Projects?

**Letters of** support

Surface

Report out from IRWM, what was learned from the regional collaboration. What was helpful?

> Sharing resources

Wastewater and Recv-Needs

assessments that are well documented, used to secure funding

Rain and Stormwater

Wate

**Identifying key** contacts

**BAY AREA** ONE WATER

Input from equity lens, not just technical, and from NGOs

Members

Cities and Counties

Water

Suppliers

olders

Agencies

**Shared list of** how to prioritize projects

**Pool funds and** consultants to prioritize projects **BAWSCA** to consider One Water projects, bring in collaborators/partners. Use as an example.







What role could BAWSCA or other local/regional organizations play in securing or facilitating funding for One Water Projects?

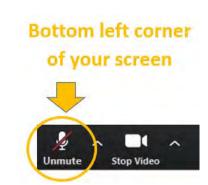
**BAWSCA** being water agencies' Wastewater Water and Recycled Suppliers advocate in Water Sacramento and/or Community Groundwater **Washington DC** Vater Members **Subscription** program to **BAY AREA** Stak **Water Supplies** prepare grants **ONE WATER** Private Water **Ex) Orange Memorial** NGOs Sector Efficiency Stormwater project – **BAWSCA** could Rain and Wastewater Stormwater Agencies collaborate and **Identifying grants Connection with** explain its and bringing groundwater level other agencies interested parties and organizations benefits together (facilitation)

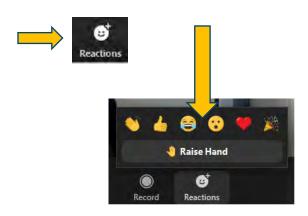




#### Meeting Instructions While We Gather

- You have been muted upon entry
- Please feel free to <u>Unmute</u> yourself to say "Hi" and test your sound connection
- Please <u>Mute</u> yourself during meeting when you are not talking
- During the meeting, BAWSCA staff will mute your sound and video if necessary
- The **Raise Hand** feature will be used for questions
- \*NEW\* To get the <u>Raise Hand</u> button, Click on <u>Reactions</u> button at the bottom of your screen and Select <u>Raise Hand</u>
- The **Chat** function is enabled
- If you have technical difficulties, please text Kyle Ramey at 650-787-1793









"A multicounty agency authorized to plan for and acquire supplemental water supplies, encourage water conservation and use of recycled water on a regional basis."

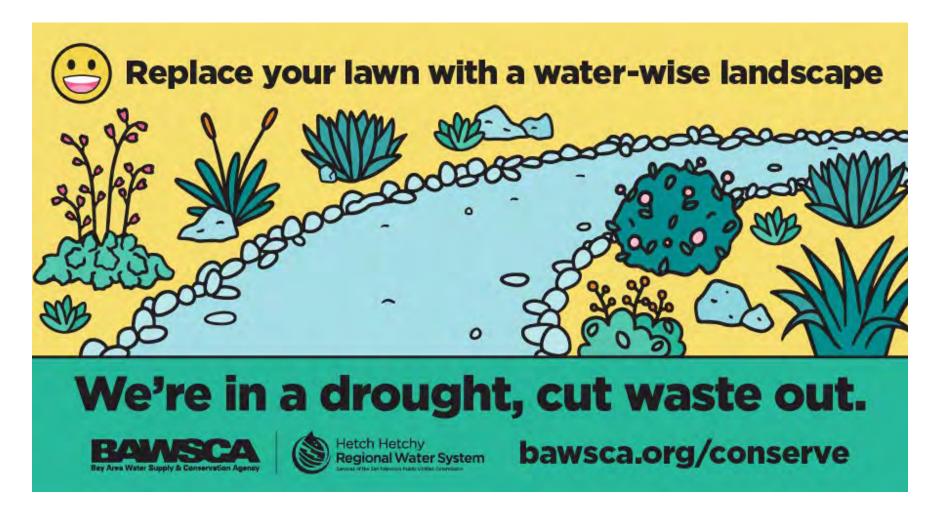
[BAWSCA Act, AB2058 (Papan-2002)]

## Water Supply Reliability Roundtable

Workshop 3: Identifying Local One-Water Projects
November 8, 2022



#### Call to Order & Welcome





#### Introduction & Purpose of Workshop Three





#### Roundtable Workshop Series



Workshop 1

**Demystifying the One Water Concept** 

- •Date: May 24, 2022; 10AM-12PM, **Zoom Meeting**
- •We will demystify the One Water Concept and explore how it can be applied to the BAWSCA region. Speakers will provide an overview of the One Water Concept and examples of successful implementation.



Workshop 2

**Regional Partnerships Mean Regional Funding** 

- •Date: June 28, 2022; 10AM -12PM, Zoom Meeting
- •We will focus on how regional partnerships can be leveraged for a variety of regional funding solutions. Speakers will discuss regional funding models that have been employed in the Bay Area and Southern California to bring projects into reality.



Workshop 3

**Identifying Local** "One Water" Projects

- •Date: November 8, 2022; 10AM -12PM, **Zoom Meeting**
- •Share your organization's planned or potential One Water projects with the group, whether they're in the early stages of planning, or a mere twinkle in your eye. With all local projects on the table, we can begin to identify real and meaningful opportunities for One Water collaborations and funding opportunities. If conditions allow, a networking mixer will follow the Roundtable Workshop.



Workshop 4 **Moving Forward!** 

- Date: TBD Early 2023, In-Person
- •We will spend some more time exploring and summarizing local and regional One Water projects and concepts, as well as discuss potential next steps. If conditions allow, a networking mixer will follow the Roundtable Workshop.

#### **One Water Roundtable Series**









#### Purpose and Goals of Roundtable Discussions

 <u>Purpose</u>: Provide an opportunity for collaboration among interested stakeholders

#### • Goal:

- Understanding of how projects can fit within the one-water concept
- Identification of collaborative opportunities
- Identify how entities can best support, help finance, permit/approve, and/or expand projects or programs that have the potential to offer multiple benefits



#### Workshops I and 2 – Discussion That Took Place

- This first workshop (May 24, 2022) introduced the concept of "One Water"
  - Participants were asked to share their view / opinion as to what "One Water" means to them
  - A presentation on the Los Angeles (LA) 2040 Plan
  - A presentation summarizing Palo Alto's upcoming One Water Plan development
- The second workshop (June 28, 2022) discussed how others have approached the financing of multi-benefit projects
  - One Water projects funding options
  - A presentation on San Bernadino Valley Municipal Water District's approach to project funding
  - A presentation on the City/County Association of Government's (C/CAG) on their Countywide Green Infrastructure Funding Evaluation



#### Purpose of Workshop 3 Discussions

- Share the results of the "Project Information Form" gathering effort, and point to specific examples of the projects envisioned
  - Are there opportunities for regional collaboration or assistance?
- Present an inventory grant/funding opportunities for one-water projects
  - What are the current and upcoming grant opportunities?
  - How can BAWSCA (or other participant agencies) assist in applying for and or securing grant funding?
- Learn about SFPUC's efforts, as part of their Alternative Water Supply Program, to partner on potable reuse project opportunities within the BAWSCA service area
- Plan for the fourth Regional Water Supply Reliability Roundtable



### How Today's Workshop Fits into the Roundtable Effort

- Today's workshop will serve as a means to
  - Allow participants to learn more about the myriad of water supply reliability projects that agencies are contemplating
  - Identify if there is regional synergy present that could lead to partnership possibilities or, at a minimum, opportunities to support multi-agency funding requests



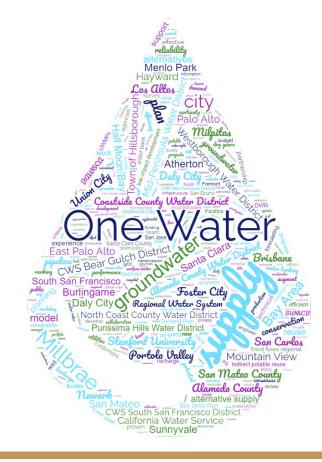
## What One Water project did you submit with the Project Information Form?





Type your message into the chat.

After 1 minute, everyone will hit "send" together.





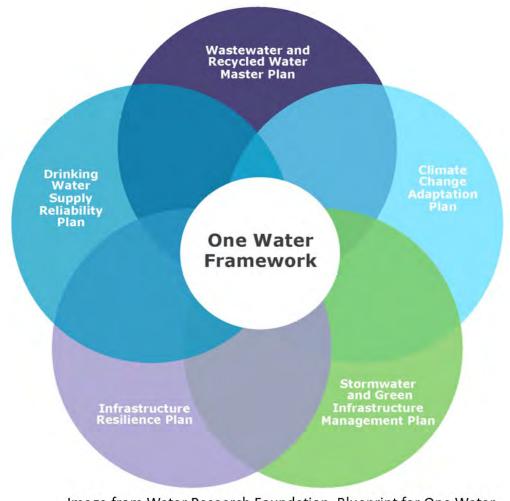
#### Summary of Project Information Forms Submitted





### Project Information Form (PIF) Purpose

- Identify local and/or regional One Water projects/programs in planning or development
- Identify opportunities to support or expand implementation
- Quantify water supply benefits collectively



### PIF Components

- Contact Details

  Detailed Description of Project
- Cost / Funding Information
- Scheduling Information
- 5 Additional Details



#### PIF Forms Received to Date – BAWSCA Member Agencies

- BAWSCA/EKI have met (via Zoom) with most BAWSCA member agency to discuss PIFs and encourage participation
- Forms received to date from BAWSCA agencies
  - Brisbane
  - CCWD
  - East Palo Alto
  - Foster City
  - Hayward
  - Menlo Park
  - Mid Peninsula Water District

- Millbrae
- Palo Alto
- Purissima Hills Water District
- Santa Clara
- Stanford
- Sunnyvale



#### PIF Forms Received to Date – Other Agencies / Organizations

- BAWSCA has received forms from these non-water agencies:
  - Stanford University (Faculty / Research Project)
  - C/CAG
  - San Mateo County
- BAWSCA intends to reach out to wastewater agencies as well as select NGOs in an effort to gather additional PIFs
- SFPUC's Alternative Water Supply Plan projects will not have PIFs

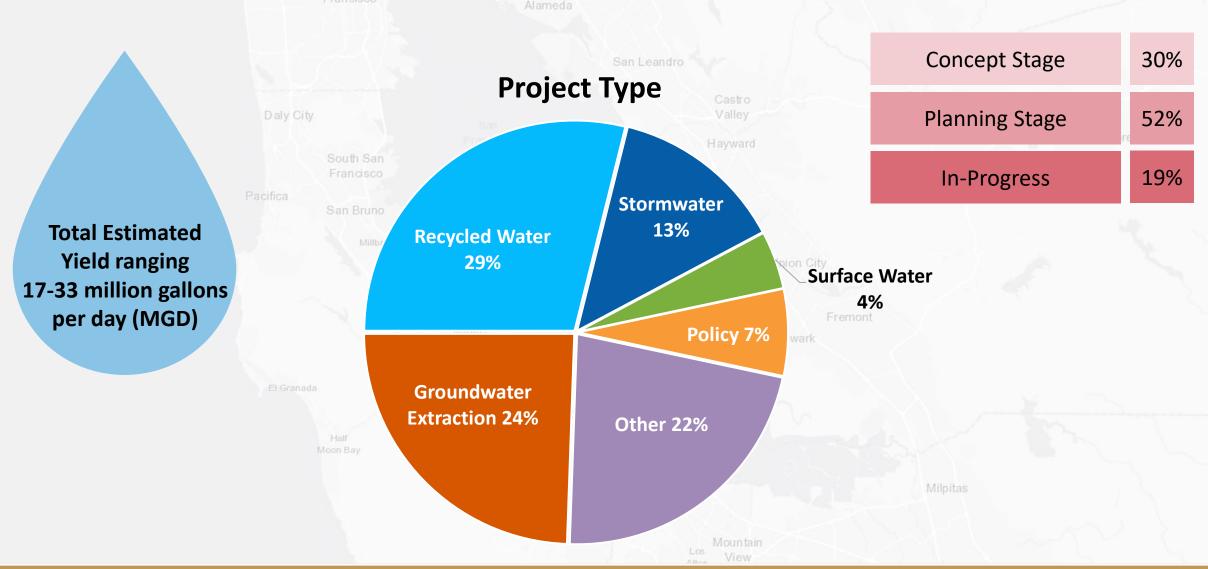




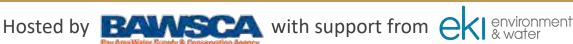


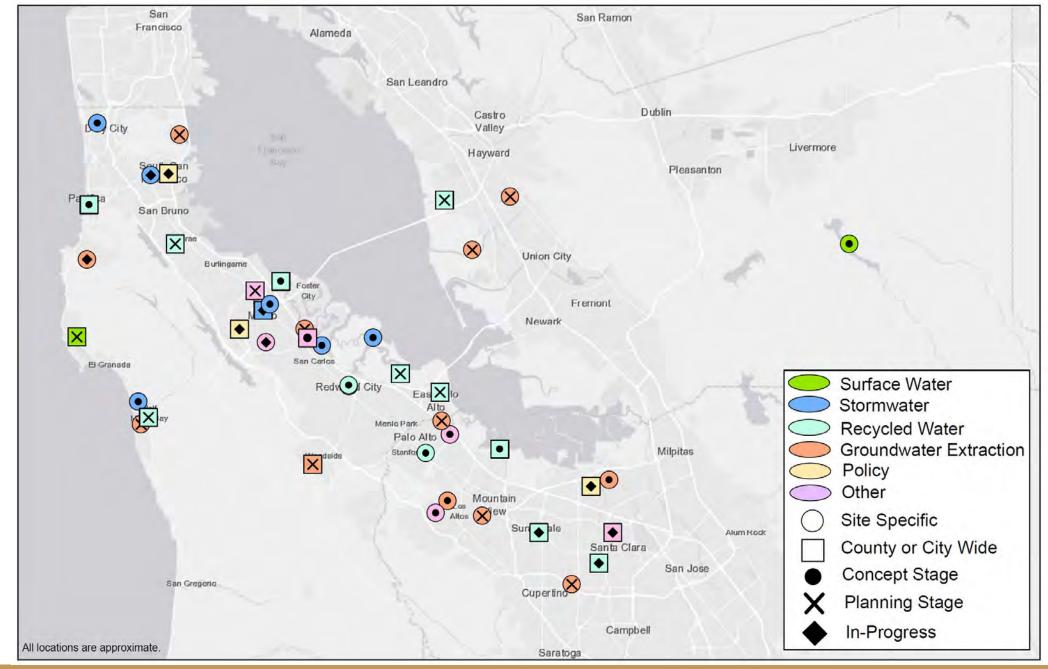


### **Project Information Form Statistics**











#### Examples of PIFs Submitted (1 of 3)

#### Brisbane

 Brisbane recently completed a groundwater assessment study and is investigating an option to install an irrigation supply well

#### Foster City

 Conceptually the City is considering options to bring recycled water to select areas of the City. This concept requires cooperation from partner agencies and could be further reviewed as part of a future recycled water feasibility study

#### Hayward

- The City began delivery of recycled water in March 2022. The estimated average deliveries are expected to be about 260,000 gallons per day to 31 customers. Hayward constructed 8.5 miles of pipeline, a 0.5 million gallons per day (mgd) membrane treatment facility, and a 500,000 gallon storage tank.
- The City is planning to prepare a Recycled Water Master Plan to evaluate the feasibility of expanding the recently constructed system



#### Examples of PIFs Submitted (2 of 3)

#### Mid Peninsula Water District

MPWD is planning a potable groundwater supply development project. A new groundwater well would be installed for dry year supply purposes with an anticipated capacity at 200 gallons per minute (gpm). A potential site for this well has been identified. The project planning will include conducting the necessary engineering design, permitting, environmental documentation, construction, startup and testing

#### Sunnyvale

■ The City will be conducting a comprehensive update of their 2013 Feasibility Study for Recycled Water expansion. The updated study will review a potential / planned expansion of recycled water service areas and include sales projection scenarios, plus consider connections to other regional recycled water systems and neighboring cities. It will also make recommendations as to long-term Capital Improvement Program (CIP) inclusion of future work



#### Examples of PIFs Submitted (3 of 3)

#### San Mateo County

• The SMC Office of Sustainability (OOS) is developing a sea level rise mapping tool and risk assessment checklists that will support facility and capital projects managers in identifying whether a proposed facility is in a sea level rise risk area, and if so, guide the development of adaptation strategies for that facility

#### Stanford University (Prof. Luthy)

A study is underway regarding the region's water supply needs in light of recent amendments to the Bay-Delta Plan that will require more flow to be left in-stream for ecosystem use. The study includes the development of a model of Tuolumne River water supply. The model will allow for simulation of long-term water supply performance under various climate, policy, and coping scenarios. Solutions will be proposed via the evaluating how future water supply investments (e.g., storage, interties, regional desalination) might contribute to resilient water supply performance in the face of climate and policy stresses



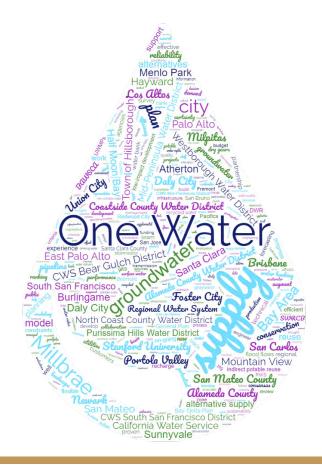
## What One Water project are you most excited to learn about?



Type your message into the chat.

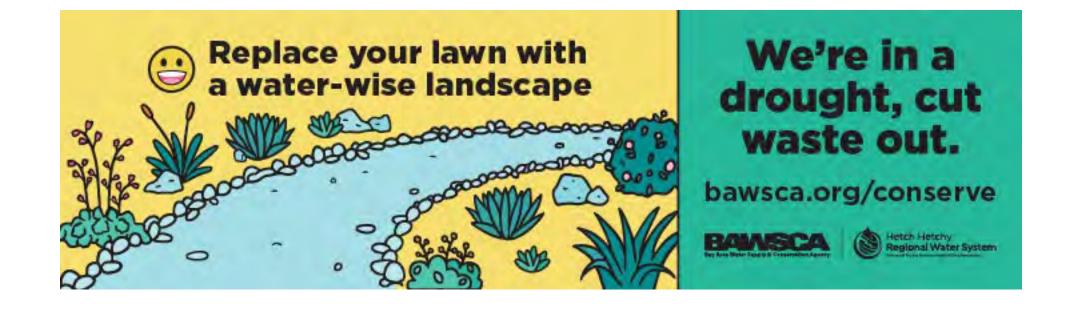


After 1 minute, everyone will hit "send" together.





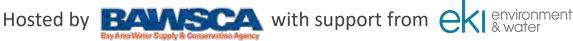
#### Inventory of Grant / Financing Opportunities





### Current and **Upcoming Funding** and Financing Opportunities

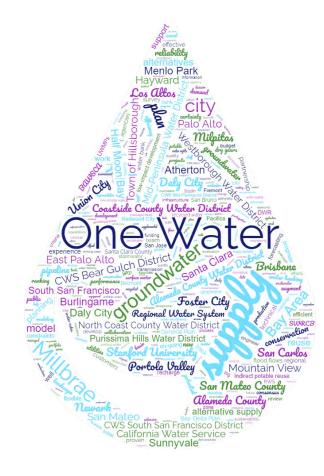






#### Overview

- Current and ongoing funding/financing programs
- Peninsula Drought Resiliency Program Case Study
- What can BAWSCA do to help?







### Summary of Active Funding Opportunities

- Table summarizing the currently available funding options from the following sources:
  - California Department of Water Resources
  - United States Environmental Protection Agency
  - United States Bureau of Reclamation
  - California State Water Resources Control Board
- Table will be provided via email following the workshop







\$193 million total, \$29 million for

San Francisco Bay Funding Area

Local cost share of 50% but can

that directly benefit the water

**EDA** 

management needs of a DAC or

be waived or reduced for projects

			together in a holistic and <b>integrated</b> manner		from DWR on submitted GSP
Solicitation opened 10/10/2022. Applications close 1/31/2023.	Urban Community Drought Relief Funding	<ul> <li>\$300 million (split between urban community drought relief, turf replacement, conservation for urban suppliers, and program administration)</li> </ul>	- Intended to provide water to communities that face contaminated or reduced water supplies, to address immediate impacts on human health and safety, and to protect fish and wildlife resources	<ul> <li>Public agencies</li> <li>Public utilities</li> <li>Special districts</li> <li>Colleges and universities</li> <li>Mutual water companies</li> <li>Non-profit organizations</li> <li>Regional water management</li> </ul>	<ul> <li>Emergency water interties</li> <li>New wells or rehabilitation of existing wells</li> <li>Construction or installation of permanent connection to adjacent water systems</li> <li>Recycled water projects that provide immediate relief to potable water supplies</li> <li>Drought resilience planning</li> </ul>

Only ONE application per Basin

Goal is to achieve water balance in

California where GSAs and other

cooperatively and innovatively to

manage surface and groundwater

Minimum award amount of \$5

grant award requirement.

regional water resource

water management

management strategies by

million per award. Smaller projects

Designed to encourage integrated

providing funding for projects and

programs that support integrated

Funding areas can choose to apply

by either deadline, but All Regions

applications by the same deadline.

in a Funding Area must submit

may be **bundled together** in a single application to meet the minimum

responsible entities work

An entity that represents a GSA

Entities that have adjudicated

with or without a Watermaster

California Native American Tribes

Federally recognized Indian tribes

Commission's Tribal Consultation

State Indian tribes listed on the

**GSP** 

groups

**Public agencies** 

**Public utilities** 

list

Non-profit organizations

Native American Heritage

Mutual water companies

Agencies with an alternative to a

**Integrated Regional** 

**Water Management** 

**Grant Programs** 

Funding Programs from the California Department of Water Resources (DWR)

million

**Management (SGM)** 

**68** Implementation

Round 2

**Grant Program - Prop** 

10/4/2022.

extended to

12/16/2022.

Deadline

Released 5/17/2022. First

deadline of

applications

8/19/2022.

2/1/2023.

Second deadline

of applications

What projects are eligible?

Projects that prevent or clean up contamination of drinking water

Projects that support water supply reliability, water conservation,

Early implementation of existing regional flood management plans

Project must fill known data gaps and address comments received

Other projects that support immediate drought response

Projects (e.g., groundwater recharge and ecosystem restoration) not

explicitly identified may still be eligible if projects satisfy the criteria

and eligibility outlines in the GL/PSP and address a drought impact

Water reuse and recycling for non-potable reuse and direct and

Local and regional surface and underground water storage, including

Regional water conveyance facilities that improve integration of

Watershed protection, restoration, and management projects,

including projects that reduce risk of wildfire or improve water

Water-use efficiency and water conservation

groundwater aguifer cleanup or recharge projects

Development of groundwater recharge projects

and water use efficiency and water banking

Geophysical investigation

indirect potable reuse

separate water systems

supply reliability

Revisions & updates to a GSP

**Small Community** 

**Drought Program** 

**Funding Available** 

\$305 million

**Details** 

Intended to offer immediate and

near-term financial and technical

assistance to small communities

to current drought

facing water supply challenges due

First-come, first-

served basis

have been

until

until all funds

expended or

12/29/2023

Funding Programs from the United States Environmental Protection Agency (EPA)							
Since September 6, Letters of Interest can be submitted	Water Infrastructure Finance and Innovation Act (WIFIA)	<ul> <li>\$20 million is minimum project size for large communities</li> <li>\$5 million is minimum project size for small communities</li> <li>Maximum portion of eligible cost that WIFIA can fund is 49%</li> </ul>	<ul> <li>Accelerated investment in nation's water infrastructure by providing long-term, low-cost supplemental loans for regionally and nationally significant projects</li> <li>In a Letter of Interest, the prospective borrower provides information to demonstrate its projects eligibility, financial creditworthiness, engineering feasibility, and alignment with EPA's policy priorities. If EPA selects the projects, then the prospective borrower is invited to submit an application.</li> </ul>	<ul> <li>Local, state, tribal, and federal government entities</li> <li>Partnerships and join ventures</li> <li>Corporations and trusts</li> <li>Clean Water and Drinking Water State Revolving Fund programs</li> </ul>	<ul> <li>Wastewater conveyance and treatment projects</li> <li>Drinking water treatment and distribution</li> <li>Enhanced energy efficiency projects at drinking water and wastewater facilities</li> <li>Brackish or seawater desalination, aquifer recharge, alternative water supply, and water recycling projects</li> <li>Drought prevention, reduction, or mitigation projects</li> <li>Desalination/aquifer recharge and water recycling projects</li> <li>Acquisition of property if it's integral to the project or will mitigate the environmental impact of a project</li> </ul>		
One Water Roundtable Series  Hosted by BANGSCA with support from Converted Agency with support from Supply & Conservation Agency with a supply & Conservation Agency with supply & Conservation Agency with a supply & Cons							

Who is eligible?

Small communities **not** served by

an Urban Water Supplier (UWS is

municipal purposes to more than

a public or privately owned

supplier providing water for

3,000 customers or supplying

more than 3,000 acre-feet of

water annually)

What projects are eligible?

Replace aging and leaking water system infrastructure

Replace aging and leaking water system infrastructure

Provide backup power sources for water systems

Provide reliable water storage

Improve water system storage

Temporary community water tanks

Water vending machines Emergency water interties

Hauled water

States

States

districts

Native American tribes

Water districts, or other

power delivery authority

power delivery authority

Native American tribes

Local irrigation and water

Local government entities

Non-profit organizations

State, regional, or local

include one or more organizations with water or

organizations with water or

authorities, whose members

Irrigation districts

Funding to support projects

focused on environmental

collaborative process to increase

the reliability of water resources

Funding to encourage diverse

solutions to address their water

stakeholders to form local

management needs

benefits that have been

developed as part of a

- Water conservation and efficiency projects that result in

drought-related impacts to ecological values

values

resources management

**benefit** projects

quantifiable and sustained water savings and benefit ecological

Water management or infrastructure improvements to mitigate

ecological values that have a nexus to water resources or water

projects with environmental and ecological benefits and multi-

Funding for watershed group development, watershed restoration

statement, complete stakeholder outreach, develop a watershed

Watershed management or restoration projects benefitting

Broad project eligibility, but focus is on water management

planning, and watershed management project design

Applicants could use funding to develop bylaws, a mission

restoration plan, and watershed management project design

vears

Up to \$5M for a large project to

be completed within 3 years

Non-Federal Cost Share: 25-

Up to \$200,000 may be

awarded to an applicant per

No non-federal cost-share

year, for a period of up to two

50%

Funding Programs from the U.S Bureau of Reclamation (USBR)

**Environmental** 

**Projects** 

Cooperative

Watershed

**Program** 

Management

**Water Resources** 

Next funding

opportunity is

expected in

Winter 2022

Schedule for

opportunity is

development

the FY23

funding

currently

under

**Funding Program** 

(WRFP) - Planning

**Grant Application** 

**Water Recycling** 

**County-Wide and** 

**Regional Funding** 

**Programs** 

**Application** 

first-served

First-come,

first-served

First-come,

first-served

Funding Program	grants for planning and
(WRFP) -	construction activities
Construction Grant	<ul> <li>Prop 68 provided \$72 million in</li> </ul>

Funding Programs from the California State Water Resources Control Board (SWRCB)

Prop 1 provides \$625 million

assistance through loans and

loans and grants for recycled

for recycled water projects

Prop 13 provided financial

grants for planning and

water planning and

construction

- \$55 million

- Native American tribes - Mutual water companies

Details

Goal of program is to promote the

beneficial use of treated

municipal wastewater (water

recycling) in order to augment

financial assistance to agencies

of water recycling projects and

Need for regional programs that

address drought-related and

well serving disadvantaged

water systems

communities and low-income

households. These needs are the

proposals may also include work

primary focus for this funding, but

to address specific needs of public

contamination issues for state

small water systems and domestic

and other stakeholders in support

by providing technical and

research.

fresh water supplies in California

- Public utilities

- Counties
- Non-governmental organization on behalf of one or more counties Other public agencies on behalf

Who is eligible?

Depending on the type of

- Non-profit organizations

- local public agencies

project, eligible groups include:

Local public agencies

- of one or more counties Grant recipients aid:
- State smalls (<15
- connections) serving a DAC - Domestic wells (<5 income households
- connections) serving low-Potentially some services can be provided regardless of income (well sampling and bottled/hauled water for emergency drought

response while longer-term solutions are implemented

- demonstration-scale plant as part of the Construction of a full-scale treatment facility Assessment (community outreach, domestic well testing)

Construction of recycled water treatment facilities, storage

facilities, pumping facilities, and groundwater recharge facilities

Construction of recycled water distribution systems, including

Development, Construction, and monitoring of a pilot-scale or

What projects are eligible?

- Recycled wastewater feasibility studies

Planning for water recycling projects

onsite improvements

Interim solutions (bottled water, tanks and hauled water, kiosk filing stations) Long-term solutions (well repairs and/or replacements, limited scale consolidation)

**One Water** Roundtable Series







	-10 <b>3</b> .cm		and/or remediate the harm or threat of harm to human health, safety, or the environment caused by existing or threatened surface or groundwater contamination	infeasible)  - Responsible party lacks	
ngoing	Drinking Water State Revolving Fund (DWSRF) Program	- \$159 million	<ul> <li>Assists public water systems in financing the cost of drinking water infrastructure projects needed to achieve or maintain compliance with the Safe Drinking Water Act (SDWA) requirements</li> </ul>	Publicly-owned community     water systems (e.g., counties,     cities, districts)      Privately-owned community     water systems (e.g., for-profit     water utilities, non-profit     mutual water companies)      Non-profit or publicly owned	<ul> <li>Planning/design and construction of drinking water infrastructure projects including:</li> <li>Treatment systems</li> <li>Distribution systems</li> <li>Interconnections</li> <li>Consolidations</li> <li>Pipeline extensions</li> <li>Water sources</li> </ul>

Provides low-cost financing to

Offers below-market interest

rates, 30-year financing, loan

other funding sources

forgiveness, compatibility with

Financing limits: No maximum,

and applicant's ability to repay

Repayment: Begins 1 year after

completion of construction

but depends on available funding

pollution

protect California's waters from

non-community water systems

**Public agencies** 

Private entities

Non-profit organizations

Federally recognized tribes

What projects are eligible?

Constructing of publicly owned treatment works (POTWs)

Measures to reduce the demand for POTWs capacity through

Development and implementation of watershed projects

Measures to reduce the energy consumption needs for POTWs

Provide technical assistance to owners and operators of small and medium sized publicly owned treatment works to plan, develop, and obtain financing for CWSRF eligible projects and to assist each treatment works in achieving compliance with the Clean Water Act

implementation of cleanup

 Water meters Water storages

Nonpoint source projects

Stormwater projects

Water reuse projects

Security measures at POTWs

National estuary program projects

Decentralized wastewater treatment systems

water conservation, efficiency, or reuse

Projects may include site characterization, source identification, or

**Clean Water State** 

**Revolving Fund** 

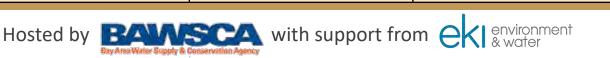
(CWSRF)

Ongoing

Funding Programs from the SWRCB (cont'd)

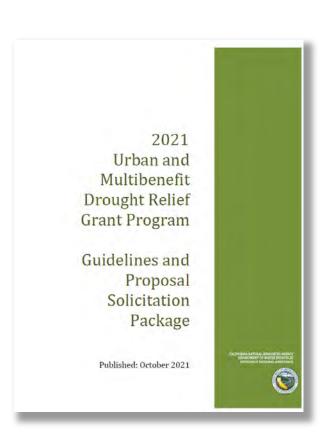


- \$127 million



#### Case Study: DWR's 2021 Urban and Multibenefit **Drought Relief Grant Program**

- Grant for interim and immediate drought relief to urban communities and for multibenefit projects
- Intended to provide water
  - To communities that face the loss or contamination of their water supplies
  - To address immediate impacts on human health and safety
  - To protect fish and wildlife sources
- \$190 million grant funds
- Minimum award amount \$2 million
  - Smaller projects could be bundled together

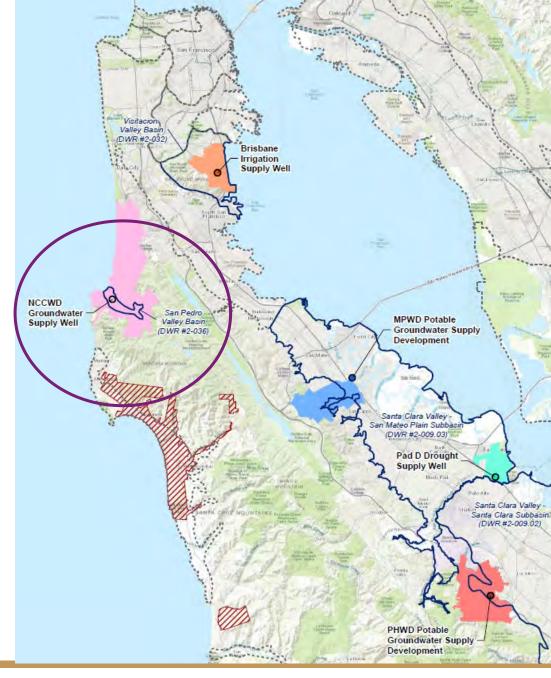






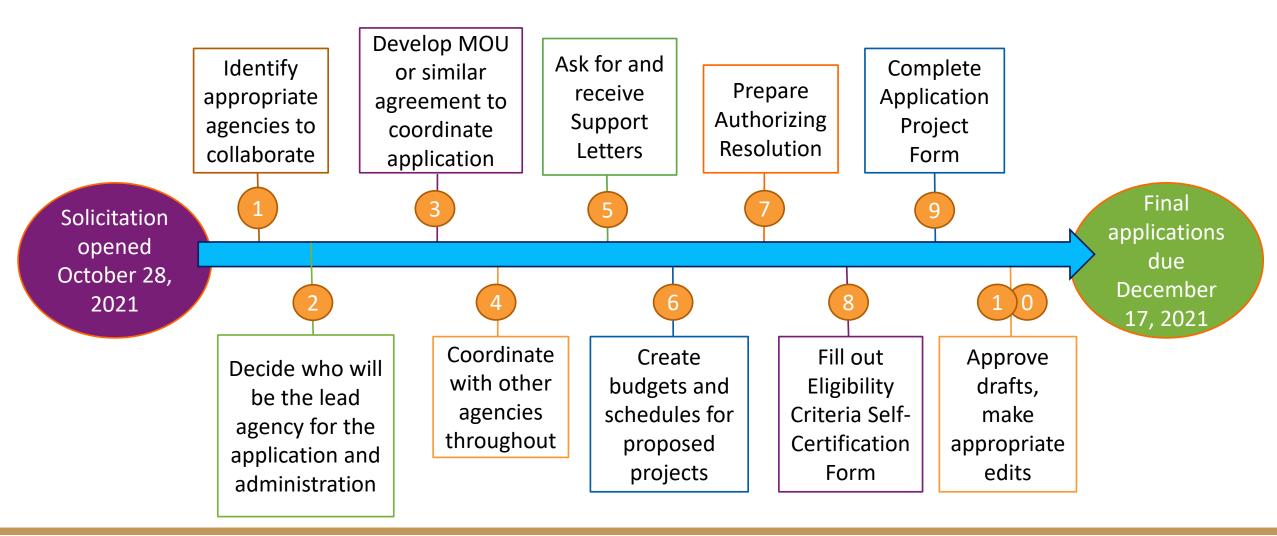
#### Case Study: Peninsula Drought Resiliency Program

- Coordinated effort to develop local groundwater supply sources on the San Francisco Bay Peninsula
  - North Coast County Water District (NCCWD)
  - Mid-Peninsula Water District (MPWD)
  - Purissima Hills Water District (PHWD)
  - City of Brisbane
  - City of East Palo Alto
- Applications collectively represented a regional effort to increase regional supply reliability through the development of local, drought resilient supplies and infrastructure





### Case Study: Collaborative and Rapid Effort to Get Grant Package Ready in 7 Weeks

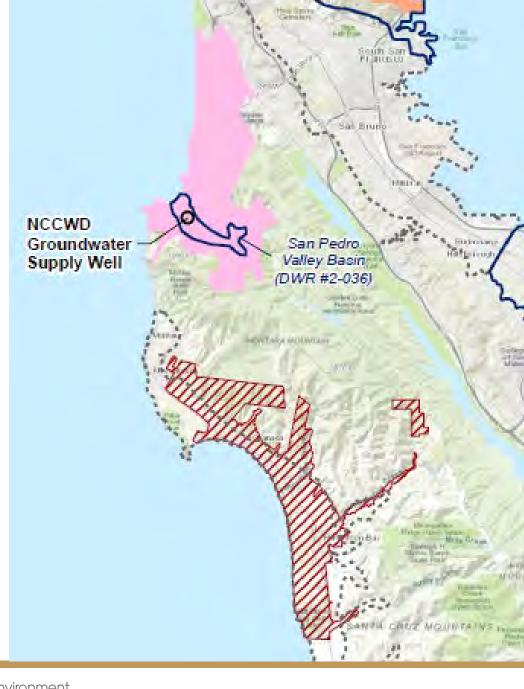






# Case Study: NCCWD Potable Groundwater Supply Wellfield Development

- Awarded \$6.6 million(!) from the 2021 Urban and Multibenefit Drought Relief Grant Program
- Project is intended to diversify supply portfolio so not 100% reliant on SFPUC Regional Water System





#### Case Study: Lessons Learned...

- Example of successful collaborative efforts between project sponsors and agencies like BAWSCA to achieve project funding
- Letters of support from BAWSCA spoke to the critical need for these projects in the region
- Important to be aware of funding opportunities available and where collaboration with other agencies is possible
- Need to be able to react quickly when opportunities arise







### How Can BAWSCA Potentially Help When it

Comes to Funding?

- Offer Letters of Support for applications\*
- Establish a grant tracking program (Information sharing Opportunities, eligibility, requirements)\*
- Develop subscription programs
  - Funding strategy (guidance on applicable upcoming opportunities, identify ways to improve competitiveness, proactively support project development)
  - Grant applications\*
  - Grant administration\*
- Help connect agencies with shared interests\*
- Facilitate development of regional projects
- Increase public awareness and education\*
- Creating a centralized database agencies can access\*







<sup>\*</sup>Suggestions from One Water Roundtable Participants

Item #5

### SFPUC's Potable Reuse Components in Their Alterative Water Supply Plan





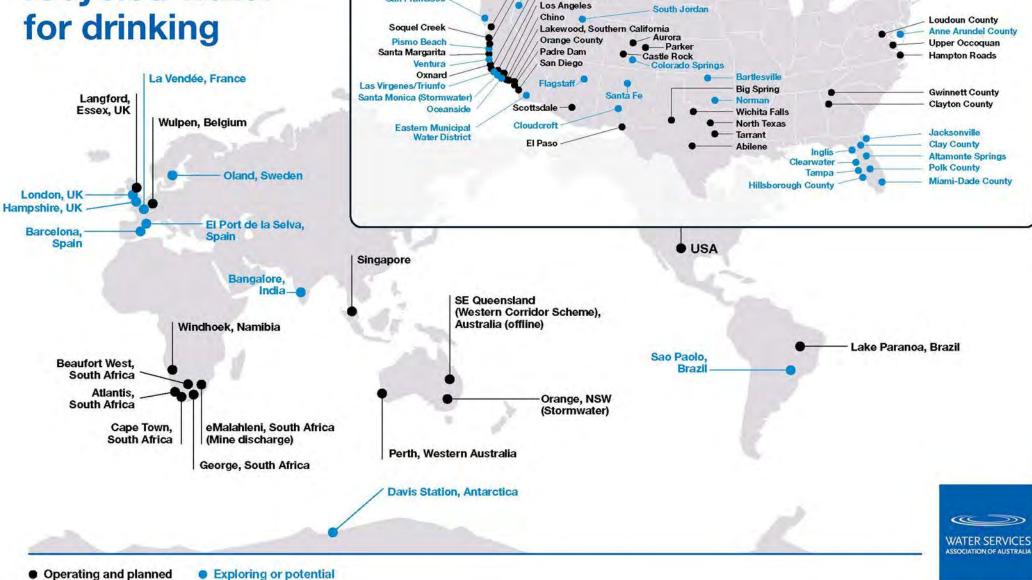


#### Purified Water Planning in SFPUC's Service Area

BAWSCA Water Supply Reliability Roundtable

Manisha Kothari, SFPUC November 8, 2022

# Global locations using purified recycled water for drinking



LOTT

San José (Santa Clara)

Monterey

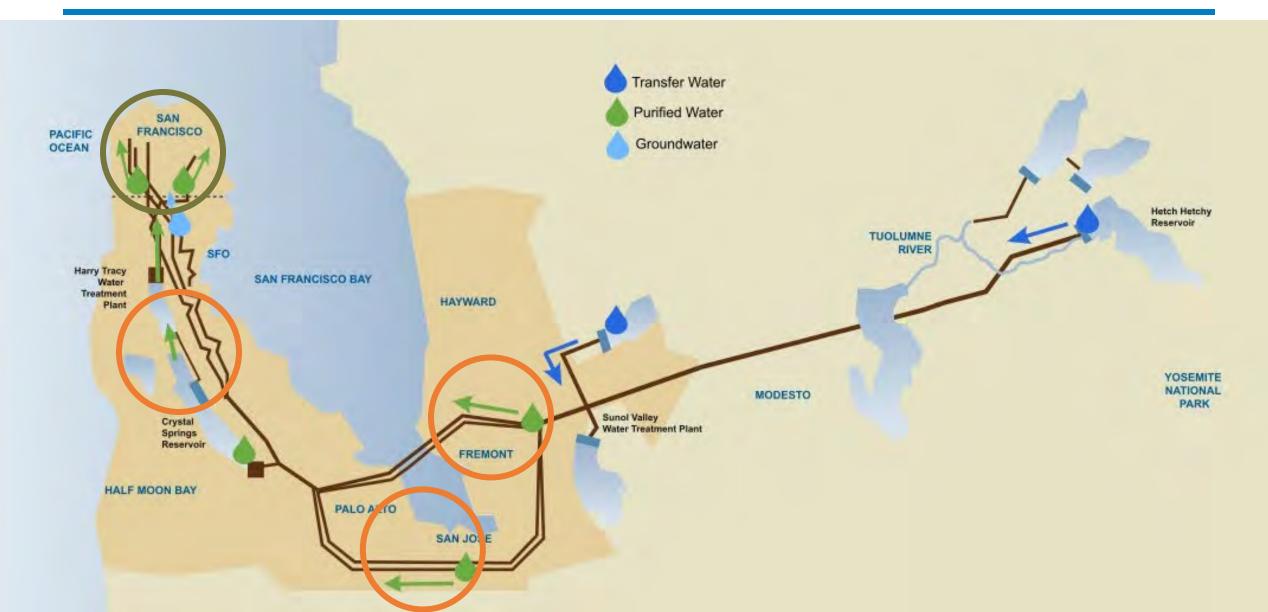
West Basin Montebello Forebay Big Sky

(Hawkes Prairie)

San Francisco



#### **Purified Water Projects in the Service Area**



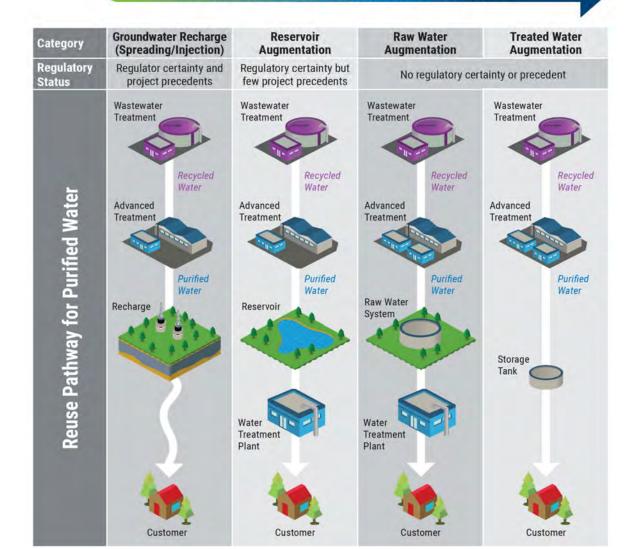


#### Types of Purified Water Projects Being Planned

**Indirect Potable Reuse** 

**Direct Potable Reuse** 

CA Potable Reuse Regulation Evolution



#### **Indirect Potable Reuse**

- SF-Peninsula Regional PureWater (Phase 1) (Reservoir Augmentation)
- ACWD-USD Purified Water (Groundwater Recharge)

#### **Direct Potable Reuse**

Treated Water Augmentation

- South Bay Purified Water
- SF Purified Water
- SF-Peninsula Regional PureWater (Phase 2) or 12 mgd alternative
- ACWD-USD Purified Water (possible Phase 2)



### Overarching Considerations for Purified Water Implementation

#### 1. Public Acceptance

- 2. Treatment Needs (dependent on feed water quality, regulations)
  - Secondary effluent quality
  - Receiving water needs
  - Anticipated discharge requirements
  - Nutrients in brine

#### 3. Operational Needs

- Ability to store and/or deliver
- Discharge requirements
- Operational readiness

#### 4. Cost relative to other supply options



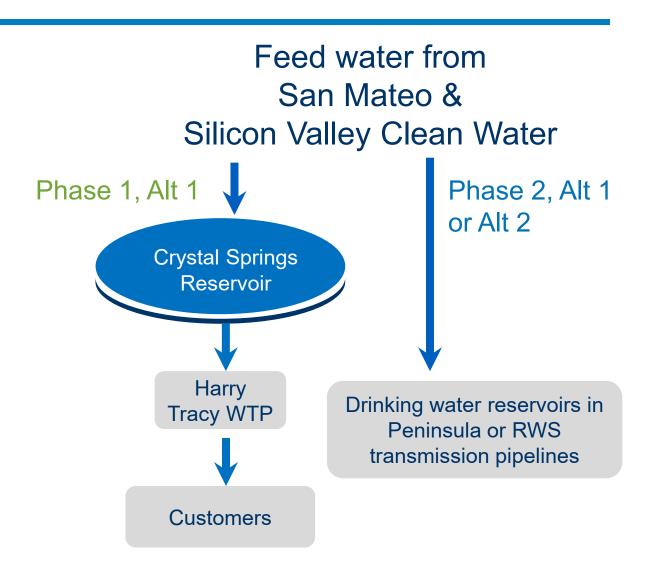
#### SF-Peninsula Regional PureWater (SPRP)

#### **Planning Assumptions:**

 6-12 mgd of purified water can be produced from effluent from SVCW and San Mateo

#### **Key Planning Considerations:**

- Governance structure to be determined
- Potential DPR tie-in locations must be identified and evaluated





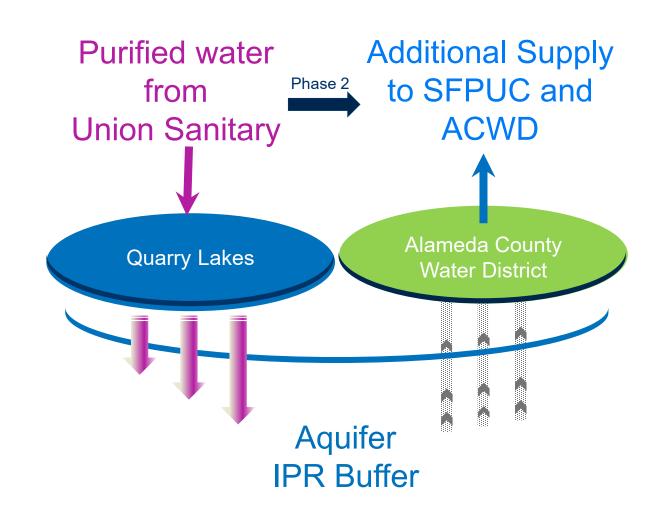
#### **SFPUC-ACWD-USD Purified Water**

#### **Planning Assumptions:**

 Feed water from USD can produce up to ~10 mgd across two phases – 5.4 mgd in Phase 1 (IPR) and 4.9 mgd in Phase 2 (DPR)

#### **Key Planning Considerations:**

- Water quality from USD and associated advanced water treatment
- Water quality needs for Quarry Lakes
- Confirmation of plant siting





#### **South Bay Purified Water**

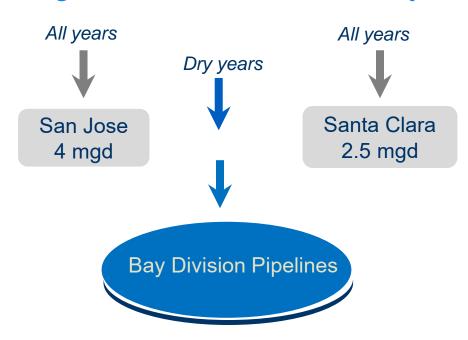
#### **Planning Assumptions:**

- 3.5 mgd of purified water available to the SFPUC in dry years only from a 10 mgd project with the Cities of San Jose and Santa Clara
- San Jose and Santa Clara to produce additional year-round supply of 6.5 mgd

#### **Key Planning Considerations:**

- Where and when deliveries enter RWS
- If there is more dry year supply available for additional benefit

#### Purified water from South Bay Purified Water near Regional Wastewater Facility





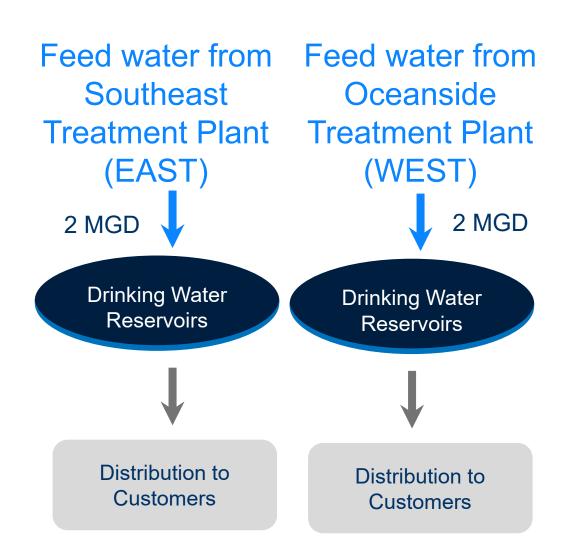
#### **San Francisco Purified Water**

#### **Planning Assumptions:**

- Limitations on groundwater or surface water storage
- No water treatment plant within San Francisco

#### **Planning Considerations:**

- Equitable distribution throughout the city
- Need for new supplies locally despite downward trend on water supply needs





#### Sustained Engagement Critical for Purified Water

Near-Term (within < 2 years)

#### **Mobile Purified Water Demonstration**

- Introduce operators to advanced treatment that can be connected to their wastewater effluent
- Outreach to communities directly where they are

Medium-Term (within 2-5 years)

#### Permanent Feature in SFPUC HQ Reuse

- Demonstrate commitment to reusing water (doing it ourselves)
- Outreach to SFPUC / City staff
- Outreach to decision-makers, public officials, others who come to 525GG

Long-Term (in 5-10 years)

#### Full-scale demo widely accessible to public

- Building operational capacity, providing training and certification opportunities
- Building confidence of regulators
- Broad public engagement and education





## Questions and Comments Regarding SFPUC's Purified Water Plans

## Breakout Session and Report Out





#### Session Format

- You each will be assigned and moved to a breakout room at random
- The BAWSCA/EKI team will facilitate each breakout room discussion
- The session will be interactive, utilizing an approach that asks each participant to type directly onto the screen / slides shown as we move through the discussion
- At the conclusion of the breakout session, we will regroup and report out
- 30 minutes is reserved for the breakout session, with another 5 minutes reserved for the report out



#### Plan for Next Roundtable Workshop





## Roundtable Workshop 4

- Summary of the Roundtable Workshops held (1 thru 3)
  - What did you find most informative from the Workshops?
  - What was missing?
- Discussion of the work product
  - Proposed contents of the report produced following the close of Workshop 4, which likely will include
    - Discussion of the work, including findings and recommendations from the experience
    - Appendices: workshop notes; PIFs
- Next steps
  - Should there be future workshops?
    - If so, what should the content be, and who should participate?
  - How best can engagement between the diverse group of participants be maintained?



- •Date:TBD Early 2023, In-Person
- •We will spend some more time exploring and summarizing local and regional One Water projects and concepts, as well as discuss potential next steps. If conditions allow, a networking mixer will follow the Roundtable Workshop.



#### Adjournment to Next Meeting

## Next Roundtable Workshop

Early 2023
Date and Time to be
Determined
Format: In Person



### Introduce yourself and your organization

**HELLO** 

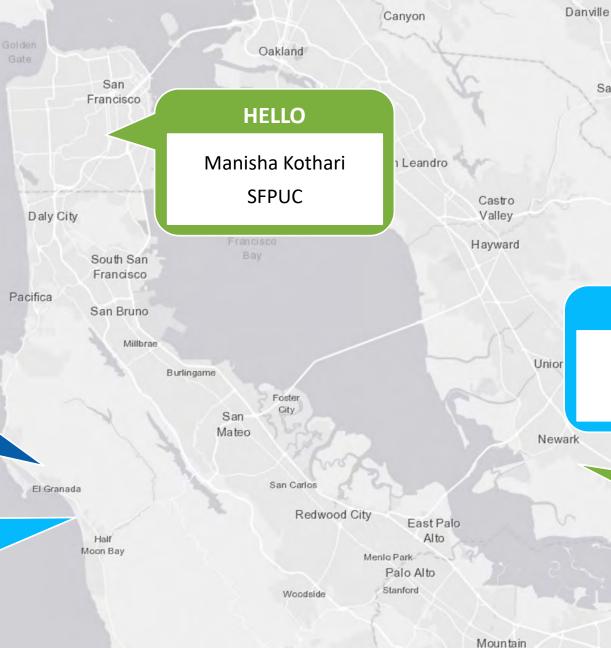
Kellyx Nelson

San Mateo RCD

**HELLO** 

Mary Rogren

Coastside County WD

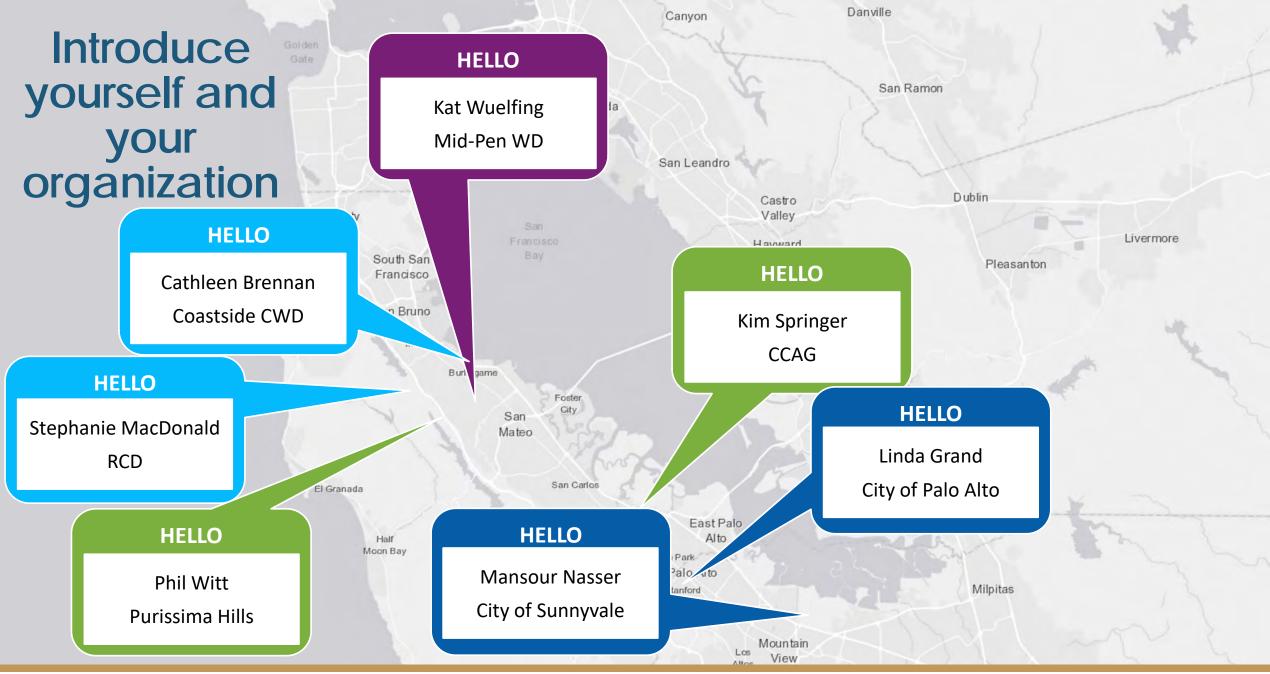


## **HELLO** San Rar Nicole Sandkulla **BAWSCA** Dublin Livermore Pleasanton **HELLO Reid Bogert** C/CAG **HELLO Thomas Niesar ACWD**









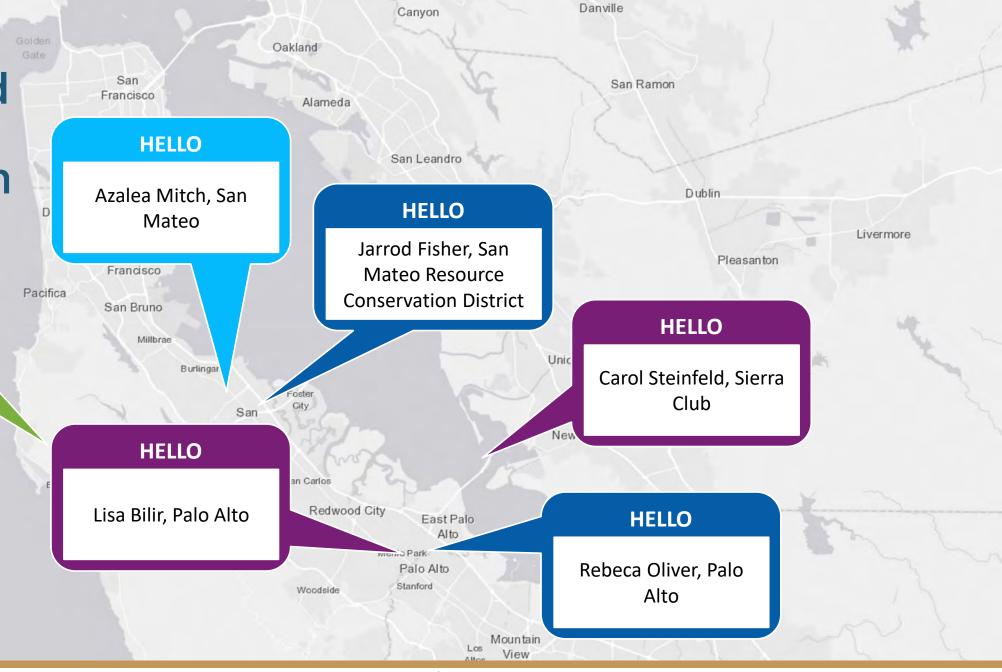




### Introduce yourself and your organization

#### **HELLO**

Ed Cooney, Hillsborough









**Resource Conservation District:** water quality, water resources, stormwater, agriculture

Oakland San Francisco

Alameda

Introduce and discuss your projects identified by the Project **Information Form** 

San Leandro

Canyon

Hayward

Livermore

Pleasanton

**CCWD**: recycled water feasibility study (beginning early 2023)

**ACWD:** regional potable reuse project purifying/discharging reuse into creek

Burlingame

Foster

**C/CAG:** countywide stormwater project; rain barrel program; sustainable streets master plan; subsurface stormwater capture

Union City

Fremont

Newark

Milpitas

Mountain

Moon Bay

Daly City

El Granada

Pacifica







Purissima Hills WD: Wells - amount of groundwater isn't available – multiple yield wells. Located 3-4 locations. (300 gpm goal from multiple wells. Costs would be \$4 mil and \$60,000 operations and maintenance O&M

Mid-Pen WD: **Groundwater well** project (dry year supply) 200 gpm (160 AFY) \$4 mil

Introduce and discuss your projects identified by the Project **Information Form** 

Sunnyvale: 7 wells not being used (6-7 mgd) testing them on a regular basis

Purissima Hills WD: Abandoned quarry for emergency water basis (ex. Fire, earthquake) – not fed by surface water (groundwater fed) and might be privately owned currently – Option probably will not be used

Livermore

Mid-Pen WD: Chlorine boosting station – limited storage facilities. Quantifying yields

Sunnyvale: recycled water (master plan) to identify where to expand the system and what customers to capture and treatment plan.

San Mateo

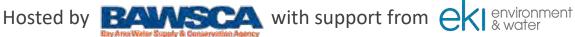
**Resource Conservation** District: grant funded agency – focus on habitat and human use – working with State parks and updating water lines. Water quality program

Mid-Pen: NO-DES trucks - clean out the system to not have to flush system - \$400,000 per truck. **Potential for funding?** 

Menlo Park Palo Alt Stanford

Palo Alto: One water plan looking at different supply options – 1 year planning

**One Water** Roundtable Series





#### **SMC**:

- Sea level rise planning tool
- Regional stormwater projects (5 project concepts)
- **Benjamin Franklin School** underground infiltration (Daly City)
- Half Moon Bay wetlands treatment near Pilarcitos Creek
- Redwood City City Hall, subsurface storage
- San Carlos; water treatment
- **San Mateo Corp Yard Water** treatment

#### **Stanford:**

- **Academic study (Luthy)**
- PI#2: "Sustainable Management Pan" – One Water Plan for the campus - demands through 2060 and how to meet them

Oakland

Alameda

Introduce and discuss your projects identified by the Project San Leandro **Information Form** 

Hayward

Livermore

#### Santa Clara:

- **Request for Proposal for One Water Sustainability Water Master Plan**
- Drilling of 2 groundwater wells in new part of City
- Rehabilitation of existing wells
- Recycled water expansion planned 50% of parks on recycled water, planning to serve more parks and schools
- **Interested in grants**

Mountain







Woodside

Redwood City

Palo Alto: Salt Removal Facility, remove salt from recycled water to improve quality of recycled water

**Sierra Club Water Manifesto: Explains best practices.** Promoted VW MWENDO. Sample regs and permitting path for onsite non-potable reuse (Spring 2023).

Canyon Introduce and discuss your projects identified by the Project an Leandro **Information Form** 

Hayward

South San Francisco

aly City

Pacifica

San Bruno

San Mateo Resource **Conservation District:** working with many suppliers on conservation and building water storage

Hillsborough WD: Has looked at groundwater and stormwater opportunities but didn't find viable options.

Newark

**City of San Mateo: Working** with the SFPUC, Silicon Valley Clean Water, Redwood City, Mid-Pen. Treat effluent, send to **Crystal Springs or for direct** potable reuse. Biggest challenge is institutional barriers. WWTP, not a water supplier

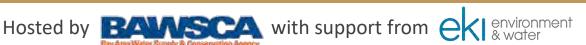
San Carlos Redwood City East Pa Alto Menlo Park Palo Alto Stanford Woodside

**Palo Alto One Water Plan:** Looking at all water supply options to reduce reliance on **RWS.** Recycled water, stormwater, groundwater.

View

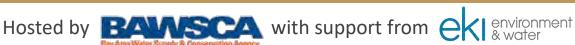












Call out the geographic Wastewater Water nexus of certain and Recycled Suppliers Water projects – point people Community Cities and to each other Groundwater Members Counties **BAY AREA** Need to make sure that Stakeholders **Water Supplies ONE WATER** groundwater projects consider potential impacts Bay and Private Water Brackish Sector of sea level rise; look for Efficiency **Valley Water** stormwater projects as Wastewater Rain and **Adjudication of SMP Subbasin** recharge to basin source of recharge as well Stormwater Agencies b/c if investing in recharging all wells need to be as indirect potable reuse for basin and not just et private coordinated with groundwater recharge wells pump it out; look at model them of SC Subbasin/Westside basin

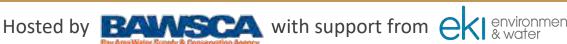






NGOs can be a vehicle **Having context of other Letters of support** projects in the area can to share information istewater Water for grant with the public. help with stakeholder I Recycled Suppliers Water applications engagement Community Cities and Groundwater Members Water Counties **BAY AREA Water Supplies** Stakeholders **ONE WATER Partnerships with** Private Water NGOs local landowners. Sector Efficiency Top-down **Smaller agencies with** Rain and watershed limited funding need restoration **Technical advisory** to tailor work. Larger committees to work studies are helpful for through barriers and their work. streamline processes





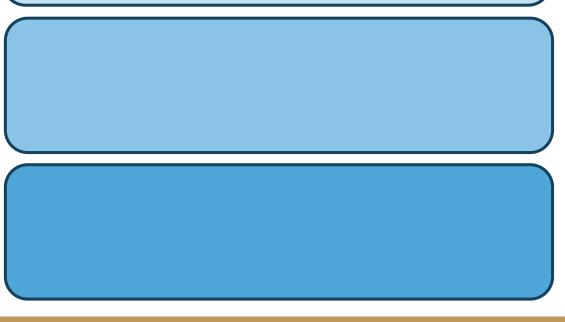
## From these past 3 workshops, what has been most helpful to you and what would you have liked done differently?

#### Worked well

Helpful to know what other agencies are doing; very helpful for reaching out; more resources – not having to start from scratch; grant funding summary was very helpful

#### Want more of...

Group people according to region/sources, etc. – make it more of a working session to really kick start collaboration – maybe around funding





## From these past 3 workshops, what has been most helpful to you and what would you have liked done differently?

#### Worked well

Breakout groups are helpful for smaller discussions. Facilitates information sharing. Creating a forum for bringing folks together to discuss One Water.

Information on grants and funding opportunities (x2).

One Water lens. Map of water supply concepts.

#### Want more of...

Ongoing forum or online discussion groups where folks can ask questions.



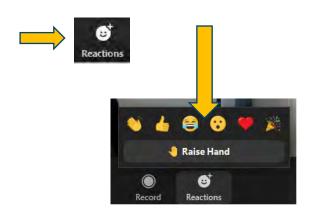




### Meeting Instructions While We Gather

- You have been muted upon entry
- Please feel free to <u>Unmute</u> yourself to say "Hi" and test your sound connection
- Please Mute yourself during meeting when you are not talking
- During the meeting, BAWSCA staff will mute your sound and video if necessary
- The **Raise Hand** feature will be used for questions
- \*NEW\* To get the <u>Raise Hand</u> button, Click on <u>Reactions</u> button at the bottom of your screen and Select <u>Raise Hand</u>
- The Chat function is enabled
- If you have technical difficulties, please text Kyle Ramey at 650-787-1793









"A multicounty agency authorized to plan for and acquire supplemental water supplies, encourage water conservation and use of recycled water on a regional basis."

[BAWSCA Act, AB2058 (Papan-2002)]

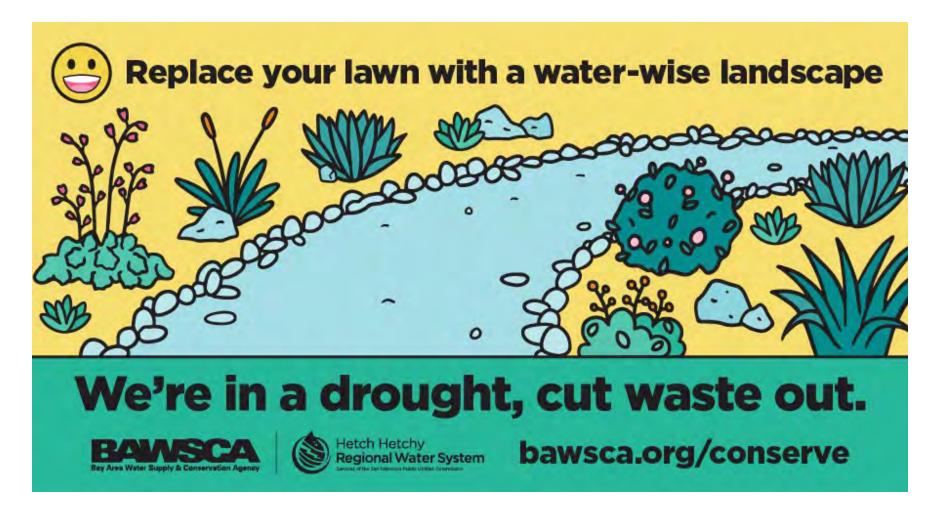
## Water Supply Reliability Roundtable

Workshop 4: Moving Forward!

February 14, 2023



#### Call to Order & Welcome





### Introduction & Purpose of Workshop Four





#### Roundtable Workshop Series



Workshop 1

**Demystifying the One Water Concept** 

- Date: May 24, 2022; 10AM-12PM, **Zoom Meeting**
- •We will demystify the One Water Concept and explore how it can be applied to the BAWSCA region. Speakers will provide an overview of the One Water Concept and examples of successful implementation.



Workshop 2

**Regional Partnerships Mean Regional Funding** 

- •Date: June 28, 2022; 10AM -12PM, Zoom Meeting
- •We will focus on how regional partnerships can be leveraged for a variety of regional funding solutions. Speakers will discuss regional funding models that have been employed in the Bay Area and Southern California to bring projects into reality.



Workshop 3

**Identifying Local** "One Water" Projects

- •Date: November 8, 2022; 1PM -3PM, Zoom meeting (although may be inperson if conditions warrant)
- Share your organization's planned or potential One Water projects with the group, whether they're in the early stages of planning, or a mere twinkle in your eye. With all local projects on the table, we can begin to identify real and meaningful opportunities for One Water collaborations and funding opportunities. If conditions allow, a networking mixer will follow the Roundtable Workshop.

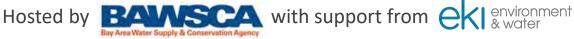


Workshop 4 **Moving Forward!** 

- •Date: February 14, 2023; 10 AM-12 Noon
- •We will spend time further exploring and summarizing local and regional One Water projects and concepts, as well as discuss potential next steps.

#### **One Water Roundtable Series**









#### Purpose and Goals of Roundtable Discussions

 <u>Purpose</u>: Provide an opportunity for collaboration among interested stakeholders

#### • <u>Goal</u>:

- Understanding of how projects can fit within the one-water concept
- Identification of collaborative opportunities
- Identify how entities can best support, help finance, permit/approve, and/or expand projects or programs that have the potential to offer multiple benefits



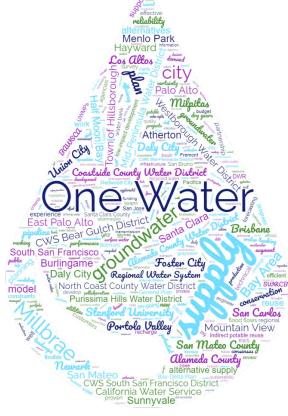
Would you like to see more One Water Roundtable Workshops in the future? If so, at what frequency (quarterly, twice a year, etc.)?





Type your message into the chat.

After 1 minute, everyone will hit "send" together.





#### Workshops I and 2 – Discussion That Took Place

- This first workshop (May 24, 2022) introduced the concept of "One Water"
  - Participants were asked to share their view / opinion as to what "One Water" means to them
  - A presentation on the Los Angeles (LA) 2040 Plan
  - A presentation summarizing Palo Alto's upcoming One Water Plan development
- The second workshop (June 28, 2022) discussed how others have approached the financing of multi-benefit projects
  - One Water projects funding options
  - A presentation on San Bernadino Valley Municipal Water District's approach to project funding
  - A presentation on the City/County Association of Government's (C/CAG) on their Countywide Green Infrastructure Funding Evaluation



#### Workshop 3 – Discussion That Took Place

- Shared the results of the "Project Information Form (PIF)" gathering effort, and pointed to specific examples of the projects envisioned
- Presented an inventory of grant/funding opportunities for one-water projects
  - A listing of current and upcoming grant opportunities
  - Discussed how BAWSCA (or other participant agencies) could assist in applying for and or securing grant funding
- Learned about SFPUC's efforts, as part of their Alternative Water Supply Program, to partner on potable reuse project opportunities within the BAWSCA service area



## Purpose of Workshop 4

- Today's workshop will serve as a means to
  - Receive an update as to projects being contemplated, or in development, by various agencies (as documented via PIFs received)
  - Receive updated information regarding pending funding (grant) opportunities
  - Learn more about Alameda County Water District's (ACWD's) potential potable reuse project
  - Discuss the proposed content of a report that will be produced summarizing the four Roundtable workshops
  - Plan for the future of the Roundtable



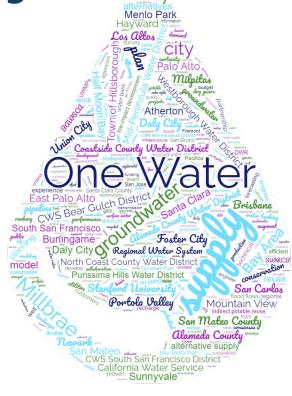
## For possible future One Water Roundtable Workshops, would you prefer them to be virtual, hybrid, or in person, and why?





Type your message into the chat.

After 1 minute, everyone will hit "send" together.





# Roundtable Workshop Report and BAWSCA's Long-Term Reliable Water Supply Strategy





#### Roundtable Report

- BAWSCA committed to preparing a report detailing the work effort once the 4<sup>th</sup> Roundtable workshop was held
- This report will be made available to Roundtable participants and the public on the Roundtable website
  - BAWSCA will also provide the report to our Board
- BAWSCA anticipates that the BAWSCA Board as well as other interest groups will request presentations detailing the work effort
  - BAWSCA will use the report in presentation preparation
- BAWSCA anticipates that the report will be finalized by mid-April 2023



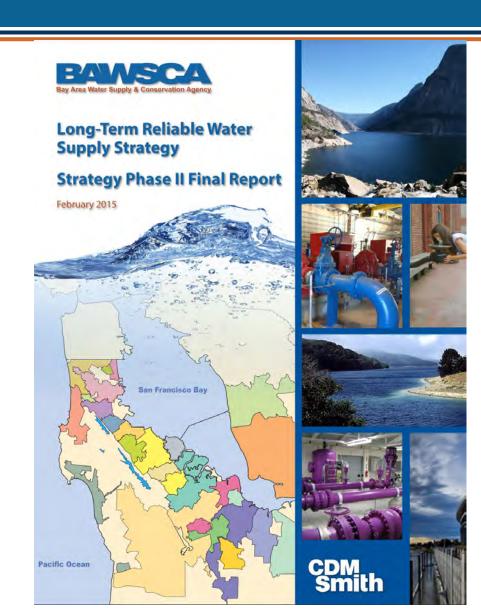
#### Roundtable Report Contents

- BAWSCA is in the process of finalizing the content / report outline
- The Roundtable Report will likely include the following sections
  - Introduction
  - Purpose and Goal of the Roundtable Workshops
  - Stakeholders Invited / Participants
  - Summary of each Roundtable Workshop, including meeting minutes
  - Project Information Forms summary, including a grouping by project type and geographic extent
  - Grant opportunities identified
  - Lessons learned
  - Next steps regarding future meetings
  - Appendix of PIFs submitted
  - Appendix of SFPUC's Alternative Water Supply Projects with BAWSCA agency partners
  - Appendix of presentations given at the Workshops (PPTs)
  - Appendix with support documents prepared (fact sheets, outreach materials, website developed, etc.)



## BAWSCA's Long-Term Reliable Water Supply Strategy

- BAWSCA's Long-Term Reliable Water Supply Strategy (Strategy) was published in 2015
- The Strategy was a five-year effort by BAWSCA and its member agencies to identify appropriate water management actions that provide long-term water supply reliability for the region
- To prepare the Strategy, a comprehensive assessment of the regional water supply reliability needs through the year 2040
- Included in the work was an evaluation of potential water supply reliability projects that could be implemented
- It proposed a suite of actions by BAWSCA



## Strategy – Suite of Recommend Actions (2015)

#### Recommended Actions:

- Lead water transfer development and implementation including identifying and evaluating water storage options
- Facilitate desalination partnerships and pursue outside funding for related studies
- Support agency-identified projects (i.e., recycled water and groundwater) and local capture and reuse
- Participate in regional planning studies in cooperation with others
- Continue monitoring regional water supply investments and policies
- For each recommended action, several work efforts to be performed by BAWSCA were proposed to further strategy implementation
- Since 2015, BAWSCA annual budget and work plan was aligned with the 2015 Strategy



## Update of BAWSCA's Long-Term Reliable Water Supply Strategy

- Conditions have changed since 2015 such that an update of the Strategy is warranted
- Changes include the following:
  - BAWSCA has prepared updated demand studies
  - BAWSCA member agencies have prepared new Urban Water Management Plans (UWMPs)
  - BAWSCA is updating the Tier 2 Plan for SF RWS supply allocations during water shortage emergencies
  - Water supply projects at the member-agency specific level have come online and moreover agencies have future plans that were not envisioned in 2015
  - Regulatory pressures are mounting, some of which have the potential to impact existing supply reliability
  - Large regional water supply projects, such as the Los Vaqueros Reservoir Expansion Project, have advanced.
  - The SFPUC has embarked upon the preparation of an Alternative Water Supply Plan which informs BAWSCA and its member agencies regarding their future plans toward water supply reliability



### Multi-Phased Approach to Strategy Update

- Phase I Scope the update of the Strategy
  - BAWSCA will be issuing a-Request for Proposal (RFP) to secure consulting assistance with the Scoping of the Strategy
  - Tentatively the RFP will be released in February of 2023
  - BAWSCA anticipates the scoping work to begin in the Spring of 2023 and extend into the Fall of the coming fiscal year
  - BAWSCA has written the RFP such that the selected consultant could be used to craft the updated Strategy, although BAWSCA has the option to issue a subsequent RFP for the work effort
  - BAWSCA's current fiscal year (FY) budget and proposed FY 2023-24 budget includes monies for the scoping effort
- Phase 2 Strategy update
  - BAWSCA anticipates that the update of the Strategy will commence in FY 2023-24
  - Update efforts are anticipated to extend into FY 2024-25



#### Strategy Update – Phase I (Scoping Effort)

- Task I Document Review
  - BAWSCA's existing Strategy Final Reports
  - BAWSCA's most recent Demand Study and Annual Report
  - BAWSCA's Pilot Water Transfer Report
  - BAWSCA Member Agency PIFs collected by BAWSCA detailing future agency-specific water supply development plans
  - SFPUC's recent quarterly report(s) as prepared for its Alternative Water Supply Program
  - Member Agency UWMPs, and in particular sections of said UWMPs that detail future water supply development
  - Consultant will be tasked with identifying similar "plans" as prepared by other water agencies for their Strategies / long-term water supply planning efforts
- Task 2 Stakeholder Engagement
  - BAWSCA member agency representatives
  - BAWSCA Board
- Task 3 Meeting Attendance and Technical Support
  - Various technical memorandums will be produced to facilitate the development of a Scope of Work for the update
  - Materials as needed to gather stakeholder input



## Long Term Reliable Wate Supply Strategy Update (Phase 2 Work Effort)

- To develop the Strategy update, BAWSCA envisions that a stakeholder task force, separate from a member agency tasks force, is likely to be needed
- Engagement with the task force, and the public at large, is likely to include workshops and presentations
- Those workshops and presentations may be held separately, or could be conducted via any future Roundtable Workshops
  - Much will depend on the scope of the update as well as on how such a scope aligns with the focus of the Roundtable



#### PIF Forms and Funding Opportunities





## Updates to the **Project Information** Forms and Funding Opportunities



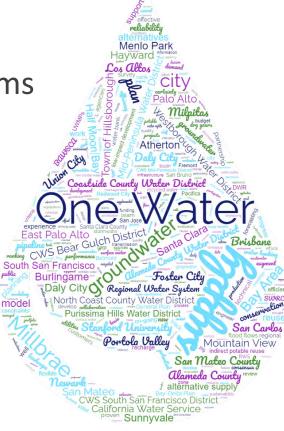




#### Overview

Updated Project Information Form Summary

Updates to current and upcoming funding/financing programs







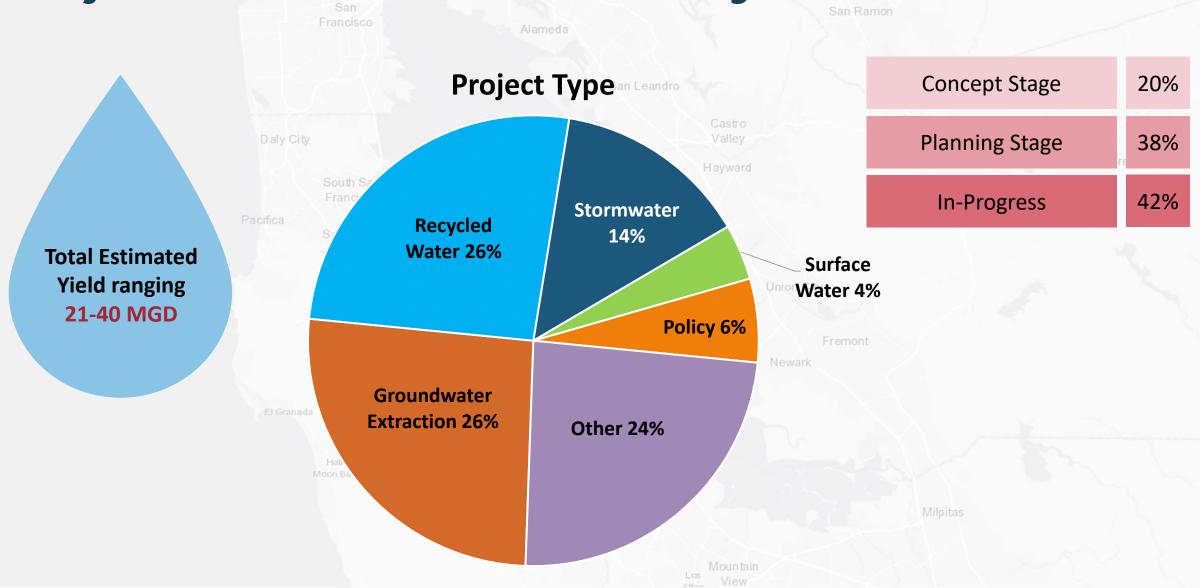






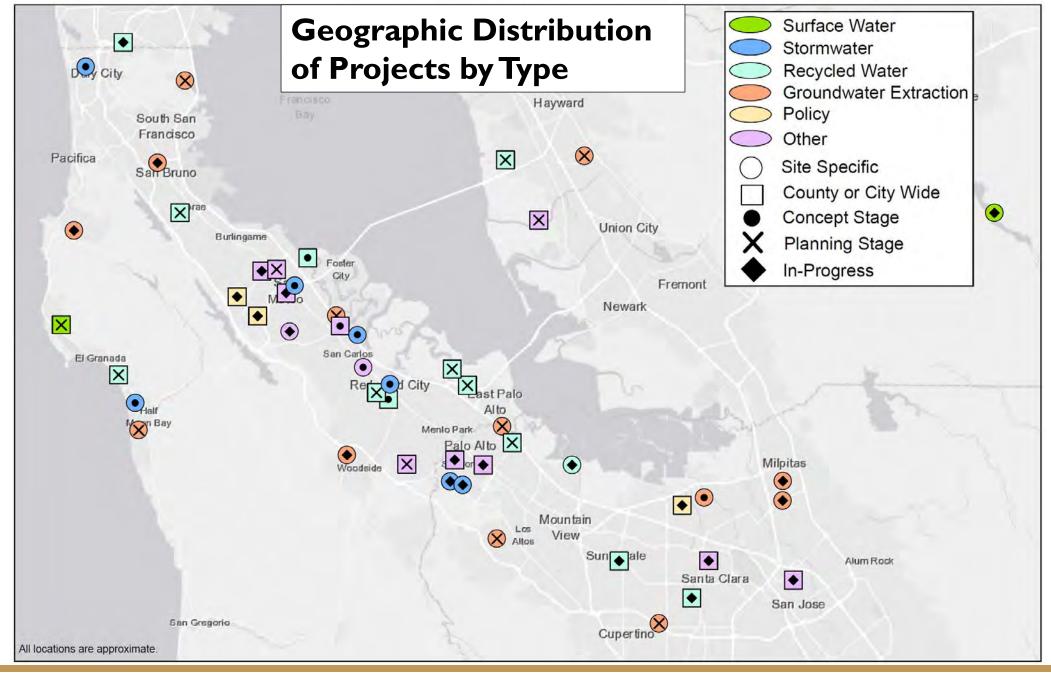


### Project Information Forms - By the Numbers











## Summary of Active Funding Opportunities

- Table summarizing the current and upcoming available funding options from the following sources:
  - California Department of Water Resources
  - United States Bureau of Reclamation
  - California State Water Resources Control Board
  - United States Environmental Protection Agency
  - California Infrastructure and Economic Development Bank
- Table will be provided via email following the workshop











species, by reconnecting aquatic

Intended to offer immediate and

near-term financial and technical

assistance to small communities

to current drought

facing water supply challenges due

habitat to help fish and wildlife

endure drought and adapt to

climate change

Installation of green infrastructure that improve water quality from leachates that are lethal to threatened or endangered aquatic species Provide reliable water storage Improve water system storage Replace aging and leaking water system infrastructure Replace aging and leaking water system infrastructure Provide backup power sources for water systems Hauled water Temporary community water tanks Water vending machines **Emergency water interties** 

Innovative solutions to improve water conveyance and water loss

needed to support native fishes and habitat. Increase or improve

Gravel injection projects that support native fish populations.

floodplain availability.

and adapt to climate change.

within agricultural diversions to assist with increasing water supply

Habitat enhancement projects that benefit aquatic species, including reconnecting aquatic habitat to help fish and wildlife endure drought

**Small Community** 

**Drought Program** 

First-come, first-

served basis

have been

until

expended or

12/29/2023

until all funds

**Funding Programs from the California Department of Water Resources (DWR)** 

\$305 million

means of diversions from the

Small communities **not** served by

an Urban Water Supplier (UWS is

municipal purposes to more than

a public or privately owned

supplier providing water for

3,000 customers or supplying

more than 3,000 acre-feet of

water annually)

Delta

approach to drought by providing

develop and update comprehensive

assistance to water managers to

projects that will build long-term

drought plans and implement

Program to provide financial

assistance for projects to develop

hydrologic information and water

modeling and forecasting capabilities.

management tools and improve

resiliency to drought

Eligible actions are limited to temporary construction activities and other actions authorized under Title I that do not involve construction of permanent facilities, including water purchases and use of USBR facilities to convey and store water Improved hydrologic modeling, forecasting tools, and/or GIS and data management Projects to enhance modeling capabilities to improve water supply reliability and increase flexibility in water operations Projects to improve or adapt forecasting tools and technologies to enhance management of water supplies and reservoir operations Projects to improve access to and use of water resources data, or to develop new types of data to inform water management decisions

and recharge, treatment, and storage facilities

water measurement and monitoring equipment

Projects that develop a drought contingency plan or update an

Response Program Framework

Drought Resiliency Projects:

existing plan to meet the required elements described in the Drought

actions" in a drought contingency plan. Eligible project types include: - Infrastructure improvements, modifying surface water intakes,

Decision support tools, including drought forecasting tools, and

 Projects that help communities prepare for and respond to drought. Typically, these types of projects are referred to as "mitigation

**Emergency Response Actions:** 

governments (Federally

City or township governments

Special district governments

State governments

County governments

Native American tribes

Water districts, or other

organizations with water or power

Irrigation districts

delivery authority

recognized)

Nonprofits

States

- Universities Non-profits

**Applied Science** 

Grants

Funding Programs from the U.S Bureau of Reclamation (USBR)

opportunity

April 2023

anticipated in

FY23 funding

opportunity

expected in

Spring 2023

**Program** 

Up to \$200,000 for projects to be

completed within two years

Non-federal cost share of 50% or

more of the total project cost

States stakeholders to form local solutions Native American tribes to address their water management Local irrigation and water districts Local government entities Non-profit organizations

delivery authority

State, regional, or local authorities,

whose members include one or

power delivery authority

more organizations with water or environmental and ecological benefits and multi-benefit projects Funding for watershed group development, watershed restoration planning, and watershed management project design Applicants could use funding to develop bylaws, a mission statement, complete stakeholder outreach, develop a watershed restoration plan,

and watershed management project design

management

values that have a nexus to water resources or water resources

Broad project eligibility, but focus is on water management projects with

\$6 million or less to be completed

Projects that increase water supply

reliability for ecological value and

Up to \$200,000 may be awarded to

an applicant per year, for a period

No non-federal cost-share required

collaborative process may be

eligible to receive up to 75% Federal cost share contribution

within 3 years.

developed as part of a

of up to two years

**Funding Programs from USBR cont'd** 

FY23 funding

opportunity is

scheduled for

Summer 2023

Cooperative

Watershed

Management

Program - Phase I

**One Water** 

**Roundtable Series** 

needs

Projects that provide benefits to

that benefit ecological values or

Funding to encourage diverse

multiple sectors, including projects

watershed health and agricultural,

municipal, tribal, or recreation water

uses, are encouraged and prioritized.

Sponsors of water recycling

projects with a total project

with completed feasibility

studies that have been submitted to Reclamation for

review.

cost greater than \$500 million

Sponsors of water reclamation

and reuse projects specifically

authorized for funding under

Sponsors of water reclamation

completed feasibility studies

that have been submitted to

Title XVI of P.L. 102-575

and reuse projects with

Reclamation for review

Projects will become eligible to compete for funding once

Federal project sponsor and has informed Congress that the

Planning, design, and construction of water recycling and reuse

Planning, design, and construction of water recycling and reuse

project meets Reclamation's requirements

projects

projects

Reclamation has reviewed a feasibility study submitted by the non-

groundwater and ocean

- Funding for planning, design, and

Recycling Projects with a total

project cost greater than \$500

Program includes funding for the

of water recycling and reuse

government entities

construction of Water

Hosted by **BANSCA** with support from **C** 

planning, design, and construction

projects in partnership with local

Funding for planning, design, and

Infrastructure Improvement for

the Nation (WIIN) Act water

recycling and reuse projects

construction of Large-Scale Water

desalination projects

million

**Funding Programs from USBR cont'd** 

**Large-Scale Water** 

**Recycling Projects** 

**Title XVI Authorized** 

**Title XVI WIIN Act** 

**Water Reclamation** 

Roundtable Series

and Reuse

**Projects** 

**Projects** 

Next funding

opportunity is expected in

Spring 2023

Next funding

opportunity is

Summer 2023

Next funding

opportunity is

Summer 2023

expected in

expected in

or greater

or greater

Congress

or greater

or greater

up to \$30 million

- Federal funding is limited to

25% of the total project cost

Non-Federal Cost Share of 75%

Federal funding is limited to

up to \$20 million, unless

otherwise specified by

25% of the total project cost,

Non-Federal Cost Share of 75%

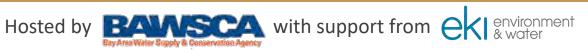
Federal funding is limited to

25% of the total project cost,

Non-Federal Cost Share of 75%

Status	Funding Program	Funding Available	Details	Who is eligible?	What projects are eligible?
First-come, first-served	Water Recycling Funding Program (WRFP) - Planning Grant Application	- Prop 1 provides \$625 million for recycled water projects - Prop 13 provided financial assistance through loans and grants for planning and construction activities - Prop 68 provided \$72 million in loans and grants for recycled water planning and construction - Maximum grant amount per project: - Planning grant - \$500,000 - Construction grant - \$15 million	- Program purpose is for local public agencies to investigate the feasibility of recycling wastewater and assist them with completing planning for water recycling projects by supplementing local funds  - Water recycling construction	- Local public agencies	<ul> <li>Recycled wastewater feasibility studies</li> <li>Planning for water recycling projects</li> <li>Generally, all costs necessary to determine the feasibility of using recycled water and to select an alternative to offset or augment the use of fresh/potable water from state or local supplies may be eligible for the planning grant. The Plan of Study will be used to determine the costs eligible for grant funding</li> <li>Each proposed study must be distinct from previous WRFP grant funded studies. The applicant should confer with Division staff before applying for additional planning grants to ensure that new studies are distinct and eligible</li> </ul>
First-come, first-served	Water Recycling Funding Program (WRFP) - Construction Grant Application		<ul> <li>Water recycling construction projects must offset or augment state or local fresh water supplies</li> <li>A water recycling construction project may receive any combination of grant and loan financing available to the State Water Board for which it is eligible</li> <li>The applicant must separate the eligible and ineligible costs in application documents and its disbursement requests, as appropriate.</li> </ul>	Depending on the type of project, eligible groups include: - local public agencies - Non-profit organizations - Public utilities - Native American tribes - Mutual water companies	<ul> <li>Construction of recycled water treatment facilities, storage facilities, pumping facilities, and groundwater recharge facilities</li> <li>Construction of recycled water distribution systems, including onsite improvements</li> <li>Development, construction, and monitoring of a pilot-scale or demonstration-scale plant as part of the Construction of a full-scale treatment facility</li> <li>Construction of recycled water distribution systems, including onsite improvements</li> <li>Planning, design, construction management, value engineering, and administration directly related to project implementation</li> <li>Reasonable costs to provide an emergency backup water supply for the recycled water system.</li> <li>Contingency for change orders approved by the Division for increased costs, provided the costs are eligible and consistent with the original scope of the project</li> </ul>
	One Water	Hosted by PANA	with support fro	m Oli environment	





Funding Programs from the SWRCB (cont'd)

**Programs (Safe and** 

**Affordable Funding** 

Resilience [SAFER])

**Groundwater: Site** 

Cleanup

**Program** 

Subaccount

**One Water** 

**Roundtable Series** 

for Equity and

Ongoing

Counties counties

Details

Need for **regional** programs that

small water systems and domestic

address drought-related and

well serving disadvantaged

Funding for projects that

investigate the source of surface

or groundwater contamination

and/or remediate the harm or

threat of harm to human health,

safety, or the environment caused

by existing or threatened surface or groundwater contamination No cost match requirement

water systems

contamination issues for state

communities and low-income

households. These needs are the

primary focus for this funding, but proposals may also include work

to address specific needs of public

Non-governmental organization on behalf of one or more

Who is eligible?

Other public agencies on behalf of one or more counties Grant recipients aid:

- State smalls (<15 connections) serving a DAC

Domestic wells (<5 connections) serving lowincome households Potentially some services

can be provided regardless of income (well sampling and bottled/hauled water for emergency drought

response while longer-term solutions are implemented

Applicants with eligible projects Regulatory agency has issued a directive (unless this is infeasible)

Responsible party lacks financial resources

filing stations)

scale consolidation)

Projects may include site characterization, source identification, or implementation of cleanup

What projects are eligible?

Interim solutions (bottled water, tanks and hauled water, kiosk

Long-term solutions (well repairs and/or replacements, limited

Assessment (community outreach, domestic well testing)



**Funding Available** 

Annual appropriation of \$34

million through 2025

\$55 million



Status	Funding Program	Funding Available	Details	Who is eligible?	What projects are eligible?
Ongoing	Small Community Wastewater (SCWW) Funding	- \$600 million as part of the Clean Water State Revolving Fund	<ul> <li>Grants available through the Small Community Grant Wastewater program</li> <li>Grants and principal forgiveness may be available to eligible applicants serving disadvantaged communities</li> <li>Interest rate may vary each calendar year; it is 50% of the average interest rate paid by the state on general obligation bonds issued in the prior calendar year. Lower interest rates may be available to facility's serving small, disadvantaged communities through the Clean Water State Revolving Fund (CWSRF)</li> <li>Loan Repayment Term: up to 30 years or useful life of the project</li> <li>Loan Repayment: Begins within one year after project completion</li> </ul>	<ul> <li>Nonprofits, public agencies, tribal governments</li> <li>Applicants must serve small (less than 20,000) communities qualifying as a DAC or SDAC</li> </ul>	<ul> <li>Planning/design and construction of wastewater infrastructure projects including:         <ul> <li>Wastewater treatment</li> <li>Septic to sewer conversions</li> <li>Regionalization</li> <li>Local sewers</li> <li>Sewer interceptors</li> <li>Wastewater reclamation and distribution</li> <li>Stormwater treatment</li> <li>Combined sewers</li> <li>Landfill leachate treatment</li> </ul> </li> </ul>
First-come, first-served	Small Community Drinking Water Funding	<ul> <li>\$300 million as part of the Drinking Water State Revolving Fund</li> </ul>	To help small DACs, providing service to less than 10,000 people and having a median household	<ul> <li>Publicly-owned community water systems (e.g., counties, cities and districts)</li> </ul>	<ul> <li>Planning/design and construction of drinking water infrastructure projects including:</li> <li>Treatment systems</li> </ul>

Privately-owned community

water utilities, non-profit

mutual water companies)

water systems (e.g., for-profit

Non-profit or publicly-owned

(e.g., public school districts)

Community water systems created by the project

non-community water systems

Interconnections

Consolidations

Water sources

Water meters

Distribution systems

Pipeline extensions

Water storage tanks

Funding Programs from the SWRCB (cont'd)





income (MHI) of less than 80% the

statewide MHI, implement

improvement projects

eligible drinking water capital

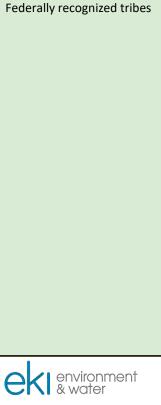
Ongoing

Funding Programs from the SWRCB (cont'd)

**Program** 

**State Revolving** Fund (DWSRF)

Por	One Wat



Who is eligible?

**Publicly-owned community** 

cities, districts)

Public agencies

Private entities

Non-profit organizations

water systems (e.g., counties,

Privately-owned community

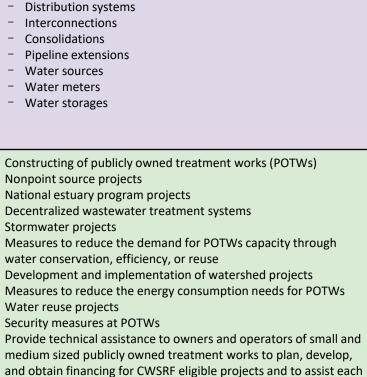
water utilities, non-profit

mutual water companies)

Non-profit or publicly owned

non-community water systems

water systems (e.g., for-profit



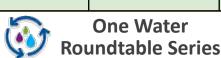
treatment works in achieving compliance with the Clean Water Act

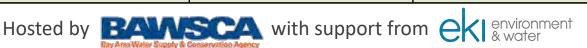
What projects are eligible?

Planning/design and construction of drinking water infrastructure

projects including:

Treatment systems





Details

Assists public water systems in

financing the cost of drinking

water infrastructure projects

needed to achieve or maintain

compliance with the Safe Drinking

Water Act (SDWA) requirements

Provides low-cost financing to

Offers below-market interest

rates, 30-year financing, loan

other funding sources

forgiveness, compatibility with

Financing limits: No maximum,

and applicant's ability to repay

Repayment: Begins 1 year after

completion of construction

but depends on available funding

pollution

protect California's waters from

**Funding Available** 

\$650 million

Status	Funding Program	Funding Available	Details	Who is eligible?	What projects are eligible?
Ongoing	Technical Assistance (TA) Funding Program	- Prop 1 is funding source	<ul> <li>TA is available to help small DACs develop, fund, and implement eligible drinking water, wastewater, stormwater, or groundwater needs.</li> <li>Stormwater resources are limited, not currently accepting new communities for stormwater TA, but can submit a request for future consideration as resources allow</li> </ul>	<ul> <li>Small DACS</li> <li>Small community is defined as having a population less than 10,000 people</li> <li>Disadvantaged community is defined as median household income (MHI) &lt; 80% of the statewide MHI</li> <li>Requests relating to one or more of the following will generally be given priority:         <ul> <li>Systems that are out of compliance or experiencing insufficient water delivery capabilities; extension of service for drought/contamination impacted communities;</li> <li>Consolidation projects</li> <li>Systems serving less than 200 connections</li> <li>Applicants with small or relatively low-cost needs that will enable an otherwise complete funding application to move forward</li> </ul> </li> </ul>	<ul> <li>Coordination and development of capital improvement projects</li> <li>Facilitation of operation and maintenance</li> <li>Engineering and environmental analysis</li> <li>Legal assistance</li> <li>Leak detection/water audits</li> <li>Compliance audits</li> <li>Financial analysis</li> <li>Technical managerial and financial (TMF) assessments</li> <li>Board or operator training</li> </ul>
	One Water	Hested by DAIA	with support fro	environment	



#### Water Infrastructure \$20 million is minimum project Since

Finance and

(WIFIA)

**Innovation Act** 

Status

September 6,

Letters of Interest can be

submitted

Ongoing

**Funding Program** 

**Infrastructure State** 

**Revolving Fund** 

(ISRF) Program

Funding Programs from the United States Environmental Protection Agency (EPA)

**Funding Available** 

that WIFIA can fund is 49%

#### size for large communities water infrastructure by providing \$5 million is minimum project long-term, low-cost supplemental size for small communities loans for regionally and nationally Maximum portion of eligible cost significant projects

Accelerated investment in nation's

Details

In a Letter of Interest, the

prospective borrower provides

information to demonstrate its

creditworthiness, engineering

feasibility, and alignment with EPA's policy priorities. If EPA selects the projects, then the prospective borrower is invited to submit an

Program provides low-cost, direct

loans to local governments and

nonprofits sponsored by public

agencies for a wide variety of

economic expansion projects

public infrastructure and

projects eligibility, financial

application.

Local, state, tribal, and federal government entities Partnerships and join ventures

Who is eligible?

- Corporations and trusts
- Clean Water and Drinking Water State Revolving Fund programs
- wastewater facilities Brackish or seawater desalination, aquifer recharge, alternative water supply, and water recycling projects
- Drought prevention, reduction, or mitigation projects

Wastewater conveyance and treatment projects

Drinking water treatment and distribution

- Desalination/aquifer recharge and water recycling projects
- Acquisition of property if it's integral to the project or will mitigate the environmental impact of a project

Enhanced energy efficiency projects at drinking water and

What projects are eligible?

#### Funding Programs from the California Infrastructure and Economic Development Bank (IBank)

million

Ranging from \$1 million to \$65

One Water	

(excluding housing) that improve and sustain communities

and include any subdivision of a local government (including cities, counties, special districts, assessment districts, joint powers authorities, and nonprofits sponsored by a government entity

Must be located in California

Water, sewage, and solid waste Ports, parks, and recreational facilities Organic-recycling projects

Eligible projects (including, but not limited to):

Streets, highways, and public transit

- Zero emissions vehicle fleets, maintenance
- vehicles, school buses, charging stations
- Infrastructure related to housing







#### Alameda County Water District's Purified Water Project





#### Alameda County Water District

#### Purified Water Feasibility Evaluation







February 14, 2023

Presenters: Kelsi Oshiro, ACWD, Water Resources Engineer



## Acronyms, Abbreviations, and Definitions

- AF acre-foot/feet
- AWPF advanced water purification facility
- BARR Bay Area Regional Reliability
- BDWQCP Bay Delta Water Quality Control Plan
- DPR Direct Potable Reuse
- **ETSU** USD's Enhanced Treatment & Site Upgrade
- **GSP** Groundwater Sustainability Plan
- GW Groundwater
- **GWR** Groundwater Recharge (in IPR)
- IPR Indirect Potable Reuse
- IRP Integrated Resources Plan
- MF microfiltration
- **mgd** million gallons per day

- PWFE Purified Water Feasibility Evaluation
- RWA Raw Water Augmentation (in DPR)
- **SFPUC** San Francisco Public Utilities Commission
- SFBRWQCB San Francisco Bay Regional Water Quality Control Board
- SWRCB WRFP State Water Resources Control Board Water Recycling Funding Program
- **SGMA** Sustainable Groundwater Management Act
- SWA Surface Water Augmentation (in IPR)
- **SWP** State Water Project
- TWA Treated Water Augmentation (in DPR)
- **USBR** United States Bureau of Reclamations
- USD Union Sanitary District
- **W&C** Woodard & Curran, Inc.
- Water Reuse Reclaimed water that is treated for beneficial reuse





# Purified Water Feasibility Evaluation Draft Results





#### Background

- This current Purified Water Feasibility Evaluation (PWFE) is being completed with SFPUC and USD
- Woodard & Curran, Inc. (W&C) is the consultant with subconsultants, LimnoTech, Trussell Technologies, and Data Instincts
- This PWFE is based on previous purified water studies by ACWD and USD completed in 1993, 2000, 2003, 2010, and 2016.
- In 2017, the Bay Area Regional Reliability (BARR) study included creating an intertie with SFPUC





#### PWFE Scope of Work

- Identify recommended purified water alternative, including high-level cost estimate
- Complete a draft report to be submitted to USBR Title XVI and future submittal to SWRCB WRFP





#### **Assumptions and Decisions**

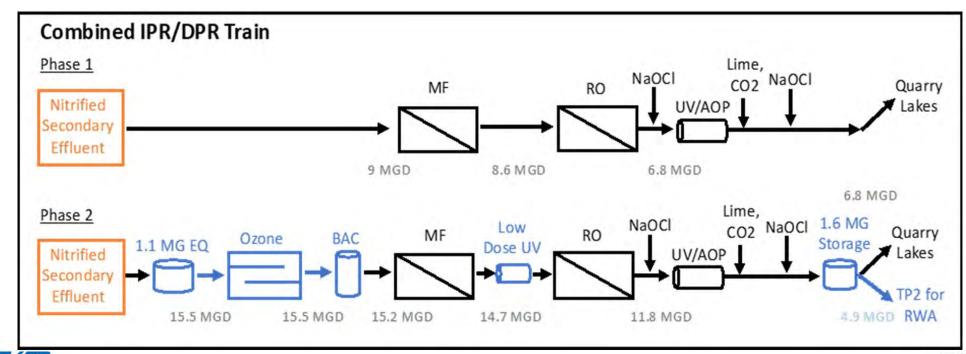
- Alternatives were evaluated with and without USD's Enhanced Treatment & Site Upgrade (ETSU) program
- Includes a Demineralization Plant
- This is a feasibility study, and no firm construction plans at this time





#### Draft Recommended Alternative

- Combined IPR/DPR train with IPR as Phase 1 and DPR as Phase 2
- Assumes ETSU Program is complete
- AWPF at ACWD's Pit T2





#### Schematic of Draft Recommended Alternative





www.acwd.org

# Draft GW Demineralization Plant Concept

- The recommended alternative is anticipated to produce about 7,600 AFY of advanced treated purified water for recharge into Niles Cone GW Basin via Quarry Lakes
- Water would be pumped at ACWD's existing GW facilities and demineralized at a new RO facility to match Hetch Hetchy water quality
- This may provide ACWD an opportunity to increase use of local GW supply and decrease imported water from SFPUC in regard to hardness goals





#### Alternatives' Draft Costs

	Phase 1 (IPR)	Phase I & II (IPR & DPR)
Total Capital	\$369,296,000 - \$517,025,000	\$535,692,000 - \$695,722,000
Total Annual Cost (capital + O&M)	\$28,728,000 - \$37,111,000	\$44,729,000 — \$54,283,000
Average Yield (AFY)	6,048	11,536
Unit Cost (\$/AF)	\$4,750 - \$6,140	\$3,880 - \$4,710

**Note**: (1) Cost estimate ranges are Class 4 based on ENR CCI, San Francisco, February 2022. (2) These draft cost estimate ranges assumes USD's completion of ETSU. ETSU provides biological nutrient removal and reduces capital and operating needs. (3) Phase 1 costing includes substantial capacity cost consideration for Phase 2 Expansion





# Draft Limnological Study and Results

- PWFE includes a limnological (lake science) study to characterize existing Quarry Lakes water quality (WQ) and the effect of addition of purified water
- Limnological study results:
  - WQ from the AWPF would improve WQ in Quarry Lakes
  - Short and long-term WQ monitoring plans developed
  - Monitoring plans will help gather new WQ data for QuarryLakes, including understanding blue-green algae issues
- Next steps:
  - Complete a more detailed model
  - Continue to implement short-term WQ monitoring plan
  - Implement long-term WQ monitoring plan





#### Draft Recommended Next Steps

- Siting study: the final location of the AWPF to be confirmed at a later date by the partner agencies (ACWD, USD, SFPUC). Location of AWPF can impact project costs but does not restrict or change the primary project benefit of developing new regional water supplies
- Decision to pursue both the first (IPR) and second (DPR) phases of the alternative to be made a later date by the partner agencies and could be impacted by capital and operational costs, available grant and loan funding, and final DPR regulations
- Public outreach





#### PWFE Next Steps

 Partner agencies to review of last draft chapter and draft final report to be submitted to USBR





## Thank you







#### Breakout Session and Report Out





#### Session Format

- You each will be assigned and moved to a breakout room at random
- The BAWSCA/EKI team will facilitate each breakout room discussion
- The session will be interactive, utilizing an approach that asks each participant to type directly onto the screen / slides shown as we move through the discussion
- At the conclusion of the breakout session, we will regroup and report out
- 30 minutes is reserved for the breakout session, with another 5 minutes reserved for the report out



## Next Steps





## Future Roundtable Meetings

- Future Workshop Planning
  - What did you find most informative from the Workshops?
  - What was missing?
  - What frequency is desired?
  - How can we encourage better participation?
- If the Roundtable continue, is there a need for an annual work product?
  - What should the work product consist of?
- Next steps
  - BAWSCA has included future Roundtable meetings in its FY 2023-24 budget and workplan
  - Staff time and consulting assistance is proposed
  - BAWSCA is adding the development of a Grant Support program to its FY 2023-24 budget and workplan
    - Support would include both a core and subscription component
    - Support would be available to member agencies, yet not be a part of a Roundtable effort

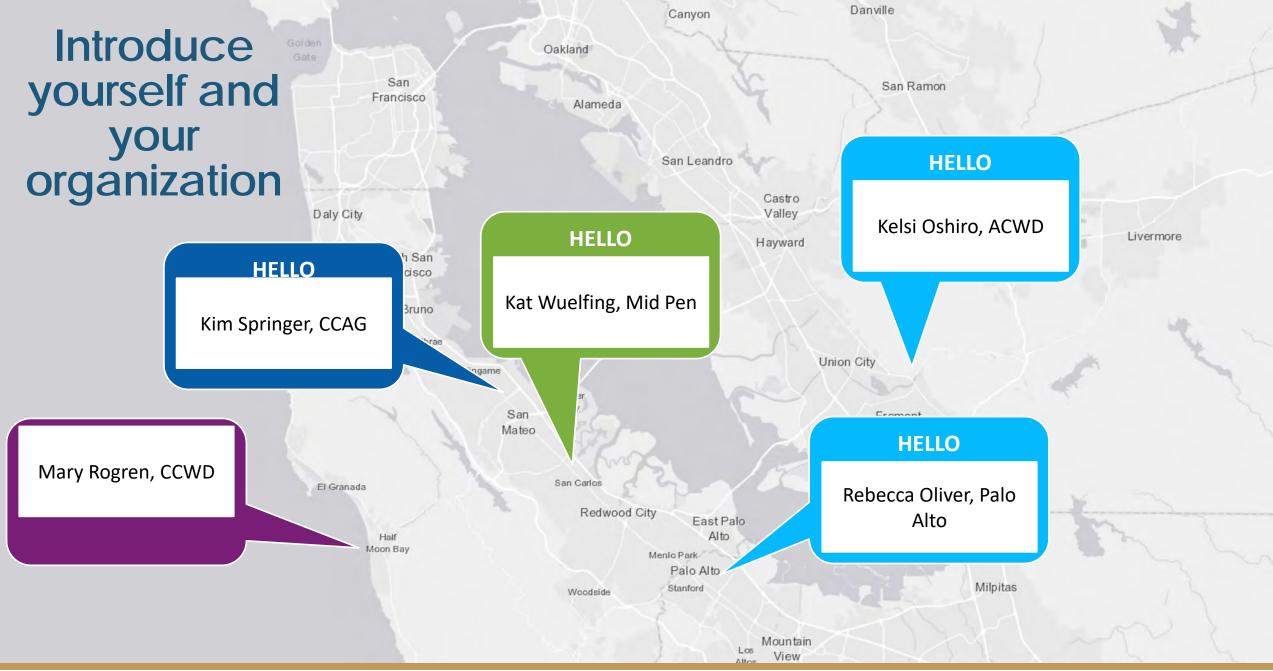


## Adjournment

## Next Roundtable Workshop

If Roundtables Continue, the next Workshop would take place in the Fall of 2023

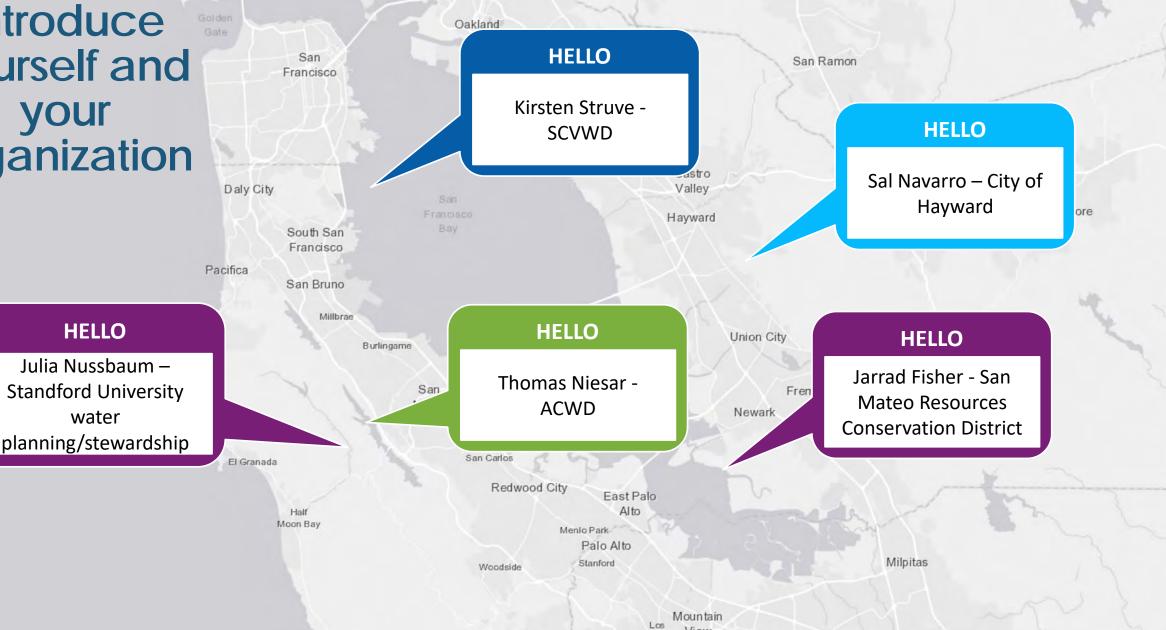








## Introduce yourself and your organization

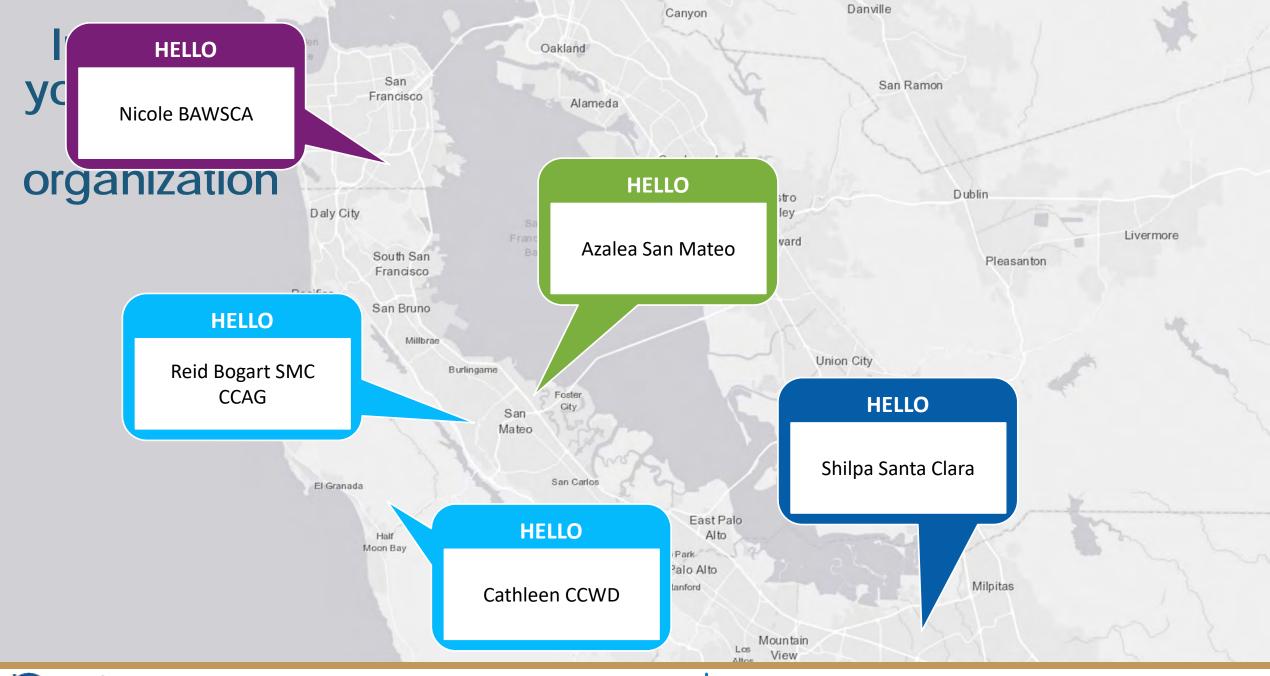


Canyon

Danville







Mapping of projects. **Value in understanding** proximity to water assets

**Bringing folks** together to discuss opportunities

Is there an opportunity to

combine this event with

another already

scheduled event?

For small agencies, hearing

about large projects are

interesting, especially given

funding requirements

What concepts covered in these workshops stood out the most to you? Any

Hammemorable guestere

Danville

Canyon

speaker or

presentation? If so,

why?

Newark

Helpful not just to think of what the project is planned for but what it isn't, so agencies can think of multibenefits

**Funding list. Agencies** don't have time to look for opportunities. x2

El Granada

Moon Bay

San Bruno

San Carlo Red

Hybrid/Zoom makes it easier for folks to attend but in-person meetings provide more opportunity for connecting with other folks where there's a nexus to create partnerships (opportunity to do this going forward)

Woods

Myriad of projects

**One Water** Roundtable Series





Stormwater has funding issues, funding and outreach across the board; one water planning process underway and drivers for integration – local gov and public perspective – want to find linkages for those multi-driver options; overlapping value and risk is important

Loved Palo Alto and LA case studies; wanted to do WSMP with One Water Approaches – inspired the approach to that process; b/c not permanent customer interested in developing new supplies; feasibility studies for recycled water; 19-20% recycled water so would be happy to share learnings regarding development, outreach, expansion (IPR/DPR)

Danville Canyon What concepts covered in these workshops stood out the most to you? Any Hamemorable guestore speaker or presentation? If so,

why?

**Hearing about other** agency projects – great learning opportunity

Stanford

Redw

Mountain

Early-stage potable reuse project – interested in public outreach challenges and work on messaging; like case studies and hearing how public outreach and strategies has been helpful





Various local one water and case studies - hearing their challenges and experiences

San Francisco Daly City

**Grant funding** opportunities

South San Francisco Pacifica San Bruno Millbrae

LA and other socal presenters had much different situations and were not particularly relevant to BAWSCA agencies

PIF forms will be valuable to look at collectively – useful for SFPUC regional planning

San

Foster

Burlingame

Oakland

Alameda

What concepts covered in these workshops stood out the most to you? Any Hammemorable guestore speaker or presentation? If so, why?

Danville

Newark

East Palo Alto

alo Alto

Canyon

Milpitas

Mountain



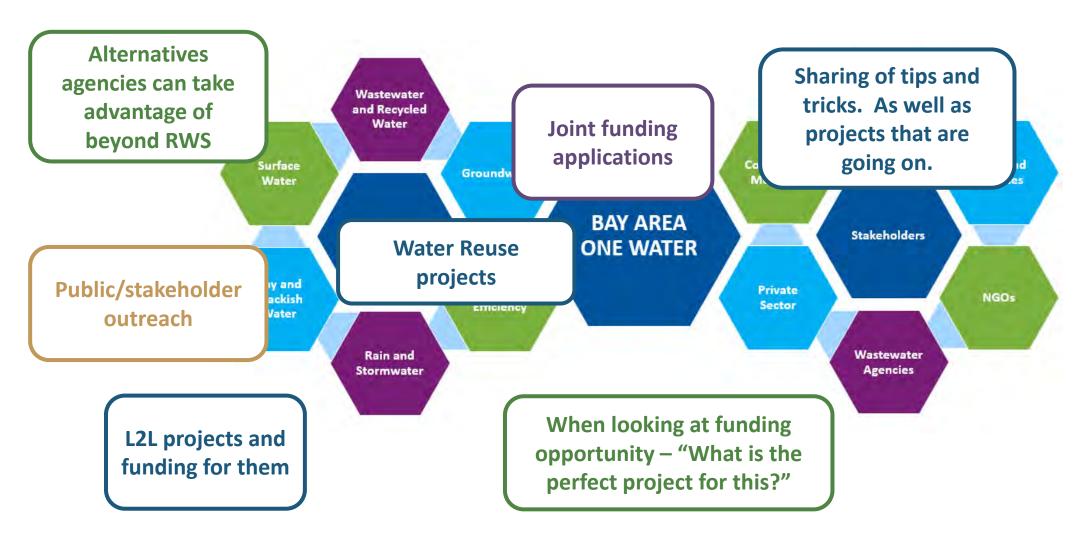


Half

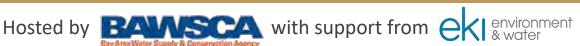
Moon Bay



## What topics/ideas would you like future Roundtable discussions to cover?







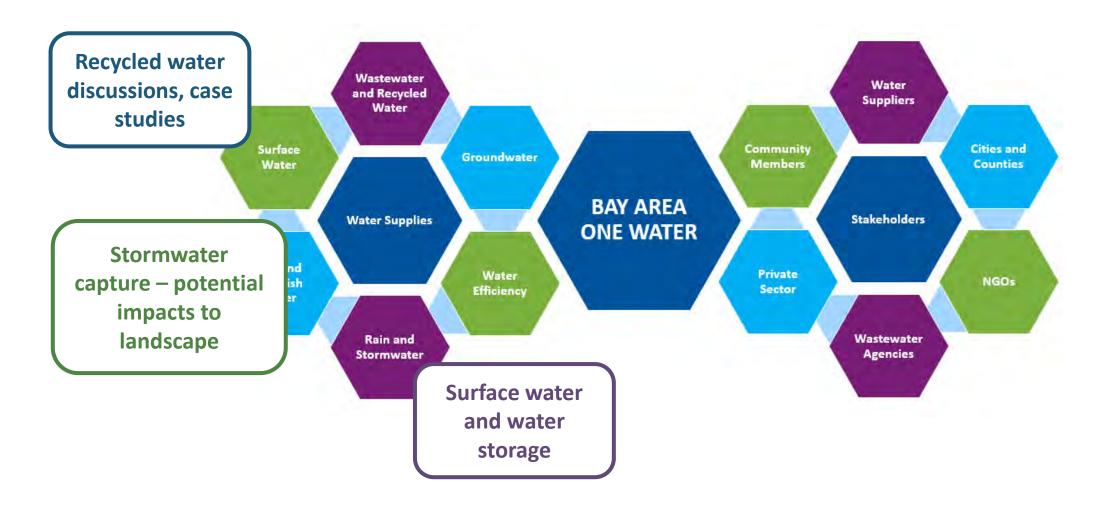
## What topics/ideas would you like future Roundtable discussions to cover?







## What topics/ideas would you like future Roundtable discussions to cover?



Challenging remembering past events since they're spaced out. Perhaps an email, survey or other outreach that can help them reengage/remind them of what was discussed at the last roundtable.

Oakland

Alameda

What Could the
Roundtable Team Have
Done Differently to
Increase Outreach for the
Workshops/Encourage
More Participation?

Daily Orty

South San

Francisco

Combine with existing inperson events

Roundtable could be a forum to announce new project (stakeholder outreach). Opportunity to find alliances, support, examples of other projects. Focused more on specific projects and opportunity for collaboration.

Union City

Fremont

Newark

Half Moon Bay Redwood City

East Palo

Alto

Menlo Park

Palo Alto

Stanford

Milpitas

Mountain Los View











**Avoiding workshop** overload particular to certain sectors?

Working group with invested stakeholders vs stakeholders who you want buy in from. **Different levels of honest** conversation depending on who is in the room

**Increase** wastewater agency involvement

South San Francisco San Bruno Millbrae Burlingame Foster

San

Santa Clara/Alameda county agency involvement

**Involvement of recycled** water groups can become pinholed or distracted. Difficulty getting beyond their own interests and thinking collectively.

Canyon What Could the Roundtable Team Have Done Differently to Increase Outreach for the Workshops/Encourage More Participation?

> Union City Fremont Newark Milpitas





Moon Bay



Mountain View

# From these past 3 workshops, what has been most helpful to you and what would you have liked done differently?

### Worked well

Different projects and speakers. Enjoyed hearing what other agencies are doing. Not just Bay Area, but around the State. x2

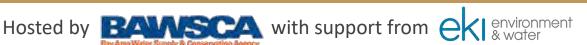
Surprised by total water supply opportunity represented by projects presented and submitted through PIFs

### Want more of...

Would like more of a discussion of multi-benefits. Looking at where groundwater recharge is available, location of watersheds, assets, etc. to see where there's opportunities for more collaboration. Could help bring the public along.

More NGO/non-water agencies (e.g. wastewater and storm water agencies) participation

Equity component could be explored. Conservation programs that target lower income folks.



# From these past 3 workshops, what has been most helpful to you and what would you have liked done differently?

## Worked well

Want more of...

Virtual is helpful because easier to fit in

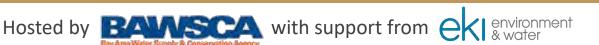
Keep it to 90 minutes max

Liked the focus topic areas for each meeting/clear outcome for each session

Make it clearer what the objectives were/are; here is what is relevant to everyone; how do we advance things not just retrospective

Liked the breakout rooms as an important part of the process

Make sure people don't feel lost if they haven't participated previously, so encourage on-going participation; website links, etc.; hard to find info on the BAWSCA site



# From these past 3 workshops, what has been most helpful to you and what would you have liked done differently?

## Worked well

Want more of...

Hybrid format can be beneficial to improve engagement; if quarterly, can have 1 in person

More involvement with non-water individuals or agencies to show them the types of discussions being conducted regarding water planning

Tracking offline collaboration post-workshop to track effects



#### Attachment B

**Workshop Meeting Minutes** 



#### 14 July 2022

#### **MEMORANDUM**

To: Bay Area Water Supply & Conservation Agency (BAWSCA)

From: EKI Environment & Water, Inc. (EKI)

Subject: Meeting Minutes - Water Supply Reliability Roundtable Workshop 1: Demystifying the

**One Water Concept** 

Tuesday May 24, 2022, 10AM – 12PM

**Zoom Meeting** 

#### 1. Call to Order & Welcome

#### 2. Introduction & Purpose of Water Supply Reliability Roundtable (Presented by Tom Francis, BAWSCA):

#### **Meeting Attendees**

- Thomas Niesar Alameda County Water District (ACWD)
- Negin Ashoori BAWSCA
- Lourdes Enriquez BAWSCA
- Tom Francis BAWSCA
- Danielle McPherson BAWSCA
- Drew Bost EKI
- Anona Dutton EKI
- Kat Wuelfing EKI
- Inge Wiersema Carollo
- Reid Boger City/County Association of Governments of San Mateo County (C/CAG)
- Kim Springer C/CAG
- Jennifer Lee City of Burlingame
- Sal Navarro City of Hayward
- Scott Jaw City of Menlo Park
- Elizabeth Flegel City of Mountain View
- Lisa Bilir City of Palo Alto

- Karla Dailey City of Palo Alto
- Justin Chapel City of Redwood City
- Steven Salazar City of San Bruno
- Jeff Provenzano City of San Jose
- Azalea Mitch City of San Mateo
- Shilpa Mehta City of Santa Clara
- Mansour Nasser City of Sunnyvale
- Cathleen Brennan Coastside County Water District
- Carol Steinfeld Loma Prieta Chapter of the Sierra Club
- Adrianne Carr North Coast County Water District (NCCWD)
- Greg Smith San Mateo County
- Susan Wright San Mateo County
- Brian Manning Stanford University
- Julia Nussbaum Stanford University
- Peter Drekmeier Tuolumne River Trust
- Kirsten Struve Valley Water



#### **Introduction & Purpose of Water Supply Reliability Roundtable**

- Brief overview of the schedule and purposes of today's and future roundtable discussions:
  - Workshop 2: Regional Partnerships Mean Regional Funding
  - Workshop 3: Identifying Local "One Water" Projects
  - Workshop 4: Moving Forward!
- List of all the organizations that were invited to participate in the Workshop:
  - All BAWSCA member agencies/Cities
  - Wastewater agencies (located in San Mateo, Santa Clara and Alameda Counties)
  - San Mateo County Agencies
    - o C/CAG
    - San Mateo County Office of the Environment
    - SMC Office of Sustainability
    - SMC Flood and Seal Level Rise Resiliency District
    - Resource Conservation District
  - Valley Water (representing a subset of Santa Clara County interests)
  - Non-government organizations (NGOs)
    - o Multiple environmental NGOs
    - Multiple business NGOs
    - o ReNUIT
  - Complete list of those invited is provided at: https://bawsca.org/water/reliability/Roundtable
- Discussion about the format of the Roundtable discussions, the work products, and outcomes:
  - Work Products:
    - A document summarizing the Roundtable discussions
    - A technical memorandum detailing current funding/grant opportunities
    - A website resource for providing updates as to projects and programs underway by the parties: https://bawsca.org/water/reliability/Roundtable
  - Outcomes:
    - For BAWSCA, input from the Roundtable discussions to help scope the next update of its Long-Term Reliable Water Supply Strategy
    - For other participating agencies and organizations, can have their own use and expectations of the Roundtable

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#### 3. Demystifying the One Water Concept (Presented by Anona Dutton, EKI):

- Instructed participants to define "One Water" planning and to put their answers in the chat (see Attachment A for responses)
- One Water is a planning strategy that considers the whole picture and breaks down barriers between different agencies, with the partnerships and collaborations of agencies like the ones present in the Roundtable meeting, to see if there is a more optimal approach to handling and utilizing water resources.
- Benefits of the One Water Process:
  - Greater resilience and reliability
  - Opportunities to optimize regional infrastructure
  - Sustainable community development
  - New regulatory flexibility or opportunity
  - Economic growth opportunity
  - Increased coordination among agencies/departments
- One Water concept is flexible, adaptable, and tailored to meet current and future needs of entities participating
- Framework can be adaptively managed and implemented overtime
- One Water goes by different names, attendees are likely already involved in One Water-type planning
- Results depend on entities involved, their needs, and opportunities
- Steps to One Water Planning
  - Step 1 Setting the Foundation: bringing people together, identifying partnerships, assessing needs an opportunities
  - Step 2 Establishing Direction: establishing vision and objectives
  - Step 3 Developing the Framework: establishing leadership and financing strategies
  - Step 4: Implementation
- All steps are scalable, can happen regionally or locally, framework is adaptable.
- Poll: How is your organization currently doing One Water Planning? (see Attachment A for responses)

#### 4. One Water Los Angeles (LA) 2040 Plan (Presented by Inge Wiersema, Carollo):

- Project Background
  - City of LA faces challenges such as population growth, aging infrastructure, climate change threats, heavy dependence on water, more stringent stormwater regulations, limited resources



- Plan developed in two phases: First phase, focused on developing vision, guiding principles and objectives bringing stakeholders together and advising panel. Second phase: Roadmap for integration opportunities.
- Near-Term Integration Opportunities
  - LA Zoo Master Plan:
    - o Integrated recycled water, stormwater, and water conservation
    - Shows how entities not necessarily responsible for water can participate in win-win situation
- Long-Term Integration Opportunities
  - From sustainability plan goals to plan recommendations
    - Increase local water supply from 15% to 50% by 2035 by utilizing eight water supply strategies: indirect potable reuse, regional or centralized stormwater BMPs, distributed stormwater BMPs, low flow diversions, ocean water desalination, LA river storage and use, non-potable reuse, direct potable reuse
    - Developed concept options incorporating the eight water supply strategies
  - The Plan recommendations reflect the community priorities
    - Actively engage stakeholders for priorities and input on relative importance of the eight management strategies (IPR and BMPs most favored, ocean desalination least favored)
    - Had stakeholders weigh in on evaluation criteria and weighting factors
  - One Water LA 2040 Plan
    - Helped use input to narrow down 27 concepts to six long-term concepts
- Stakeholder Engagement
  - Takes bold leadership
  - Multi-level institutional and stakeholder collaboration: steering committee, strategic planning group, special topic groups, stakeholder workshops, focused meetings, advisory group
  - Cross-sector collaboration (14 city departments, six regional agencies)
  - 500+ stakeholders, 200+ organizations
- Some Key Project Benefits
  - Long-term climate resilient water supply strategy
  - Proactive climate resilience improvements save hundreds of millions of dollars
  - Improved institutional collaboration and community support
  - Cost sharing and funding opportunities

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#### 5. Palo Alto's One Water Plan (Presented by Lisa Bilir, City of Palo Alto):

Palo Alto's Sustainability and Climate Action Plan (SCAP)

- Reduce city and community's greenhouse gas emissions 80% below 1990 levels by 2030, and guide land use and natural resources in sustainable ways
- Seven chapters of SCAP, one is water, key action is to develop a plan to implement One Water portfolio
- Commitment to alternative water supplies to protect Tuolumne River
- Key Action: One Water Plan
  - Series of water supply and conservation options
  - One water approach, all water has value, not just traditional water sources, more resilient to climate change
  - Inclusive process and invite participation from internal and external stakeholders
- "One Water" Goal
  - Council to adopt a One Water supply plan by next summer with planning horizon of 20-years, and it needs to provide an adaptable roadmap because future is uncertain
- One Water Role in Palo Alto Planning
  - Internal and external stakeholders:
    - Public works department and other staff internally
    - Engage stakeholders in community: interested residents, companies, environmentalists
  - Northwest County Recycled Water Strategic Plan
  - Effluent Transfer Agreement: transfer around half of effluent to Valley Water for reuse in southern parts of Santa Clara County
  - Pull information, refreshing it in order to recommend a One Water plan to bring to Council
- Northwest County Recycled Water Strategic Plan (in Partnership with Valley Water)
  - Study that looked at how to best expand Palo Alto's recycled water program in the service area of the Regional Water Quality Control Plant, developed series of potable and nonpotable water reuse opportunities
  - Ranked options by cost and non- cost criteria
  - Study did not recommend one concept be implemented
- Green Stormwater Infrastructure (GSI) plan
  - GSI can slow and clean stormwater runoff
  - GSI plan described how Pal Alto will gradually integrate GSI features
  - One Water Plan will consider GSI as a water supply option
- Demand Management/Conservation

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- Rebates, surveys, and devices that save water and are efficient with water (in partnership with Valley Water)
- Green buildings and landscaping
- Education and outreach through workshops, bill inserts, e-blasts, social media
- One Water Request for Proposal (RFP) Key Tasks
  - Scope: working together to engage stakeholders developing and evaluating criteria for assessing current and future water supply and conservation portfolio alternatives
  - Final product will be a report and an Excel-based tool
  - Need to consider uncertainties and external factors: regulatory changes, climate change, and Effluent Transfer Agreement
- Timeline and Next Steps
  - Contract review by Council scheduled June 20, 2022
  - Develop plan with lots of stakeholder input
  - Council approval of One Water Plan mid 2023

Small Q&A Session for Inge Wiersema, Carollo and Lisa Bilir, City of Palo Alto:

- Q: Within the LA One Water Plan, how different are the stormwater and water supply groups? Are they within one parent city structure, separate entities?
- A (Wiersema): All within same city family, Los Angeles Department of Water and Power (LADWP)
  is responsible for potable water and recycled water, LA sanitation is responsible for wastewater
  collection treatment, which after treatment goes back to LADWP as recycled water. Stormwater
  is under Watershed Management Division under LA Sanitation.
- Q: Even within one organization, it still took the higher tier at the mayor level to bring these departments together?
- A (Wiersema): The Mayor's office was involved, along with their sustainability office, but mostly
  all the way up to General Manager at LADWP and Director level at LA sanitation were overseeing
  these different groups and departments. Stormwater never had a funding mechanism, so
  different money flows for the different entities and different interests so planning process was
  helpful in people understanding other perspectives.
- Q: LA county is also preparing a One Water plan, wondering if a broader One Water umbrella at the county level will be any different.
- A (Wiersema): The county is more complex, 99 cities in LA, dealing with the governance of so many different agencies will be even more complex. Conveyance, projects, and players are different.
- Q: Are your One Water Plans only focused on centralized plans and solutions? Or also looking at on-site water sources from private development?
- A (Bilir): Looking at all different options right now, including on-site reuse.

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A (Wiersema): On-site reuse is of interest from stakeholders and large industrial users, biggest
push came on stormwater side where stakeholders want to emphasize green infrastructure and
green streets, and distributed stormwater management rather than green infrastructure. Made
planning process rethink certain solutions. In the end, two-thirds of solutions ended up being
distributed solutions. Stakeholder process shifted balance.

#### 6. Roundtable Breakout Session and Report Outs

Chat responses from the beginning of the meeting for the question: "How would you define 'One Water' planning?" were organized and put into visual boxes and a word cloud (See Attachment A).

#### Common points and themes:

- Common words from word cloud: water, planning, approach, supply, together, approach, community, management
- Use of all available water types, water is water
- Working together to address water issues and achieve more optimal and unified solutions
- Coming up with solutions that solve more than just water issues
- Observation from Anona Dutton (EKI): Responses on various supply sources, stakeholder engagement, broad collaboration efforts, beneficial use, being proactive, considering intersectionality

Chat response from the beginning of the meeting for the question: "How is your organization currently doing One Water planning?" were organized and put into visual boxes and a word cloud (See Attachment A).

#### Common points and themes:

- Common words from word cloud: program, stormwater, planning, participating, infrastructure, recycling, recharge, green, capture, developing
- Sustainable planning, green infrastructure, water recycling, stormwater capture, groundwater recharge

Common points and themes from breakout room discussions

Q#1: What opportunities can One Water offer?

- Water supply resilience
- Recycled water for different purposes (habitat enhancement, irrigation)
- Groundwater resources and how to protect them, stormwater capture for reuse or groundwater recharge, GSI
- New partnerships, engaging stakeholders, greater collaboration among different entities
- Integrated solutions

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Q#2: What are 3 obstacles to One Water Planning?

- Jurisdictional and institutional boundaries, regulatory hurdles
- Reluctance to embrace alternative supply solutions due to public perception and community disengagement
- Resource gap due to lack of personnel and funding opportunities
- Balance between innovation and risk aversion, lack of knowledge of solutions

Q#3: What can be done to overcome those obstacles?

- Developing community outreach and support, increase public education
- Getting input from multiple organizations, knowledge sharing among different entities and technical experts
- Work together on equitable funding, cost-sharing negotiation, target funding that benefits multiple entities

Q#4: If there were absolutely no barriers, what water projects would you like to see in the Bay Area?

- Indirect and direct potable reuse
- Diversity of supplies
- Greywater opportunities
- Stormwater capture and reuse
- Desalination

#### 7. Plan for Next Roundtable Meeting

- How to fund projects and programs that could possibly fall under One Water umbrella
- Learn from what others have done/how they approach it (speakers attending)
- Different funding concepts BAWSCA and EKI have implemented
- Breakout rooms and hear directly what you or your agencies suggest, or how you want BAWSCA to prioritize an approach or two

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#### Questions

- Suggestion from attendee to create a discussion list or forum
- Extend invite to East Bay or North Bay folks? A: Maybe to East Bay, probably not for North Bay

#### 8. Adjournment to Next Meeting: June 28, 2022

#### **Attachments and References**

#### <u>Attachments</u>

Attachment A: Poll and chat results

Attachment B: Combined results from breakout sessions

Attachment C: Workshop #1 slides

#### References

Blueprint for One Water – Water Research Foundation (<u>link</u>)

• One Water Plan – Valley Water (link)

• One Water LA 2040 Plan – City of Los Angeles (link)

• One Water Roadmap – US Water Alliance (link)

• One Water SF – SFPUC (link)

• Sign up link for City of Palo Alto One Water email distribution list (link)



#### 30 June 2022

#### **MEMORANDUM**

To: Bay Area Water Supply & Conservation Agency (BAWSCA)

From: EKI Environment & Water, Inc. (EKI)

Subject: Meeting Minutes - Water Supply Reliability Roundtable Workshop 1: Demystifying the

**One Water Concept** 

Tuesday June 28, 2022, 10AM – 12PM

**Zoom Meeting** 

#### 1. Call to Order & Welcome

## 2. Introduction & Purpose of Water Supply Reliability Roundtable Workshop #2 (Presented by Tom Francis, BAWSCA):

#### **Meeting Attendees**

- Negin Ashoori BAWSCA
- Tom Francis BAWSCA
- Danielle McPherson BAWSCA
- Kyle Ramey BAWSCA
- Nicole Sandkulla BAWSCA
- Drew Bost EKI
- Anona Dutton EKI
- Jean Hirayama EKI
- Devon Becker Alameda County Water District
- Reid Boger City/County Association of Governments of San Mateo County (C/CAG)
- Kim Springer C/CAG
- Sal Navarro City of Hayward
- Lisa Bilir City of Palo Alto
- Natalie Semersky City of Palo Alto
- Steven Salazar City of San Bruno

- Nicole Harvie City of San Jose
- Shilpa Mehta City of Santa Clara
- Cathleen Brennan Coastside County Water District
- Mary Rogren Coastside County Water District
- Allen Smith Foster City
- Louis Sun Foster City
- Rene R. Mid-Peninsula Water District (MPWD)
- Matt Lamber Milpitas
- Heather Dyer San Bernardino Valley Municipal Water District (SBVMWD)
- Kristeen Farlow SBVMWD
- Krista McDonald San Mateo County (SMC)
- Susan Wright SMC Office of Sustainability





- Greg Smith SMC Office of Environmental Health
- Kirsten Struve Santa Clara Valley Water
- Caroline Steinfeld Sierra Club
- Christophe LaBelle Silicon Valley Leadership Group
- Christina Fernandez South San Francisco (SSF)
- Dennis Murphy Sustainable Silicon Valley
- Julia Nussbaum Stanford University
- Caroline Koch WaterNow Alliance

#### **Purpose and Goals of Roundtable Discussions**

- Purpose: Provide an opportunity for collaboration among interested stakeholders
- If projects can be regional, collaboration can benefit all involved
- Main takeaways:
  - How to best support those types of projects, finance them, get the permitted, or expand projects and programs

#### **Purpose of Workshop 2 Discussions**

- Explore how the development of successful regional projects requires regional funding options
- Identify approaches to regional funding by
  - Learning how BAWSCA is funded
  - Sharing how participants fund their current projects
  - Hearing from two agencies regarding their approach to regional funding
  - Discussing options to explore for future regional efforts
- Review the approach to collecting info on local One Water projects

#### **BAWSCA Background and Information**

- Enabled through legislation in 2002
- Represents 24 cities and water districts and two private utilities
- 26-member board of directors
- Only entity with authority to directly represent the needs of member agencies that depend on the San Francisco Regional Water System (RWS)
- Coordinate water conservation, supply, and recycling activities for its agencies
  - Can acquire water through water transfer and make it available to other agencies
  - Finance projects
  - Propose improvements to regional water system
  - Build facilities jointly with other agencies

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#### **BAWSCA Work Plan**

- Develop a work plan each year
  - Aligns with BAWSCA's goal to provide reliable supply of high-quality water at a fair price
  - From their yearly budget, can see activities fall under either fair price (primarily related to revenue bonds) and Water Supply Agreements (WSAs) between wholesalers and customers
  - Reliable water supply work
    - Long term water supply strategy
  - Monitor San Francisco's efforts to rebuild its water systems
- Maintain close relationship with allies and member agencies
- Have dialogs with environmental groups
- High quality water work efforts go toward:
  - Coordinating with member agencies in their discussions with the San Francisco Public Utilities
     Commission (SFPUC) regarding water quality topics and concerns

#### **How BAWSCA** is funded

- Annual assessments on member agencies and assessments applied each year
  - Bill shared with BAWSCA member agencies, pays roughly \$4 to \$5 million of operating expenses for BAWSCA each year
- Water use based on delivery amounts from prior years for each agency
- If there are excess funds from WSA, they go into a Balancing Account (BA)
  - BA is the difference between SFPUC cost attributed to the wholesale customers, and the amount billed to those customers each year
  - In other words, customers pay SFPUC based on projected use and cost
  - If there is money left over from what customers paid vs. actually use, that money goes to a BA
- If positive BA, BAWSCA has access to that money, but only for specific uses (could include water supply and conservation projects), recently been used because of COVID-19 and drought, there likely won't be a BA for the next few years
- Can apply water management charge a special assessment on member agencies
  - Used to collect funding for a specific project or program of regional benefit
  - Needs to have a regional benefit that all member agencies receive
  - This funding source has only been used once

#### **Outside Funding and Financing Opportunities for Public Water Suppliers**

Federal grants and loans

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- U.S. Bureau of Reclamation WaterSMART Program Grants
- Clean Water Act State Revolving Fund (SRF) Loans
  - State provides 20% match
- Water Infrastructure Finance and Innovation Act (WIFIA) loans
  - o Low, fixed interest rates to supplement SRF loans
- Other grants and loans sometimes flow through State Revolving Funds
- States Grants and Loans
  - SRF loans to supplement WIFIA loans
  - Voter approved grants, usually for large projects
- Local Funding and Financing
  - Revenue bonds (common for traditional, centralized infrastructure)
  - Property-related stormwater fee and/or parcel tax
  - Tax increment revenues
  - Water and wastewater rates

#### 3. First poll questions (Presented by Tom Francis, BAWSCA):

Instructed participants to answer the question "What funding sources/models has your organization used to develop One Water Projects?" After a minute, everyone put their answers into the chat at the same time.

#### Common points and themes:

- Grants and general state and federal funds
- Project partnerships
- Debt financing and issuance
- Green infrastructure bonds
- Private clients

## 4. Maximizing Water Resources through Collaborative Opportunities: Partnerships and Funding (Presented by Heather Dyer, SBVMWD):

#### Who is Valley District?

- Wholesale state water contractor located in southern California
- Supply about 710,000 people, serve 15 retail agencies
- Through partnerships, serve water from groundwater basin and other supplies
- Property tax related to the State Water Project

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- Create large revenue reserve fund for projects
- 31 staff, diverse technical specialists planning for future watershed resilience

#### What we do

- Constantly thinking how to ensure a reliable water supply to the region we serve, forever
  - Includes resilience, stewardship, vision, foresight, and strategy

#### **Reliability Water Supply Portfolio**

- Have a reliable water supply
- Do watershed planning at regional level
- Have mostly groundwater supply
- Need diverse local supply when purchased water not as reliable
- Looked into own resources
  - Recycled water for groundwater recharge
  - Stormwater capture

#### **Proactive Water Resources Planning**

- Stormwater capture maximizing local resources
- Recycled water drought proof supply
- Conjunctive Use Projects shared infrastructure/shared resources
  - Developed partnerships where they share infrastructure, all involved put water into groundwater basin and everyone can pull from that in future drought times
- Groundwater management Proactive and adaptive

#### **Current Collaborations**

- Cost share of partnerships is what you put into it, been helpful in building these collaborations
- Enhanced stormwater capture/recharge project
- Cooperative groundwater recharge (Groundwater Council)
- Hydroelectric facilities
- Local resource investment program
  - Investment in incentivizing partner agencies (retailers, neighbor agencies) to build projects that either put recycled water in the ground, increase stormwater capture, or encourage conservation (leave water in the ground)

#### **Example 1: Local Resources Investment Program**

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- Financial incentive to retailers
  - New sources of supplemental water
  - Projects include recycled water and stormwater capture
  - Project 1: East Valley Water District's Sterling Natural Resources Center
    - Up to 11,000-acre feet per year of recycled water
    - Demand management incentive:
    - Pay \$173 for each acre-foot of water not taken out of groundwater or each acre-foot of recycled water recharging the groundwater basin
    - o Makes economic sense, because SBVMWD would pay more to buy supplies

#### Future Collaborations – Watershed Connect

- Spent 10 years permitting for recycled and stormwater capture water projects
  - Made them write down all the infrastructure they needed in next 10 years to be resilient
  - Came in handy for looking for money to finance projects
- Interconnected and integrated funding opportunity
- Long-term funding tool for water infrastructure
  - ~\$600 million worth of water infrastructure over decades
  - How to fund this?
    - Capture, recharge, storage, treatment, and conveyance project
    - Maximize use and reuse of local water resources
  - Maximize values, offer synergistic benefits
  - Phase 1 projects:
    - Showed Environmental Protection Agency (EPA) the connectedness of projects (projects ranging from all parts of the county)
    - Benefits: Resiliency in the face of climate changes, infrastructure enhancements, drought resilience, improved water quality, ecological health

#### **Future Collaborations – Regional Recycled Water System**

- Building basins that will receive treated wastewater from wholesale agencies
- Bought the land, paid for infrastructure, everything they paid for is for regional benefit
- Final thoughts: Can use everyone's money that they are spending anyways as matching funds to get EPA loans/grants and finding what they are spending as a region, and how they can use that money to leverage for more funding sources. Band together as a region, figure out what you all need, how you can all help each other, and then ask state to come in and supplement.

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#### Questions for Heather Dyer, SBVMWD

- Q: How did you sell it to the communities? I imagine there was some sort of effects on their rates and property taxes. And what kind of pushback, if any, from the community did you all support?
- A: For this first round of \$436 million worth of infrastructure projects, they were happy because the retail agencies have rates that they have to pass onto their customers, whereas as a wholesaler, we have our general fund reserves. So, when we looked at everything people wanted to build, what we found as the wholesaler was that we needed to build these projects anyways this year, so we figured out we would spend \$100 million no matter what. But by banding together, we could use that \$100 million as matching funds for the whole program costs, which then was used as a matching fund for retail agencies to finance 100% of their projects and are actually financing their WIFIA for 100% of their projects. That was important because some of the retail agencies on our projects need to build the cost of projects in over time. So, with them being able to finance 100% of their projects, they now have 35 years of a WIFIA loan payback term to build that cost in. So, it was really advantageous for them.

The reality is that all water projects costs money. One of my biggest messages is that if you think about California water, the entire state benefits in terms of economics. We are all tied together by our economies so if I can somehow help the urban costal centers have a more reliable water supply and they are an economic engine sending money to Sacramento, or the agriculture sector in California, we can all help each other be more resilient over time, and that makes our economy resilient, so we all benefit. I try to advocate that water projects do cost a ton of money, so let's be creative in thinking about what the state's role is in having a reliable water system. Water is connected throughout California and our economy.

- Q: Could you tell us more on how water use efficiency or conservation on a distributed, household, or commercial scale, fits into the integrated planning as a piece of that work?
- A: We are an adjudicated basin, every year we prepare a report and this year are reporting 30,000 acre-feet less than last year. We are producing less than 20% of the safe yield for our adjudication, so clearly our retailers and citizens are doing their part. We never rebounded after the 2016/2017 drought responses; we kept our production low. We layered on top of this this new local resources investment program. One of the challenges we have is that our retailers don't have a strong conservation program because they don't have the funding needed to get that going. So, by creating this incentive where we've made a commitment to "buy back" 5,000 acre-feet from our retailers by them not producing it in the first place, they can use that funding to get their customers less water.

## 5. Advancing Regional-Scale Stormwater Management in San Mateo County (Presented by Reid Bogert, C/CAG):

#### **SMC Regional Collaborative Program Development**

- San Mateo County Wide Water Pollution Prevention Program (SMCWWPPP) Background
  - C/CAG collective of 21 municipalities in San Mateo County
    - o Focus areas: local, countywide, and regional compliance support



- Funded by countywide property fee (\$1.5 million) and \$10 vehicle registration fees (\$1 million)
- Focus on key pollutants: trash, polychlorinated biphenyls (PCBs)/mercury, pesticides, emerging contaminants
- Short on funding for capital projects and operations and maintenance (O&M)

#### Stormwater Management Scales

- Heavy focus on green stormwater infrastructure
  - Some parts required by stormwater permits
  - Other aspects support multi benefit improvements
- Operate at three different scales for planning and implementation
  - Parcel scale, green streets, regional projects (looking at capturing much larger watershed areas, and storing and using water in different ways)
  - Through modeling, we have identified higher priority type projects to reduce costs countywide and looked at implementation scenarios of green infrastructure of different types and different scales, looking across jurisdictions and across watershed boundaries

#### Modeling Towards Collaboration

- County wide modeling, found can achieve cost savings
- Looking to reduce cost of implementation of green infrastructure for permit requirements for primarily water quality benefit
- Whole goal for program is to reduce burden of municipalities of implementing greens stormwater infrastructure at the street scale since it costs a lot to build and maintain and don't have the revenue
- Want to build more regional projects
- Advancing local policies to require cities to have new and redevelopment projects to build green infrastructure

#### Climate Change

- Model different greenhouse gas emission scenarios
- Maps showing different storm return frequencies and storm water runoff depths
  - o Seeing significant increase, up to 24% increase in stormwater depth for 10-year storm
  - Need to upgrade stormwater management system or managing excess flow in different ways

#### Regional Collaborative

- Got funding from the state and receive \$3 million to develop a business case, additional analysis, and design work
- Got pro bono advice from WaterNow Alliance to do some additional funding and financing work



- Drivers and objectives for regional stormwater management, developing business case for that approach, developing an opportunities analysis, credit trading marketplace feasibility analysis (looking at stormwater credit training), funding/financing options for green stormwater investments
- Advancing Regional-Scale Stormwater (SW) Management in SMC Project Partners
  - Partnerships included:
    - o C/CAG, San Mateo County Office of Sustainability
    - C/CAG Stormwater Committee (Member agencies)
    - Flood and Seas Level Rise Resiliency District
    - o BAWSCA
    - o Silicon Valley Clean Water
    - Regional Water Quality Control Board
    - Consultant Team Members
- Drivers and Objectives for Regional Stormwater Management
  - Water quality is a main driver
  - Also looked at drivers that bring in external stakeholders
  - Based on cost-benefit analysis, seeing significant cost savings at the regional scale, 60% to upwards of 95% of savings
- Regional Project Identification Process
  - Used analysis to identify opportunities for regional SW projects
  - Looked at city parks, parking lots, vacant spaces
- Credit Trading Feasibility Analysis
  - Very preliminary
  - Potential demand and supply for green infrastructure projects
  - Demand New redevelopment projection and feasibility/site constraints
  - Supply Non-residential sites with some amount of pervious area/space for green infrastructure and co-benefits (non-regional project drainage, good soi drainage, flood prone areas, potential to recharge, etc.)
- Funding and Financing Green Stormwater Investments
  - Evaluating innovative approaches to funding and creating additional revenue
    - Non-balloted approaches
    - Enhanced infrastructure financing districts
  - Looked at C/CAG to help fund, finance, and leverage support from partners
    - OneShoreline



- BAWSCA and/or member agencies
- Hypothetical: Investing in Countywide Green Stormwater Infrastructure
  - Hypothetical spending plan over next 20 years
    - o Identifies \$150 million for regional scale projects
    - o \$28.5 million in parcel scale
    - o \$71 million in O&M
  - How to pay for that?
    - o PayGo, paying with revenue brought in, found there would be a shortfall until year 12
    - o Debt financing, would work and could save \$64 million over first 20 years
- Non-Balloted Stormwater Fees
  - Options for revenue they are exploring are:
    - Property-related stormwater fee to fund (Capital improvements, ongoing O&M)
    - Novel fee type supported by SB 231
    - Legal authority may include ability to fund regional and parcel scale stormwater infrastructure
    - o Can serve as security for debt-financing options to pay for capital projects
  - Includes stormwater as sewer type utility fee
  - Exploring option county wide
  - Valid approach, not been pursued yet
- Enhanced Infrastructure Financing District
  - Could be viable option for significant funding
  - Many jurisdictions are leveraging the fund for other uses
  - Not full support on this option, but still exploring it
- Water and Wastewater Rates
  - Would be ongoing discussion with partner agencies
  - Regional collaborative graphic:
    - Have units of exchange and could have separate funds for capital and O&M
    - Requires initial funding to get projects built
    - Need to build infrastructure to administer the program to track compliance credits or units of exchange
    - Headed this direction in future years
- Orange Memorial Park Regional Project (South San Francisco) (Regional Scale)
  - Completed June 2022

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- Involved 7 jurisdictions
- Storage basin and infiltration gallery
- Significant portion of water infiltrated 240 acre-feet/year that could potential recharge an active groundwater basin
- Potentially 15 million gallons for non-potable reuse
- Great example of what projects can do with multi-benefits
- Got funding from California Department of Transportation (\$15.5 million)
- Model for Collaboration and Cost Sharing
  - Requirements for permits to "implement, or cause to be implemented" green stormwater infrastructure based on population
  - Can achieve goal better at a regional scale
  - Need to set up a process to cost share, can be tricky with O&M, how long credits last, paying in perpetuity or only as long as the permit is in place?

#### 6. Second poll question (Presented by Tom Francis, BAWSCA):

The whole group had one minute to think about and respond to the question, "What funding sources/models are you excited to learn more about in support of One Water projects?" After a minute, everyone put their answers into the chat at the same time.

Common points and themes:

- Credit trading
- Infrastructure loans
- Regional/collaborative opportunities
- Community based public and private partnerships
- Models like the "acre-foot" initiative Heather Dyer described
- Funding initiatives
- Direct payment for local projects

## 7. Second Roundtable Breakout Session and Report Outs

Common points and themes from breakout room discussions

Q1: What funding sources/models could better incentivize the development of local/regional One Water projects?

- Ability to secure outside funding
- Collaborations between private and public entities

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- Benefits to various other interests
- Local funds/rates that could be a source of funding
- Missing "Gap Plan" Work needs to be done to see where funding is already being used/where the gap is in funding

Q2a: What are 3 challenges to securing funding for One Water projects?

- Finding enough partners to help secure outside funding
- Collaboration is key, among different water agencies
- Lack of knowledge on the funding project
- Project size
- Educations for partners, identifying partners
- Quantifying the benefits to link to financial contributions

Q2b: What can be done to overcome those obstacles?

- Collaboration and communication amongst groups
- Increase education and transparency
- Staff and resources to facilitate
- External and internal stakeholder engagement

Q3: What role could BAWSCA or other local/regional organizations play in securing or facilitating funding for One Water projects?

- Leverage BAWSCAs political network
- Centralized database that all agencies can access/sharing resources
- Letters of support
- Identifying grants and bring interested parties together, connect with other agencies
- BAWSCA being an advocate for water agencies in Sacramento

#### 8. Plan for Next Roundtable Meeting

- What projects and programs are your agency developing and/or implementing?
- Project and program information sharing is critical for developing partnerships and identifying multi-benefits
- Our region can benefit by learning what One Water projects are in the works locally

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## 9. Project Information Form Overview (Presented by Anona Dutton, EKI):

- Idea is to continue this collaboration process, bring more education and information forward, need to identify what opportunities are out there
- Work with you with an interactive form that BAWSCA will send out
- Could be local/regional projects, in the works/conceptual
- Components
  - Contact details
  - Detailed description of project
  - Cost/funding information
  - Scheduling information
  - Additional details
- What is the benefit? Could be quantified in terms of water, habitat benefit, ecosystem benefit
- What sort of permitting or other regulatory processes are involved?
- What is cost effectiveness of it, are there others that want to partner with you?
- Will be sent out by BAWSCA and posted on One Water website

## 10. Adjournment to Next Meeting: 20 September 2022

- Next meeting 20 September 2022, from 1:00 3:00 PM
- Will be through Zoom, though if conditions permit could be in-person

#### **Attachments and References**

## **Attachments**

Attachment A: Poll and chat results

Attachment B: Combined results from breakout sessions

Attachment C: Workshop #2 slides



#### 22 November 2022

#### **MEMORANDUM**

To: Bay Area Water Supply & Conservation Agency (BAWSCA)

From: EKI Environment & Water, Inc. (EKI)

Subject: Meeting Minutes - Water Supply Reliability Roundtable Workshop 3: Identifying Local

**One Water Projects** 

Tuesday November 8, 2022, 10AM – 12PM

**Zoom Meeting** 

#### 1. Call to Order & Welcome

# 2. Introduction & Purpose of Water Supply Reliability Roundtable Workshop #3 (Presented by Tom Francis, BAWSCA):

## **Meeting Attendees**

- Thomas Niesar Alameda County Water District (ACWD)
- Negin Ashoori BAWSCA
- Tom Francis BAWSCA
- Danielle McPherson BAWSCA
- Kyle Ramey BAWSCA
- Nicole Sandkulla BAWSCA
- Drew Bost EKI
- Anona Dutton EKI
- Jean Hirayama EKI
- Kim Springer City/County Association of Governments of San Mateo County (C/CAG)
- Reid Bogert C/CAG
- Sal Navarro City of Hayward
- Pam Lowe City of Menlo Park
- Samantha Vergara City of Milpitas
- Lisa Bilir City of Palo Alto

- Linda Grand City of Palo Alto
- Linda Grand City of Palo Alto
- Rebecca Oliver City of Palo Alto
- Steven Salazar City of San Bruno
- Shilpa Mehta City of Santa Clara
- Azalea Mitch City of San Mateo
- Mansour Nasser City of Sunnyvale
- Cathleen Brennan Coastside County Water District (CCWD)
- Mary Rogren CCWD
- Sultan Henson County of San Mateo
- Krista McDonald County of San Mateo
- Susan Wright County of San Mateo
- Ed Cooney Hillsborough Water District
- Rene Ramirez Mid-Peninsula Water District (MPWD)
- Kat Wuelfing MPWD

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- Phil Witt Purissima Hills Water District (PHWD)
- Manisha Kothari San Francisco Public Utilities Commission (SFPUC)
- Jarrod Fisher San Mateo Resource Conservation District (San Mateo RCD)
- Stephanie MacDonald San Mateo RCD
- Kellyx Nelson San Mateo RCD

- Kirsten Struve Santa Clara Valley Water
- Carol Steinfeld Sierra Club
- Arvind Akela Silicon Valley Clean Water
- Julia Nussbaum Stanford University
- Dennis Murphy Sustainable Silicon Valley
- Peter Drekmeier Tuolumne River Trust

#### **Purpose and Goals of Roundtable Discussions**

- Purpose: Provide an opportunity for collaboration among interested stakeholders
- Goals:
  - Understanding of how projects can fit within the one-water concept
  - Identification of collaborative opportunities (with either neighboring agencies or potentially non-government organizations [NGOs])
  - Identify how entities can best support, help finance, permit/approve, and/or expand projects or programs that have the potential to offer multiple benefits

## Purpose of Workshops 1 and 2

- Workshop 1: Introduced the concept of "One Water"
  - Conducted in May 2022
  - Participants were asked to share their view / opinion as to what "One Water" means to them, everyone has own concept of what it might mean
  - Presentation on the Los Angeles (LA) 2040 Plan, One Water type projects on large regional scale
  - Presentation summarizing Palo Alto's upcoming One Water Plan development
- Workshop 2: How others have approached the financing of multi-benefit projects
  - Funding options for One Water projects
  - Presentation on San Bernadino Valley Municipal Water District's approach to project funding,
     successful funding mechanism for One Water type projects
  - Presentation on the C/CAG on their Countywide Green Infrastructure Funding Evaluation

## **Purpose of Workshop 3**

- Share the results from the "Project Information Form (PIF)" and specific examples of projects envisioned
  - Are there opportunities for regional collaboration or assistance?

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- Want to identify what projects are happening so when PIFs are shared, can look at what opportunities for regional collaboration exist
- Present an inventory of grant/funding opportunities for one-water projects
  - What are the current and upcoming grant opportunities?
  - How can BAWSCA (or other participant agencies) assist in applying for and or securing grant funding?
- Learn about SFPUC's efforts, as part of their Alternative Water Supply Program, to partner on potable reuse project opportunities within the BAWSCA service area
- Plan for the fourth Regional Water Supply Reliability Roundtable Workshop

## How Today's Workshop Fits into the Roundtable Effort

- Allow participants to learn more about the myriad of water supply reliability projects that BAWSCA agencies are contemplating
- Identify if there is regional synergy present that could lead to partnership possibilities or opportunities to support multi-agency funding requests

#### First poll question (Presented by Tom Francis, BAWSCA):

Instructed participants to answer the question "What One Water project did you submit with the Project Information Form?" After a minute, everyone put their answers into the chat at the same time.

#### Common points and themes:

- Groundwater supply projects
- Master Planning/One Water Plan
- Recycled water expansion
- Regional potable reuse projects

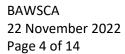
#### 3. Summary of Project Information Forms (Presented by Tom Francis, BAWSCA and Anona Dutton, EKI):

#### **Project Information Form Purpose**

- Identify local and/or regional One Water projects/programs in planning or development
- Identify opportunities to support or expand implementation
- Quantify water supply benefits collectively

#### **PIF Components**

- Contact details
- Detailed description of project
- Cost/funding information





- Would be nice to find out how much money we are investing as a region when it comes to water supply reliability
- Scheduling information
- Additional details

## PIF Forms Received to Date – BAWSCA Member Agencies

- BAWSCA/EKI have met (via Zoom) with most BAWSCA member agency to discuss PIFs and encourage participation
- Forms received to date from BAWSCA agencies

Brisbane
 CCWD
 East Palo Alto
 Foster City
 Hayward
 Menlo Park
 Millbrae
 Palo Alto
 PHWD
 Santa Clara
 Stanford
 Sunnyvale

- MPWD

## PIF Forms Received to Date - Non-Water Agencies/Organizations

- Stanford University (Faculty/Research project)
- C/CAG
- San Mateo County
- BAWSCA intends to reach out to wastewater agencies as well as select NGOs to gather additional PIFs
- SFPUC's Alternative Water Supply Plan projects will not have PIFs, but are important and will be included in final report

## Summary Statistics of Project Information Forms (Presented by Anona Dutton, EKI):

- 45 total projects
- Total estimated yield ranging from 17 to 33 million gallons per day (MGD)
- Project type breakdown
  - Recycled water (29%)
  - Groundwater extraction (24%)
  - Other (22%)
  - Stormwater (13%)

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- Policy (7%)
- Surface water (4%)
- Stage of projects
  - Concept stage (30%)
  - Planning stage (52%)
  - In-progress (19%)
- Summary map
  - Shows broad distribution of different project types and shows investments each agency is putting into increasing their water supply reliability
  - Individually, projects may seem small from the yield perspective, but when combined, can have significant yield and water supply benefit to the region

#### **Examples of PIFs Submitted (Presented by Tom Francis, BAWSCA):**

- City of Brisbane
  - Recently completed a groundwater assessment study, investigating an option to install an irrigation supply well
- Foster City
  - Conceptually considering options to bring recycled water to select areas of the City, have large customers that are interested in recycled water
  - Concept requires cooperation from partner agencies (Redwood City and wastewater agencies) and could be further reviewed as part of a future recycled water feasibility study

## City of Hayward

- Began delivery of recycled water in March 2022. The estimated average deliveries are expected to be about 260,000 gallons per day (gpd) to 31 customers. Hayward constructed 8.5 miles of pipeline, a 0.5 MGD membrane treatment facility, and a 500,000 gallon storage tank, very successful recent effort
- Planning to prepare a Recycled Water Master Plan to evaluate the feasibility of expanding the recently constructed system

## MPWD

- Planning a potable groundwater supply development project, new groundwater well would be installed for dry year supply purposes with an anticipated capacity at 200 gallons per minute (gpm), potential site for this well has been identified
- Project planning will include conducting the necessary engineering design, permitting, environmental documentation, construction, startup and testing

#### Sunnyvale

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- Will be conducting a comprehensive update of their 2013 Feasibility Study for Recycled Water expansion
- Updated study will review a potential / planned expansion of recycled water service areas and include sales projection scenarios, plus consider connections to other regional recycled water systems and neighboring cities
- Update will also make recommendations as to long-term Capital Improvement Program (CIP) inclusion of future work

## San Mateo County

- Office of Sustainability (OOS) is developing a sea level rise mapping tool and risk assessment checklists that will support facility and capital projects managers in identifying whether a proposed facility is in a sea level rise risk area, and if so, guide the development of adaptation strategies for that facility
- Stanford University (Prof. Luthy)
  - Study is underway regarding the region's water supply needs in light of recent amendments to the Bay-Delta Plan that will require more flow to be left in-stream for ecosystem use
  - Study includes the development of a model of Tuolumne River water supply, the model will allow for simulation of long-term water supply performance under various climate, policy, and coping scenarios
  - Solutions will be proposed via the evaluating how future water supply investments (e.g., storage, interties, regional desalination) might contribute to resilient water supply performance in the face of climate and policy stresses

## Second poll question (Presented by Tom Francis, BAWSCA):

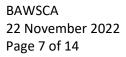
Instructed participants to answer the question "What One Water project are you most excited to learn about?" After a minute, everyone put their answers into the chat at the same time.

#### Common points and themes:

- All of them
- Groundwater projects
- Stanford study
- Model ordinance and regulation language
- Water reuse
- Recycled water projects
- Integrated stormwater projects, recycled water, ground water supply

## 4. Presentation on Current and Upcoming Funding and Financing Opportunities (Presented by Anona Dutton, EKI):

#### Overview





- Current and ongoing funding/financing programs
- Peninsula Drought Resiliency Program Case Study
- What can BAWSCA do to help?

#### **Summary of Active Funding Opportunities**

- Table summarizing the currently available funding options from the following sources:
  - California Department of Water Resources
  - United States Environmental Protection Agency
  - United States Bureau of Reclamation
  - California State Water Resources Control Board
- Table will be provided via email following the workshop

## **Funding Tables**

- Sustainable Groundwater Management (SGM) Prop 68 Implementation Round 2
  - Deadline was extended to December 16<sup>th</sup>
- Urban Community Drought Relief
  - Opened 10/10/2022, applications close on 1/31/2023
  - All BAWSCA agencies eligible to apply
- Integrated Regional Water Management Grant Programs
  - Opened 5/17/2022, second deadline for applications 2/1/2023
  - Really a place where regional coordination and collaboration comes into play
  - Very competitive, but projects in this region have historically been successful
- Small Community Drought Program
  - Rolling submission, first-come, first-served basis
  - Storage, infrastructure improvements to deal with drought
- Water Infrastructure Finance and Innovation Act
  - If have significant capital projects, big pot of money will be available, exact timing is unclear
- WaterSMART programs
  - Centered around water supply reliability and water conservation
  - Lot of communities have been successful with innovative water conservation projects/programs
  - Water Marketing Strategy Grants
    - Planning efforts to develop water markets

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- Environmental Water Resources Projects
  - Projects for water conservation and efficiency
  - Opportunity for agencies with ecological values within their service area (creek restoration, stormwater management, etc.)
- Cooperative Watershed Management Program
  - o Integrated water management and One Water projects, multibenefit projects
- Water Recycling Funding Program
  - o First-come, first-served
  - Lot of agencies have been successful
  - Huge interest in reuse, lot of investment in that direction
- Site Cleanup Subaccount Program
  - Impacted groundwater
  - Recent PFAS regulations, money to help address groundwater cleanup
- Drinking Water State Revolving Funds
- Clean Water State Revolving Funds

## Case Study: DWR's 2021 Urban and Multibenefit Drought Relief Grant Program

- Grant for interim and immediate drought relief to urban communities and for multibenefit projects
- Intended to provide water
  - To communities that face the loss or contamination of their water supplies
  - To address immediate impacts on human health and safety
  - To protect fish and wildlife sources
- \$190 million grant funds
  - Minimum award amount \$2 million; smaller projects could be bundled together

## **Case Study: Peninsula Drought Resiliency Program**

- Several BAWSCA agencies jointly submitted an application; more cost effective and told a story of how collectively their projects and programs are supporting the diversification of the supply portfolios and increasing resiliency of supplies in the face of drought
- Lots of economies of scale, but each agency got to tell its story
- Coordinated effort to develop local groundwater supply sources on the San Francisco Bay Peninsula
  - North Coast County Water District (NCCWD), MPWD, PHWD, City of Brisbane, City of East Palo Alto

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 Applications collectively represented a regional effort to increase regional supply reliability through the development of local, drought resilient supplies and infrastructure

#### Case Study: Collaborative and Rapid Effort to Get Grant Package Ready in 7 Weeks

- Grant announcement to submission was 7-week period
- Five agencies had to get together, decide they wanted to do it, get contracts in place, get
  resolutions adopted by their boards, get projects described including the work plan, budget,
  schedule, get letters of support, self-certification for eligibility, and fill out the grant application

#### Case Study: NCCWD Potable Groundwater Supply Wellfield Development

- Awarded \$6.6 million(!) from the 2021 Urban and Multibenefit Drought Relief Grant Program to develop local groundwater supply project
- Project is intended to diversify supply portfolio so not 100% reliant on SFPUC Regional Water System (RWS)

## Case Study: Lessons Learned...

- Example of successful collaborative efforts between project sponsors and agencies like BAWSCA to achieve project funding
- Letters of support from BAWSCA spoke to the critical need for these projects in the region
- Important to be aware of funding opportunities available and where collaboration with other agencies is possible, need to know and anticipate that these opportunities are coming in order to mobilize and organize in time for the application
- Need to be able to react quickly when opportunities arise

**How Can BAWSCA Potentially Help When it Comes to Funding?** (\*suggestions from One Water Roundtable Participants)

- Offer Letters of Support for applications\*
  - DWR indicated that if they have two equal project applications, the will support a project with support letters
- Establish a grant tracking program (Information sharing Opportunities, eligibility, requirements)\*
- Develop subscription programs
  - Funding strategy (guidance on applicable upcoming opportunities, identify ways to improve competitiveness, proactively support project development)
  - Grant applications\*
  - Grant administration\*
- Help connect agencies with shared interests\*

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- Facilitate development of regional projects
- Increase public awareness and education\*
- Creating a centralized database agencies can access\*

## 5. SFPUC's Potable Reuse Exploratory Plan (PREP) (Presented by Manisha Kothari, SFPUC):

## Global locations using purified recycled water for drinking

- SFUC is not alone in doing purified water projects
- Lot of examples in California to learn from

#### **Purified Water Projects in the Service Area**

 Currently working to understand how purified water could work with the RWS and be used in dry years in the future to have sustainable water supplies

## **Types of Purified Water Projects Being Planned**

- Indirect Potable Reuse (IPR)
  - San Francisco (SF)-Peninsula Regional PureWater (Phase 1) (Reservoir Augmentation)
  - ACWD-Union Sanitary District (USD) Purified Water (Groundwater Recharge)
  - What's been done most of the time
- Direct Potable Reuse (DPR) (Treated Water Augmentation)
  - Regulations from State Board not finalized yet, expected in December 2023
  - In meantime, been following drought recommendations and recommendations from the panel
- Thinking about both IPR and DPR in the SFPUC service area
  - South Bay Purified Water
  - SF Purified Water
  - SF-Peninsula Regional PureWater (Phase 2) or 12 MGD alternative
  - ACWD-USD Purified Water (possible Phase 2)

## **Overarching Considerations for Purified Water Implementation**

- Public Acceptance
  - Need for demonstration and gaining trust of public
- Treatment Needs (dependent on feed water quality, regulations)
  - Secondary effluent quality
  - Receiving water needs

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- Anticipated discharge requirements (expecting those will change and be more stringent)
- Nutrients in brine
- Operational Needs
  - Ability to store and/or deliver
    - A lot of needs will be dry year needs, but needs to be operated year-round to keep membranes wet, so what to do with water during normal and wet years
  - Discharge requirements
  - Operational readiness
    - Upcoming new requirements for staffing and having staff be certified so ready for operation
- Cost relative to other supply options
  - Expensive and lots of moving parts, both on operation and maintenance (O&M) and capital front, grants talked about earlier will be needed

## SF-Peninsula Regional PureWater (SPRP)

- Planning Assumptions:
  - Max 6-12 MGD of purified water can be produced from all available effluent from Silicon Valley Clean Water (SVCW) and San Mateo
  - Don't know who will be credited for how much water yet
  - Phase 1, Alternative 1:
    - Feed water from San Mateo and SVCW → Crystal Springs Reservoir → Harry Tracy Water Treatment Plant (WTP) → Customers (IDP)
  - Phase 2, Alternative 1 or Alternative 2:
    - Feed water from San Mateo and SVCW → Drinking water reservoirs in Peninsula or RWS transmission pipelines
  - Still deciding between these two alternatives, in final stages of evaluating feasibility, environmental review sometime next year
- Key Planning Considerations:
  - Governance structure to be determined
  - Potential direct potable reuse (DPR) tie-in locations must be identified and evaluated

#### SFPUC-ACWD-USD Purified Water

- Purified water from USD → Quarry Lakes (recharge groundwater) → treated by ACWD → additional supply to SFPUC and ACWD
- Working on feasibility study now based on flow data from USD

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- Planning Assumptions:
  - Feed water from USD can produce up to ~10 MGD across two phases 5.4 MGD in Phase 1
     (IPR) and 4.9 MGD in Phase 2 (DPR)
- Key Planning Considerations:
  - Water quality from USD and associated advanced water treatment
  - Water quality needs for Quarry Lakes
  - Confirmation of plant siting

## **South Bay Purified Water**

- DPR project In concept stage, just kicking off feasibility study
- Purified water from South Bay Purified Water near Regional Wastewater facility →
  - (all years) San Jose and Santa Clara
  - (dry years) Bay Division pipelines
- Planning Assumptions:
  - 3.5 MGD of purified water available to the SFPUC in dry years only from a 10 MGD project with the Cities of San Jose and Santa Clara
  - San Jose and Santa Clara to produce additional year-round supply of 6.5 MGD
- Key Planning Considerations:
  - Where and when deliveries enter RWS
  - If there is more dry year supply available for additional benefit

#### San Francisco Purified Water

- San Francisco doesn't have any place for IPR, so only option is treated water augmentation or DPR
- SFPUC did small successful research pilot in headquarters building from 2018-2020
  - Took own wastewater from building and treated it
- Options: Two plants (equitable distribution) with advanced treatment followed by direct distribution to customers
  - Feed water from Southeast Treatment Plant → Drinking water reservoirs → Distribution to customers
  - Feed water from Oceanside Treatment Plant → Drinking water reservoirs → Distribution to customers
- Planning Assumptions:
  - Limitations on groundwater or surface water storage
  - No water treatment plant within San Francisco

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- Planning Considerations:
  - Equitable distribution throughout the city
  - Need for new supplies locally despite downward trend on water supply needs

## **Sustained Engagement Critical for Purified Water**

- Mobile Purified Water Demonstration (near-term [within < 2 years])</li>
  - Introduce operators to advanced treatment that can be connected to their wastewater effluent
  - Outreach to communities directly where they are
- Permanent Feature in SFPUC headquarter building Reuse (medium-term [within 2-5 years])
  - Demonstrate commitment to reusing water (doing it ourselves)
  - Outreach to SFPUC / City staff
  - Outreach to decision-makers, public officials, others who come to 525 Golden Gate Avenue
- Full-scale demo widely accessible to public (long-term [in 5-10 years)
  - Building operational capacity, providing training and certification opportunities
  - Building confidence of regulators
  - Broad public engagement and education

**Question from Tom Francis, BAWSCA:** Is SFPUC concerned about equitability in BAWSCA service area? If there is a potable reuse project in the center of San Mateo county, would your other wholesale customers be concerned they would be getting "poorer" quality water?

Answer (Manisha Kothari, SFPUC): In short term, yes. In long-term, I hope not. At the end of the day, purified water is water and I hope we get to the point to where we can lose some of these adjectives (such as recycled) and focus on the end product which is water. I think it is our job as utilities to make sure we are able to convey that and that it is trustworthy and convincing and to do that we need to do our homework and be transparent. That's why it takes longer to build these projects because you need to make sure you are doing all the steps correctly, safe, conscientious, and transparent. So if you do all the right steps, hopefully in the long run, it won't be an issue, but of course in the short term people are going to be nervous about anything that's new, it is a new supply source. Anytime you introduce a change it's hard and we need to be mindful of that.

## 6. Second Roundtable Breakout Session and Report Outs

Did not have time to go over responses and discussions from breakout sessions

#### 7. Plan for Next Roundtable Meeting

- Summary of the Roundtable Workshops held (1 through 3)
  - What did you find most informative from the Workshops?

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- What was missing?
- Discussion of the work product
  - Proposed contents of the report produced following the close of Workshop 4, which likely will include
    - o Discussion of the work, including findings and recommendations from the experience
    - o Appendices: workshop notes; PIFs
- Next steps
  - Should there be future workshops?
    - o If so, what should the content be, and who should participate?
  - How best can engagement between the diverse group of participants be maintained?

## 8. Adjournment to Next Meeting

- Next meeting early 2023
- Date and time to be determined
- Format: In-person if COVID conditions allow

#### **Attachments and References**

## **Attachments**

Attachment A: Workshop #3 Poll and Chat Results
Attachment B: Workshop #3 Breakout Sessions
Attachment C: Workshop #3 Presentation Slides

Attachment D: Current and Upcoming Funding Opportunities



#### 02 March 2023

#### **MEMORANDUM**

To: Bay Area Water Supply & Conservation Agency (BAWSCA)

From: EKI Environment & Water, Inc. (EKI)

Subject: Meeting Minutes - Water Supply Reliability Roundtable Workshop 4: Moving Forward!

Tuesday February 14, 2023, 10AM - 12PM

**Zoom Meeting** 

#### 1. Call to Order & Welcome

## 2. Introduction & Purpose of Water Supply Reliability Roundtable Workshop #4 (Presented by Tom Francis, BAWSCA):

#### **Meeting Attendees**

- Thomas Niesar Alameda County Water District (ACWD)
- Kelsi Oshiro ACWD
- Tom Francis BAWSCA
- Danielle McPherson BAWSCA
- Kyle Ramey BAWSCA
- Nicole Sandkulla BAWSCA
- Drew Bost EKI
- Anona Dutton EKI
- Jean Hirayama EKI
- Kim Springer City/County Association of Governments of San Mateo County (C/CAG)
- Reid Bogert C/CAG
- Sal Navarro City of Hayward

- Rebecca Oliver City of Palo Alto
- Steven Salazar City of San Bruno
- Shilpa Mehta City of Santa Clara
- Azalea Mitch City of San Mateo
- Cathleen Brennan Coastside County Water District (CCWD)
- Mary Rogren CCWD
- Ed Cooney Hillsborough Water District
- Kat Wuelfing Mid-Peninsula Water District
- Jarrod Fisher San Mateo Resource Conservation District
- Kirsten Struve Santa Clara Valley Water
- Arvind Akela Silicon Valley Clean Water
- Julia Nussbaum Stanford University

#### **Purpose and Goals of Roundtable Discussions**

- Purpose: Provide an opportunity for collaboration among interested stakeholders
- Goals:

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- Understanding of how projects can fit within the one-water concept
- Identification of collaborative opportunities (with either neighboring agencies or potentially non-government organizations [NGOs])
- Identify how entities can best support, help finance, permit/approve, and/or expand projects or programs that have the potential to offer multiple benefits

#### Interactive Poll #1, presented by Tom Francis, BAWSCA

After discussing the goals of the Roundtables, Francis polled the group on if they would like the Roundtable Series to continue in the future, and if so meeting at what frequency by asking: Would you like to see more One Water Roundtable Workshops in the future? If so, at what frequency (quarterly, twice a year, etc.)?

A majority of the answers were twice a year, and the rest of the response are illustrated in Appendix A.

## 3. Summary of Reliability Roundtable Series and Introduction to BAWSCA's Long-Term Reliable Water Supply Strategy (Strategy)

## Workshops 1 and 2 – Discussion That Took Place

- Workshop 1: Introduced the concept of "One Water" (24 May 2022)
  - Participants were asked to share their view / opinion as to what "One Water" means to them
  - A presentation on the Los Angeles (LA) 2040 Plan, and extensive LA project
  - A presentation summarizing Palo Alto's upcoming One Water Plan development
- Workshop 2: How others have approached the financing of multi-benefit projects (28 June 2022)
  - Pretty important topics for our region in the future
  - One Water projects funding options
  - A presentation on San Bernadino Valley Municipal Water Districts' approach to project funding
  - A presentation on the C/CAG on their Countywide Green Infrastructure Funding Evaluation

### Workshop 3 – Discussion That Took Place

- Shared the results of the "Project Information Form (PIF)" gathering effort, and pointed to specific examples of the projects envisioned
  - Got forms from other agencies as well besides member agencies
  - o Forms were very informative, impressed by the types of projects being planned
- Presented an inventory of grant/funding opportunities for one-water projects
  - A listing of current and upcoming grant opportunities
  - Discussed how BAWSCA (or other participant agencies) could assist in applying for and or securing grant funding

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- BAWSCA will be doing a program in upcoming fiscal year (grant support program), listening to what participants want
- Learned about SFPUC's efforts, as part of their Alternative Water Supply Program, to partner on potable reuse project opportunities within the BAWSCA service area

### **Purpose of Workshop 4**

- Receive an update as to projects being contemplated, or in development, by various agencies (as documented via PIFs received)
- Receive updated information regarding pending funding (grant) opportunities
- Learn more about Alameda County Water District's (ACWD's) potential potable reuse project
- Discuss the proposed content of a report that will be produced summarizing the four Roundtable workshops
- Plan for the future of the Roundtable

#### Interactive Poll #2, presented by Tom Francis, BAWSCA

Further inquiring about the format of future Roundtables, Francis posed the poll question: For possible future One Water Roundtable Workshops, would you prefer them to be virtual, hybrid, or in-person, and why?

A majority of the answers were for virtual or hybrid, and the complete responses can be found in **Appendix A.** 

## **Roundtable Report**

- BAWSCA committed to preparing a report detailing the work effort once the 4th Roundtable workshop was held
  - Before the workshops started, there was a lot of outside interest, so BAWSCA documented the workshops
- This report will be made available to Roundtable participants and the public on the Roundtable website to be broadly shared
  - BAWSCA will also provide the report to their Board
- BAWSCA anticipates that the BAWSCA Board as well as other interest groups will request presentations detailing the work effort
  - BAWSCA will use the report in presentation preparation
- BAWSCA anticipates that the report will be finalized by mid-April 2023

#### **Roundtable Report Contents**

- BAWSCA is in the process of finalizing the content / report outline
- The Roundtable Report will likely include the following sections

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- Introduction
- Purpose and Goal of the Roundtable Workshops
- Stakeholders Invited / Participants
- Summary of each Roundtable Workshop, including meeting minutes
- PIF summary, including a grouping by project type and geographic extent, will be large part of the report
- Grant opportunities identified
- Lessons learned
- Next steps regarding future meetings
- Appendix of PIFs submitted
- Appendix of SFPUC's Alternative Water Supply Projects with BAWSCA agency partners
- Appendix of presentations given at the Workshops (PPTs)
- Appendix with support documents prepared (fact sheets, outreach materials, website developed, etc.)

#### **BAWSCA's Long-Term Reliable Water Supply Strategy**

- BAWSCA's Long-Term Reliable Water Supply Strategy (Strategy) was published in 2015
- The Strategy was a five-year effort by BAWSCA and its member agencies to identify appropriate water management actions that provide long-term water supply reliability for the region
- To prepare the Strategy, a comprehensive assessment of the regional water supply reliability needs through the year 2040
- Included in the work was an evaluation of potential water supply reliability projects that could be implemented
- It proposed a suite of actions by BAWSCA
- BAWSCA uses this document as s guideline for future work

## **Strategy – Suite of Recommend Actions (2015)**

- Recommended Actions:
  - Lead water transfer development and implementation including identifying and evaluating water storage options
  - Facilitate desalination partnerships and pursue outside funding for related studies
  - Support agency-identified projects (i.e., recycled water and groundwater) and local capture and reuse
  - Participate in regional planning studies in cooperation with others
  - Continue monitoring regional water supply investments and policies

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- For each recommended action, several work efforts to be performed by BAWSCA were proposed to further strategy implementation
- Since 2015, BAWSCA annual budget and work plan was aligned with the 2015 Strategy

## **Update of BAWSCA's Long-Term Reliable Water Supply Strategy**

- Conditions have changed since 2015 such that an update of the Strategy is warranted
- Changes include the following:
  - BAWSCA has prepared updated demand studies
  - BAWSCA member agencies have prepared new Urban Water Management Plans (UWMPs)
  - BAWSCA is updating the Tier 2 Plan for SF RWS supply allocations during water shortage emergencies
  - Water supply projects at the member-agency specific level have come online and moreover agencies have future plans that were not envisioned in 2015
  - Regulatory pressures are mounting, some of which have the potential to impact existing supply reliability
  - Large regional water supply projects, such as the Los Vaqueros Reservoir Expansion Project, have advanced.
  - The SFPUC has embarked upon the preparation of an Alternative Water Supply Plan which informs BAWSCA and its member agencies regarding their future plans toward water supply reliability

#### Multi-Phased Approach to Strategy Update

- Phase 1 Scope the update of the Strategy
  - BAWSCA will be issuing a Request for Proposal (RFP) to secure consulting assistance with the Scoping of the Strategy
  - Tentatively the RFP will be released in February of 2023
  - BAWSCA anticipates the scoping work to begin in the Spring of 2023 and extend into the Fall
    of the coming fiscal year
  - BAWSCA has written the RFP such that the selected consultant could be used to craft the updated Strategy, although BAWSCA has the option to issue a subsequent RFP for the work effort
  - BAWSCA's current fiscal year (FY) budget and proposed FY 2023-24 budget includes monies for the scoping effort
- Phase 2 Strategy update
  - BAWSCA anticipates that the update of the Strategy will commence in FY 2023-24
  - Update efforts are anticipated to extend into FY 2024-25

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## Strategy Update - Phase 1 (Scoping Effort)

- Task 1 Document Review
  - BAWSCA's existing Strategy Final Reports
  - BAWSCA's most recent Demand Study and Annual Report
  - BAWSCA's Pilot Water Transfer Report
  - BAWSCA Member Agency PIFs collected by BAWSCA detailing future agency-specific water supply development plans
  - SFPUC's recent quarterly report(s) as prepared for its Alternative Water Supply Program
  - Member Agency UWMPs, and in particular sections of said UWMPs that detail future water supply development
  - Consultant will be tasked with identifying similar "plans" as prepared by other water agencies for their Strategies / long-term water supply planning efforts
- Task 2 Stakeholder Engagement
  - BAWSCA member agency representatives
  - BAWSCA Board
- Task 3 Meeting Attendance and Technical Support
  - Various technical memorandums will be produced to facilitate the development of a Scope of Work for the update
  - Materials as needed to gather stakeholder input

## Long Term Reliable Water Supply Strategy Update (Phase 2 Work Effort)

- To develop the Strategy update, BAWSCA envisions that a stakeholder task force, separate from a member agency tasks force, is likely to be needed
- Engagement with the task force, and the public at large, is likely to include workshops and presentations
- Those workshops and presentations may be held separately, or could be conducted via any future Roundtable Workshops
  - Much will depend on the scope of the update as well as on how such a scope aligns with the focus of the Roundtable

## 4. Updated Presentation on Project Information Forms and Inventory of Grant Funding/Financing Opportunities, Presented by Anona Dutton, EKI

- Updated PIF statistics/values
  - Total estimated yield form all the PIF projects ranging 21-40 million gallons per day (MGD)
  - Project type breakdown:

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Recycled water :26%

Groundwater extraction: 26%

o Other: 24%

Stormwater 14%

o Policy: 6%

Surface water: 4%

Project stages:

Concept stage: 20%Planning stage: 38%In-progress stage: 42%

Geographic Distribution of Projects by Type Image

Great to see so many local agencies participating in many types of local projects

Can see spatially variability in types of projects

 Benefits the whole region if agencies get grants for recycled water, groundwater work, etc.

#### **Summary of Active Funding Opportunities**

- Would be good for agencies to use BAWSCA as resource for knowing who can contact to learn what worked and didn't work in the grant application process
- With PFAS/emerging contaminants continue, there will be need to address groundwater contamination, Groundwater: Site Clean Subaccount Program from State Water Resources Control Board (SWRCB) would be useful
- Funding table slides will be available after the workshop

## 5. ACWD's Regional Purified Water Project, Presented by Kelsi Oshiro, ACWD

#### **Purified Water Feasibility Evaluation Draft Results**

#### **Background**

- This current Purified Water Feasibility Evaluation (PWFE) is being completed with San Francisco Public Utilities Commission (SFPUC) and Union Sanitary District (USD)
- Woodard & Curran, Inc. (W&C) is the consultant with subconsultants, LimnoTech, Trussell Technologies, and Data Instincts
- This PWFE is based on previous purified water studies by ACWD and USD completed in 1993, 2000, 2003, 2010, and 2016.
- In 2017, the Bay Area Regional Reliability (BARR) study included creating an intertie with SFPUC

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## **PWFE Scope of Work**

- Identify recommended purified water alternative, including high-level cost estimate
- Complete a draft report to be submitted to United States Bureau of Reclamation (USBR) Title XVI and future submittal to SWRCB Water Recycling Funding Program (WRFP)

#### **Assumptions and Decisions**

- Alternatives were evaluated with and without USD's Enhanced Treatment & Site Upgrade (ETSU) program
- Includes a Demineralization Plant
- This is a feasibility study, and no firm construction plans at this time

#### **Draft Recommended Alternatives**

- Combined indirect potable reuse (IPR)/direct potable reuse (DPR) train with IPR as Phase 1 and DPR as Phase 2
- Assumes ETSU Program is complete
- Advanced water purification facility (AWPF) at ACWD's Pit T2

#### **Schematic of Draft Recommended Alternative**

- Secondary effluent from Alavardo Wastewater Treatment Plant (WWTP), piped to Pit T2 at ACWD facility
- Complex piping through busy and urban area so piping everything to ASCW does add a lot of cost
- Some water is piped to Quarry Lakes for recharge to groundwater basin, and rest of water sent to treatment, also through urbanized area

#### **Draft Groundwater (GW) Demineralization Plant Concept**

- The recommended alternative is anticipated to produce about 7,600 acre-feet per year (AFY) of advanced treated purified water for recharge into Niles Cone GW Basin via Quarry Lakes
- Water would be pumped at ACWD's existing GW facilities and demineralized at a new reverse osmosis (RO) facility to match Hetch Hetchy water quality (WQ; in terms of hardness)
- This may provide ACWD an opportunity to increase use of local GW supply and decrease imported water from SFPUC in regard to hardness goals

#### **Alternatives' Draft Costs**

- Phase I (PIR):
  - Total capital: \$369,296,000 \$517,025,000
  - Total Annual Cost (capital + operations and maintenance [O&M]): \$28,728,000 \$37,111,000

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Average Yield (AFY): 6,048

Unit Cost (\$/acre-foot [AF]): \$4,750 - \$6,140

Phase I & II (IPR & DPR):

- Total capital: \$535,692,000 - \$695,722,000

Total Annual Cost (capital + O&M): \$44,729,000 - \$54,283,000

Average Yield (AFY): 11,536

Unit Cost (\$/AF): \$3,880 - \$4,710

#### **Draft Limnological Study and Results**

• PWFE includes a limnological (lake science) study to characterize existing Quarry Lakes WQ and the effect of addition of purified water

- Limnological study results:
  - WQ from the AWPF would improve WQ in Quarry Lakes
  - Short and long-term WQ monitoring plans developed
  - Monitoring plans will help gather new WQ data for Quarry Lakes, including understanding blue-green algae issues
- Next steps:
  - Complete a more detailed model
  - Continue to implement short-term WQ monitoring plan
  - Implement long-term WQ monitoring plan

#### **Draft Recommended Next Steps**

- Siting study: the final location of the AWPF to be confirmed at a later date by the partner agencies (ACWD, USD, SFPUC). Location of AWPF can impact project costs but does not restrict or change the primary project benefit of developing new regional water supplies
- Decision to pursue both the first (IPR) and second (DPR) phases of the alternative to be made at a later date by the partner agencies and could be impacted by capital and operational costs, available grant and loan funding, and final DPR regulations
- Public outreach

## **PWFE Next Steps**

Partner agencies to review of last draft chapter and draft final report to be submitted to USBR

#### Q/A Session:

**Question #1:** Has any of the entities, either you or SFPUC or USD, taken the lead on this project? From the government's perspective, is ACWD the lead?

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Answer #1: Currently being discussed once report is completed, has not yet been decided

**Comment from ACWD:** There is not a streamline permitting process because of special considerations needed to be made. The project involved the Quarry Lakes, a recreational area, and a groundwater basin so project is operating in a gray area and there is not a clear path forward if wanted to do project right now. However, met with regional board and they were excited about looking at a project like this in the bay area, which is a good sign and helpful with other regional efforts with other partners.

**Question #2**: You guys looked at the best practices for this project, what did that study show? What interesting things came out of it?

**Answer #2**: From the draft results and based on discussions, it seems like water utilities would typically be taking the lead role as they normally do for the California Environmental Quality Act (CEQA).

**Comment from Roundtable Participant:** Water agencies are going to need to have operators, maintenance, and other things you need to run a water supply, unfortunately with USBR and others they want one agency to raise their hand and lead

**ACWD Response**: From Woodard and Curran, there is no prevailing best practice, the consensus would be a Joint Powers Authority (JPA) to lead, ACWD is not a municipal enterprise so adds degree of complexity.

#### 6. Second Roundtable Breakout Session and Report Outs, Presented by Tom Francis, BAWSCA

Francis hopped between breakout rooms and reported his main takeaways:

- The most helpful and influential takeaways Roundtable participants had was the PIF maps and the funding opportunity tables/resources, especially for smaller agencies
- Just a good learning opportunity overall, having all these different presentations from speakers was very helpful
- Knowing what works/doesn't work would be helpful in future (grant opportunities)
- Smaller agencies are concerned on how to incorporate One Water into their agencies, so knowing more in the future and collaborating together to bring projects forward would be very important,
- Talking about climate change and different stressors in future workshops (drought, flooding, water supply opportunity and how to address)
- Workshop overload could, be affecting participation
- There were only a handfull of wastewater agencies and NGOs, how to get more of them to come will a be focus of future workshops
- Worked well, educational for those who don't work normally with water/wastewater side and in One Water world and opening up experience in one water world

#### 7. Next Steps and Future Roundtable Meetings, Presented by Tom Francis, BAWSCA

Future Workshop Planning

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- What did you find most informative from the Workshops?
- What was missing?
- What frequency is desired?
- How can we encourage better participation?
- If the Roundtable continue, is there a need for an annual work product?
  - What should the work product consist of?
  - Tom Francis asked the group if there is a need for an annual work product, responses are listed below:
    - No annual work product needed, but sharing workshop slides would be helpful
    - Annual work product would be too much work, slides are just fine
    - One thing brought up in a breakout room was that it would be helpful for participants to have access to previous workshop resources so they could be better prepared for the next workshop, maybe something like a pre-workshop newsletter summarizing past workshop topics.
    - A participant suggested that updating the project map periodically would be helpful to watch for partnerships that exist/can be developed

#### Next steps

- BAWSCA has included future Roundtable meetings in its FY 2023-24 budget and workplan
- Staff time and consulting assistance is proposed
- BAWSCA is adding the development of a Grant Support program to its FY 2023-24 budget and workplan
  - o Support would include both a core and subscription component
  - Subscription includes the ability to directly contact consultants for help with grant info and for writing grants
  - Support would be available to member agencies, yet not be a part of a Roundtable effort

#### 8. Adjournment

If the Roundtables continue, the next workshop will take place in Fall of 2023

#### **Attachments and References**

## <u>Attachments</u>

Attachment A: Workshop #4 Poll and Chat Results
Attachment B: Workshop #4 Breakout Sessions
Attachment C: Workshop #4 Presentation Slides

Attachment D: Current and Upcoming Funding Opportunities

## **Attachment C**

**Submitted Project Information Forms** 

Data Bassicad		Duningt Name	Duning True	Duinf Description	Duning the Change	Violat (airea)	I maration
Date Received 11/22/2022	Agency Alameda County Water	Project Name  Del Valle Reservoir Water Supply	Project Type Surface Water	Brief Description  Modernizing the flood management rules at	Project Stage In-progress	Yield (given) Between 1.4	Location Del Valle
	District (ACWD)	Storage Expansion Project		Del Valle Reservoir to use a greater portion of existing reservoir capacity to capture additional local supply and store additional emergency water supply while maintaining necessary flood protection.		million gallons per day (MGD) and 3.4 MGD	Reservoir
11/22/2022	ACWD	Regional Purified Water Pilot Project	Groundwater Recharge	Pilot project would purify treated wastewater through a multi-step advanced treatment process and deliver that water to a nearby canal that would supplement flows in Alameda Creek and be diverted 15 miles downstream for groundwater recharge.	Planning	0.2 MGD	District Wide
9/6/2022	City/County Association of Governments of San Mateo County (C/CAG)	Residential Laundry to Landscape Program - Gray Water Capture as Conservation	Gray Water Capture	Educational program for residential gray water capture-to-landscape opportunities, already allowed, without residential permitting requirements based on the current California plumbing code. Program to fulfill a need to develop consistent understanding across city building departments, contractors, and residents about potential for water supply savings.	Planning	-	County wide
9/6/2022	C/CAG	Advancing Regional-scale Stormwater Management in San Mateo County	Surface Water, Groundwater Recharge, Stormwater, Recycled Water (potable and non- potable), Infrastructure/Capital Project, Water Quality Improvement, Community Benefit/Parks	The project goal was to catalyze countywide collaboration on regional-scale stormwater management to address key drivers, create a framework under which collaboration can take place and evaluate and prioritize opportunities for regional projects.	In-progress	-	Countywide
2/1/2023	California Water Service (Cal Water)	San Mateo Brackish Desal Aquifer Testing	Brackish Desalinization	This study will determine project feasibility, intake selection, selection and acquisition of land, analysis of brine disposal options, and determination of the appropriate volume to be treated.	In-progress	-	San Mateo
2/1/2023	Cal Water	Water Transfer Study	Water Transfer	The water transfer option would allow Cal Water to purchase imported water supplies for use during droughts and other dry years. The water could be purchased from wholesalers or from State Water Project (SWP) or Central Valley Project (CVP) water rights holders outside of the area. During supply shortages, the supply would be wheeled through State/Federal and regional water conveyance systems to Cal Water districts. The purchased water could either be stored in a groundwater basin or used immediately.	Planning		Bear Gulch (BG), Mid-Peninsula (MPS), South San Francisco (SSF) Districts
2/1/2023	Cal Water	New Well in the Bear Gulch District	Groundwater Extraction	This project would construct a new well in the Bear Gulch District to pump water from the San Mateo Plain Subbasin of the Santa Clara Valley Basin. This option would provide direct benefit to the Bear Gulch District and indirect benefit to the Mid-Peninsula and South San Francisco Districts, especially during dry year and multi-dry year scenarios.	In-progress	-	BG District
2/1/2023	Cal Water	Development Offset Program	Policy	To account for projected delivery shortfalls during dry years and the need for new water supplies, the Developer Offset Program has been established to ensure continued water supply reliability. The Development Offset Program will implement a new, non-refundable special facilities fee of \$15,400 per acre-foot of net demand increase. The fee only applies to developments with a net demand increase of 50 acre-feet per year or more. Funds collected from the Development Offset Program will be used for water supply projects and expanded conservation programs designed to offset the net demand increase of the proposed development.			BG, MPS, SSF Districts
11/1/2022	City of Brisbane	Brisbane Irrigation Supply Well	Groundwater Extraction	The project objective is to develop a new groundwater supply source to be used to meet the landscape irrigation demands of certain public landscaped areas within the City and thus reduce potable demand in the City. Development of this new local groundwater supply source will reduce demands on imported Regional Water System (RWS) water and will result in reduced dependence on surface water supplies that are conveyed through sensitive freshwater habitat.			Site specific (Latitude: 37.6863, Longitude: - 122.3988)
11/15/2022	City of Daly City	Recycled Water Expansion Project Update	Recycled Water	Recycled water project in collaboration with San Francisco Public Utilities Commission. Membrane filtration with completed membrane filtration pilot program, defined pipe alignment, and design 30% completed.	In-progress	-	City wide

Date Received 11/3/2022	Agency City of East Palo Alto	Project Name Pad D Groundwater Well	Project Type Groundwater Extraction	Brief Description This project is for the construction of a groundwater well and associated ironmanganese treatment system to supplement the City's existing water supply. This project will create an emergency source of water	Project Stage Planning	Yield (given) 0.72 MGD	The City's property at East Bayshore and Clarke Avenue, known as Pad D,
				supply for the City and would provide a secondary source of water in the event that the City's existing water supply is unable to meet demand during drought events or emergency conditions.			is the designated site for this well.
11/3/2022	City of East Palo Alto	New Recycled Water System	Recycled Water	Project will create recycled water system infrastructure to serve the City. The Palo Alto Regional Water Quality Control Plant (RWQCP) has the capability to produce approximately 4.5 million gallons per day (MGD) of recycled water. The RWQCP only produces 14% of its current capacity and it plans to expand the system to meet recycled water demands in the future.	Planning	0.06 MGD	City Wide
11/1/2022	City of Hayward	Recycled Water Master Plan	Recycled Water	The City is planning to prepare a Recycled Water Master Plan to evaluate the feasibility of expanding the system. Key components of this update will include a market survey and assessment determine future customers, conceptual expansion of the distribution and storage systems, and treatment options.	Planning	-	City Wide
11/1/2022	City of Hayward	Groundwater Wells	Groundwater Extraction	Emergency supply wells are planned for use as extraction-only wells to provide supplemental water supply to Hayward in the event of a short-term emergency, such as an earthquake that interrupts surface water supplies.		-	City wide
10/31/2022	City of Menlo Park (WBSD is purveyor of the project)	Bayfront Recycled Water Project	Recycled Water	West Bay Sanitary District (WBSD) to bring recycled water to Menlo Park, few years out to providing recycled water to the	Planning	220 AFY	Bayfront Area of the City
11/1/2022	City of Millbrae	Recycled Water Feasibility Study	Recycled Water	The City is preparing a Recycled Water Feasibility Study to evaluate implementation of a City-wide recycled water program. The City would produce and deliver recycled water for the irrigation of existing landscape sites and future development.	Planning	0.17 MGD	City wide
11/23/2022	City of Milpitas	Curtis Well	Groundwater Extraction	Project will install submersible pump(s), piping and treatment components to construct Curtis Well.	In-progress	0.58 MGD	Curtis Well (330 East Curtis Avenue)
11/23/2022	City of Milpitas	McCandless Well	Groundwater Extraction	Project includes the design and construction of a new Well at McCandless Park site to serve the Midtown and Metro Specific Plan areas.	In-progress	0.58 MGD	McCandless Well (near 1680 McCandless Drive)
2/2/2023	City of Mountain View	Recycled Water System Expansion	Recycled Water	Construct a recycled water storage tank and complete pipeline installations in the North Bayshore Area, as recommended in the 2022 Recycled Water Feasibility Study.	In-progress	-	North Bayshore Area
11/28/2022	City of Palo Alto	One Water Plan	Surface Water, Groundwater Recharge, Indirect Potable Reuse, Direct Potable Reuse, Recycled Water, Water Conservation	Goal of project is Council adoption of a One Water supply plan that is a 20-year adaptable roadmap for implementation of prioritized water supply and conservation portfolio alternatives.	In-progress		City wide
11/28/2022	City of Palo Alto	Local Salt Removal Facility: Improving Existing Recycled Water Quality at the RWQCP	Recycled Water	Effluent produced by the RWCQP is used for irrigation, but following public concerns that the recycled water has too high salinity, a preliminary design report for a local salt removal facility was prepared in 2017. Highly treated water produced by the local salt removal facility would benefit landscapes currently irrigated with recycled water in Palo Alto, enable Palo Alto to expand its non-potable distribution system, and/or provide a first step toward small-scale potable water production for direct or indirect potable reuse in Palo Alto.		-	City wide
11/29/2022	City of San Bruno	Acappella Well 21 Project	Groundwater Extraction	In the final phase of design for the "Acapella" well (well #21) as a replacement well for well #15. Designed to be stand-by well to supplement water needed for GSR.	In-progress	0.79 MGD	1001 National Avenue, San Bruno
10/28/2022	City of Santa Clara	One Water Santa Clara: Sustainable Water Master Plan	Groundwater, treated water, wastewater, recycled water, stormwater	Producing a Water Supply Master Plan (WSMP) that encompasses a One Water long-term plan that addresses drought and climate resiliency and envisions managing all water in an integrated, comprehensive, and sustainable manner.	In-progress	-	City wide
10/28/2022	City of Santa Clara	Recycled Water Expansion	Recycled Water	Expand recycled water mains to city parks for irrigation.		-	City wide
10/28/2022	City of Santa Clara	Two New Groundwater Wells	Groundwater Extraction	The project is to drill and equip two new wells and reactivate one existing iron and manganese treatment plant at a well that is currently on standby.	Planning		Serra Tanks site and Fire Station 5

Date Received	Agoney	Project Name	Project Type	Brief Description	Project Stage	Yield (given)	Location
10/28/2022	Agency City of Santa Clara	Project Name Existing Well Rehabilitation	Project Type Groundwater Extraction	Rehabbing some existing wells with water	Concept Stage	-	-
10, 20, 2022	city of surface clara	Existing Well Reliabilitation	Groundwater Extraction	quality issues and to bring them from backup	concept stage		
				wells to main source. Out of 4/5 wells, hoping			
				to rehab 2/3 of them. Only have 2 wells in			
				north part of town and hoping to rehab them			
				to bring more water to that area to serve			
				more new proposed development.			
10/28/2022	City of Santa Clara	Water Conservation Ordinance Update	Policy Project	Amending water conservation for new development.	In-progress	-	City wide
9/28/2022	City of Sunnyvale	Comprehensive Update of 2013	Recycled Water	After completion of this project, City should	In-progress	-	City wide
		Feasibility Study for Recycled Water		have a report on the existing recycled water			
1		Expansion		system, its condition, and capabilities,			
1				planned expansion of service areas, and a			
				recommended comprehensive long-term Capital Improvement Program (CIP).			
44 (4 (2022	Constitute Constitution	Description Well-Establish	0		pl	20.40.1460	6
11/1/2022	Coastside County Water District (CCWD)	Denniston Well Field: Well Replacements	Groundwater Extraction	The District proposes to replace the two active wells and four of the inactive well for a	Planning	20-40+ MGD seasonally	San Mateo County Coastside
	District (CCVVD)	Replacements		total of six new wells. The project is intended		seasonally	County Coastside
				to significantly increase the production from			
				the Denniston Well Field to allow the District			
				to operate Denniston WTP for a longer period			
				throughout the year by allowing more water			
				from Denniston Creek to be stored in			
				Denniston Reservoir.			
11/1/2022	CCWD	San Vicente Creek Water Supply	Surface Water	In order to perfect its water rights on San	Planning	0.3-0.5 MGD	San Mateo
1	1	Project		Vicente, Coastside CWD has contracted for an		seasonally	County Coastside
	1			engineering design of a pipeline that extends from the farmer's reservoirs to Coastside's		1	
				raw water pump station.			
11/1/2022	CCWD	Water Reuse (Recycled Water)	Recycled Water	District plans to engage in a feasibility study in	Planning	0.5+ MGD	San Mateo
		Feasibility Study	,	early 2023 to consider options for	· ·		County Coastside
				implementing water reuse on the Coastside			
				and the possibilities of beneficial uses.			
11/1/2022	City of Foster City	Recycled Water Expansion	Recycled Water	Wastewater treatment plant expansion to	Concept Stage	-	City Wide
				produce reclaimed water and have the			
				capacity to produce Title 22 Recycled Water,			
				prospective work to bring recycled water to Gilead Sciences' corporate campus, acquiring			
				recycled water from Redwood City, and			
				potential discussion of recycled water in			
				future Capital Improvement Plan.			
11/1/2022	Mid-Pen Water District	Chlorine Booster Stations and Mixers	Water Quality	In order to reduce the risk of nitrification in	In-progress	-	MPWD's Dekoven
	(MPWD)			storage tanks, the District operates the tanks			Tank Site
				to ensure enough flow through the system,			
				such that the tanks are rarely full. The lower			
				the flow through the system (that is, the			
				lower the customer demand), the more			
				chlorine residuals from SFPUC treatment drop and less the District is able to utilize the			
				storage capacity in the tanks.			
11/1/2022	MPWD	Potable Groundwater Supply	Groundwater Extraction	The project consists of completing a new	Planning	0.14 MGD	Northern portion
		Development		groundwater well for dry year supply			of the District
				purposes with an anticipated capacity at 200			near the Belmont
	1			gallons per minute (gpm). When completed,		1	Sports Complex
	1			the project will provide approximately 161		1	
	1			acre-feet per year (AFY) of local groundwater		1	
	1			supply. Development of this new local groundwater supply source will reduce		1	
	1			demands on imported RWS water and will		1	
				result in reduced dependence on surface			
				water supplies that are conveyed through			
				sensitive freshwater habitat.			
11/1/2022	MPWD	NO-DES Water Main Flushing Truck	Water Conservation	The District is interested in a NO-DES flushing	Concept Stage	-	District Wide
		or Trailer		system (either trailer or truck;			
				https://www.no-des.com/), which would			
				allow the District to perform system flushing			
				without discharging water to the storm drain. Given the size of the District and that these			
				trucks are costly to purchase and maintain,			
				the District would be potentially interested in			
				pursuing some sort of sharing model with			
				other agencies that would see similar benefits			
				from using such a truck.			
1/25/2023	North Coast County Water	Potable Groundwater Supply Well	Groundwater Extraction	The southern portion of the NCCWD service	In-progress	0.79 MGD	San Pedro Valley
•	District (NCCWD)	Project		area overlies the San Pedro Valley	-	1	Groundwater
	1			Groundwater Basin, which has historically		1	Basin – Wells to
				been used as a private source of groundwater			be located at
		i .	1	supply and continues to be used for irrigation	I		properties along
				by several users. The project is to develop a			Linda Mar Blvd
				by several users. The project is to develop a new potable groundwater supply source for			
				by several users. The project is to develop a			

Date Received	Agongu	Project Name	Project Type	Brief Description	Project Stage	Yield (given)	Location
1/25/2023	Agency NCCWD	Fog Collection	Fog	NCCWD has been collaborating with	In-progress	-	At three of the
				researchers at California State University Monterey Bay (CSUMB) and UC Santa Cruz to	68		District's water tank sites
				measure fog water at three of the District's water tank sites. Data collectors and rain gages have been installed with the collectors			
				since August/September, depending upon the site. Possible future fog collector rebate or			
				install program is envisioned in the future for customers to capture water and offset			
11/3/2022	Purissima Hills WD	Purissima Hills Water District Groundwater Well Feasibility	Groundwater Extraction	potable water demands.  The District investigated the feasibility and cost estimation to pump local groundwater	Planning	48 AFY for potable,	-
		Olouluwater Well ressoluty		for certain end uses, such as landscape irrigation. Development of a new local groundwater supply source would reduce demands on imported RWS water and would result in reduced dependence on surface water supplies that are conveyed through sensitive freshwater habitat. Three scenarios were explored in this memo: potable water with treatment, potable water without		24 AFY for non- potable	
11/22/2022	Redwood City	Regional Stormwater Capture	Groundwater recharge,	treatment, and non-potable water. Subsurface infiltration gallery underneath	Concept Stage	31.2 AFY captured	Red Morton
		Project at Red Morton Community Park	stormwater capture, water quality	McGarvey Field at Red Morton Community Park. The project has the potential to supplement groundwater supplies, alleviate flooding, offset water use at the park, and improve downstream water quality in the Arroyo Ojo and downstream Redwood Creek.	0		Community Park
11/22/2022	Redwood City	Recycled Water Chlorine Booster Station Feasibility and Design	Recycled Water	City released Request for Proposal (RFP) for the feasibility and design of a Chlorine Booster Station to improve water quality in the distribution system.	Planning	-	City wide
11/22/2022	Redwood City	Redwood City Recycled Water Feasibility Study Update	Recycled Water	Update of the City's 2014 Feasibility Study which will include an updated analysis of potential new customers and estimated demands. The Study will also include a pipe extension implementation plan; focusing on the dual plumbed projects that have been approved in the downtown area.	Concept Stage	-	City wide
2/6/2023	City of San Jose	Advanced Metering Infrastructure Implementation	Conservation, Data Gap Filling/Monitoring	A systemwide upgrade of approximately 27,000 water meters from Automatic Meter Reading (AMR) system to a cellular based Advanced Metering Infrastructure (AMI) system that will positively impact water conservation efforts, help customers reduce their water use, identify leaks, and save money on water bills.	In-progress	5% demand savings per year (2021: 272 MGY)	System wide
9/6/2022	San Mateo County Office of Sustainability	Sea Level Rise Policy for County- Owned Assets	Policy Project	Developing a sea-level rise mapping tool and risk assessment checklists to support facility and capital projects managers in identifying whether a facility is in a sea-level risk area, and if so guide the development of adaptation strategies for that facility.	In-progress	-	Countywide
9/6/2022	San Mateo County Office of Sustainability	Benjamin Franklin School	Stormwater Management		Concept Stage	355 AFY	700 Stewart Ave, Daly City, CA 94015
9/6/2022	San Mateo County Office of Sustainability	Half Moon Bay Regional Stormwater Project		Proposed project is a surface wetland that serves as a flood plain to the existing Pilacrcitos Creek stream to maintain flows and treat stormwater.	Concept Stage	-	Bev Cunha's Country Road, Half Moon Bay, CA 94019
9/6/2022	San Mateo County Office of Sustainability	Redwood City City Hall Project	Stormwater Management	Flows from a storm drain by City Hall will be diverted and pretreated to remove trash and sediments, and gravity fed to a subsurface storage facility to be filtered and returned cleaner to the same storm drain and be discharged to Redwood Creek and then San Francisco Bay.	Concept Stage	-	1017 Middlefield Rd, Redwood Cit CA 94063
9/6/2022	San Mateo County Office of Sustainability	San Carlos Airport Regional Stormwater Project	Stormwater Management	Intercept dry-weather flow and sizeable portion of the stormwater flows from the adjacent storm drains to a restored stormwater wetland basin along Aiport Way within the Phelps Slough.	Concept Stage	-	395 Shoreway Ro San Carlos, CA 94070
9/6/2022	San Mateo County Office of Sustainability	City of San Mateo Corp Yard	Stormwater Management	Flows will be diverted from a trapezoidal channel running parallel to the Caltrain tracks and pretreated to remove trash and sediments, and the gravity fed to a subsurface storage facility located underneath the Corp Yard parking lot. Stored water will be filtered and returned cleaner to the same channel.	Concept Stage	63.9 AFY	1949 Pacific Blvd San Mateo, CA 94403
8/18/2022	Stanford University	Bay Area Water Planning in the Face of Drought and Ecosystem Flows	Research Study	Model of Tuolumne River water supply to simulate long-term water supply performance under various climate, policy, and coping scenarios in order to address questions surrounding the implementation of the Bay- Delta Plan.	In-progress	-	Tuolumne River watershed and RWS service area

Date Received	Agency	Project Name	Project Type	Brief Description	Project Stage	Yield (given)	Location
2/10/2023	Stanford University	Stormwater Capture and Reuse	Stormwater Management	Stanford has implemented two stormwater	In-progress	-	Stanford
				capture facilities on campus that intercept			University
				stormwater and runoff which is then pumped			Campus
				into the campus' non-potable irrigation			
				system to be used for campus irrigation.			
				Future expansion of stormwater capture on			
				campus will help to reduce the demand for			
				groundwater.			
2/10/2023	Stanford University	Sustainable Water Management	Stormwater Management	The project defines Sustainable Water	In-progress	-	Stanford
		Plan		Management, for the campus application, and			University
				uses One Water principles. It documents			Campus
				existing and potential water supplies for the			
				campus including their appropriate uses			
				based on water quality, cost, availability,			
				environmental/social impact, and reliability.			
				The plan outlines high level strategic goals			
				that will help inform water supply planning			
				decisions.			





Project Name  Residential Laundry to Landscape Program - Gray Water Capture as Conservation	
Agency	Agency Primary/Lead Name & Contact Information
C/CAG	Kim Springer
	(650) 393-9359
	kspringer@smcgov.org





#### PROJECT DESCRIPTION

## Provide a detailed description of the proposed Project.

C/CAG proposes, working with multiple community partners, to educate the public about residential gray water capture-to-landscape opportunities, already allowed, without residential permitting requirements based on the current CA plumbing code. There is a need to develop consistent understanding across city building departments, contractors (landscape and plumbing), and residents about what is allowable, considerations of use, how to install a "system", and the potential for water supply savings.

This project will help build consensus and awareness of the potential impacts of drought, the allowable "laundry-to-landscape", without permit, onsite water capture and reuse opportunities, so that residents and homeowners are resourced and empowered to act. This project will also help eliminate any existing confusion and, therefore, staff time for city building and planning departments, related to permit-less onsite residential water capture opportunities.

## Task 1: Project Lead and Build Website Content

- Procure a consultant to advise and lead the project
- •Build website content focused on one water, and water capture and reuse (for existing websites, C/CAG, city, BAWSCA, RCD, CBOs)

ogray water, stormwater, rainwater (focus on gray water, links to the other existing water capture opportunities)

o website pages and graphics by developer

o Grantor credited with funding the project

## Task 2: Stakeholder Training

Provide training for Three Audiences

oWater agencies, building departments, and sustainability staff - Plumbing Code education: when permitting IS required, and when not

oContractors, landscapers, and handypersons (focus on small, disadvantaged businesses) – what is required for a GW2L installation and best practices

oResidents and homeowners - know the GW2L installation requirements and best practices for soil and human health

## Task 3: Pilot Projects

- Multiple Pilot Projects to be installed at residential sites (free install by lottery)
- o funded by the grant as case studies
- o Certified GW to Landscape Installer
- o exhibited on the website for retail (Customer) cost, installation time, materials, and images

## Provide the location, if applicable.

Countywide but probably pilots and training focused on Equity communities.





## PROJECT DESCRIPTION Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)). Not yet calculated, but funding of approximately \$400K would go to pushing the program to 1000 homes. Project type (check all that apply). Water Demand Reduction ☐ Surface Water ☐ Conservation ☐ Transfer ☐ Land/Water Use Changes ☐ Groundwater (Recharge) ☐ Infrastructure/Capital Project ☐ Stormwater ☐ Data Gap Filling/Monitoring ☐ Recycled Water (potable) ☐ Policy Project ☐ Indirect potable reuse ☐ Water Quality Improvement ☐ Direct potable reuse ☐ Other: Click or tap here to enter text. □ Recycled Water (non-potable) ☐ Other: Click or tap here to enter text. Source of Outside Water (if applicable): Click or tap here to enter text. Provide regulatory/legal authority requirements (describe all that apply). Permits (name of authority, type of permit): N/A

environment & water

Click or tap here to enter text.

N/A

Other:

California Environmental Quality Act (CEQA):







COST INFORMATION			
Provide capital/up-front cost (\$).			
\$400,000			
Provide source(s) of funding for above capital/up-front cost.			
Grant or Earmark			
Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).			
Four-year effort to achieve 1000 homes and content to be posted for use ongoing.			
Provide source(s) of funding for above O&M/on-going cost.			
Ongoing promotion to be driven by C/CAG, cities, and other partners.			
SCHEDULE/TIMING INFORMATION			
Provide expected kickoff/start date.			
TBD			
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.			
Four years and growing over time beyond that time period.			
Or, ☐ Add as an attachment			





ADDITIONAL DETAILS		
Provide as necessary.		
Click or tap here to enter text.		

	ATTACHMENTS	
Provide list of attachments:		
Click or tap here to enter text.		







Project Name		
Advancing Regional-scale Stormwater Management in San Mateo County		
Agency	Agency Primary/Lead Name & Contact Information	
City/County Association of Governments	Reid Bogert, Senior Stormwater Program Specialist	
	650-863-2126 650-599-1433	
	rbogert@smcgov.org	

#### PROJECT DESCRIPTION

## Provide a detailed description of the proposed Project.

The City/County Association of Governments of San Mateo County (C/CAG) developed an integrated project to advance implementation of regional-scale, multi-benefit stormwater management in San Mateo County. The goal of the project was to catalyze countywide collaboration on regional-scale stormwater management to address key drivers, create a framework under which collaboration can take place and evaluate and prioritize opportunities for regional projects. The key drivers include limited resources, existing stormwater infrastructure deficiencies, water quality regulations and protection, climate resiliency, beneficial use of stormwater, and equity and community engagement. The project culminated in a Regional Collaborative Program Framework White Paper, which includes the various parts of the project as appendices (see attached deliverables list).

Provide the location, if applicable.

San Mateo County - Countywide





#### PROJECT DESCRIPTION

Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)).

The basis for the Regional Collaborative Program (RCP) for regional-scale, multi-benefit stormwater is to provide water quality, climate resilience, water supply augmentation and community benefits. The RCP Framework White Paper includes cost savings (quantitative and qualitative) for a regional vs. a jurisdictional approach on the eight objectives associated with multi-benefit regional-scale stormwater capture projects. Individual project opportunities evaluated in the countywide assessment of regional scale stormwater capture projects were also ranked according to calculated performance metrics across the six identified drivers associated with regional multi-benefit projects. There were 75 sites evaluated across these performance metrics, with 14 proposed for site evaluation and 5 ultimately developed into detailed concept reports.

As an example, the Orange Memorial Park regional project in South San Francisco is estimated to provide the following site level benefits:

640 acre-feet of water diverted and cleaned annually 15 MG of potable water offset per year 240 acre-feet of groundwater recharge annually 10 grams of PCBs removed annually 30 grams of mercury removed annually







PROJECT DESCRIPTION			
Project type (check all that apply).			
Surface Water     ■ Surface Water	Water Demand Reduction		
☐ Transfer	☐ Conservation		
☑ Groundwater (Recharge)	☐ Land/Water Use Changes		
⊠ Stormwater	☑ Infrastructure/Capital Project		
⊠ Recycled Water (potable)	☐ Data Gap Filling/Monitoring		
☐ Indirect potable reuse	☐ Policy Project		
☐ Direct potable reuse	☑ Water Quality Improvement		
⊠ Recycled Water (non-potable)	☑ Other: Community Benefit/Parks		
☐ Other: Click or tap here to enter text.			
Source of Outside Water (if applicable):			
Click or tap here to enter text.			
Provide regulatory/legal authority requirements (describe	all that apply).		
Permits (name of authority, type of permit):			
The multi-benefit regional projects may require multiple permits including 401 Water Quality and/or 404 USAC Certs, Fish and Wildlife streambed alteration notification 1601, local permitting for grading/easements/building permits, transit access agreements, etc.			
California Environmental Quality Act (CEQA):			
CEQA on all potential designed/constructed projects, though exempt	the regional collaborative program itself is likely		
Other:			
Click or tap here to enter text.			





## **COST INFORMATION**

## Provide capital/up-front cost (\$).

Regional projects can range in cost, but on average may cost \$1M/acre of impervious drainage area managed. Typical projects may be between \$15-\$30M. The Orange Memorial Park Project, which has already been constructed was funded at \$15.5M for design/permitting/construction all paid for by Caltrans in a co-op agreement with the City of South San Francisco.

Provide source(s) of funding for above capital/up-front cost.

Caltrans

Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).

Estimated \$200-500K/year initially on large scale (20 acre-foot storage) regional capture projects

Provide source(s) of funding for above O&M/on-going cost.

Currently funded by the City of South San Francisco – may be cost-shared with other municipalities under the Municipal Regional Permit.

## SCHEDULE/TIMING INFORMATION

## Provide expected kickoff/start date.

The Regional Collaborative Program is under development with a framework completed in Jan 2022. There are three other regional projects in various stages of preliminary and mid-level design (Belmont Twin Pines Park, Redwood City Red Morton Park, San Bruno I-280/380), and there are five new project concepts developed as part of the RCP program development. Orange Memorial Park regional project was completed in June 2022.







## SCHEDULE/TIMING INFORMATION

Provide timeframe to accrue expected supply/demand/other quantifiable benefits.

It could take a year or more to work out demand for stormwater permit compliance on the Orange Memorial Park project, mostly from a regulatory perspective operating under the MRP, but also in terms of developing cost-sharing mechanisms for municipalities and/or other entities (developers) to pay into projects. The benefits from a water

management perspective on this project will be achieved in the first year of commissioning, with aspects like groundwater recharge taking longer to evaluate the benefits of stormwater infiltration. It will take decades for additional regional projects to be planned, designed, permitted and built and for longer term water quality, supply, resilience benefits to be achieved.
Or, $\square$ Add as an attachment

#### **ADDITIONAL DETAILS**

## Provide as necessary.

C/CAG is helping advancing a Regional Collaborative Program to support its municipalities with an interim MOUbased phase for compliance purposes under the MRP. The program will also, however, have a longer term development of a market-based RCP where other stakeholders including private developers, water supply agencies, waste water districts, resiliency districts, parks districts and others may want to participate in water related project cost-sharing via regional stormwater capture projects. This is a quickly evolving area of work, which builds on prior efforts at C/CAG to identify and prioritize green stormwater infrastructure at multiple scales, including the San Mateo County Stormwater Resource Plan, Countywide Sustainable Streets Master Plan and support of local Green Infrastructure Plans.

## **ATTACHMENTS**

## Provide list of attachments:

See C/CAG's dedicated Regional Collaborative Program webpage at www.flowstobay.org/reigonal-collaborative where the RCP framework white paper and appendices are available for download.







#### **Project Name**

Regional Purified Water Pilot Project

## **Agency**

Dublin San Ramon Services District and potential partner agencies: Alameda County Water District; Livermore-Amador Valley Water Management Agency; Zone 7 Water Agency; City of Livermore, Union Sanitary District

## **Agency Primary/Lead Name & Contact Information**

**Thomas Niesar** 

(510) 668-6549

thomas.niesar@acwd.com

#### PROJECT DESCRIPTION

## Provide a detailed description of the proposed Project.

The proposed concept was developed through a series of workshops with potential partner agencies. The pilot would purify treated wastewater from LAVWMA, which originates from DSRSD and Livermore Wastewater Treatment Plants and is currently discharged to the San Francisco Bay. The pilot project would operate year-round with flows from DSRSD and Livermore, or seasonally with flows from only DSRSD due to existing irrigation recycled water demands. Utilizing treated wastewater flows would retain this resource locally and purify it through a multi-step advanced treatment process involving membrane filtration, reverse osmosis, and ultraviolet light advanced oxidation. The envisioned pilot project would deliver 0.2 million gallons per day of purified water to a nearby canal, which would supplement flows in Alameda Creek and ultimately be diverted by ACWD 15 miles downstream for groundwater recharge. The pilot footprint would also include public outreach space for visitors. Given the timeliness of DSRSD's NPDES permit renewal in June 2022, the San Francisco Regional Water Quality Control Board recommended including adding a provision for the pilot project in the existing permit renewal application. DSRSD revised their NPDES permit renewal accordingly which provided a straightforward pathway to permit the pilot. The revised permit was approved in July 2022 and is valid for five years and allows for potential implementation of the pilot project within this timeframe.

Year-round production of 0.2 mgd may be achieved if both DSRSD and City of Livermore effluent is used. If the City of Livermore flows are unavailable, the pilot could only operate seasonally (from about September through May) because of the lack of summertime flow available from DSRSD. In the summer months, DSRSD effluent discharged to LAVWMA is close to zero due to most of the effluent being recycled for irrigation. In the winter months, DSRSD can have over 12 mgd. The City of Livermore effluent is more consistent throughout the year and ranges from 4 to 6 mgd.

The next step is to put together an MOA amongst potential partner agencies for public outreach. Other possible next steps include looking into potential funding opportunities and discussions with fishery agencies and other stakeholders.







PROJECT DESCRIPTION			
Provide the location, if applicable.			
LAVWMA (Pleasanton, CA), Alameda Creek (Alameda County	,, CA), Quarry Lakes (Fremont, CA)		
Provide expected annual benefit (demand reduction, suppl million gallons per day (MGD)).	y augmentation, or other quantifiable benefit in		
Potentially 0.2 mgd for two years of year-round pilot operation.			
Project type (check all that apply).			
☐ Surface Water	Water Demand Reduction		
☐ Transfer	☐ Conservation		
☑ Groundwater (Recharge)	☐ Land/Water Use Changes		
☐ Stormwater	☐ Infrastructure/Capital Project		
☐ Recycled Water (potable)	☑ Data Gap Filling/Monitoring		
☑ Indirect potable reuse	☐ Policy Project		
$\square$ Direct potable reuse			
$\square$ Recycled Water (non-potable)	☑ Other: Reduced effluent to San Francisco Bay, ecological benefit to Alameda Creek		
☐ <b>Other:</b> Click or tap here to enter text.	ecological beliefit to Alameda Creek		
Source of Outside Water (if applicable):			
Click or tap here to enter text.			





## **PROJECT DESCRIPTION**

Provide regulatory	/legal authorit	y requirements	(describe all t	that apply).

Permits (name of authority, type of permit): San Francisco Bay Regional Water Quality Control Board, DSRSD's NPDES Permit Renewal

California Environmental Quality Act (CEQA):

Other: Discussions with environmental oversight agencies, including NMFS and CDFW

Click or tap here to enter text.

COST INFORMATION
Provide capital/up-front cost (\$).
TBD
Provide source(s) of funding for above capital/up-front cost.
TBD
Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).
TBD
Provide source(s) of funding for above O&M/on-going cost.
TBD

## SCHEDULE/TIMING INFORMATION

Provide expected kickoff/start date.

Public outreach – Spring 2023





SCHEDULE/TIMING INFORMATION			
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.			
Two-year pilot program – potentially operating year-round at 0.2 mgd.			
Or, $\square$ Add as an attachment			
ADDITIONAL DETAILS			
Provide as necessary:			
N/A			
ATTACHMENTS			
Provide list of attachments:			
Click or tap here to enter text.			





#### **Project Name**

Del Valle Reservoir Water Supply Storage Expansion Project

#### Agency

California Department of Water Resources; Zone 7 Water Agency; Alameda County Water District; Valley Water; U.S. Army Corps of Engineers

## Agency Primary/Lead Name & Contact Information

**Thomas Niesar** 

(510) 668-6549

thomas.niesar@acwd.com

### PROJECT DESCRIPTION

## Provide a detailed description of the proposed Project.

"Del Valle Reservoir Water Supply Storage Expansion Project" has been expanded. The original project envisioned modernizing the flood management rules at Del Valle Reservoir to use a greater portion of existing reservoir capacity to capture additional local supply and store additional emergency water supply while maintaining necessary flood protection. Specifically, the concept included a variety of scenarios based on reoperation of the existing flood pool using forecast informed reservoir operations (FIRO). In 2018, the South Bay Aqueduct (SBA) Contractors completed a high-level evaluation of the feasibility of modernizing flood rules, expanding emergency storage, and replacing/relocating East Bay Regional Parks District (EBRPD) facilities, while also evaluating an additional project that would modify existing EBRPD facilities to accommodate lake lowering to capture more local run-off. Although the 2018 feasibility study identified substantial benefits from the original reoperation scenarios with FIRO, the workgroup recognized that the Department of Water Resources (DWR), the US Army Corps of Engineers (USACE), and other governmental bodies would need to become heavily involved to advance these concepts, and therefore recommended the lake lowering project instead. Recently, however, DWR and USACE have taken a more active role. In October 2021, DWR requested a "minor deviation" to the water control manual at Del Valle Reservoir. In December 2021, upon approval from USACE, DWR implemented a reoperation scenario using FIRO at Del Valle Reservoir that allowed DWR to increase temporary conservation pool storage by an additional ~3,850 AF at a lake level of 707.06 ft. To avoid flooding any EBRPD facilities, however, DWR limited the additional storage in the reservoir to below 1,625 AF of additional storage or an operational level target of 704 ft. Currently, DWR is seeking another minor deviation for the 2022-2023 water year and will attempt to optimize runoff capture and storage while coordinating with EBRPD for the upcoming year and for as many future dry years as USACE will permit. Lastly, several of the BARR agencies are participating in a consortium to implement a regional X-band radar system that would support an expanded FIRO program.

Provide the	location	, if app	licab	le.
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Del Valle Reservoir; Livermore, CA







**PROJECT DESCRIPTION** 

Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)).		
At least 1.4 MGD. Current range would allow up to 3.4 MGD.		
Project type (check all that apply).		
□ Surface Water	Water Demand Reduction	
☐ Transfer	☐ Conservation	
☐ Groundwater (Recharge)	☐ Land/Water Use Changes	
☐ Stormwater	☐ Infrastructure/Capital Project	
☐ Recycled Water (potable)	☐ Data Gap Filling/Monitoring	
☐ Indirect potable reuse	☐ Policy Project	
☐ Direct potable reuse	☐ Water Quality Improvement	
$\square$ Recycled Water (non-potable)	☐ Other: Click or tap here to enter text.	
☐ Other: Click or tap here to enter text.		
Source of Outside Water (if applicable):		
Click or tap here to enter text.		
Provide regulatory/legal authority requirements (describe a	ıll that apply).	
Permits (name of authority, type of permit):		
U.S. Army Corps of Engineers; Approval of Minor Deviation Request		
California Environmental Quality Act (CEQA):		
N/A		
Other:		
Click or tap here to enter text.		







COST INFORMATION	
Provide capital/up-front cost (\$).	
\$0	
Provide source(s) of funding for above capital/up-front cost.	
N/A	
Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).	
N/A	
Provide source(s) of funding for above O&M/on-going cost.	
N/A	
SCHEDULE/TIMING INFORMATION	
Provide expected kickoff/start date.	
October 2021	
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.	
Benefit of ~1,625 AF of additional runoff capture and storage already accrued in 2021. Additional annual benefits are expected over the next 5 years, especially in the drought years.	
Or, $\square$ Add as an attachment	





# Additional potential exists for expanding this concept but would require permanent changes to the flood control manual at Del Valle Reservoir as well as relocation of the existing EBRPD facilities built in the defined flood pool.

ATTACHMENTS	
Provide list of attachments:	
Click or tap here to enter text.	





Project Name	
Brisbane Irrigation Supply Well	
Agency	Agency Primary/Lead Name & Contact Information
City of Brisbane	Enter name and credentials here.
	Enter phone number here.
	Enter email address here.

## PROJECT DESCRIPTION

## Provide a detailed description of the proposed Project.

The City overlies the Visitacion Valley Groundwater Basin (DWR Basin 2 032; Basin), which has not been developed to-date as a source of municipal groundwater supply. The City recently completed a preliminary groundwater assessment study that concluded that local groundwater resources would likely be sufficient and available to meet the landscape irrigation demands of certain public landscaped areas within the City. The objective of the Brisbane Irrigation Supply Well project is to develop a new groundwater supply source to be used for irrigation purposes and thus reduce potable demand in the City. Development of this new local groundwater supply source will reduce demands on imported RWS water and will result in reduced dependence on surface water supplies that are conveyed through sensitive freshwater habitat.

The project will (1) enhance water supply reliability, (2) provide a new groundwater supply source, (3) improve the City's operational efficiency and flexibility, (4) reduce impacts on the ecosystem/ freshwater habitat of the Tuolumne River, and (5) provide water conservation benefits by offsetting potable use.

Provide the location, if applicable.

Latitude: 37.6863 Longitude: -122.3988

Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)).

The proposed project will provide up to 21 acre-feet per year (AFY) of local groundwater supply.









PROJECT DESCRIPTION	
Project type (check all that apply).	
☐ Surface Water	Water Demand Reduction
☐ Transfer	☐ Conservation
$\square$ Groundwater (Recharge)	☐ Land/Water Use Changes
☐ Stormwater	☐ Infrastructure/Capital Project
$\square$ Recycled Water (potable)	☐ Data Gap Filling/Monitoring
$\square$ Indirect potable reuse	☐ Policy Project
$\square$ Direct potable reuse	☐ Water Quality Improvement
☐ Recycled Water (non-potable)	☐ Other: Click or tap here to enter text.
☑ Other: new groundwater source	
Source of Outside Water (if applicable):	
Click or tap here to enter text.	
Provide regulatory/legal authority requirements (describe	all that apply).
Permits (name of authority, type of permit):	
County of San Mateo permitting: The City will apply for well	drilling and encroachment permits from the County
California Environmental Quality Act (CEQA):	
CEQA compliance: The City will prepare and adopt a Categor	ical Exemption for the project
Other:	
Click or tap here to enter text.	







COST INFORMATION	
Provide capital/up-front cost (\$).	
\$1,730,000	
Provide source(s) of funding for above capital/up-front cost.	
Integrated Regional Water Management Grant programs	
Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).	
Click or tap here to enter text.	
Provide source(s) of funding for above O&M/on-going cost.	
Click or tap here to enter text.	
SCHEDULE/TIMING INFORMATION	
Provide expected kickoff/start date.	
Construction/Implementation expected start date: 1 October 2023	
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.	
Click or tap here to enter text.	
Or, ☐ Add as an attachment	

**Project Information Form** 





ADDITIONAL DETAILS
Provide as necessary.
Click or tap here to enter text.

ATTACHMENTS
Provide list of attachments:
Click or tap here to enter text.







Project Name	
NEW WELL IN THE BEAR GULCH DISTRICT	
Agency	Agency Primary/Lead Name & Contact Information
California Water Service	Ken Jenkins +1 (310) 420-6789 kjenkins@calwater.com
	Scott Wagner +1 (408) 367-8278 swagner@calwater.com

## PROJECT DESCRIPTION

## Provide a detailed description of the proposed Project.

This project would construct a new well in the Bear Gulch District to pump water from the San Mateo Plain Subbasin of the Santa Clara Valley Basin. This basin is not adjudicated, and the well capacity is assumed to be 120 gpm and provide 200 AFY of supply. This option would provide direct benefit to the Bear Gulch District and indorect benefit to the Mid-Peninsula and South San Francisco Districts, especially during dry year and multi-dry year scenarios.

Provide the location, if applicable.

Cal Water's Bear Gulch District







PROJECT DESCRIPTION		
Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)).		
Estimated to provide 120 gpm or 0.17 MGD		
Project type (check all that apply).		
☐ Surface Water	Water Demand Reduction	
☐ Transfer	☐ Conservation	
□ Groundwater	☐ Land/Water Use Changes	
☐ Stormwater	☐ Infrastructure/Capital Project	
$\square$ Recycled Water (potable)	☐ Data Gap Filling/Monitoring	
$\square$ Indirect potable reuse	☐ Policy Project	
$\square$ Direct potable reuse	☐ Water Quality Improvement	
$\square$ Recycled Water (non-potable)	☐ Other: Click or tap here to enter text.	
☐ <b>Other:</b> Click or tap here to enter text.		
Source of Outside Water (if applicable):		
Click or tap here to enter text.		





## **PROJECT DESCRIPTION**

Provide regulatory/legal authority requirements (describe all that apply).

Permits (name of authority, type of permit):

- SWRCB DDW Design review, Water supply permit amendment
- RWQCB General Construction Permit/SWPPP, National Pollutant Discharge Elimination System (NPDES) permit, 401 Water Quality Certification issuance
- San Mateo County Environmental Health Services Division Subsurface Drilling Permit
- City Encroachment permits, Construction permit

California Environmental Quality Act (CEQA):

Click or tap here to enter text.

Other:

**CPUC Approval** 

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Provide capital/up-front cost (\$).

Total capital cost of \$7.1 million

Provide source(s) of funding for above capital/up-front cost.

This a local project without partners, the full cost of the project would be paid by Cal Water.

Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).

Total O&M costs is estimated as \$121,000/yr

Provide source(s) of funding for above O&M/on-going cost.

Full cost of the O&M would be paid by Cal Water









SCHEDULE/TIMING INFORMATION	
Provide expected kickoff/start date.	
Expected to start in 2023.	
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.	
4 years	
Or, $\square$ Add as an attachment	
ADDITIONAL DETAILS	
Provide as necessary.	
Click or tap here to enter text.	
ATTACHMENTS	
Provide list of attachments:	
Click or tap here to enter text.	





Project Name	
DEVELOPMENT OFFSET PROGRAM	
Agency	Agency Primary/Lead Name & Contact Information
California Water Service	Ken Jenkins +1 (310) 420-6789 kjenkins@calwater.com
	Scott Wagner +1 (408) 367-8278 swagner@calwater.com

## PROJECT DESCRIPTION

Provide a detailed description of the proposed Project.

Development Offset Program details:

To account for projected delivery shortfalls during dry years and the need for new water supplies, the Developer Offset Program has been established to ensure continued water supply reliability.

The Development Offset Program will implement a new, non-refundable special facilities fee of \$15,400 per acre-foot of net demand increase, which is the difference between projected annual potable water use for the development and the average annual, existing potable water use on the property over the previous five years.

The fee is based on a combination of five alternative water supply projects and expanded conservation programs.

The fee only applies to developments with a net demand increase of 50 acre-feet per year or more.

Funds collected from the Development Offset Program will be used for water supply projects and expanded conservation programs designed to offset the net demand increase of the proposed development.

Provide the location, if applicable.

Cal Water's Bay Area Districts (BG, MPS, SSF)







## **PROJECT DESCRIPTION**

Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)).

The Developer Offset Program will fund water supply investments by accelerating water supply projects and expanded conservation programs, thus improving the overall sustainability and resiliency of our systems.		
Project type (check all that apply).		
☐ Surface Water	Water Demand Reduction	
$\square$ Transfer	□ Conservation	
$\square$ Groundwater (Recharge)	☐ Land/Water Use Changes	
☐ Stormwater	☐ Infrastructure/Capital Project	
☐ Recycled Water (potable)	☐ Data Gap Filling/Monitoring	
☐ Indirect potable reuse	⊠ Policy Project	
☐ Direct potable reuse	☐ Water Quality Improvement	
$\square$ Recycled Water (non-potable)	☐ Other: Provide funding to accelerate water supply projects and conservation programs	
☐ Other: Click or tap here to enter text.	projects and conservation programs	
Source of Outside Water (if applicable):		
Click or tap here to enter text.		
Provide regulatory/legal authority requirements (describe	all that apply).	
Permits (name of authority, type of permit):		
Click or tap here to enter text.		
California Environmental Quality Act (CEQA):		
Click or tap here to enter text.		
Other:		
CPUC approval (already received)		









COST INFORMATION
Provide capital/up-front cost (\$).
n/a
Provide source(s) of funding for above capital/up-front cost.
n/a
Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).
n/a
Provide source(s) of funding for above O&M/on-going cost.
n/a
SCHEDULE/TIMING INFORMATION
Provide expected kickoff/start date.
Currently enacted
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.
Ongoing
Or, $\square$ Add as an attachment





ADDITIONAL DETAILS
Provide as necessary.
Click or tap here to enter text.

ATTACHMENTS
Provide list of attachments:
Click or tap here to enter text.







Project Name		
SAN MATEO BRACKISH DESAL AQUIFER TESTING		
Agency	Agency Primary/Lead Name & Contact Information	
California Water Service	Ken Jenkins +1 (310) 420-6789 kjenkins@calwater.com	
	Scott Wagner +1 (408) 367-8278 swagner@calwater.com	

## **PROJECT DESCRIPTION**

## Provide a detailed description of the proposed Project.

This study will determine project feasibility, intake selection, selection and acquisition of land, analysis of brine disposal options, and determination of the appropriate volume to be treated. In addition, given that this is a regional project, partnership agreements will be required. Public outreach will also be needed given that the project is a brackish groundwater desalination project and will require public support for successful implementation. While Horizontal Directional Drilling (HDD) well intakes are not as contentious as open ocean intakes, the project will still require significant regulatory coordination and outreach to ensure successful implementation.

Provide the location, if applicable.

San Mateo





PROJECT DESCRIPTION		
Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)).		
TBD		
Project type (check all that apply).		
☐ Surface Water	Water Demand Reduction	
☐ Transfer	☐ Conservation	
☐ Groundwater (Recharge)	☐ Land/Water Use Changes	
☐ Stormwater	☐ Infrastructure/Capital Project	
☐ Recycled Water (potable)	☐ Data Gap Filling/Monitoring	
$\square$ Indirect potable reuse	$\square$ Policy Project	
$\square$ Direct potable reuse	☐ Water Quality Improvement	
☐ Recycled Water (non-potable)	☑ Other: Brackish Desalinization	
☐ Other: Click or tap here to enter text.		
Source of Outside Water (if applicable):		
Click or tap here to enter text.		







#### PROJECT DESCRIPTION

Provide regulatory/legal authority requirements (describe all that apply).

Permits (name of authority, type of permit):

- SWRCB DDW Watershed Sanitary Survey, Design Review
- USFWS, National Marine Fisheries Service, CDFW Offshore geophysical study and intake feasibility study
- Bay Conservation and Development Commission San Francisco Bay Development Permitting
- RWQCB, USEPA Waste discharge permitting, General Construction Permit/SWPPP
- Cities and counties Encroachment permits, Construction permits

	California	Environmental	Quality	/ Act (	(CEQA)	١
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yes

Other:

**CPUC Approval** 

## **COST INFORMATION**

Provide capital/up-front cost (\$).

Total Project: \$193.1M (2021\$) - Cal Water: TBD

Provide source(s) of funding for above capital/up-front cost.

Capital costs assumed as the average of the maximum and minimum cost estimates for 6.5 mgd treated water capacity in Table B-10 of Appendix B of the BAWSCA Long-Term Reliable Water Supply Strategy Phase II Final Report (BAWSCA, 2015). Unit costs, annualized costs and NPV are not calculated as the yield to Cal Water is unknown at this time.

Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).

Total Project: \$3.9M/yr (2021\$)

Cal Water: TBD









## **COST INFORMATION**

Provide source(s) of funding for above O&M/on-going cost.

O&M costs assumed as the average of the maximum and minimum cost estimates for 6.5 mgd treated water capacity in Table B-10 of Appendix B of the BAWSCA Long-Term Reliable Water Supply Strategy Phase II Final Report (BAWSCA, 2015). Unit costs, annualized costs and NPV are not calculated as the yield to Cal Water is unknown at this time.

**SCHEDULE/TIMING INFORMATION** 

Provide expected kickoff/start date.
Ongoing
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.
Minimum of 8 years
Or, $\square$ Add as an attachment
ADDITIONAL DETAILS
Provide as necessary.
Click or tap here to enter text.





ATTACHMENTS	
Provide list of attachments:	
Click or tap here to enter text.	







Project Name		
Water Transfer Study		
Agency	Agency Primary/Lead Name & Contact Information	
California Water Service	Ken Jenkins +1 (310) 420-6789 kjenkins@calwater.com	
	Scott Wagner +1 (408) 367-8278 swagner@calwater.com	

## PROJECT DESCRIPTION

## Provide a detailed description of the proposed Project.

The water transfer option would allow Cal Water to purchase imported water supplies for use during droughts and other dry years. The water could be purchased from wholesalers or from SWP or CVP water rights holders outside of the area. During supply shortages, the supply would be wheeled through State/Federal and regional water conveyance systems to Cal Water districts.

The purchased water could either be stored in a groundwater basin or used immediately. Potential banking areas could be north of the Delta or South of the Delta. Storage north of the Delta would allow for water to be extracted and directly conveyed to Cal Water. Storage south of the Delta, such as in the Semitropic Water Bank, would mean that an exchange of SWP or CVP water would be needed to obtain the supplies as water cannot be conveyed from south to north.

This option could provide benefits to any of Cal Water's Bay Area Region districts, depending on the regional system used to wheel the water to each district.

Provide the location, if applicable.

Cal Water's Bay Area Region Districts





PROJECT DESCRIPTION		
Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)).		
unknown		
Project type (check all that apply).		
☐ Surface Water	Water Demand Reduction	
☑ Transfer	☐ Conservation	
☐ Groundwater (Recharge)	☐ Land/Water Use Changes	
☐ Stormwater	☐ Infrastructure/Capital Project	
☐ Recycled Water (potable)	☐ Data Gap Filling/Monitoring	
☐ Indirect potable reuse	$\square$ Policy Project	
☐ Direct potable reuse	☐ Water Quality Improvement	
☐ Recycled Water (non-potable)	$\square$ Other: Click or tap here to enter text.	
☐ Other: Click or tap here to enter text.		
Source of Outside Water (if applicable):		
Click or tap here to enter text.		
Provide regulatory/legal authority requirements (describe	all that apply).	
Permits (name of authority, type of permit):		
SWRCB Division of Water Rights - Water rights transfer		
California Environmental Quality Act (CEQA):		
Click or tap here to enter text.		
Other:		
CPUC Approval		







COST INFORMATION
Provide capital/up-front cost (\$).
Water transfer projects are not assumed to have an upfront capital cost as the supplies will be wheeled and treated through existing facilities.
Provide source(s) of funding for above capital/up-front cost.
None
Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).
O&M costs include the cost of water (\$300/AF for purchase from a wholesaler or \$1,000/AF for purchase on the open market), conveyance costs (\$700/AF), treatment costs (\$300/AF), and if applicable, storage withdrawal costs (\$100/AF).
Provide source(s) of funding for above O&M/on-going cost.
Cal Water
SCHEDULE/TIMING INFORMATION
Provide expected kickoff/start date.
Project/study expected to start within the next 5 years
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.
Not known
Or, $\square$ Add as an attachment





ADDITIONAL DETAILS
Provide as necessary.
Click or tap here to enter text.

ATTACHMENTS
Provide list of attachments:
Click or tap here to enter text.





Project Name	
Denniston Well Field – Well Replacements	
Agency	Agency Primary/Lead Name & Contact Information
Coastside County Water District	Mary Rogren
	650-276-0889
	mrogren@coastsidewater.org

#### PROJECT DESCRIPTION

#### Provide a detailed description of the proposed Project.

The existing Denniston Wellfield consists of two (2) active and seven (7) inactive shallow groundwater wells (D1 and D9 are active, and D2 through D8 are inactive). The two active wells produce groundwater that is conveyed through the Denniston Conveyance pipeline, where it combines with surface water diverted from Denniston Creek and is treated at the Denniston Water Treatment Plant (WTP). The two active wells currently produce approximately 60 gallons per minute (gpm). Production is limited to periods when water is available to divert from Denniston Creek, because the Denniston WTP requires a minimum flow of at least 300 gpm to operate. Since 2014, after recent upgrades to the Denniston WTP, the Denniston Wellfield has produced on average less than 7 million gallons per year (MGY). All of the wells are approximately 45 years old and have reached the end of their useful life. Seven of the nine wells are currently inactive due to issues such as collapsed or leaning casings or water quality issues.

The District proposes to replace the two (2) active wells and four (4) of the inactive well for a total of six (6) new wells. The project is intended to significantly increase the production from the Denniston. Increased capacity from the Denniston Wellfield would allow the District to operate Denniston WTP for a longer period throughout the year by allowing more water from Denniston Creek to be stored in Denniston Reservoir and extending the period when the minimum 300 gallons per minute is available to operate the WTP. (Note that the Denniston WTP can only be used when the farmer, who has riparian and senior rights on Denniston Creek is not using the water. Coastside CWD has junior rights to the farmer.)

Provide the location, if applicable.

San Mateo County Coastside

Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)).

Potential 20-40+ MGD seasonally; Provides water supply reliability & improves operational efficiency and flexibility





PROJECT DES	SCRIPTION
Project type (check all that apply).	
$\square$ Surface Water	Water Demand Reduction
☐ Transfer	□ Conservation
☐ Groundwater (Recharge)	☐ Land/Water Use Changes
$\square$ Stormwater	☑ Infrastructure/Capital Project
☐ Recycled Water (potable)	☐ Data Gap Filling/Monitoring
☐ Indirect potable reuse	☐ Policy Project
☐ Direct potable reuse	☐ Water Quality Improvement
☐ Recycled Water (non-potable)	☐ Other: Click or tap here to enter text.
☑ Other: Improves water supply reliability	
Source of Outside Water (if applicable):	
Click or tap here to enter text.	
Provide regulatory/legal authority requirements (describe	all that apply).
Permits (name of authority, type of permit):	
CEQA, San Mateo County Permitting (including well drilling Water Resource Control Board	permits;) San Mateo County Environmental Health; State
Click or tap here to enter text.	
Other:	
Click or tap here to enter text.	





COST INFORMATION
Provide capital/up-front cost (\$).
\$2.5M
Provide source(s) of funding for above capital/up-front cost.
Grant funding or self funding.
Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).
\$100K/year
Provide source(s) of funding for above O&M/on-going cost.
Self-funded
SCHEDULE/TIMING INFORMATION
Provide expected kickoff/start date.
1/1/2023
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.
2023-2026
Or. □ Add as an attachment





ADDITIONAL DETAILS
Provide as necessary.
Click or tap here to enter text.

ATTACHMENTS
Provide list of attachments:
Click or tap here to enter text.





Project Name	
San Vicente Creek Water Supply Project	
Agency	Agency Primary/Lead Name & Contact Information
Coastside County Water District	Mary Rogren
	650-276-0889
	mrogren@coastsidewater.org

#### **PROJECT DESCRIPTION**

#### Provide a detailed description of the proposed Project.

In the late 1960's, Coastside Coastside County Water District was issued secondary water rights permits) for surface water diversions on Denniston and San Vicente Creeks located on the San Mateo County coast. Coastside CWD has secondary rights to the brussel sprout farmer on both of these creeks. The most recent extensions for the water rights permits place a deadline of 12/31/2026 for Coastside CWD to perfect water rights on San Vicente and Denniston Creeks.. Coastside actively uses Denniston Creek when there is available water and when the farmer is not using the water source. Water is generally available from December after the first rain through May in normal years. Coastside CWD has a treatment facility located at Denniston Creek.

Coastside CWD has only minimally taken water from San Vicente Creek (in the early 1980's), however the farmer uses the Coastside CWD's diversion structure and the pipe owned by Coastside CWD located easements in the National Park Services land. Again, Coastside has secondary rights to the farmer, and is only able to take water from November 1 to March 31 from this diversion.

In order to perfect its water rights on San Vicente, Coastside CWD has contracted for an engineering design of a pipeline that extends from the farmer's reservoirs to Coastside's raw water pump station. As with the Denniston Creek diversion, Coastside CWD has hurdles in acquiring easements and dealing with various regulatory agencies. Ideally, the goal would be to be to construct the pipeline in 2024.

Provide the location, if applicable.

San Mateo County Coastside

Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)).

A San Vicente diversion could bring additional water resiliency to both the farmer and Coastside CWD (.3-.5 MGD).







PROJECT D	DESCRIPTION
Project type (check all that apply).	
Surface Water	Water Demand Reduction
☐ Transfer	☐ Conservation
$\square$ Groundwater (Recharge)	☐ Land/Water Use Changes
☐ Stormwater	☐ Infrastructure/Capital Project
$\square$ Recycled Water (potable)	☐ Data Gap Filling/Monitoring
$\square$ Indirect potable reuse	☐ Policy Project
☐ Direct potable reuse	☐ Water Quality Improvement
$\square$ Recycled Water (non-potable)	☐ Other: Click or tap here to enter text.
☐ Other: Click or tap here to enter text.	
Source of Outside Water (if applicable):	
Click or tap here to enter text.	
Provide regulatory/legal authority requirements (descri	be all that apply).
Permits (name of authority, type of permit):	
Click or tap here to enter text.	
California Environmental Quality Act (CEQA): EIR for San	Vicente/Denniston was completed in 2015.
Click or tap here to enter text.	
Other:	
CDFW; GGNRA (National Park Service); POST – Peninsula Resources Control Board; Division of Drinking Water	Open Space Trust; Division of Water Rights – State Water





COST INFORMATION
Provide capital/up-front cost (\$).
\$3-4 + FY2023-FY2025 (Investment in Denniston/San Vicente since early 2000's = \$20M)
Provide source(s) of funding for above capital/up-front cost.
Self funded
Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).
\$500K/year
Provide source(s) of funding for above O&M/on-going cost.
Self-funded
SCHEDULE/TIMING INFORMATION
Provide expected kickoff/start date.
Ongoing – In process
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.
FY2026
Or.   Add as an attachment





ADDITIONAL DETAILS	
Provide as necessary.	
Click or tap here to enter text.	

ATTACHMENTS
Provide list of attachments:
Click or tap here to enter text.







Project Name	
Water Reuse (Recycled Water) Feasibility Study	
Agency	Agency Primary/Lead Name & Contact Information
Coastside County Water District	Mary Rogren
	650-276-0889
	mrogren@coastsidewater.org

#### **PROJECT DESCRIPTION**

#### Provide a detailed description of the proposed Project.

As the Water Retailer for the Coastside, Coastside CWD plans to engage in a feasibility study in early 2023 to consider options for implementing water reuse on the Coastside and the possibilities for beneficial uses.

Starting in the late 1990's, Coastside CWD along with other agencies and interested parties on the Coast (including the Sewer Authority Mid Coast) conducted various studies to consider beneficial uses of recycled water. Given the changes in technologies in recent years, Coastside CWD would like to revisit ways in which water reuse could be implemented in an updated feasibility study.

Provide the location, if applicable.

San Mateo County Coastside

Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)).

Supply augmentation (for resiliency) - .5+ MGD





PROJECT DESCRIPTION	
Project type (check all that apply).	
☐ Surface Water	Water Demand Reduction
☐ Transfer	☐ Conservation
☐ Groundwater (Recharge)	☐ Land/Water Use Changes
☐ Stormwater	☐ Infrastructure/Capital Project
⊠ Recycled Water (potable)	☐ Data Gap Filling/Monitoring
$\square$ Indirect potable reuse	☐ Policy Project
☐ Direct potable reuse	☐ Water Quality Improvement
☑ Recycled Water (non-potable)	$\square$ Other: Click or tap here to enter text.
☐ Other: Click or tap here to enter text.	
Source of Outside Water (if applicable):	
Click or tap here to enter text.	
Provide regulatory/legal authority requirements (describe	all that apply).
Permits (name of authority, type of permit):	
Click or tap here to enter text.	
California Environmental Quality Act (CEQA):	
Click or tap here to enter text.	
Other:	
SWRCB; DWR; State of California; County of San Mateo; City of Half Moon Bay; Coastal Commission	





COST INFORMATION
Provide capital/up-front cost (\$).
\$150K+ for initial feasibility study
Provide source(s) of funding for above capital/up-front cost.
Grant and self-funded
Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).
TBD
Provide source(s) of funding for above O&M/on-going cost.
TBD
SCHEDULE/TIMING INFORMATION
Provide expected kickoff/start date.
January 2023
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.
Click or tap here to enter text.
Or, ☐ Add as an attachment





ADDITIONAL DETAILS	
Provide as necessary.	
Click or tap here to enter text.	

	ATTACHMENTS	
Provide list of attachments:		
Click or tap here to enter text.		





Project Name	
Recycled Water Expansion Project Upda	te
Agency	Agency Primary/Lead Name & Contact Information
City of Daly City	Gregory Krauss
	Ward Donnelly
	gkrauss@dalycity.org

#### **PROJECT DESCRIPTION**

#### Provide a detailed description of the proposed Project.

Recycled water project in collaboration with SFPUC – regional (groundwater basin) benefit (do not see the water within Daly City's system)

3 MGD Membrane Filtration Completed Membrane filtration Pilot Program Completed CEQA Defined Pipe Alignment Project @ 30% design.

Provide the location, if applicable.

City of Daly City WWTP -153 Lake Merced Blvd – Daly City

Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)).

TBD-







PROJECT DESCRIPTION	
Project type (check all that apply).	
☐ Surface Water	Water Demand Reduction
$\square$ Transfer	$\square$ Conservation
☐ Groundwater (Recharge)	☐ Land/Water Use Changes
☐ Stormwater	☐ Infrastructure/Capital Project
☑ Recycled Water (potable)	☐ Data Gap Filling/Monitoring
☐ Indirect potable reuse	☐ Policy Project
☐ Direct potable reuse	☐ Water Quality Improvement
☑ Recycled Water (non-potable)	$\square$ Other: Click or tap here to enter text.
☑ Other: Irrigation	
Source of Outside Water (if applicable):	
Click or tap here to enter text.	
Provide regulatory/legal authority requirements (describe	all that apply).
Permits (name of authority, type of permit):	
Click or tap here to enter text.	
California Environmental Quality Act (CEQA):	
Completed	
Other:	
Click or tap here to enter text.	





COST INFORMATION
Provide capital/up-front cost (\$).
Click or tap here to enter text.
Provide source(s) of funding for above capital/up-front cost.
TBD
Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).
TBD
Provide source(s) of funding for above O&M/on-going cost.
TBD
SCHEDULE/TIMING INFORMATION
Provide expected kickoff/start date.
TBD
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.
Click or tap here to enter text.
Or, ☐ Add as an attachment





ADDITIONAL DETAILS	
Provide as necessary.	
Click or tap here to enter text.	

ATTACHMENTS
Provide list of attachments:
Click or tap here to enter text.







Project Name	
Pad D Groundwater Well	
Agency	Agency Primary/Lead Name & Contact Information
City of East Palo Alto	Humza Javed
	650 853 3130
	hjaved@cityofepa.org

#### **PROJECT DESCRIPTION**

#### Provide a detailed description of the proposed Project.

This project is for the construction of a 500 gallon per minute (GPM) groundwater well and associated iron-manganese treatment system to supplement the City's existing water supply. This project will create an emergency source of water supply for the City by drawing groundwater from the Santa Clara Valley Groundwater Basin and San Mateo Sub-Basin. Treatment of the groundwater would be necessary to enable its use for domestic purposes.

Implementation of this project would provide a secondary source of water in the event that the City's existing water supply is unable to meet demand during drought events or emergency conditions. The City's property at East Bayshore and Clarke Avenue, known as Pad D, is the designated site for this well.

The project is fully designed and CEQA is complete. The City is seeking construction funding for the project.

Provide the location, if applicable.

East Bayshore Avenue at Clarke Avenue

Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)).

500gpm or 0.72mgd





PROJECT DESCRIPTION		
Project type (check all that apply).		
☐ Surface Water	Water Demand Reduction	
$\square$ Transfer	☐ Conservation	
☑ Groundwater (Recharge)	☐ Land/Water Use Changes	
☐ Stormwater	☑ Infrastructure/Capital Project	
☐ Recycled Water (potable)	☐ Data Gap Filling/Monitoring	
☐ Indirect potable reuse	☐ Policy Project	
☐ Direct potable reuse	☐ Water Quality Improvement	
☐ Recycled Water (non-potable)	☐ Other: Click or tap here to enter text.	
☐ Other: Click or tap here to enter text.		
Source of Outside Water (if applicable):		
Click or tap here to enter text.		
Provide regulatory/legal authority requirements (describe	e all that apply).	
Permits (name of authority, type of permit):		
State Water Resources Control Board		
California Environmental Quality Act (CEQA):		
EIR certified		
Other:		
Click or tap here to enter text.		





COST INFORMATION	
Provide capital/up-front cost (\$).	
\$3,100,000	
Provide source(s) of funding for above capital/up-front cost.	
Click or tap here to enter text.	
Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).	
50,000	
Provide source(s) of funding for above O&M/on-going cost.	
Click or tap here to enter text.	
SCHEDULE/TIMING INFORMATION	
Provide expected kickoff/start date.	
Pending construction funding	
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.	
Click or tap here to enter text.	
Or. □ Add as an attachment	





ADDITIONAL DETAILS	
Provide as necessary.	
Click or tap here to enter text.	

ATTACHMENTS
Provide list of attachments:
Click or tap here to enter text.







Project Name	
New Recycled Water System	
Agency	Agency Primary/Lead Name & Contact Information
City of East Palo Alto	Humza Javed
	650 853 3130
	hjaved@cityofepa.org

#### **PROJECT DESCRIPTION**

#### Provide a detailed description of the proposed Project.

This project will create recycled water system infrastructure to serve the City of East Palo Alto. The Palo Alto Regional Water Quality Control Plant (RWQCP) has the capability to produce approximately 4.5 MGD of recycled water. The RWQCP only produces 14% of its current capacity and it plans to expand the system to meet recycled water demands in the future.

The City of East Palo Alto has a list of 11 users that could benefit from recycled water in the amount of 22MG per year.

Provide the location, if applicable.

City wide

Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)).

22MG per year or 0.06MGD





PROJECT DESCRIPTION	
Project type (check all that apply).	
$\square$ Surface Water	Water Demand Reduction
☐ Transfer	☐ Conservation
$\square$ Groundwater (Recharge)	☐ Land/Water Use Changes
☐ Stormwater	☑ Infrastructure/Capital Project
⊠ Recycled Water (potable)	☐ Data Gap Filling/Monitoring
☐ Indirect potable reuse	☐ Policy Project
☐ Direct potable reuse	☐ Water Quality Improvement
$\square$ Recycled Water (non-potable)	☐ Other: Click or tap here to enter text.
☐ <b>Other:</b> Click or tap here to enter text.	
Source of Outside Water (if applicable):	
Click or tap here to enter text.	
Provide regulatory/legal authority requirements (describ	pe all that apply).
Permits (name of authority, type of permit):	
California Environmental Quality Act (CEQA):	
Other:	
Click or tap here to enter text.	





COST INFORMATION	
Provide capital/up-front cost (\$).	
Provide source(s) of funding for above capital/up-front cost.	
Click or tap here to enter text.	
Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).	
Click or tap here to enter text.	
Provide source(s) of funding for above O&M/on-going cost.	
Click or tap here to enter text.	
SCHEDULE/TIMING INFORMATION	
Provide expected kickoff/start date.	
Pending construction funding	
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.	
Click or tap here to enter text.	
Or, ☐ Add as an attachment	





ADDITIONAL DETAILS	
Provide as necessary.	
Click or tap here to enter text.	

ATTACHMENTS
Provide list of attachments:
Click or tap here to enter text.







Project Name	
Recycled Water Expansion	
Agency	Agency Primary/Lead Name & Contact Information
Foster City	Enter name and credentials here.
	Enter phone number here.
	Enter email address here.

#### **PROJECT DESCRIPTION**

#### Provide a detailed description of the proposed Project.

Projects identified below are, as of now, are in the conceptual stage:

- Wastewater treatment plant expansion to produce reclaimed water and have the capacity to produce Title 22 Recycled Water.
- Prospective work to bring recycled water to Gilead Sciences' corporate campus.
- Acquiring recycled water from Redwood City
- Potential discussion of recycled water in future Capital Improvement Plan

#### Provide the location, if applicable.

Click or tap here to enter text.

Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)).

Click or tap here to enter text.





PROJECT DESCRIPTION		
Project type (check all that apply).		
☐ Surface Water	Water Demand Reduction	
$\square$ Transfer	☐ Conservation	
☐ Groundwater (Recharge)	☐ Land/Water Use Changes	
☐ Stormwater	☐ Infrastructure/Capital Project	
☐ Recycled Water (potable)	☐ Data Gap Filling/Monitoring	
☐ Indirect potable reuse	☐ Policy Project	
☐ Direct potable reuse	☐ Water Quality Improvement	
☑ Recycled Water (non-potable)	☐ Other: Click or tap here to enter text.	
☐ Other: Click or tap here to enter text.		
Source of Outside Water (if applicable):		
Click or tap here to enter text.		
Provide regulatory/legal authority requirements (describe	e all that apply).	
Permits (name of authority, type of permit):		
Click or tap here to enter text.		
California Environmental Quality Act (CEQA):		
Click or tap here to enter text.		
Other:		
Click or tap here to enter text.		





COST INFORMATION		
Provide capital/up-front cost (\$).		
Provide source(s) of funding for above capital/up-front cost.		
Click or tap here to enter text.		
Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).		
Click or tap here to enter text.		
Provide source(s) of funding for above O&M/on-going cost.		
Click or tap here to enter text.		
SCHEDULE/TIMING INFORMATION		
Provide expected kickoff/start date.		
Wastewater treatment plant expansion expected to finish mid-end 2024.		
Duovide timefuene to come overeted comply/demand/ether grountifichle homefite		
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.		
Click or tap here to enter text.		
Or, ☐ Add as an attachment		





ADDITIONAL DETAILS		
Provide as necessary.		
Click or tap here to enter text.		

ATTACHMENTS		
Provide list of attachments:		
Click or tap here to enter text.		





Project Name	
Recycled Water Master Plan	
Agency	Agency Primary/Lead Name & Contact Information
City of Hayward	Cheryl Muñoz, Water Resources Manager
	Cheryl.munoz@hayward-ca.gov
	510-583-4701

#### **PROJECT DESCRIPTION**

#### Provide a detailed description of the proposed Project.

The City began delivery of recycled water in March 2022. The estimated average deliveries are expected to be about 260,000 gallons per day to 31 customers. Hayward constructed 8.5 miles of pipeline, a 0.5 MGD membrane treatment facility, and a 500,000 gallon storage tank. The City is planning to prepare a Recycled Water Master Plan to evaluate the feasibility of expanding the system. Key components of this update will include a market survey and assessment determine future customers, conceptual expansion of the distribution and storage systems, and treatment options.

At this point, we have no information regarding specific location, costs estimates, funding sources or schedule. These factors will be considered as part of the master plan and future decision making.

#### Groundwater

- Hayward GSA is actively coordinating with the EBMUD GSA on implementation of the GSP for the East Bay Plain Subbasin.
- Emergency supply wells are **planned** for use as extraction-only wells to provide supplemental water supply to Hayward in the event of a short-term emergency, such as an earthquake that interrupts surface water supplies. No date yet.

#### Provide the location, if applicable.

The evaluation will focus on expansion of the existing distribution system as shown on this linked document, however, no specific information is available about location:

https://www.hayward-ca.gov/your-government/departments/utilities-environmental-services/recycled-water







#### PROJECT DESCRIPTION Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)). Estimated quantities will be determined as part of the master plan. Project type (check all that apply). Water Demand Reduction ☐ Surface Water ☐ Conservation ☐ Transfer ☐ Land/Water Use Changes ☐ Groundwater (Recharge) ☑ Infrastructure/Capital Project ☐ Stormwater ☐ Data Gap Filling/Monitoring ☐ Recycled Water (potable) $\square$ Indirect potable reuse ☐ Policy Project ☐ Water Quality Improvement ☐ Direct potable reuse ☐ Other: Click or tap here to enter text. □ Recycled Water (non-potable) ☐ Other: Click or tap here to enter text. Source of Outside Water (if applicable): Click or tap here to enter text. Provide regulatory/legal authority requirements (describe all that apply). Permits (name of authority, type of permit): To be determined State Water Resources Control Board: To be determined California Environmental Quality Act (CEQA): To be determined Environmental Impact Report: To be determined

Click or tap here to enter text.

Other:





COST INFORMATION			
Provide capital/up-front cost (\$).			
To be determined			
Provide source(s) of funding for above capital/up-front cost.			
To be determined			
Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).			
To be determined			
Provide source(s) of funding for above O&M/on-going cost.			
To be determined			
SCHEDULE/TIMING INFORMATION			
Provide expected kickoff/start date.			
To be determined			
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.			
To be determined			
Or, ☐ Add as an attachment			





ADDITIONAL DETAILS		
Provide as necessary.		
Click or tap here to enter text.		

ATTACHMENTS		
Provide list of attachments:		
Click or tap here to enter text.		







Project Name		
Bayfront Recycled Water Project		
Agency	Agency Primary/Lead Name & Contact Information	
City of Menlo Park (WBSD is purveyor of the project)	Fariborz Heydari	
	650-330-6773	
	faheydari@menlopark.org	

#### **PROJECT DESCRIPTION**

#### Provide a detailed description of the proposed Project.

West Bay Sanitary District (WBSD) to bring recycled water to Menlo Park Few years out to providing recycled water to community

Other potential projects (if explored, should be included in a separate Project Info Form): Potential emergency groundwater supply Look into on-site reuse

#### Provide the location, if applicable.

Constructing new facility in Bayfront area

Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)).

220 AFY of recycled water to commercial customers in Bayfront





PROJECT DESCRIPTION	
Project type (check all that apply).	
☐ Surface Water	Water Demand Reduction
$\square$ Transfer	☐ Conservation
$\square$ Groundwater (Recharge)	☐ Land/Water Use Changes
☐ Stormwater	☐ Infrastructure/Capital Project
$\square$ Recycled Water (potable)	☐ Data Gap Filling/Monitoring
$\square$ Indirect potable reuse	☐ Policy Project
☐ Direct potable reuse	☐ Water Quality Improvement
☑ Recycled Water (non-potable)	☐ Other: Click or tap here to enter text.
$\Box$ Other: Click or tap here to enter text.	
Source of Outside Water (if applicable):	
Click or tap here to enter text.	
Provide regulatory/legal authority requirements (describe	all that apply).
Permits (name of authority, type of permit):	
West Bay is working with the Army Corp to get permit for coprotect it from FEMA 100-yr flood.	nstructing levees around the recycled water facilities to
California Environmental Quality Act (CEQA):	
West Bay completed CEQA and EIR in 2021.	
Other:	
Click or tap here to enter text.	
COST INFORMATION	
Provide capital/up-front cost (\$). 4 alternative cost comparisons (\$4,900 - \$7,500 per AF) Capital	costs: between \$14,400,000 and \$32,955,000





COST INFORMATION
Provide source(s) of funding for above capital/up-front cost.  Typically, recycled water projects are financed through a combination of grants, partnerships relative to project benefits, and at times, the CWSRF.
Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).  Between \$1,069,000 and \$2,217,000
Provide source(s) of funding for above O&M/on-going cost.  Funding opportunities possible for the project: Integrated Regional Water Management (IRWM) Program funding US Bureau of Reclamation (USBR) WaterSMART: Title XVI Water Reclamation and Reuse Program SWRCB CWSRF/ Water Recycling Funding Program (WRFP) California Infrastructure and Economic Development Bank (I-Bank) Infrastructure State Revolving Fund (ISRF) Program

SCHEDULE/TIMING INFORMATION
Provide expected kickoff/start date.
Fall 2025
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.
2027
Or, $\square$ Add as an attachment







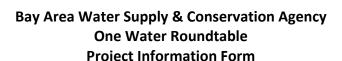
ADDITIONAL DETAILS
Provide as necessary.
May be another report published later

### **ATTACHMENTS**

**Provide list of attachments:** 

Bayfront Recycled Water Facilities Plan Final Report







Project Name	
Chlorine Booster Stations and Mixers	
Agency	Agency Primary/Lead Name & Contact Information
Mid-Peninsula Water District	Kat Wuelfing
	650-591-8941
	kwuelfing@midpeninsulawater.org

#### PROJECT DESCRIPTION

### Provide a detailed description of the proposed Project.

Currently, MPWD's ability to fully utilize our storage tanks is limited due to water quality issues that result from nitrification from water being stored for too long. In order to reduce the risk of nitrification (which results in a need to dump otherwise usable water), the District manages the operation of our tanks to ensure enough flow through the system, such that our tanks are rarely full. The lower the flow through the system (that is, the lower the customer demand), the more chlorine residuals from SFPUC treatment drop and less the District is able to utilize the storage capacity in the tanks. In situations of severe supply shortfalls (such as under the Bay Delta Plan Amendment implementation scenario), the District's ability to maintain water quality in the system will be further reduced. Even under normal conditions with no supply shortfalls, this underutilization of storage capacity results in reduced reserves available for fireflow or other emergency situations.

By installing chlorine booster stations and mixers in the system, the District would be able to keep more water in the storage tanks without running the risk of needing to dump potentially millions of gallons of water, resulting in (1) reduced water loss, (2) increased water quality, (3) increased fireflow storage, and (4) increased drought and emergency resilience.

MPWD understands that many other BAWSCA agencies face very similar operational constraint issues and thus a regionally funded chlorine booster station installation program could result in great benefits to the RWS for drought and emergency resilience.

Provide the location, if applicable.

MPWD's Dekoven tank site

Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)).

I don't have this available right now.







PROJECT DE	SCRIPTION
Project type (check all that apply).	
☐ Surface Water	Water Demand Reduction
$\square$ Transfer	□ Conservation
☐ Groundwater (Recharge)	☐ Land/Water Use Changes
☐ Stormwater	☑ Infrastructure/Capital Project
☐ Recycled Water (potable)	☐ Data Gap Filling/Monitoring
☐ Indirect potable reuse	☐ Policy Project
☐ Direct potable reuse	☑ Water Quality Improvement
☐ Recycled Water (non-potable)	☐ Other: Click or tap here to enter text.
☐ <b>Other:</b> Click or tap here to enter text.	
Source of Outside Water (if applicable):	
Click or tap here to enter text.	
Provide regulatory/legal authority requirements (describe	all that apply).
Permits (name of authority, type of permit):	
I don't have this information right now.	
California Environmental Quality Act (CEQA):	
Click or tap here to enter text.	
Other:	
Click or tap here to enter text.	





COST INFORMATION
Provide capital/up-front cost (\$).
Roughly \$1 million
Provide source(s) of funding for above capital/up-front cost.
Not yet identified
Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).
Not identified.
Provide source(s) of funding for above O&M/on-going cost.
Would need to be worked into MPWD operating budget
SCHEDULE/TIMING INFORMATION
Provide expected kickoff/start date.
unknown
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.
Click or tap here to enter text Or.   Add as an attachment





ADDITIONAL DETAILS
Provide as necessary.
Click or tap here to enter text.

ATTACHMENTS	
Provide list of attachments:	
Click or tap here to enter text.	





Project Name	
Potable Groundwater Supply Development	
Agency	Agency Primary/Lead Name & Contact Information
Mid-Peninsula Water District	Kat Wuelfing
	650-591-8941
	kwuelfing@midpeninsulawater.org

#### PROJECT DESCRIPTION

#### Provide a detailed description of the proposed Project.

The proposed MPWD Potable Groundwater Supply Development project consists of completing a new groundwater well for dry year supply purposes with an anticipated capacity at 200 gallons per minute (gpm). A preliminary hydrogeologic analysis has been conducted (Preliminary Assessment of Groundwater Production Potential, EKI, 2021) and a potential site for this well has been identified near the Belmont Sports Complex on the east side of Highway 101, on public land owned by the City of Belmont. The project will include conducting the necessary engineering design, permitting, environmental documentation, construction, startup and testing. Project construction includes first completing a test well, from which the production well will be designed and constructed. The new well will be constructed with necessary downhole and above grade equipment, site improvements, and treatment facilities. When completed, the project will provide approximately 161 acre-feet per year (AFY) of local groundwater supply. Development of this new local groundwater supply source will reduce demands on imported RWS water and will result in reduced dependence on surface water supplies that are conveyed through sensitive freshwater habitat.

### Provide the location, if applicable.

Northern portion of the District near the Belmont Sports Complex

Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)).

Dry year supply augmentation, estimated at 0.14 MGD (or 161 AFY)







PROJECT DES	CRIPTION
Project type (check all that apply).	
☐ Surface Water	Water Demand Reduction
☐ Transfer	☐ Conservation
☐ Groundwater (Recharge)	☐ Land/Water Use Changes
☐ Stormwater	☐ Infrastructure/Capital Project
$\square$ Recycled Water (potable)	☐ Data Gap Filling/Monitoring
☐ Indirect potable reuse	☐ Policy Project
☐ Direct potable reuse	☐ Water Quality Improvement
$\square$ Recycled Water (non-potable)	☐ Other: Click or tap here to enter text.
☑ Other: Groundwater development (not a recharge project)	
Source of Outside Water (if applicable):	
Click or tap here to enter text.	
Provide regulatory/legal authority requirements (describe	all that apply).
Permits (name of authority, type of permit):	
SWRCB – amendment to MPWD domestic water supply per	mit; San Mateo County well construction permit
California Environmental Quality Act (CEQA):	
Required, not yet done	
Other:	
Click or tap here to enter text.	





COST INFORMATION
Provide capital/up-front cost (\$).
\$4mill
Provide source(s) of funding for above capital/up-front cost.
Not yet identified
Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).
\$17,000
Provide source(s) of funding for above O&M/on-going cost.
Would need to be worked into MPWD operating budget
SCHEDULE/TIMING INFORMATION
Provide expected kickoff/start date.
unknown
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.
Approx. 3 years from start
Or, ☐ Add as an attachment





ADDITIONAL DETAILS
Provide as necessary.
Click or tap here to enter text.

ATTACHMENTS	
Provide list of attachments:	
Click or tap here to enter text.	





Project Name	
NO-DES Water Main Flushing Truck or Trailer	
Agency	Agency Primary/Lead Name & Contact Information
Mid-Peninsula Water District	Kat Wuelfing
	650-591-8941
	kwuelfing@midpeninsulawater.org

### **PROJECT DESCRIPTION**

Provide a detailed description of the proposed Project.

Flushing is a necessary part of distribution system maintenance. Traditional flushing methods result in a significant amount of non-revenue water, that can be considered water loss as it is not used directly by a customer (i.e., is typically flushed right into a storm drain). The District does not flush its system during drought conditions in order to reduce water demand. Even when there is no supply shortfall, the District is limited in its ability to perform this necessary maintenance due to public perception of the District "wasting" water. The District is therefore interested in a NO-DES flushing system (either trailer or truck; https://www.no-des.com/), which would allow the District to perform system flushing without discharging water to the storm drain. Given the size of the District and that these trucks are costly to purchase and maintain, we would be potentially interested in pursuing some sort of sharing model with other agencies that would see similar benefits from using such a truck.

Provide the location, if applicable.

MPWD system-wide

Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)).

I don't have this available right now.





PROJECT DESCRIPTION		
Project type (check all that apply).		
☐ Surface Water	Water Demand Reduction	
☐ Transfer	□ Conservation	
$\square$ Groundwater (Recharge)	☐ Land/Water Use Changes	
☐ Stormwater	☑ Infrastructure/Capital Project	
☐ Recycled Water (potable)	☐ Data Gap Filling/Monitoring	
$\square$ Indirect potable reuse	☐ Policy Project	
$\square$ Direct potable reuse	☑ Water Quality Improvement	
$\square$ Recycled Water (non-potable)	☐ Other: Click or tap here to enter text.	
☐ Other: Click or tap here to enter text.		
Source of Outside Water (if applicable):		
Click or tap here to enter text.		
Provide regulatory/legal authority requirements (describe all that apply).		
Permits (name of authority, type of permit):		
N/a		
California Environmental Quality Act (CEQA):		
N/a		
Other:		
Click or tap here to enter text.		





COST INFORMATION		
Provide capital/up-front cost (\$).		
Not available		
Provide source(s) of funding for above capital/up-front cost.		
Not available		
Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).		
Not available		
Provide source(s) of funding for above O&M/on-going cost.		
Would need to be worked into MPWD operating budget		
SCHEDULE/TIMING INFORMATION		
Provide expected kickoff/start date.		
unknown		
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.		
Click or tap here to enter text. Or.   Add as an attachment		





ADDITIONAL DETAILS
Provide as necessary.
Click or tap here to enter text.

ATTACHMENTS	
Provide list of attachments:	
Click or tap here to enter text.	





Project Name	
City of Millbrae Recycled Water Feasik	pility Study
Agency	Agency Primary/Lead Name & Contact Information
City of Millbrae	Craig Centis, Deputy Director of Public Works
	650-259-2376
	ccentis@ci.millbrae.ca.us

### PROJECT DESCRIPTION

### Provide a detailed description of the proposed Project.

The City of Millbrae (City) is in the early planning phase of a new recycled water program. Currently, the City is preparing a Recycled Water Feasibility Study (Study) to evaluate implementation of a City-wide recycled water program. The City would produce and deliver recycled water for the irrigation of existing landscape sites and future development. The Study is partially funded by a planning grant from the State Water Resources Control Board's Water Recycling Funding Program. The Study is planned to be completed by Spring of 2023.

A recycled water market assessment has been completed as part of this study. The assessment estimated potential recycled water demands of City parks and schools, as well as a privately-owned golf course. Potential recycled water demands of planned new development within the City was also included. A total City-wide demand of 62 million gallons was identified. As part of the market assessment, the potential for regional partnership with neighboring communities was also explored. The City has conducted outreach to potential partners of the City of Burlingame, City of San Bruno, Cal Water (purveyor of South San Francisco), the San Francisco Public Utilities Commission, and San Francisco International Airport. The City has also reached out to Caltrans to be a potential recycled water customer of the City.

The Study includes preliminary planning, sizing, and development of design criteria for new recycled water treatment facilities to be located at the City's Water Pollution Control Plant and for a recycled water distribution system to deliver water to recycled water customers. Construction will be phased and will allow for future expansion of the treatment and distribution systems. Alternative treatment options and distribution system alignments along with estimated project costs will be developed. The developed alternatives will be further analyzed to select a recommended project.

Provide the	e location, i	f applica	able.
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City of Millbrae









### PROJECT DESCRIPTION

Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)).

This project will provide a benefit of 0.17 MGD new recycled water supply and an equivalent potable water demand offset. This benefit could increase if neighboring communities move forward with developing a recycled water program within their service area and partner with Millbrae to implement a regional program.

Project type (check all that apply).	
☐ Surface Water	Water Demand Reduction
☐ Transfer	☐ Conservation
☐ Groundwater (Recharge)	☐ Land/Water Use Changes
☐ Stormwater	☐ Infrastructure/Capital Project
☐ Recycled Water (potable)	☐ Data Gap Filling/Monitoring
$\square$ Indirect potable reuse	☐ Policy Project
$\square$ Direct potable reuse	☐ Water Quality Improvement
☑ Recycled Water (non-potable)	☐ Other: Click or tap here to enter text.
☐ Other: Click or tap here to enter text.	
Source of Outside Water (if applicable):	
Click or tap here to enter text.	







#### PROJECT DESCRIPTION

Provide regulatory/legal authority requirements (describe all that apply).

Permits (name of authority, type of permit):

Recycled Water Permit, State Water Resources Control Board
NPDES permit for the production of recycled water, San Francisco Bay Regional Water Quality Control Board

California Environmental Quality Act (CEQA):

CEQA documents will be prepared. CEQA documentation will include federal cross cutters to comply with federal funding requirements.

Other:

Construction related permits to be determined during design.

#### **COST INFORMATION**

### Provide capital/up-front cost (\$).

Estimated project costs are being developed as part of the City's Feasibility Study. Initial conceptual level capital costs for treatment and distribution are estimated to be around \$50 million. Distribution alignments, treatment options, and phasing alternatives are being refined and may result in revised estimated costs.

### Provide source(s) of funding for above capital/up-front cost.

Grants, loans, and local funding. The City has secured a planning grant for preparation of the Recycled Water Feasibility Study. Additionally, the City was selected to receive an EPA Community Grant that will be used towards the design phase of the project.

### Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).

Currently being developed. Expected to be available in Spring 2023 with the final feasibility study.

### Provide source(s) of funding for above O&M/on-going cost.

Connection fees, rates, and local funding.









SCHEDULE/TIMING INFORMATION		
Provide expected kickoff/start date.		
Study completion date: Spring 2023 Start of construction: 2027 End of construction: 2028 Recycled water deliveries: Spring 2029		
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.		
Approximately 7 to 10 years. Project implementation could be accelerated if additional funding is obtained.		
Or, $\square$ Add as an attachment		
ADDITIONAL DETAILS		
Provide as necessary.		
Click or tap here to enter text.		





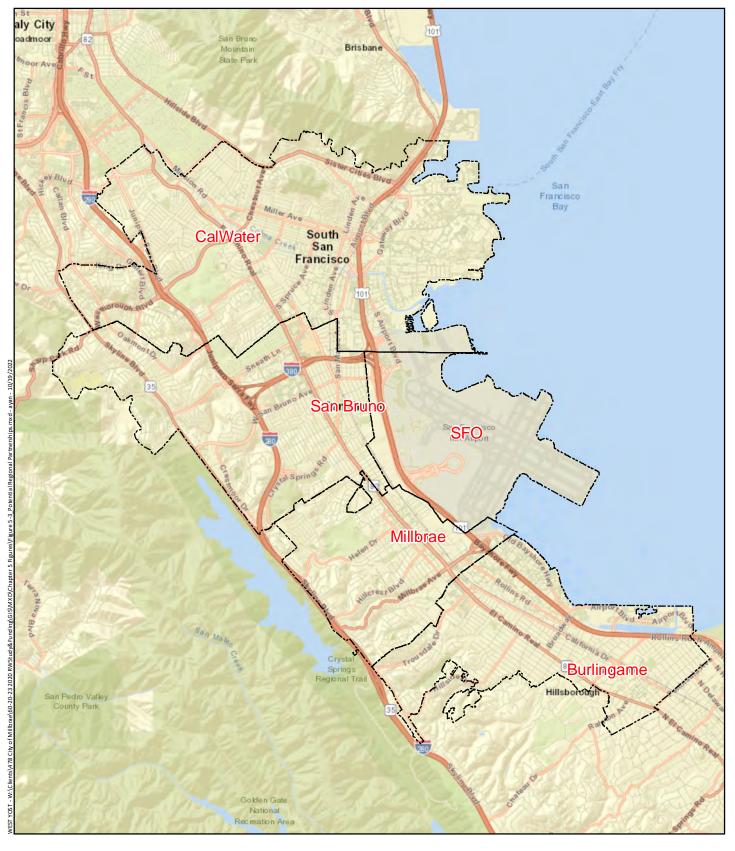
### **ATTACHMENTS**

### **Provide list of attachments:**

Figure 5-1 shows preliminary locations of potential recycled water customers in the City.

Figure 5-3 identifies neighboring communities that were contacted to discuss potential partnership of a regional recycled water program.





City Boundaries

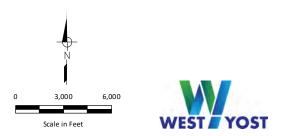
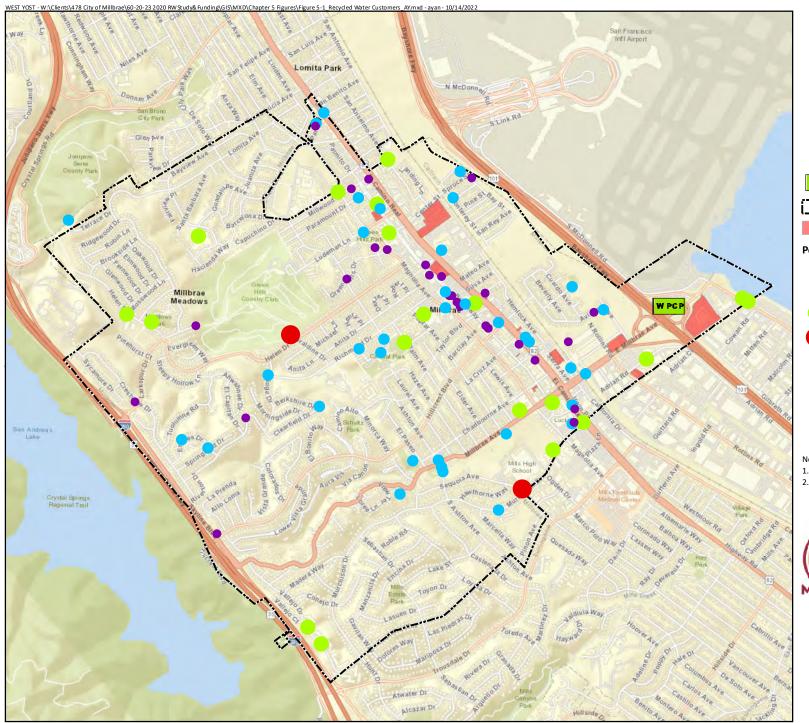
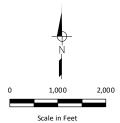


Figure 5-3
Potential Regional
Partnerships

City of Millbrae Recycled Water Feasibility Study





W PCP Millbrae WPCP

City Boundary

Active Development Areas

### **Potential RW Customer Demand**

- Less than 100 gpd
- 100 gpd to 1,000 gpd
- 1,000 gpd to 10,000 gpd
- Greater than 10,000 gpd

#### Note

- 1. gpd = gallons per day
- Potential RW customer demand based on total billed irrigation consumption in the 2020 calendar year.



Figure 5-1

### Potential Recycled Water Customers within the City

City of Millbrae Recycled Water Feasibility Study





Project Name	
Curtis Well	
Agency	Agency Primary/Lead Name & Contact Information
City of Milpitas	Harris Siddiqui
	408-205-8980
	hsiddiqui@milpitas.gov

#### **PROJECT DESCRIPTION**

### Provide a detailed description of the proposed Project.

This project will install submersible pump(s), piping and treatment components to construct Curtis Well. Groundwater wells expand the City's water supply portfolio, reduces reliance on wholesale water purchases and offsets some of the emergency storage requirement.

The 2020 Water Master Plan evaluated the City's water system for supply, storage, and pumping capacities, as well as its ability to meet recommended performance and operational criteria under various demand and emergency scenarios. The evaluation of the future water system for storage capacity reveals a 4.11 MG storage surplus in Zones SF1/SF2 and a deficit of 5.97 MG in Zones VW1/VW2. Since stored SFPUC water at Gibraltar can be delivered to Valley Water customers, the 4.11 MG surplus in Zones SF1/SF2 can reduce the Valley Water service area shortfall, but 1.86 MG storage deficit remains. Construction of a new 2 MG storage area is recommended to address the remaining deficit and a new pump station to deliver water stored in this new reservoir. In addition, groundwater wells will help address the storage capacity deficiency by providing an emergency groundwater storage credit.

The City has one existing fully developed well, Pinewood Well and two in development: Curtis Well and McCandless Well. The Pinewood well is permitted as an emergency well. The Curtis Well was drilled in 2003, but the well was not equipped with above-grade infrastructure required for a functioning well, and the facility was never completed. As a result, bringing the Curtis Well online requires installing a submersible pump, piping, and treatment components, as well as conducting testing and permitting. Design for the Curtis Well improvements began in 2020. Construction of the McCandless Well began in 2020 and is anticipated to be completed by 2022. At buildout (estimated by the year 2040), it is assumed that Curtis Well and McCandless Well would be available in emergencies.

Groundwater can also supplement reduced supplies from the SFPUC or Valley Water during prolonged droughts. The City expects to rely on groundwater to augment supplies and meet demands during future dry years. The Pinewood, Curtis, and McCandless wells, in addition to other future wells described in the City's 2020 UWMP that are triggered by future development in the City's service area, are critical components of the City's future water supply portfolio.







PROJECT DESCRIPTION	
Provide the location, if applicable.	
Curtis Well - 330 East Curtis Avenue	
Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)).	
For Supply augmentation: Curtis Well 400 gpm (0.58 mgd) to	o serve Zone VW2
Project type (check all that apply).	
☐ Surface Water	Water Demand Reduction
☐ Transfer	☐ Conservation
☐ Groundwater (Recharge)	☐ Land/Water Use Changes
☐ Stormwater	⊠Infrastructure/Capital Project
☐ Recycled Water (potable)	☐ Data Gap Filling/Monitoring
☐ Indirect potable reuse	☐ Policy Project
☐ Direct potable reuse	☐ Water Quality Improvement
☐ Recycled Water (non-potable)	☐ Other: Click or tap here to enter text.
☐ Other: Click or tap here to enter text.	
Source of Outside Water (if applicable):	
Click or tap here to enter text.	



Click or tap here to enter text.





PROJECT DESCRIPTION
Provide regulatory/legal authority requirements (describe all that apply).
Permits (name of authority, type of permit):
City Building permit, City Fire permit, State permit to operate the well
California Environmental Quality Act (CEQA):
N/A. Wells are identified as Exempted from CEQA per (amended) TASP EIR.
Othor:

COST INFORMATION
Provide capital/up-front cost (\$).
\$6M - \$7M
Provide source(s) of funding for above capital/up-front cost.
TASP Fees
Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).
N/A
Provide source(s) of funding for above O&M/on-going cost.
Water M&O Fund

	SCHEDULE/TIMING INFORMATION
Provide expected kickoff/start date.	
Ongoing	





### **SCHEDULE/TIMING INFORMATION**

Provide timeframe to accrue expected supply/demand/other quantifiable benefits.

The 400 gpm (0.58 mgd) well capacity will help address some of the storage capacity deficiency identified at buildout by providing emergency groundwater storage credit.

Or, ⊠ Add as an attachment

ADDITIONAL DETAILS	
Provide as necessary.	
Click or tap here to enter text.	

ATTACHMENTS
Provide list of attachments:
Water Master Plan
2020 Water Shortage Contingency Plan
2020 Urban Water Management Plan





Project Name	
McCandless Well	
Agency	Agency Primary/Lead Name & Contact Information
City of Milpitas	Harris Siddiqui
	408-205-8980
	hsiddiqui@milpitas.gov

#### PROJECT DESCRIPTION

### Provide a detailed description of the proposed Project.

This project provides for design, construction, and installation of the existing and new Wells as recommended by the Water Supply Augmentation Feasibility Report, March 2015. Project includes the design and construction of a new Well at McCandless Park site to serve the Midtown and Metro Specific Plan (TASP) areas; installation of a treatment facilities at Curtis Well; and improvements to the facilities at Pinewood Well.

The 2020 Water Master Plan evaluated the City's water system for supply, storage, and pumping capacities, as well as its ability to meet recommended performance and operational criteria under various demand and emergency scenarios. The evaluation of the future water system for storage capacity reveals a 4.11 MG storage surplus in Zones SF1/SF2 and a deficit of 5.97 MG in Zones VW1/VW2. Since stored SFPUC water at Gibraltar can be delivered to Valley Water customers, the 4.11 MG surplus in Zones SF1/SF2 can reduce the Valley Water service area shortfall, but 1.86 MG storage deficit remains. Construction of a new 2 MG storage area is recommended to address the remaining deficit and a new pump station to deliver water stored in this new reservoir. In addition, groundwater wells will help address the storage capacity deficiency by providing an emergency groundwater storage credit.

The City has one existing fully developed well, Pinewood Well and two in development: Curtis Well and McCandless Well. The Pinewood well is permitted as an emergency well. The Curtis Well was drilled in 2003, but the well was not equipped with above-grade infrastructure required for a functioning well, and the facility was never completed. As a result, bringing the Curtis Well online requires installing a submersible pump, piping, and treatment components, as well as conducting testing and permitting. Design for the Curtis Well improvements began in 2020. Construction of the McCandless Well began in 2020 and is anticipated to be completed by 2022. At buildout (estimated by the year 2040), it is assumed that Curtis Well and McCandless Well would be available in emergencies.

Groundwater can also supplement reduced supplies from the SFPUC or Valley Water during prolonged droughts. The City expects to rely on groundwater to augment supplies and meet demands during future dry years. The Pinewood, Curtis, and McCandless wells, in addition to other future wells described in the City's 2020 UWMP that are triggered by future development in the City's service area, are critical components of the City's future water supply portfolio.







PROJECT DESCRIPTION	
Provide the location, if applicable.	
McCandless Well - Near 1680 McCandless Drive	
Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)).	
For Supply augmentation: McCandless Well 400 gpm (0.58 mgd) to serve VW1 zone	
Project type (check all that apply).	
☐ Surface Water	Water Demand Reduction
☐ Transfer	☐ Conservation
☐ Groundwater (Recharge)	☐ Land/Water Use Changes
☐ Stormwater	☑ Infrastructure/Capital Project
☐ Recycled Water (potable)	☐ Data Gap Filling/Monitoring
☐ Indirect potable reuse	☐ Policy Project
☐ Direct potable reuse	☐ Water Quality Improvement
☐ Recycled Water (non-potable)	☐ Other: Click or tap here to enter text.
☐ Other: Click or tap here to enter text.	
Source of Outside Water (if applicable):	
Click or tap here to enter text.	







## PROJECT DESCRIPTION

Provide regulatory/legal authority requirements (describe all that apply).

Permits (name of authority, type of permit):

City Building permit, City Fire permit, State permit to operate the well

California Environmental Quality Act (CEQA):

CEQA for Water Well Permit

Other:

Click or tap here to enter text.

COST INFORMATION	
Provide capital/up-front cost (\$).	
\$6M - \$7M	
Provide source(s) of funding for above capital/up-front cost.	
Water Capital Surcharge	
Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).	
NA	
Provide source(s) of funding for above O&M/on-going cost.	
Water M&O Fund	

### SCHEDULE/TIMING INFORMATION

Provide expected kickoff/start date.

2020







### **SCHEDULE/TIMING INFORMATION**

Provide timeframe to accrue expected supply/demand/other quantifiable benefits.

The 400 gpm (0.58 mgd) well capacity will help address some of the storage capacity deficiency identified at buildout by providing emergency groundwater storage credit. The facilities are anticipated to be completed by FY2025-26.

Or, ⊠ Add as an attachment

ADDITIONAL DETAILS
Provide as necessary.
Click or tap here to enter text.

ATTACHMENTS
Provide list of attachments:
Water Master Plan
2020 Water Shortage Contingency Plan
2020 Urban Water Management Plan







Project Name	
Recycled Water System Expansion	
Agency	Agency Primary/Lead Name & Contact Information
City of Mountain View	Tina Tseng, Principal Engineer
	650-903-6787
	Tina.Tseng@MountainView.gov

### **PROJECT DESCRIPTION**

### Provide a detailed description of the proposed Project.

Construct a recycled water storage tank and complete pipeline installations in the North Bayshore Area, as recommended in the 2022 Recycled Water Feasibility Study. Project includes approximately 2.0 MG storage tank and 25,000 linear feet of new and/or upsized pipelines ranging from 6 to 18" in diameter.

Provide the location, if applicable.

City of Mountain View North Bayshore Area

Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)).

0.98 MGD





PROJECT DESCRIPTION						
Project type (check all that apply).						
☐ Surface Water	Water Demand Reduction					
☐ Transfer	☐ Conservation					
☐ Groundwater (Recharge)	☐ Land/Water Use Changes					
☐ Stormwater	☐ Infrastructure/Capital Project					
☐ Recycled Water (potable)	☐ Data Gap Filling/Monitoring					
☐ Indirect potable reuse	☐ Policy Project					
☐ Direct potable reuse	☐ Water Quality Improvement					
⊠ Recycled Water (non-potable)	☐ Other: Click or tap here to enter text.					
☐ Other: Click or tap here to enter text.						
Source of Outside Water (if applicable):						
Click or tap here to enter text.						
Provide regulatory/legal authority requirements (describe all that apply).						
Permits (name of authority, type of permit):						
Click or tap here to enter text.						
California Environmental Quality Act (CEQA):						
Click or tap here to enter text.						
Other:						
Click or tap here to enter text.						







COST INFORMATION				
Provide capital/up-front cost (\$).				
Estimated \$25.94 million				
Provide source(s) of funding for above capital/up-front cost.				
City of Mountain View				
Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).				
TBD				
Provide source(s) of funding for above O&M/on-going cost.				
City of Mountain View				
SCHEDULE/TIMING INFORMATION				
Provide expected kickoff/start date.				
Ongoing				
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.				
Storage tank siting study is underway. Estimated 5 years for initial construction.				
Or. ☐ Add as an attachment				





### **ADDITIONAL DETAILS**

Provide as n	ecessary.
--------------	-----------

Mountain View updated the Recycled Water Feasibility Study in March 2022. Estimated costs and water use are for Alternative 1, the recommended near-term project.

### **ATTACHMENTS**

### **Provide list of attachments:**

Excerpts from the March 2022 Recycled Water Feasibility Study

Table 4.1 Summary of Average Annual Demands (AFY)

	Irrigation Demands	Indoor Demands	Shoreline Demands	Total Demand	Total Cumulative Demand
Alt 0 -Existing	382	-	138	520	520
Alt 1- North Bayshore / NASA Expansion	69	860	165	1,094	1614
Alt 3- East Whisman Expansion	691	343		1,034	2648

Notes:

(1) Demands are additive. Meaning for Alt 1 the total irrigation demand is 382 afy plus 69 afy.

Table 4.2 Summary of Proposed Facilities by Phase

Description	Alternative 1 - North Bayshore Expansion/New Pipelines <sup>(1)</sup>	Alternative 1 - North Bayshore Pipelines to be Upsized <sup>(1)</sup>	Alternative 3 - East Whisman Expansion	Alternative 5a/b/c - Dual Plumbed Expansion <sup>(3)</sup>
Pipelines (LF)				
6-in Pipeline	3,740	88	2,914	
8-in Pipeline	3,219		2,043	17,900
10-in Pipeline	-		7,096	
12-in Pipeline	5,857	7,922	15,593	
16-in Pipeline		943	263	
18-in Pipeline		3,775	10,800	
Storage Tanks (MG)				
Buried Concrete Storge Tank	1.9		2.3	
Booster Pumping (hp)				
Booster Pumping	215		550	

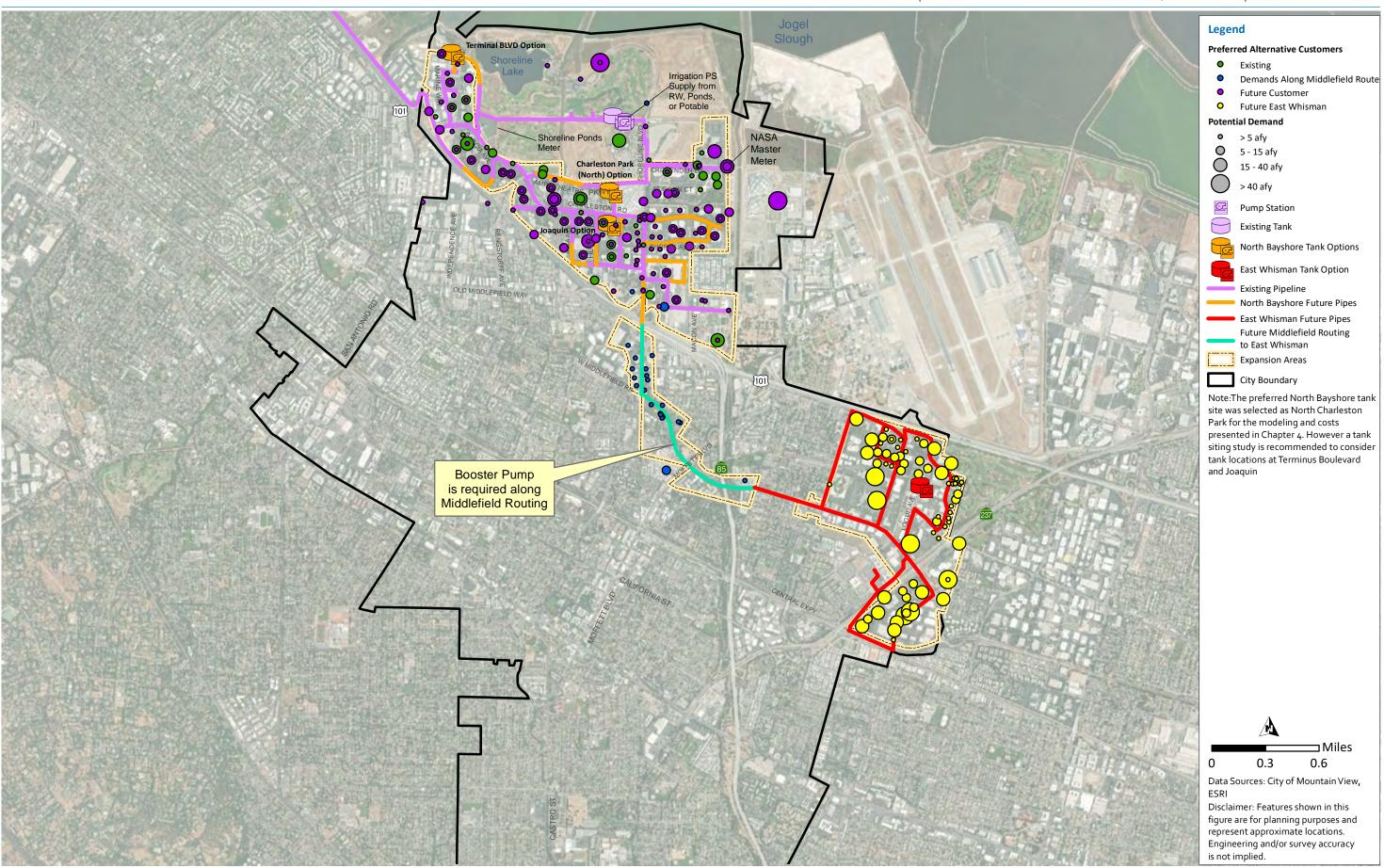
Notes

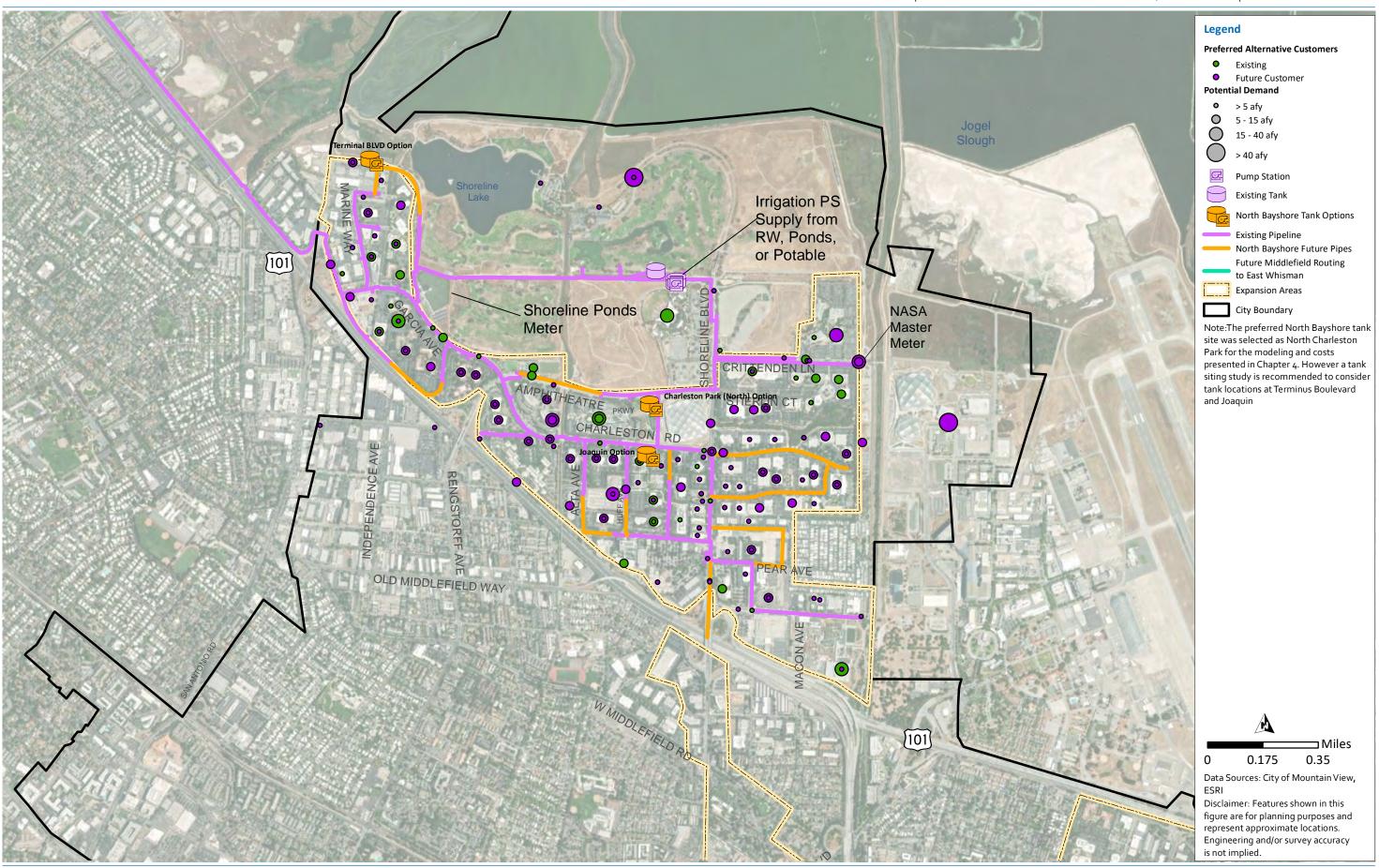
<sup>(3)</sup> Storage, booster pumping, and exact piping sizing are subject to changed and should be based on finalized prior system expansions into North Bayshore and East Whisman.



<sup>(1)</sup> Sizing is based on modeling the two tank system and expansion to East Whisman with Tank Option 2 (Charleston Park, North) and a tank in East Whisman. If a different tank location is chosen, high velocity pipelines are subject to change and therefore so would the recommended upsizing. A tank siting study is recommended before the City finalizes the storage tank location.

<sup>(2)</sup> Abbreviations: LF = linear feet; MG = million gallons; hp = horsepower.





### **4.4** Preliminary Cost Estimates for Recommended Project and Preferred Future Expansion Alternatives

A summary of construction and capital cost estimates for the recommended project (Alternative 1) is presented in Table 4.3. Although expansion to East Whisman via Middlefield Road (Alternative 3) has been deemed the preferred future expansion alternative, costs developed herein are only applicable for the Alternative 1 project. Future Upsizing in North Bayshore is not included in these costs. The tank location and timing of the East Whisman expansion will affect these costs. Also note that to reach East Whisman additional booster pumping would be needed. The estimates are organized by facility types – pipeline, pump station, and storage. A total markup of 62.5 percent was applied to construction costs to account for construction contingency (30 percent), engineering (10 percent), construction management (10 percent), and environmental and legal (5 percent) costs. The cost estimates do not include land acquisition or recycled water costs. It was assumed that land acquisition was not needed since the facilities could be located on City-owned property. and the recycled water supply Agreement does not contain a cost for purchasing recycled water from Palo Alto, so this assumption was used for these estimates as well. The unit construction costs used to develop these estimates were previously presented in Chapter 3.

Table 4.3 Estimated Capital Cost for the Recommended Project

ltem	Total Cost (\$M)
Piping <sup>(3)</sup>	\$3.60
Fittings and Valves <sup>(3)</sup>	\$0.02
Storage Tank <sup>(1, 3)</sup>	\$10.68
Booster Pumping <sup>(3)</sup>	\$1.67
SUBTOTAL – Construction	\$16.0
Construction Contingency (30 percent)	\$4.79
SUBTOTAL – Construction + Construction Contingency	\$20.75
Engineering (10 percent)	\$2.08
Construction Management (10 percent)	\$2.08
Environmental and Legal (5 percent)	\$1.04
TOTAL PROJECT COST <sup>(4)</sup>	\$25.94

#### Notes:

- (1) Storage tank costs are conservative and includes a 2.5 factor increase estimated for a buried tank.
- (2) Piping costs are further refined here and do not match costs from Chapter 3.
- (3) These are unit costs.
- (4) This reflects the total capital cost.









Project Name	
Potable Groundwater Supply Well Project	
Agency	Agency Primary/Lead Name & Contact Information
North Coast County Water District	Adrianne Carr
	650-355-3462
	acarr@nccwd.com

#### **PROJECT DESCRIPTION**

#### Provide a detailed description of the proposed Project.

The southern portion of the NCCWD service area overlies the San Pedro Valley Groundwater Basin (DWR Basin 2-036; Basin) which has historically been used as a private source of groundwater supply and continues to be used for irrigation by several users. NCCWD recently completed a preliminary groundwater assessment study that concluded based on analysis of available information that a multi-well groundwater supply system tapping into the underlying Basin could yield on the order of 70 acre-feet per year (AFY) of groundwater when operated during the six-month dry season. The objective of the NCCWD Potable Groundwater Supply Well Project is to develop a new potable groundwater supply source for the District through the construction of three groundwater production wells. The proposed project will provide an estimated 70 AFY of local groundwater supply, equivalent to 3% of the District's 2020 water purchases from SFPUC. Alternatively, when operated at greater rates of extraction during a short-term emergency, the system will be capable of providing water to meet the potable demands of approximately 8,000 to 10,000 people on a short-term basis. Development of this new local groundwater supply source will reduce demands on imported RWS water.

The NCCWD Potable Groundwater Supply Well Project includes conducting the necessary additional pre-design studies, engineering design, permitting, environmental documentation, construction, startup, and testing. More specifically, this will include: (1) drilling, construction, and testing of two test wells; (2) design, construction, and start-up testing of three new potable production wells; (3) a conveyance pipeline to a nearby existing District storage tank and treatment facilities; (4) preparation of associated environmental documentation pursuant to the California Environmental Quality Act; and (5) required permitting.

#### Provide the location, if applicable.

San Pedro Valley Groundwater Basin – Wells to be located at properties along Linda Mar Blvd.

Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)).

0.062 MGD







PROJECT DESCRIPTION	
Project type (check all that apply).	
☐ Surface Water	Water Demand Reduction
☐ Transfer	☐ Conservation
☑ Groundwater (Recharge)	☐ Land/Water Use Changes
☐ Stormwater	☑ Infrastructure/Capital Project
☐ Recycled Water (potable)	☐ Data Gap Filling/Monitoring
$\square$ Indirect potable reuse	☐ Policy Project
☐ Direct potable reuse	☐ Water Quality Improvement
☐ Recycled Water (non-potable)	☐ Other: Click or tap here to enter text.
☐ Other: Click or tap here to enter text.	
Source of Outside Water (if applicable):	
Click or tap here to enter text.	
Provide regulatory/legal authority requirements (describe	e all that apply).
Permits (name of authority, type of permit):	
DDW must permit new supply wells – District must obtain a	a Water Supply Permit Amendment
California Environmental Quality Act (CEQA):	
NCCWD filed CEQA Exemption for test well phase, full project	ect will require CEQA analysis, which is underway
Other:	
NCCWD must obtain permission/agreements with owners	of the land where wells will be located







COST INFORMATION
Provide capital/up-front cost (\$).
\$7,359,000 - estimated in January 2022 for grant application
Provide source(s) of funding for above capital/up-front cost.
Project was awarded a \$6,623,100 grant from the Department of Water Resources (Urban and Multibenefit Drought Relief Grant Program), which is a 90% cost share. District will fund the remaining 10% through its Capital Improvement Program budget.
Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).
TBD
Provide source(s) of funding for above O&M/on-going cost.
Costs to operate the project would be included in the District's rate base going forward.
SCHEDULE/TIMING INFORMATION
Provide expected kickoff/start date.
Project started in March 2022
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.
Per DWR Grant requirements, project must be complete by March 2026

Or,  $\square$  Add as an attachment





ADDITIONAL DETAILS
Provide as necessary.
Click or tap here to enter text.

ATTACHMENTS	
Provide list of attachments:	
Click or tap here to enter text.	







Project Name	
Potable Groundwater Supply Well Project	
Agency	Agency Primary/Lead Name & Contact Information
North Coast County Water District	Adrianne Carr
	650-355-3462
	acarr@nccwd.com

#### **PROJECT DESCRIPTION**

#### Provide a detailed description of the proposed Project.

The southern portion of the NCCWD service area overlies the San Pedro Valley Groundwater Basin (DWR Basin 2-036; Basin) which has historically been used as a private source of groundwater supply and continues to be used for irrigation by several users. NCCWD recently completed a preliminary groundwater assessment study that concluded based on analysis of available information that a multi-well groundwater supply system tapping into the underlying Basin could yield on the order of 70 acre-feet per year (AFY) of groundwater when operated during the six-month dry season. The objective of the NCCWD Potable Groundwater Supply Well Project is to develop a new potable groundwater supply source for the District through the construction of three groundwater production wells. The proposed project will provide an estimated 70 AFY of local groundwater supply, equivalent to 3% of the District's 2020 water purchases from SFPUC. Alternatively, when operated at greater rates of extraction during a short-term emergency, the system will be capable of providing water to meet the potable demands of approximately 8,000 to 10,000 people on a short-term basis. Development of this new local groundwater supply source will reduce demands on imported RWS water.

The NCCWD Potable Groundwater Supply Well Project includes conducting the necessary additional pre-design studies, engineering design, permitting, environmental documentation, construction, startup, and testing. More specifically, this will include: (1) drilling, construction, and testing of two test wells; (2) design, construction, and start-up testing of three new potable production wells; (3) a conveyance pipeline to a nearby existing District storage tank and treatment facilities; (4) preparation of associated environmental documentation pursuant to the California Environmental Quality Act; and (5) required permitting.

#### Provide the location, if applicable.

San Pedro Valley Groundwater Basin – Wells to be located at properties along Linda Mar Blvd.

Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)).

0.062 MGD







PROJECT DES	CRIPTION
Project type (check all that apply).	
☐ Surface Water	Water Demand Reduction
☐ Transfer	☐ Conservation
$\square$ Groundwater (Recharge)	☐ Land/Water Use Changes
☐ Stormwater	☐ Infrastructure/Capital Project
☐ Recycled Water (potable)	☐ Data Gap Filling/Monitoring
$\square$ Indirect potable reuse	☐ Policy Project
☐ Direct potable reuse	☐ Water Quality Improvement
$\square$ Recycled Water (non-potable)	☑ Other: Measuring amount of fog water that can be collected at different sites in the service area. This
☐ Other: Click or tap here to enter text.	could eventually be used to offset potable water
Source of Outside Water (if applicable):	demands.
Click or tap here to enter text.	
Provide regulatory/legal authority requirements (describe	all that apply).
Permits (name of authority, type of permit):	
Pilot project to measure fog doesn't require permits	
California Environmental Quality Act (CEQA):	
Other:	
Click or tap here to enter text.	







COST INFORMATION
Provide capital/up-front cost (\$).
Fog collectors purchased in 2022: \$5225 for three 1-m by 1-m collectors with rain gauges and data loggers
Provide source(s) of funding for above capital/up-front cost.
Funding from NCCWD's Capital Improvement Program budget for water supply projects
Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).
TBD
Provide source(s) of funding for above O&M/on-going cost.
TBD
SCHEDULE/TIMING INFORMATION
Provide expected kickoff/start date.
Project started in August 2022
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.
TBD
Or, ☐ Add as an attachment





#### **ADDITIONAL DETAILS**

#### Provide as necessary.

NCCWD has been collaborating with researchers at California State University Monterey Bay (CSUMB) and UC Santa Cruz to measure fog water at three of the District's water tank sites. Data collectors and rain gages have been installed with the collectors since August/September, depending upon the site. Students at CSUMB used the data from District sites to complete undergraduate research projects in fall 2022. Estimates of fog water potential and initial cost estimates have been developed.

Possible future fog collector rebate or install program is envisioned in the future for customers to capture water and offset potable water demands.

District partnering with CSUMB and UCSC researchers in applying for a grant to further study fog water potential in the District's service area. Letter of intent was submitted in January 2023.

Daly City also installed fog collectors and DC and NCCWD were featured in local news story about fog <a href="https://www.nbcbayarea.com/news/local/digital-originals/san-francisco-fog-climate-change/3114080/">https://www.nbcbayarea.com/news/local/digital-originals/san-francisco-fog-climate-change/3114080/</a>

## ATTACHMENTS Provide list of attachments: Click or tap here to enter text.







Project Name	
One Water Plan	
Agency	Agency Primary/Lead Name & Contact Information
City of Palo Alto	City of Palo Alto Utilities
	Enter phone number here.
	Enter email address here.

#### **PROJECT DESCRIPTION**

#### Provide a detailed description of the proposed Project.

The goal of the One Water Plan is Council adoption of a One Water supply plan that is a 20-year adaptable roadmap for implementation of prioritized water supply and conservation portfolio alternatives. Carollo Engineers, Inc., will conduct evaluations, develop criteria, assist with engaging stakeholders, develop, analyze and evaluate water supply and conservation portfolio alternatives. Carollo Engineers Inc., will then deliver a standalone electronic report that can be used as an adaptable water supply plan as well as an Excel-based tool for evaluating and prioritizing the water supply and conservation portfolio alternatives. At the end of the project, City staff will have ownership of the tool, so City staff may continue to make updates as conditions change and more detailed data emerges in order to provide adaptive recommendations to the City Council. Upon completion, staff will present the One Water Plan report to the City Council for consideration of adoption.

Provide the location, if applicable.

N/A

Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)).

Implementation of a One Water portfolio, a water supply plan that will analyze the City's potential water supply priorities and conservation opportunities.







PROJEC	CT DESCRIPTION
Project type (check all that apply).	
⊠ Surface Water	Water Demand Reduction
$\square$ Transfer	□ Conservation
☑ Groundwater (Recharge)	☐ Land/Water Use Changes
Stormwater	☐ Infrastructure/Capital Project
☐ Recycled Water (potable)	☐ Data Gap Filling/Monitoring
☑ Indirect potable reuse	☐ Policy Project
☑ Direct potable reuse	$\square$ Water Quality Improvement
☑ Recycled Water (non-potable)	☐ Other: Click or tap here to enter text.
☐ Other: Click or tap here to enter text.	
Source of Outside Water (if applicable):	
Click or tap here to enter text.	
Provide regulatory/legal authority requirements (de	scribe all that apply).
Permits (name of authority, type of permit):	
N/A	
California Environmental Quality Act (CEQA):	
N/A	
Other:	
Click or tap here to enter text.	





COST INFORMATION
Provide capital/up-front cost (\$).
\$559,000
Provide source(s) of funding for above capital/up-front cost.
City of Palo Alto Operating Budget
Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).
N/A
Provide source(s) of funding for above O&M/on-going cost.
N/A
SCHEDULE/TIMING INFORMATION
Provide expected kickoff/start date.
July 09, 2022
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.
1 year, prosed end date June 30, 2023
Or $\square$ Add as an attachment





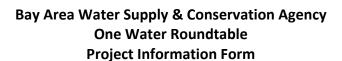
ADDITIONAL DETAILS	
Provide as necessary.	
Click or tap here to enter text.	

### **ATTACHMENTS**

### **Provide list of attachments:**

 $\underline{https://www.cityofpaloalto.org/files/assets/public/agendas-minutes-reports/agendas-minutes/city-council-agendas-minutes/2022/20220620/20220620pccsm-amended-final-final.pdf}$ 







#### **Project Name**

Local Salt Removal Facility: Improving Existing Recycled Water Quality at the RWQCP

#### Agency

City of Palo Alto in collaboration with Valley Water and the City of Mountain View

### Agency Primary/Lead Name & Contact Information

City of Palo Alto Public Works

Enter phone number here.

Enter email address here.

#### **PROJECT DESCRIPTION**

#### Provide a detailed description of the proposed Project.

The RWQCP treats wastewater from six communities, including Palo Alto. Currently, much of the treated effluent is discharged into the Bay rather than being reused. The RWQCP produces and distributes approximately 230 million gallons per year of tertiary-treated recycled water to the City of Mountain View, several City-owned parks and facilities, and a commercial truck fill standpipe at the RWQCP. Following public concerns regarding the irrigation of redwood trees and other salt-sensitive species with recycled water, the City prepared an Environmental Impact Report (EIR) focused on water quality issues and salinity impacts. On January 25, 2010, Council approved the Recycled Water Salinity Reduction Policy (Staff Report ID #111:10, Resolution 9035), including a goal of reducing the recycled water total dissolved solids level to 600 parts per million. In 2017, Valley Water, Palo Alto, and Mountain View finalized a feasibility study and the preliminary design report for a local salt removal facility (Staff Report ID #10627). Highly treated water produced by the local salt removal facility would benefit landscapes currently irrigated with recycled water in Palo Alto, enable Palo Alto to expand its non-potable distribution system, and/or provide a first step toward small-scale potable water production for direct or indirect potable reuse in Palo Alto.

### Provide the location, if applicable.

City of Palo Alto: within the fence line of the RWQCP; at the Measure E site; or a yet to be determined location.

Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)).

Click or tap here to enter text.









PROJECT DESCRIPTION		
Project type (check all that apply).		
☐ Surface Water	Water Demand Reduction	
$\square$ Transfer	☐ Conservation	
$\square$ Groundwater (Recharge)	☐ Land/Water Use Changes	
☐ Stormwater	☐ Infrastructure/Capital Project	
☐ Recycled Water (potable)	☐ Data Gap Filling/Monitoring	
☐ Indirect potable reuse	☐ Policy Project	
☐ Direct potable reuse	☐ Water Quality Improvement	
☐ Recycled Water (non-potable)	☐ Other: Click or tap here to enter text.	
☐ Other: Click or tap here to enter text.		
Source of Outside Water (if applicable):		
Recycled Water Quality Improvement		
Provide regulatory/legal authority requirements (describ	e all that apply).	
Permits (name of authority, type of permit):		
RWQCP's discharge permit		
California Environmental Quality Act (CEQA):		
In Process		
Other:		
Click or tap here to enter text.		







COST INFORMATION	
Provide capital/up-front cost (\$).	
\$52,622,000	
Provide source(s) of funding for above capital/up-front cost.	
Valley Water, City of Palo Alto, City of Mountain View, Title XVI WIIN Act Water Reclamation and Reuse Projects (USBR Grant)	
Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).	
Click or tap here to enter text.	
Provide source(s) of funding for above O&M/on-going cost.	
Click or tap here to enter text.	
SCHEDULE/TIMING INFORMATION	
Provide expected kickoff/start date.	
Click or tap here to enter text.	
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.	
Click or tap here to enter text.	
Or, $\square$ Add as an attachment	





ADDITIONAL DETAILS
Provide as necessary.
Click or tap here to enter text.

### **ATTACHMENTS**

### **Provide list of attachments:**

 $\underline{https://www.cityofpaloalto.org/files/assets/public/agendas-minutes-reports/agendas-minutes/city-council-agendas-minutes/2022/20220912/20220912pccsm-amended-v2.pdf}$ 









Project Name	
Recycled Water Chlorine Booster Station Feasibility and Design	
Agency	Agency Primary/Lead Name & Contact Information
City of Redwood City	City of Redwood City/ Sindy Mulyono-Danre
	650-780-7470
	smdanre@redwoodcity.org

#### **PROJECT DESCRIPTION**

Provide a detailed	description of the	proposed Pr	roiect.

Given the increasing numbers of indoor customers (dual plumbed for toilet flushing) for recycled water the City released an RFP for the feasibility and design of Chlorine Booster Station to improved water quality in the distribution system.

Provide the location, if applicable.

**Redwood City** 

Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)).

**TBD** 





PROJECT DES	CRIPTION	
Project type (check all that apply).		
☐ Surface Water	Water Demand Reduction	
☐ Transfer	☐ Conservation	
$\square$ Groundwater (Recharge)	☐ Land/Water Use Changes	
☐ Stormwater	☐ Infrastructure/Capital Project	
$\square$ Recycled Water (potable)	☐ Data Gap Filling/Monitoring	
$\square$ Indirect potable reuse	☐ Policy Project	
☐ Direct potable reuse	☑ Water Quality Improvement	
☑ Recycled Water (non-potable)	☐ Other: Click or tap here to enter text.	
☐ Other: Click or tap here to enter text.		
Source of Outside Water (if applicable):		
Click or tap here to enter text.		
Provide regulatory/legal authority requirements (describe	all that apply).	
Permits (name of authority, type of permit):		
State Water Resources Control Board and Regional Water resources Control Board		
California Environmental Quality Act (CEQA):		
No		
Other:		
Click or tap here to enter text.		





COST INFORMATION	
Provide capital/up-front cost (\$).	
TBD	
Provide source(s) of funding for above capital/up-front cost.	
TBD	
Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).	
TBD	
Provide source(s) of funding for above O&M/on-going cost.	
TBD	
SCHEDULE/TIMING INFORMATION	
Provide expected kickoff/start date.	
RFP release 4th quarter of 2022	
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.	
Click or tap here to enter text.	
Or. □ Add as an attachment	





ADDITIONAL DETAILS	
Provide as necessary.	
Click or tap here to enter text.	

ATTACHMENTS	
Provide list of attachments:	
Click or tap here to enter text.	







Project Name	
Redwood City Recycled Water Feasibility Study Update	
Agency	Agency Primary/Lead Name & Contact Information
City of Redwood City	City of Redwood City/ Sindy Mulyono-Danre
	650-780-7470
	smdanre@redwoodcity.org

#### **PROJECT DESCRIPTION**

### Provide a detailed description of the proposed Project.

Update of the City's 2014 Feasibility Study which will include an updated analysis of potential new customers and estimated demands. The Study will also include a pipe extension implementation plan; focusing on the dual plumbed projects that have been approved in the downtown area.

Provide the location, if applicable.

Redwood City proper

Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)).

**TBD** 





PROJECT DES	SCRIPTION	
Project type (check all that apply).		
$\square$ Surface Water	Water Demand Reduction	
$\square$ Transfer	☐ Conservation	
☐ Groundwater (Recharge)	☐ Land/Water Use Changes	
$\square$ Stormwater	☐ Infrastructure/Capital Project	
☐ Recycled Water (potable)	☐ Data Gap Filling/Monitoring	
☐ Indirect potable reuse	☐ Policy Project	
☐ Direct potable reuse	☐ Water Quality Improvement	
☑ Recycled Water (non-potable)	$\square$ Other: Click or tap here to enter text.	
☐ Other: Click or tap here to enter text.		
Source of Outside Water (if applicable):		
Click or tap here to enter text.		
Provide regulatory/legal authority requirements (describe	all that apply).	
Permits (name of authority, type of permit):		
State Water Resources Control Board and Regional Water resources Control Board		
California Environmental Quality Act (CEQA):		
Yes		
Other:		
Click or tap here to enter text.		





COST INFORMATION
Provide capital/up-front cost (\$).
TBD
Provide source(s) of funding for above capital/up-front cost.
TBD
Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).
TBD
Provide source(s) of funding for above O&M/on-going cost.
TBD
SCHEDULE/TIMING INFORMATION
Provide expected kickoff/start date.
Plan to release the RFP in 1st quarter on 2023
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.
Click or tap here to enter text.
Or, ☐ Add as an attachment





ADDITIONAL DETAILS
Provide as necessary.
Click or tap here to enter text.

ATTACHMENTS	
Provide list of attachments:	
Click or tap here to enter text.	





Project Name		
Regional Stormwater Capture Project at Red Morton Community Park		
Agency Primary/Lead Name & Contact Information		
City of Redwood City (project lead)	TBD	
Potential for other agency partnerships	Enter phone number here.	
	Enter email address here.	

#### **PROJECT DESCRIPTION**

#### Provide a detailed description of the proposed Project.

The project is still in the conceptual design phase but is proposed as a regional stormwater capture project located in Redwood City. The proposal is for a subsurface infiltration gallery underneath McGarvey Field at the City of Redwood City's (City's) Red Morton Community Park. The project would serve as the cornerstone for the City's Municipal Regional Permit (MRP) compliance and water resiliency efforts, and has the potential to supplement groundwater supplies, alleviate flooding, offset water use at the park, and improve downstream water quality in the Arroyo Ojo and downstream Redwood Creek. The project has the potential to treat runoff from a total of 1,650 acres, approximately 70% of which is in Redwood City. The remaining 30% of the potential drainage area is from Woodside and the unincorporated communities of Emerald Lake Hills and Kensington Square.

The project is envisioned as a single subsurface gallery with potential for additional phases to be considered in the future. A multi-phase approach will allow for flexibility in procuring funding and coordinating with scheduled park improvements (e.g. resurfacing of turf fields). The first phase of the project has potential to capture and treat approximately 31.2 ac-ft, 72% of the 85th percentile, 24-hour runoff volume (43.2 ac-ft). The project can potentially reduce PCBs load by 16.7%. This benefit may offset the amount of green streets that would otherwise need to be implemented to meet permit and TMDL requirements, reducing Redwood City's green street requirement by 92.6%.

Provide t	he locat	tion, it	appl	licabl	e.
-----------	----------	----------	------	--------	----

**Red Morton Community Park** 





### **PROJECT DESCRIPTION**

Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)).

Community Park. The structure has potential to capture 31.2 acre-feet of runoff from Arroyo Ojo, a tributary of Redwood Creek that flows to the Bay.		
Project type (check all that apply).		
☐ Surface Water	Water Demand Reduction	
☐ Transfer	□ Conservation	
☑ Groundwater (Recharge)	☐ Land/Water Use Changes	
	☐ Infrastructure/Capital Project	
☐ Recycled Water (potable)	☐ Data Gap Filling/Monitoring	
☐ Indirect potable reuse	☐ Policy Project	
☐ Direct potable reuse		
☐ Recycled Water (non-potable)	☐ Other: Click or tap here to enter text.	
☐ Other: Click or tap here to enter text.		
Source of Outside Water (if applicable):		
Click or tap here to enter text.		
Provide regulatory/legal authority requirements (describe a	all that apply).	
Permits (name of authority, type of permit):		
As the project is still in the early stages, this information is not yet known.		
California Environmental Quality Act (CEQA):		
Click or tap here to enter text.		
Other:		
Click or tap here to enter text.		









COST INFORMATION
Provide capital/up-front cost (\$).
Initial estimate is \$28,153,000
Provide source(s) of funding for above capital/up-front cost.
Funding sources are being explored.
Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).
To be determined based on design
Provide source(s) of funding for above O&M/on-going cost.
To be determined
SCHEDULE/TIMING INFORMATION
Provide expected kickoff/start date.
Click or tap here to enter text.
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.
Click or tap here to enter text.
Or, ☐ Add as an attachment





ADDITIONAL DETAILS
Provide as necessary.
Click or tap here to enter text.

ATTACHMENTS	
Provide list of attachments:	
Click or tap here to enter text.	







Project Name	
Acappella Well 21 Project	
Agency	Agency Primary/Lead Name & Contact Information
City of San Bruno	Steven Salazar
	650-616-7174
	SSALAZAR@SANBRUNO.CA.GOV

# PROJECT DESCRIPTION Provide a detailed description of the proposed Project. In the final phase of design for the "Acapella" well (well #21) as a replacement well for well #15. Designed to be stand-by well to supplement water needed for GSR.

Provide the location, if applicable.

1001 National Ave, San Bruno

Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)).

Approximately .79 mgd





PROJECT DESCRIPTION		
Project type (check all that apply).		
☐ Surface Water	Water Demand Reduction	
☐ Transfer	$\square$ Conservation	
☑ Groundwater (Recharge)	☐ Land/Water Use Changes	
☐ Stormwater	☐ Infrastructure/Capital Project	
$\square$ Recycled Water (potable)	☐ Data Gap Filling/Monitoring	
$\square$ Indirect potable reuse	☐ Policy Project	
☐ Direct potable reuse	☐ Water Quality Improvement	
$\square$ Recycled Water (non-potable)	☐ Other: Click or tap here to enter text.	
☐ Other: Click or tap here to enter text.		
Source of Outside Water (if applicable):		
Click or tap here to enter text.		
Provide regulatory/legal authority requirements (descri	be all that apply).	
Permits (name of authority, type of permit):		
Click or tap here to enter text.		
California Environmental Quality Act (CEQA):		
Click or tap here to enter text.		
Other:		
Click or tap here to enter text.		





COST INFORMATION
Provide capital/up-front cost (\$).
\$9,781,000
Provide source(s) of funding for above capital/up-front cost.
Water Fund
Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).
Click or tap here to enter text.
Provide source(s) of funding for above O&M/on-going cost.
Click or tap here to enter text.
SCHEDULE/TIMING INFORMATION
Provide expected kickoff/start date.
2024-2025
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.
2025-2026
Or, ☐ Add as an attachment





ADDITIONAL DETAILS		
Provide as necessary.		
Click or tap here to enter text.		

ATTACHMENTS		
Provide list of attachments:		
Click or tap here to enter text.		







Project Name		
Advanced Metering Infrastructure Implementation		
Agency	Agency Primary/Lead Name & Contact Information	
City of San Jose	Jeff Provenzano	
	408-277-3671	
	Jeffrey.provenzano@sanjoseca.gov	

#### **PROJECT DESCRIPTION**

### Provide a detailed description of the proposed Project.

A systemwide upgrade of approximately 27,000 water meters from Automatic Meter Reading (AMR) system to a cellular based Advanced Metering Infrastructure (AMI) system that will positively impact water conservation efforts, help customers reduce their water use, identify leaks, and save money on water bills.

Provide the location, if applicable.

System-wide within City of San José service area

Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)).

Estimated 5% demand savings per year (in 2021: 272 MG/yr)





PROJECT DESCRIPTION		
Project type (check all that apply).		
☐ Surface Water	Water Demand Reduction	
☐ Transfer	□ Conservation	
☐ Groundwater (Recharge)	☐ Land/Water Use Changes	
☐ Stormwater	☐ Infrastructure/Capital Project	
☐ Recycled Water (potable)	☐ Data Gap Filling/Monitoring	
$\square$ Indirect potable reuse	☐ Policy Project	
☐ Direct potable reuse	☐ Water Quality Improvement	
☐ Recycled Water (non-potable)	☐ Other: Click or tap here to enter text.	
☐ Other: Click or tap here to enter text.		
Source of Outside Water (if applicable):		
Click or tap here to enter text.		
Provide regulatory/legal authority requirements (describe all that apply).		
Permits (name of authority, type of permit):		
Click or tap here to enter text.		
California Environmental Quality Act (CEQA):		
Click or tap here to enter text.		
Other:		
Click or tap here to enter text.		







COST INFORMATION
Provide capital/up-front cost (\$).
\$12.87M
Provide source(s) of funding for above capital/up-front cost.
Water utility CIP fund
Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).
TBD
Provide source(s) of funding for above O&M/on-going cost.
Water utility operating fund
SCHEDULE/TIMING INFORMATION
Provide expected kickoff/start date.
August 2023
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.
Upon completion of implementation
Or, $\square$ Add as an attachment





ADDITIONAL DETAILS
Provide as necessary.
Click or tap here to enter text.

ATTACHMENTS
Provide list of attachments:
Click or tap here to enter text.



Project Name

### Bay Area Water Supply & Conservation Agency One Water Roundtable Project Information Form



Project Name
One Water Santa Clara - Sustainable Water Master Plan, Recycled Water Expansion, Two new Ground Water Wells,
existing well rehabilitation, water conservation ordinance update

Agency Primary/Lead Name & Contact Information		Agency Primary/Lead Name & Contact Information
	City of Santa Clara	Shilpa Mehta – Assistant Director
		(408)615-2011
		smehta@santaclaraca.gov

#### **PROJECT DESCRIPTION**

Provide a detailed description of the proposed Project.

RFP for One Water Santa Clara -Sustainable Water Master Plan send out to prospective consultants in October 2022. The City of Santa Clara Water and Sewer Utilities ("City") is seeking proposals from qualified firms ("Proposer") to provide Water Supply Master Plan ("WSMP") analysis services to assist the City in resource planning efforts. The services will require producing an innovative and sustainable WSMP that encompasses a One Water long-term plan that addresses drought and climate resiliency. A One Water approach envisions managing all water in an integrated, comprehensive, and sustainable manner that considers all water resources from ground water, treated water, wastewater, recycled water, dry weather runoff and stormwater that improves water resiliency to climate change.

- 2. Expand recycled water mains to city parks to be use of irrigation is at the planning level. Currently all the expansion of the public recycled water is constructed by the developers based on their needs to use the recycled water. City has approximately 33 miles of recycled water in the distribution system which offsets about 19% of the potable water supply of City, almost equivalent to supply from SFPUC.
- 3. The project is to drill and equip two new wells and reactivate one existing iron and manganese treatment plant at a well that is currently on standby. Applying for grant funding (Department of Water Resources Urban Community Drought Relief Funding Checklist)
- 4. Rehabbing some existing wells with water quality issues and to bring them from backup wells to main source. Other wells have pumping issues. Out of 4/5 wells, hoping to rehab 2/3 of them. Only have 2 wells in north part of town, rehab wells in north part of town to bring more water to that area to serve more new proposed development.
- 5. Amending water conservation ordinance for new development.







PROJECT DESCRIPTION		
Provide the location, if applicable.		
Citywide. New Wells are located at the Serra Tanks site and Fire Station 5 site both are city owned.		
Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)).		
Click or tap here to enter text.		
Project type (check all that apply).	Project type (check all that apply).	
☐ Surface Water	Water Demand Reduction	
☐ Transfer	□ Conservation	
☑ Groundwater (Recharge)	☐ Land/Water Use Changes	
$\square$ Stormwater	☑ Infrastructure/Capital Project	
☐ Recycled Water (potable)	☐ Data Gap Filling/Monitoring	
$\square$ Indirect potable reuse	☐ Policy Project	
$\square$ Direct potable reuse		
☑ Recycled Water (non-potable)	☐ Other: Click or tap here to enter text.	
$\Box$ Other: Click or tap here to enter text.		
Source of Outside Water (if applicable):		
Click or tap here to enter text.		



Click or tap here to enter text.





PROJECT DESCRIPTION
Provide regulatory/legal authority requirements (describe all that apply).
Permits (name of authority, type of permit):
Click or tap here to enter text.
California Environmental Quality Act (CEQA):
Click or tap here to enter text.
Other:

**Project Information Form** 

COST INFORMATION
Provide capital/up-front cost (\$).
\$500K to \$1M
Provide source(s) of funding for above capital/up-front cost.
Water Rate revenue
Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).
N/A
Provide source(s) of funding for above O&M/on-going cost.
Water Rate revenue

	SCHEDULE/TIMING INFORMATION
Provide expected kickoff/start date.	
1/2023	





SCHEDULE/TIMING INFORMATION
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.
Click or tap here to enter text.
Or, $\square$ Add as an attachment
ADDITIONAL DETAILS
Provide as necessary.
Click or tap here to enter text.
ATTACHMENTS
Provide list of attachments:
Click or tap here to enter text.





Project Name			
Bay Area Water Planning in the Face of Drought and Ecosystem Flows			
Agency	Agency Primary/Lead Name & Contact Information		
Stanford University	Dr. Richard Luthy	Bridget Gile	
	(650) 721-2615		
	luthy@stanford.edu	bgile@stanford.edu	

#### **PROJECT DESCRIPTION**

#### Provide a detailed description of the proposed Project.

Where human and ecological water needs clash, the State of California recognizes "co-equal goals" of water supply and ecosystem protection. In practice, however, communities throughout the state are struggling to find equitable and sustainable solutions to meet their water demands while preserving ecosystems. In the Bay Area, the Hetch Hetchy Regional Water System relies on the Tuolumne River for 85% of its supply, yet recent amendments to the Bay-Delta Plan will require more flow to be left in-stream for ecosystem use. Serious and unanswered questions remain about what reduced Tuolumne diversions would mean for regional water supply, especially during drought.

Our project addresses key research questions supporting sustainable water supply planning:

- 1. How will Bay-Delta Plan ecological flow policy impact water supply outcomes for the Regional Water System?
- 2. Can we enhance water portfolio and drought planning efforts through comprehensive yet accessible communication of modeling results?
- 3. What coping strategies are needed for the San Francisco Bay Area to respond effectively to policy and climate stresses on water supply?

To address these questions, we develop a model of Tuolumne River water supply and simulate long-term water supply performance under various climate, policy, and coping scenarios. We first evaluate the impact of the Bay-Delta Plan unimpaired flow requirement on Regional Water System supplies in the context of historical hydrology. We quantify the new ecological flow demand and compare water supply performance between policy scenarios with and without the Bay-Delta Plan policy. Performance metrics include reliability and conservation, critically low storage levels, policy compliance, and uncaptured flow volume. We then introduce climate uncertainty by extending the analysis to include multiple future streamflow scenarios derived from downscaled general circulation climate models. Finally, we will turn to solutions by evaluating how future water supply investments (e.g., storage, interties, regional desalination) might contribute to resilient water supply performance in the face of climate and policy stresses.

#### Provide the location, if applicable.

Tuolumne River watershed and Regional Water System service area









### PROJECT DESCRIPTION Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)). Estimating future water supply performance with Bay-Delta Plan and climate change impacts Project type (check all that apply). Water Demand Reduction ☐ Surface Water ☐ Conservation ☐ Transfer ☐ Land/Water Use Changes ☐ Groundwater (Recharge) ☐ Infrastructure/Capital Project ☐ Stormwater □ Data Gap Filling/Monitoring ☐ Recycled Water (potable) □ Policy Project ☐ Indirect potable reuse ☐ Water Quality Improvement ☐ Direct potable reuse ☑ Other: Research Study on Water Supply Portfolios ☐ Recycled Water (non-potable) and Planning ☐ Other: Click or tap here to enter text. Source of Outside Water (if applicable): Click or tap here to enter text. Provide regulatory/legal authority requirements (describe all that apply). Permits (name of authority, type of permit): Click or tap here to enter text. California Environmental Quality Act (CEQA): Click or tap here to enter text.

Bay-Delta Plan unimpaired flow requirement

Other:





COST INFORMATION	
Provide capital/up-front cost (\$).	
Click or tap here to enter text.	
Provide source(s) of funding for above capital/up-front cost.	
Click or tap here to enter text.	
Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).	
Click or tap here to enter text.	
Provide source(s) of funding for above O&M/on-going cost.	
Click or tap here to enter text.	
SCHEDULE/TIMING INFORMATION	
Provide expected kickoff/start date.	
Click or tap here to enter text.	
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.	
Research manuscript submission anticipated by the end of 2022	
Or, ☐ Add as an attachment	







#### **ADDITIONAL DETAILS**

#### Provide as necessary.

To facilitate analysis of policy, climate, and project impacts on the future reliability of Bay Area regional water supply, this project develops a systems model of the Tuolumne River and its Hetch Hetchy Regional Water System contributions. The model does not attempt to reproduce complex operational details but instead focuses on fundamental water allocation to inform key planning questions around storage, streamflow, and consumptive use.

The model representation of the Tuolumne River portion of the Regional Water System is illustrated in Figure 1. Inside the system boundary is the total Tuolumne storage available to SFPUC, which includes the Cherry, Eleanor, and Hetch Hetchy reservoirs as well as the Water Bank account. Key fluxes across the system boundary include combined reservoir inflow, spill to downstream, evaporation, and water supply deliveries.

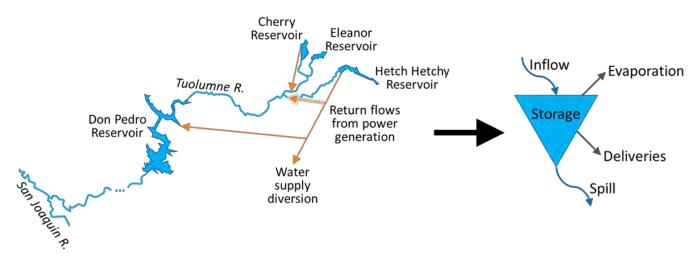


Figure 1. Conceptual model of the Regional Water System Tuolumne supply

In the historical analysis, we use hydrologic data from water years 1988-2021 to simulate water supply operations at a monthly time step across this 34-year period. Each month's storage level is calculated from the previous month's storage level with inflow added and evaporation, spill, and deliveries removed. The amount of spill released to downstream depends on the policy scenario and may include (1) water rights entitlements only or (2) water rights entitlements and Bay-Delta Plan ecological demand. The historical analysis compares water supply performance between policy scenarios with and without the Bay-Delta Plan in effect.

In the prospective analysis, we consider the combined effect of Bay-Delta Plan policy and climate change. We use 8 future streamflow scenarios generated by Pierce et al. (2018) for water years 2022-2099 to simulate water supply operations at a monthly time step across this period. The 8 streamflow scenarios are derived from 4 climate models, each with 2 emissions assumptions, that span a range of possible climate futures. The prospective analysis compares water supply performance between policy scenarios with and without the Bay-Delta Plan, with hydrologic uncertainty.

Finally, we turn to the path forward by evaluating the contributions of proposed water supply strategies in the context of a policy- and climate-amended future. This portion of the project builds upon existing planning efforts to offer valuable insight into how proposed project yields might complement system vulnerabilities, and where







#### **ADDITIONAL DETAILS**

shortfalls persist. Potential water supply coping strategies for the Bay Area include both technical solutions to generate additional water supply and institutional solutions to more effectively utilize available water supply infrastructure. The coping analysis compares water supply performance between policy scenarios with and without the Bay-Delta Plan, with hydrologic uncertainty and future water supply investments.

#### References:

Pierce, D. W., Kalansky, J. F., & Cayan, D. R. (2018). *Climate, Drought, and Sea Level Rise Scenarios for California's Fourth Climate Change Assessment*. California's Fourth Climate Change Assessment, California Energy Commission. Publication Number: CNRA-CEC-2018-006. https://www.energy.ca.gov/sites/default/files/2019-11/Projections\_CCCA4-CEC-2018-006\_ADA.pdf

ATTACHMENTS
Provide list of attachments:
Click or tap here to enter text.





Project Name	
Stanford University Stormwater Captur	e and Use
Agency	Agency Primary/Lead Name & Contact Information
Stanford University	Julia Nussbaum
	650-223-9930
	juliann@stanford.edu

#### **PROJECT DESCRIPTION**

#### Provide a detailed description of the proposed Project.

Stanford has implemented two stormwater capture facilities on campus, the West Campus Stormwater Capture and Use Facility (WCSCU) and the East Campus Stormwater Capture and Use Facility (ECSCU), which are key components of Stanford University's stormwater management. Both systems intercept stormwater and runoff which is then pumped into the campus' non-potable irrigation system to be used for campus irrigation. The overall non-potable irrigation system utilizes storage at Felt Reservoir in the foothills, and is also served with local surface water diversions and groundwater. Future expansion of stormwater capture on campus will help to reduce the demand for groundwater.

#### Benefits of the WCSCU and ECSCU include:

- -Stormwater Capture and Use: Reduced reliance on local groundwater, local surface water, and imported Hetch Hetchy water for campus irrigation
- -Community Benefits: Multiple recreational spaces
- -Watershed Protection: Enhanced protection of the San Francisquito Creek and Matadero Creek watersheds' water quality and hydrograph
- -Regional Solution: Lower maintenance than the individual bioretention areas distributed on campus

#### Provide the location, if applicable.

Stanford University Campus, Unincorporated Santa Clara County

Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)).

Since January 2019, over 46 million gallons have been captured.







PROJECT DESCRIPTION	
Project type (check all that apply).	
⊠ Surface Water	Water Demand Reduction
☐ Transfer	☐ Conservation
☑ Groundwater (Recharge)	☐ Land/Water Use Changes
	☑ Infrastructure/Capital Project
☐ Recycled Water (potable)	☐ Data Gap Filling/Monitoring
☐ Indirect potable reuse	☐ Policy Project
☐ Direct potable reuse	☑ Water Quality Improvement
☐ Recycled Water (non-potable)	☐ Other: Click or tap here to enter text.
☐ Other: Click or tap here to enter text.	
Source of Outside Water (if applicable):	
Click or tap here to enter text.	
Provide regulatory/legal authority requirements (describe	all that apply).
Permits (name of authority, type of permit):	
Click or tap here to enter text.	
California Environmental Quality Act (CEQA):	
Click or tap here to enter text.	
Other:	
Click or tap here to enter text.	





COST INFORMATION	
Provide capital/up-front cost (\$).	
Click or tap here to enter text.	
Provide source(s) of funding for above capital/up-front cost.	
Click or tap here to enter text.	
Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).	
Click or tap here to enter text.	
Provide source(s) of funding for above O&M/on-going cost.	
Click or tap here to enter text.	
SCHEDULE/TIMING INFORMATION	
Provide expected kickoff/start date.	
Click or tap here to enter text.	
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.	
Click or tap here to enter text.	
Or, ☐ Add as an attachment	







ADDITIONAL DETAILS	
Provide as necessary.	
https://suwater.stanford.edu/water-supplies/stormwater-capture	

ATTACHMENTS	
Provide list of attachments:	
Click or tap here to enter text.	





Project Name	
Stanford University Sustainable Water	Management Plan
Agency	Agency Primary/Lead Name & Contact Information
Stanford University	Julia Nussbaum
	650-223-9930
	juliann@stanford.edu

#### PROJECT DESCRIPTION

#### Provide a detailed description of the proposed Project.

Stanford has compiled a working document to collect the latest water use projection and water supply planning information for the campus. The Sustainable Water Management Plan defines Sustainable Water Management, for the campus application, and uses OneWater principles. It documents existing and potential water supplies for the campus including their appropriate uses based on water quality, cost, availability, environmental/social impact, and reliability. The plan outlines high level strategic goals that will help inform water supply planning decisions. The plan currently uses water demand projections out to 2060 and anticipates alternative water supplies needed to meet those demands. The plan will be updated on a regular basis with updated water demand projections and developments related to water supplies (including work by consultants, academic research, climate change, and policy/regulatory).

Provide the location, if applicable.

Stanford University Campus, Unincorporated Santa Clara County

Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)).

Progresses as different programs are implemented





PROJECT DESCRIPTION		
Project type (check all that apply).		
⊠ Surface Water	Water Demand Reduction	
☐ Transfer	□ Conservation	
☑ Groundwater (Recharge)	☐ Land/Water Use Changes	
Stormwater	☑ Infrastructure/Capital Project	
☐ Recycled Water (potable)	☑ Data Gap Filling/Monitoring	
☐ Indirect potable reuse	$\square$ Policy Project	
☐ Direct potable reuse	☑ Water Quality Improvement	
☑ Recycled Water (non-potable)	☐ Other: Click or tap here to enter text.	
☐ Other: Click or tap here to enter text.		
Source of Outside Water (if applicable):		
Click or tap here to enter text.		
Provide regulatory/legal authority requirements (de	escribe all that apply).	
Permits (name of authority, type of permit):		
Not yet applicable		
California Environmental Quality Act (CEQA):		
Not yet applicable		
Other:		
Not yet applicable		





COST INFORMATION	
Provide capital/up-front cost (\$).	
Not yet applicable	
Provide source(s) of funding for above capital/up-front cost.	
Not yet applicable	
Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).	
Not yet applicable	
Provide source(s) of funding for above O&M/on-going cost.	
Not yet applicable	
SCHEDULE/TIMING INFORMATION	
Provide expected kickoff/start date.	
Ongoing	
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.	
Click or tap here to enter text.	
Or, ☐ Add as an attachment	

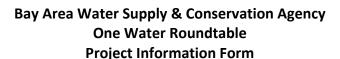




ADDITIONAL DETAILS	
Provide as necessary.	
Click or tap here to enter text.	

ATTACHMENTS
Provide list of attachments:
Click or tap here to enter text.







Project Name		
Comprehensive Update of 2013 Feasibility Study for Recycled Water Expansion		
Agency	Agency Primary/Lead Name & Contact Information	
City of Sunnyvale	Mansour Nasser P.E. Water & Sewer Division Manager	
	408-730-7578	
	mnasser@sunnyvale.ca.gov	

#### **PROJECT DESCRIPTION**

Provide a detailed description of the proposed Project.

The intent of the project is that after completion of the comprehensive master plan the City should have:

- 1-A report on the existing system, its condition, and capabilities.
- 2-Planned expansion of service areas and sales projection scenarios, including connections to other regional recycled water systems and neighboring cities;
- 3-Dynamic Hydraulic Systems Models and Flow Projections;
- 4-A recommended comprehensive long-term Capital Improvement Program (CIP), including:
- Use of recycled water on roadway medians and closed landfill sites
- -Priority array of anticipated projects
- -Scopes of Work of each project
- -Construction cost estimates
- -Time Schedule for each project

Provide the	location, if	f appl	icable.
-------------	--------------	--------	---------

City Wide

Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)).

Not Applicable





PROJECT DESCRIPTION				
Project type (check all that apply).				
☐ Surface Water	Water Demand Reduction			
$\square$ Transfer	☐ Conservation			
☐ Groundwater (Recharge)	☐ Land/Water Use Changes			
☐ Stormwater	☐ Infrastructure/Capital Project			
☐ Recycled Water (potable)	☐ Data Gap Filling/Monitoring			
☐ Indirect potable reuse	☐ Policy Project			
☐ Direct potable reuse	☐ Water Quality Improvement			
☑ Recycled Water (non-potable)	☐ Other: Click or tap here to enter text.			
☐ Other: Click or tap here to enter text.				
Source of Outside Water (if applicable):				
Click or tap here to enter text.				
Provide regulatory/legal authority requirements (describe all that apply).				
Permits (name of authority, type of permit):				
N/A				
California Environmental Quality Act (CEQA):				
N/A Study only				
Other:				
Click or tap here to enter text.				





COST INFORMATION
Provide capital/up-front cost (\$).
\$250,000
Provide source(s) of funding for above capital/up-front cost.
Water & Wastewater Funds
Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).
N/A
Provide source(s) of funding for above O&M/on-going cost.
N/A
SCHEDULE/TIMING INFORMATION
Provide expected kickoff/start date.
July 1, 2022
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.
June 30, 2024
Or. □ Add as an attachment





ADI	DITIONAL DETAILS
Provide as necessary.	
N/A	

ATTACHMENTS
Provide list of attachments:
Click or tap here to enter text.





Project Name				
Purissima Hills Water District Groundwater Well Feasibility Memo				
Agency Primary/Lead Name & Contact Information				
Purissima Hills Water District (PHWD) Enter name and credentials here.				
	Enter phone number here.			
	Enter email address here.			

#### PROJECT DESCRIPTION

#### Provide a detailed description of the proposed Project.

The District investigated the feasibility and cost estimation to pump local groundwater for certain end uses, such as landscape irrigation. Development of a new local groundwater supply source would reduce demands on imported RWS water and would result in reduced dependence on surface water supplies that are conveyed through sensitive freshwater habitat. Three scenarios were explored in this memo: potable water with treatment, potable water without treatment, and non-potable water.

Development of local groundwater resources by the District could provide benefits in terms of supply augmentation, supply diversification, and possibly cost savings (if yields were to turn out favorably). Under the assumptions in the memo, the combined yield of the potable and non-potable scenarios equates to approximately 4% of the District's total demands. Under worst-case scenario drought conditions, when SFPUC supply shortfalls could result in delivery cutbacks to PHWD of 52% (i.e., during the fourth consecutive dry year with 2040 as the base year), the groundwater supply could backfill roughly 7% of the shortfall.

Based on the cost estimates presented in the memo, the "break even" yields needed to make the water comparable in cost to the SFPUC wholesale costs are approximately 13.7 MGY for the potable with treatment scenario, 11.4 MGY for the potable without treatment scenario, and 6.3 MGY for the non-potable scenario. It should be noted however that there is uncertainty in the actual well yields that a properly designed and construction groundwater supply system could produce. If yields (on an annual basis) turned out the be greater than those assumed in the memo, or if the well(s) could be operated on a more intensive basis, then the unit costs for local groundwater could be reduced even lower, making them even more cost competitive with SFPUC wholesale water costs.







### PROJECT DESCRIPTION Provide the location, if applicable. Potential potable well sites include: (a) at the water storage tank located on Ascension Drive, known as the McCann Tank, and (b) at the District's Headquarters. Potential non-potable well could possibly serve irrigation demand at the Purissima Park (owned by the Town of Los Altos Hills) and the Fremont Hills Country Club and Windy Hill Equestrian facility. Provide expected annual benefit (demand reduction, supply augmentation, or other quantifiable benefit in million gallons per day (MGD)). Potable water well will have an estimated annual volume of 48 acre-feet per year (AFY), and the non-potable well will have an estimated annual volume of 24 AFY. If both wells are considered, the total estimated yield is 72 AFY. Project type (check all that apply). ☐ Surface Water Water Demand Reduction ☐ Conservation □ Transfer ☐ Land/Water Use Changes ☐ Groundwater (Recharge) ☐ Infrastructure/Capital Project ☐ Stormwater ☐ Data Gap Filling/Monitoring ☐ Recycled Water (potable) ☐ Policy Project ☐ Indirect potable reuse ☐ Water Quality Improvement ☐ Direct potable reuse ☐ Other: Click or tap here to enter text. ☐ Recycled Water (non-potable) ☑ Other: New groundwater source Source of Outside Water (if applicable):

Click or tap here to enter text.





#### PROJECT DESCRIPTION

Provide regulatory/legal authority requirements (describe all that apply).

Permits (name of authority, type of permit):

County of Santa Clara, well drilling and encroachment permits SWRCB, Drinking Water System permit will need to be amended to add the new production wells as a supply source

California Environmental Quality Act (CEQA):

CEQA compliance

Other:

Click or tap here to enter text.

#### **COST INFORMATION**

Provide capital/up-front cost (\$).

\$3.8 million (for potable water scenario with treatment)

\$2.9 million (for potable water scenario without treatment)

\$1.7 million (for non-potable water scenario)

Provide source(s) of funding for above capital/up-front cost.

Click or tap here to enter text.

Provide Operations and Maintenance (O&M)/on-going cost (\$ per year).

\$57,000 (for potable water scenario with treatment)

\$46,000 (for potable water scenario without treatment)

\$29,000 (for non-potable water scenario)









COST INFORMATION
Provide source(s) of funding for above O&M/on-going cost.
Click or tap here to enter text.
SCHEDULE/TIMING INFORMATION
Provide expected kickoff/start date.
Click or tap here to enter text.
Provide timeframe to accrue expected supply/demand/other quantifiable benefits.
Click or tap here to enter text.
Or, $\square$ Add as an attachment
ADDITIONAL DETAILS
Provide as necessary.
Click or tap here to enter text.





ATTACHMENTS
Provide list of attachments:
Click or tap here to enter text.



### **Attachment D**

**Funding Sources Summary Tables** 

#### range from \$1 million to \$20 Member agencies of GSAs Projects that prevent or clean up contamination of drinking water opened Groundwater **Priority Basins** 10/4/2022. Management (SGM) Only ONE application per Basin An entity that represents a GSA Projects that support water supply reliability, water conservation, million **Applications Grant Program - Prop** Goal is to achieve water balance in and water use efficiency and water banking Agencies with an alternative to a **68** Implementation **GSP** Geophysical investigation close California where GSAs and other 11/30/2022. responsible entities work Entities that have adjudicated Early implementation of existing regional flood management plans Round 2 cooperatively and innovatively to with or without a Watermaster Revisions & updates to a GSP manage surface and groundwater Project must fill known data gaps and address comments received together in a holistic and integrated from DWR on submitted GSP

Who is eligible?

**GSAs** 

**Public agencies** 

**Public utilities** 

groups

Special districts

**Public agencies** 

**Public utilities** 

list

Non-profit organizations

Native American Heritage

Mutual water companies

Colleges and universities

Mutual water companies

Non-profit organizations

Regional water management

California Native American Tribes

Federally recognized Indian tribes

State Indian tribes listed on the

Commission's Tribal Consultation

What projects are eligible?

Construction or installation of permanent connection to adjacent

Recycled water projects that provide immediate relief to potable

Projects (e.g., groundwater recharge and ecosystem restoration) not

explicitly identified may still be eligible if projects satisfy the criteria

and eligibility outlines in the GL/PSP and address a drought impact

Water reuse and recycling for non-potable reuse and direct and

Local and regional surface and underground water storage, including

Regional water conveyance facilities that improve integration of

Watershed protection, restoration, and management projects,

including projects that reduce risk of wildfire or improve water

Workshop #3: Identifying Local One-Water Projects

Other projects that support immediate drought response

Development of groundwater recharge projects

**Emergency water interties** 

Drought resilience planning

indirect potable reuse

separate water systems

supply reliability

water systems

water supplies

New wells or rehabilitation of existing wells

Water-use efficiency and water conservation

groundwater aquifer cleanup or recharge projects

**Details** 

Funding for Medium and High

Intended to provide water to

contaminated or reduced water

supplies, to address immediate

impacts on human health and

safety, and to protect fish and

Minimum award amount of \$5

grant award requirement.

regional water resource

water management

Hosted by **BAWSCA** with support from  $\bigcirc$ 

management strategies by

million per award. Smaller projects

Designed to encourage integrated

providing funding for projects and

programs that support integrated

Funding areas can choose to apply

by either deadline, but All Regions

applications by the same deadline.

in a Funding Area must submit

may be **bundled together** in a single application to meet the minimum

communities that face

wildlife resources

manner

Funding Programs from the California Department of Water Resources (DWR)

**Funding Available** 

Grant award amounts per basin

\$300 million (split between urban

community drought relief, turf

replacement, conservation for

urban suppliers, and program

\$193 million total, \$29 million for

San Francisco Bay Funding Area

Local cost share of 50% but can

that directly benefit the water

**EDA** 

management needs of a DAC or

be waived or reduced for projects

administration)

**Funding Program** 

**Urban Community** 

**Integrated Regional** 

**Water Management** 

**Grant Programs** 

Roundtable Series

**Drought Relief** 

**Funding** 

Sustainable

Status

Solicitation

Solicitation

10/10/2022.

**Applications** 

1/31/2023.

Released 5/17/2022. First

deadline of

applications

8/19/2022.

2/1/2023.

Second deadline

of applications

opened

close

### Funding Programs from DWR (con't)

**Funding Program** 

served basis	<b>Drought Program</b>
until all funds	
have been	
expended or	

First-come, first- | Small Community

**Funding Available** 

\$305 million

### Intended to offer immediate and near-term financial and technical assistance to small communities facing water supply challenges due to current drought

Details

Improve water system storage Replace aging and leaking water system infrastructure Replace aging and leaking water system infrastructure Provide backup power sources for water systems

What projects are eligible?

Hauled water

Provide reliable water storage

Temporary community water tanks Water vending machines

**Emergency water interties** 

### Funding Programs from the United States Environmental Protection Agency (EPA)

structure

Since	Water Infrastru
September 6,	Finance and
Letters of	<b>Innovation Act</b>
Interest can be	(WIFIA)
submitted	

Status

until

12/29/2023

- \$20 million is minimum project size for large communities \$5 million is minimum project size for small communities Maximum portion of eligible cost that WIFIA can fund is 49%
- Accelerated investment in nation's water infrastructure by providing long-term, low-cost supplemental loans for regionally and nationally significant projects In a Letter of Interest, the prospective borrower provides
- information to demonstrate its projects eligibility, financial creditworthiness, engineering feasibility, and alignment with EPA's

policy priorities. If EPA selects the projects, then the prospective borrower is invited to submit an

Local, state, tribal, and federal government entities Partnerships and join ventures

Who is eligible?

Small communities **not** served by

an Urban Water Supplier (UWS is

municipal purposes to more than

a public or privately owned

supplier providing water for

3,000 customers or supplying

more than 3.000 acre-feet of

water annually)

- Corporations and trusts
- Clean Water and Drinking Water State Revolving Fund programs
- Wastewater conveyance and treatment projects Drinking water treatment and distribution
- Enhanced energy efficiency projects at drinking water and wastewater facilities
- Brackish or seawater desalination, aquifer recharge, alternative water supply, and water recycling projects
- Drought prevention, reduction, or mitigation projects

the environmental impact of a project

- Desalination/aquifer recharge and water recycling projects
- Acquisition of property if it's integral to the project or will mitigate

**One Water Roundtable Series** 







application.



States

States

districts

Native American tribes

Water districts, or other

power delivery authority

power delivery authority

Native American tribes

Local irrigation and water

Local government entities

Non-profit organizations

State, regional, or local

include one or more organizations with water or

organizations with water or

authorities, whose members

Irrigation districts

Who is eligible?

Details

Funding Programs from the U.S Bureau of Reclamation (USBR)

**Funding Available** 

Up to \$5M for a large project to

be completed within 3 years

Non-Federal Cost Share: 25-

Up to \$200,000 may be

awarded to an applicant per

No non-federal cost-share

year, for a period of up to two

50%

vears

required

**Funding Program** 

**Environmental** 

**Projects** 

Cooperative

Watershed

**Program** 

**Management** 

**Roundtable Series** 

**Water Resources** 

Status

Next funding

opportunity is

expected in

Winter 2022

Schedule for

opportunity is

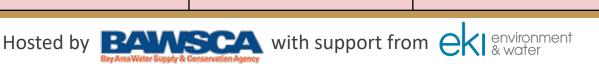
development

the FY23

funding

currently

under



Funding to support projects

focused on environmental

collaborative process to increase

the reliability of water resources

Funding to encourage diverse

solutions to address their water

stakeholders to form local

management needs

benefits that have been

developed as part of a

planning, and watershed management project design

Applicants could use funding to develop bylaws, a mission

restoration plan, and watershed management project design

Water conservation and efficiency projects that result in

drought-related impacts to ecological values

values

resources management

**benefit** projects

quantifiable and sustained water savings and benefit ecological

Water management or infrastructure improvements to mitigate

ecological values that have a nexus to water resources or water

projects with environmental and ecological benefits and multi-

Funding for watershed group development, watershed restoration

statement, complete stakeholder outreach, develop a watershed

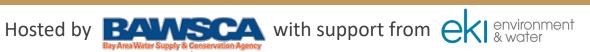
Watershed management or restoration projects benefitting

Broad project eligibility, but focus is on water management

What projects are eligible?

Status	Funding Program	Funding Available	Details	Who is eligible?	What projects are eligible?
First-come, first-served	Water Recycling Funding Program (WRFP) - Planning Grant Application	<ul> <li>Prop 1 provides \$625 million</li> <li>for recycled water projects</li> <li>Prop 13 provided financial</li> </ul>	- Goal of program is to promote the beneficial use of treated municipal wastewater (water recycling) in order to augment fresh water supplies in California by providing technical and financial assistance to agencies and other stakeholders in support of water recycling projects and research.	- Local public agencies	<ul> <li>Recycled wastewater feasibility studies</li> <li>Planning for water recycling projects</li> </ul>
First-come, first-served	Water Recycling Funding Program (WRFP) - Construction Grant Application	assistance through loans and grants for planning and construction activities  Prop 68 provided \$72 million in loans and grants for recycled water planning and construction		<ul> <li>Depending on the type of project, eligible groups include:         <ul> <li>local public agencies</li> <li>Non-profit organizations</li> <li>Public utilities</li> <li>Native American tribes</li> <li>Mutual water companies</li> </ul> </li> </ul>	<ul> <li>Construction of recycled water treatment facilities, storage facilities, pumping facilities, and groundwater recharge facilities</li> <li>Construction of recycled water distribution systems, including onsite improvements</li> <li>Development, Construction, and monitoring of a pilot-scale or demonstration-scale plant as part of the Construction of a full-scale treatment facility</li> </ul>
First-come, first-served	County-Wide and Regional Funding Programs	- \$55 million	<ul> <li>Need for regional programs that address drought-related and contamination issues for state small water systems and domestic well serving disadvantaged communities and low-income households. These needs are the primary focus for this funding, but proposals may also include work to address specific needs of public water systems</li> </ul>	<ul> <li>Counties</li> <li>Non-governmental organization on behalf of one or more counties</li> <li>Other public agencies on behalf of one or more counties</li> <li>Grant recipients aid:         <ul> <li>State smalls (&lt;15 connections) serving a DAC</li> <li>Domestic wells (&lt;5 connections) serving low-income households</li> <li>Potentially some services can be provided regardless of income (well sampling and bottled/hauled water for emergency drought response while longer-term solutions are implemented</li> </ul> </li> </ul>	<ul> <li>Assessment (community outreach, domestic well testing)</li> <li>Interim solutions (bottled water, tanks and hauled water, kiosk filing stations)</li> <li>Long-term solutions (well repairs and/or replacements, limited scale consolidation)</li> </ul>
	One Water  Hosted by RAWISCA with support from Alexander Projects  Workshop #3: Identifying Local One-Water Projects				





Funding Programs from the California State Water Resources Control Board (SWRCB)

Who is eligible?

**Publicly-owned community** 

cities, districts)

**Public agencies** 

Private entities

water systems (e.g., counties,

Privately-owned community

water utilities, non-profit

mutual water companies)

Non-profit organizations

Federally recognized tribes

Non-profit or publicly owned

non-community water systems

water systems (e.g., for-profit

Applicants with eligible projects

What projects are eligible?

Projects may include site characterization, source identification, or

Planning/design and construction of drinking water infrastructure

Constructing of publicly owned treatment works (POTWs)

Measures to reduce the demand for POTWs capacity through

Development and implementation of watershed projects

Measures to reduce the energy consumption needs for POTWs

 Provide technical assistance to owners and operators of small and medium sized publicly owned treatment works to plan, develop, and obtain financing for CWSRF eligible projects and to assist each treatment works in achieving compliance with the Clean Water Act

Workshop #3: Identifying Local One-Water Projects

projects including:

Treatment systems

Interconnections

Pipeline extensions

Nonpoint source projects

Stormwater projects

Water reuse projects

Security measures at POTWs

National estuary program projects

Decentralized wastewater treatment systems

water conservation, efficiency, or reuse

Consolidations

Water sources

Water metersWater storages

Distribution systems

Details

Assists public water systems in

financing the cost of drinking

water infrastructure projects

needed to achieve or maintain

compliance with the Safe Drinking

Water Act (SDWA) requirements

Provides low-cost financing to

Offers below-market interest

rates, 30-year financing, loan

other funding sources

forgiveness, compatibility with

Financing limits: No maximum,

and applicant's ability to repay

Repayment: Begins 1 year after

completion of construction

but depends on available funding

pollution

Hosted by **BAWSCA** with support from **C** 

protect California's waters from

Funding for projects that

Funding Programs from the SWRCB (cont'd)

**Site Cleanup** 

**Drinking Water** 

State Revolving Fund (DWSRF)

**Clean Water State** 

**Revolving Fund** 

**One Water** 

**Roundtable Series** 

(CWSRF)

**Program** 

Status

Ongoing

Ongoing

Ongoing

**Funding Program** 

**Funding Available** 

- Annual appropriation of \$34

\$159 million

- \$127 million

Funding Programs from the California Department of Water Resources (DWR)					
Status	Funding Program	Funding Available	Details	Who is eligible?	What projects are eligible?
Released on 6/1/2022. Ongoing until all funds are awarded	DWR: Riverine Stewardship Program	- Funded by Prop 13, \$13 million	<ul> <li>Program supports fish passage improvements, and other similar projects to accomplish increased ecological, stream management, climate, and community improvement benefits</li> <li>Program goals include: (1) protecting, restoring, and enhancing the natural environment of riparian systems. (2) supporting innovations in green infrastructure that support fish migration improvements, and habitat enhancement that benefit aquatic species, by reconnecting aquatic</li> </ul>	<ul> <li>Tribes, local public agencies, and certified nonprofits</li> <li>Geographic limit of the "Delta export service area" and Counties within the Association of Bay Area Governments (Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma)</li> <li>Areas of the state outside the Delta that receive water from the State Water Project or the Central Valley Project, either directly or by exchange, by means of diversions from the</li> </ul>	<ul> <li>Eligible projects must support water quality and may include:</li> <li>Innovative green infrastructure solutions that enhance water availability, groundwater storage, fish and wildlife habitat restoration, creation of cool water refugia, and address sedimentation or other water quality or water supply issues affecting fish and wildlife.</li> <li>Fish-friendly intakes for agriculture diversions that can provide for fish passage while allowing for agricultural drainage and systems for better instream water quality benefits for fish.</li> <li>Restore, conserve, or increase habitat and restore water flow through aquatic habitat to provide physical water quality and supply benefits to support fish and wildlife and restore ecological function.</li> <li>Innovative fish passage solutions that remove barriers to fish migration or improve passage.</li> <li>Innovative solutions to improve water conveyance and water loss</li> </ul>

Delta



**Small Community** 

**Drought Program** 

First-come, first-

served basis

have been

expended or

until all funds



\$305 million



to current drought

habitat to help fish and wildlife

Intended to offer immediate and

near-term financial and technical

assistance to small communities

facing water supply challenges due

endure drought and adapt to

climate change



Small communities **not** served by

an Urban Water Supplier (UWS is

municipal purposes to more than

a public or privately owned

supplier providing water for

3,000 customers or supplying

more than 3,000 acre-feet of

water annually)

Water vending machines **Emergency water interties** 

floodplain availability.

species

Hauled water

and adapt to climate change.

Provide reliable water storage

Improve water system storage

Temporary community water tanks

within agricultural diversions to assist with increasing water supply

Habitat enhancement projects that benefit aquatic species, including reconnecting aquatic habitat to help fish and wildlife endure drought

needed to support native fishes and habitat. Increase or improve

Gravel injection projects that support native fish populations. Installation of green infrastructure that improve water quality from leachates that are lethal to threatened or endangered aquatic

Replace aging and leaking water system infrastructure

Replace aging and leaking water system infrastructure

Provide backup power sources for water systems



Program to provide financial

assistance for projects to develop

hydrologic information and water

modeling and forecasting capabilities.

management tools and improve

Up to \$200,000 for projects to be

Non-federal cost share of 50% or

more of the total project cost

completed within two years

Funding Programs from the U.S Bureau of Reclamation (USBR)

FY23 funding

opportunity

expected in

Spring 2023

**Applied Science** 

**One Water** 

**Roundtable Series** 

Grants

### Hosted by **BAWSCA** with support from **C**

States

Native American tribes

Water districts, or other

organizations with water or power

Irrigation districts

delivery authority

Universities

Non-profits

**Emergency Response Actions:** 

management

and recharge, treatment, and storage facilities

water measurement and monitoring equipment

and use of USBR facilities to convey and store water

- Improved hydrologic modeling, forecasting tools, and/or GIS and data

Projects to enhance modeling capabilities to improve water supply

Projects to improve or adapt forecasting tools and technologies to

enhance management of water supplies and reservoir operations

Projects to improve access to and use of water resources data, or to

develop new types of data to inform water management decisions

reliability and increase flexibility in water operations

Decision support tools, including drought forecasting tools, and

- Eligible actions are limited to temporary construction activities and other actions authorized under Title I that do not involve construction of permanent facilities, including water purchases

multiple sectors, including projects

watershed health and agricultural,

municipal, tribal, or recreation water

uses, are encouraged and prioritized.

that benefit ecological values or

Funding to encourage diverse

stakeholders to form local solutions

to address their water management

# Hosted by **BANSCA** with support from $\bigcirc$

needs

within 3 years.

developed as part of a

of up to two years

Projects that increase water supply

reliability for ecological value and

Up to \$200,000 may be awarded to

an applicant per year, for a period

No non-federal cost-share required

collaborative process may be

eligible to receive up to 75% Federal cost share contribution

**Funding Programs from USBR cont'd** 

FY23 funding

opportunity is

scheduled for

Summer 2023

Cooperative

Watershed

Management

Program - Phase I

**One Water** 

**Roundtable Series** 

States

State, regional, or local authorities,

whose members include one or

power delivery authority

Native American tribes

Local government entities

Non-profit organizations

more organizations with water or

Local irrigation and water districts

### Workshop #4: Moving Forward!

and watershed management project design

Broad project eligibility, but focus is on water management projects with

environmental and ecological benefits and multi-benefit projects

Funding for watershed group development, watershed restoration

Applicants could use funding to develop bylaws, a mission statement,

complete stakeholder outreach, develop a watershed restoration plan,

planning, and watershed management project design

management

Sponsors of water recycling

projects with a total project

with completed feasibility

studies that have been submitted to Reclamation for

review.

cost greater than \$500 million

Sponsors of water reclamation

and reuse projects specifically

authorized for funding under

Sponsors of water reclamation

completed feasibility studies

that have been submitted to

Title XVI of P.L. 102-575

and reuse projects with

Reclamation for review

Projects will become eligible to compete for funding once

project meets Reclamation's requirements

projects

projects

Workshop #4: Moving Forward!

Federal project sponsor and has informed Congress that the

Planning, design, and construction of water recycling and reuse

Planning, design, and construction of water recycling and reuse

Reclamation has reviewed a feasibility study submitted by the non-

- Funding for planning, design, and

Recycling Projects with a total

project cost greater than \$500

Program includes funding for the

Funding for planning, design, and

Infrastructure Improvement for

the Nation (WIIN) Act water

recycling and reuse projects

of water recycling and reuse projects in partnership with local

government entities

construction of Water

Hosted by **BANSCA** with support from **(** 

planning, design, and construction

million

construction of Large-Scale Water

Next funding

opportunity is

expected in Spring 2023

Next funding

opportunity is

Summer 2023

Next funding

opportunity is

Summer 2023

expected in

expected in

**Large-Scale Water** 

**Recycling Projects** 

**Title XVI Authorized** 

**Title XVI WIIN Act** 

and Reuse

**One Water** 

Roundtable Series

**Projects** 

**Water Reclamation** 

**Projects** 

Federal funding is limited to

or greater

Congress

or greater

or greater

up to \$30 million

25% of the total project cost

Federal funding is limited to

up to \$20 million, unless

otherwise specified by

25% of the total project cost,

Non-Federal Cost Share of 75%

Federal funding is limited to

25% of the total project cost,

Non-Federal Cost Share of 75%

Non-Federal Cost Share of 75%

Status	Funding Program	Funding Available	Details	Who is eligible?	What projects are eligible?	
First-come, first-served	Water Recycling Funding Program (WRFP) - Planning Grant Application	<ul> <li>Prop 1 provides \$625 million for recycled water projects</li> <li>Prop 13 provided financial assistance through loans and grants for planning and construction activities</li> <li>Prop 68 provided \$72 million in loans and grants for recycled water planning and construction</li> <li>Maximum grant amount per project: <ul> <li>Planning grant - \$500,000</li> <li>Construction grant - \$15 million</li> </ul> </li> </ul>	Program purpose is for local public agencies to investigate the feasibility of recycling wastewater and assist them with completing planning for water recycling projects by supplementing local funds	- Local public agencies	<ul> <li>Recycled wastewater feasibility studies</li> <li>Planning for water recycling projects</li> <li>Generally, all costs necessary to determine the feasibility of using recycled water and to select an alternative to offset or augment the use of fresh/potable water from state or local supplies may be eligible for the planning grant. The Plan of Study will be used to determine the costs eligible for grant funding</li> <li>Each proposed study must be distinct from previous WRFP grant funded studies. The applicant should confer with Division staff before applying for additional planning grants to ensure that new studies are distinct and eligible</li> </ul>	
First-come, first-served	Water Recycling Funding Program (WRFP) - Construction Grant Application		<ul> <li>Water recycling construction projects must offset or augment state or local fresh water supplies</li> <li>A water recycling construction project may receive any combination of grant and loan financing available to the State Water Board for which it is eligible</li> <li>The applicant must separate the eligible and ineligible costs in application documents and its disbursement requests, as appropriate.</li> </ul>	Depending on the type of project, eligible groups include: - local public agencies - Non-profit organizations - Public utilities - Native American tribes - Mutual water companies	<ul> <li>Construction of recycled water treatment facilities, storage facilities, pumping facilities, and groundwater recharge facilities</li> <li>Construction of recycled water distribution systems, including onsite improvements</li> <li>Development, construction, and monitoring of a pilot-scale or demonstration-scale plant as part of the Construction of a full-scale treatment facility</li> <li>Construction of recycled water distribution systems, including onsite improvements</li> <li>Planning, design, construction management, value engineering, and administration directly related to project implementation</li> <li>Reasonable costs to provide an emergency backup water supply for the recycled water system.</li> <li>Contingency for change orders approved by the Division for increased costs, provided the costs are eligible and consistent with the original scope of the project</li> </ul>	
One Water Hosted by BAVISCA with support from Convert Workshop #4: Moving Forward!						





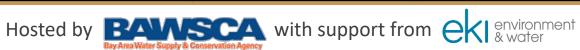


	Programs (Safe and Affordable Funding for Equity and Resilience [SAFER])		contamination issues for state small water systems and domestic well serving disadvantaged communities and low-income households. These needs are the primary focus for this funding, but proposals may also include work to address specific needs of public water systems	on behalf of one or more counties  Other public agencies on behalf of one or more counties  Grant recipients aid: State smalls (<15 connections) serving a DAC  Domestic wells (<5 connections) serving lowincome households  Potentially some services can be provided regardless of income (well sampling and bottled/hauled water for emergency drought response while longer-term solutions are implemented	filing stations)  - Long-term solutions (well repairs and/or replacements, limited scale consolidation)
Ongoing	Groundwater: Site Cleanup Subaccount Program	- Annual appropriation of \$34 million through 2025	<ul> <li>Funding for projects that investigate the source of surface or groundwater contamination and/or remediate the harm or threat of harm to human health, safety, or the environment caused by existing or threatened surface or groundwater contamination</li> <li>No cost match requirement</li> </ul>	<ul> <li>Applicants with eligible projects</li> <li>Regulatory agency has issued a directive (unless this is infeasible)</li> <li>Responsible party lacks financial resources</li> </ul>	Projects may include site characterization, source identification, or implementation of cleanup
	One Water				









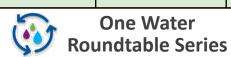
			<ul> <li>Interest rate may vary each calendar year; it is 50% of the average interest rate paid by the state on general obligation bonds issued in the prior calendar year. Lower interest rates may be available to facility's serving small, disadvantaged communities through the Clean Water State Revolving Fund (CWSRF)</li> <li>Loan Repayment Term: up to 30 years or useful life of the project</li> <li>Loan Repayment: Begins within one year after project completion</li> </ul>		<ul> <li>Wastewater reclamation and distribution</li> <li>Stormwater treatment</li> <li>Combined sewers</li> <li>Landfill leachate treatment</li> </ul>	
First-come, first-served	Small Community Drinking Water Funding	- \$300 million as part of the Drinking Water State Revolving Fund	To help small DACs, providing service to less than 10,000 people and having a median household income (MHI) of less than 80% the statewide MHI, implement eligible drinking water capital improvement projects	<ul> <li>Publicly-owned community water systems (e.g., counties, cities and districts)</li> <li>Privately-owned community water systems (e.g., for-profit water utilities, non-profit mutual water companies)</li> <li>Non-profit or publicly-owned non-community water systems (e.g., public school districts)</li> <li>Community water systems created by the project</li> </ul>	<ul> <li>Planning/design and construction of drinking water infrastructure projects including:         <ul> <li>Treatment systems</li> <li>Distribution systems</li> <li>Interconnections</li> <li>Consolidations</li> <li>Pipeline extensions</li> <li>Water sources</li> <li>Water meters</li> <li>Water storage tanks</li> </ul> </li> </ul>	
One Water  Hosted by BANSCA with support from Convergence of the support from Convergence of t						



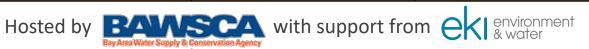




Funding Programs from the SWRCB (cont'd)						
Status	Funding Program	Funding Available	Details	Who is eligible?	What projects are eligible?	
Ongoing	Drinking Water State Revolving Fund (DWSRF) Program	- \$650 million	Assists public water systems in financing the cost of drinking water infrastructure projects needed to achieve or maintain compliance with the Safe Drinking Water Act (SDWA) requirements	<ul> <li>Publicly-owned community water systems (e.g., counties, cities, districts)</li> <li>Privately-owned community water systems (e.g., for-profit water utilities, non-profit mutual water companies)</li> <li>Non-profit or publicly owned non-community water systems</li> </ul>	<ul> <li>Planning/design and construction of drinking water infrastructure projects including:         <ul> <li>Treatment systems</li> <li>Distribution systems</li> <li>Interconnections</li> <li>Consolidations</li> <li>Pipeline extensions</li> <li>Water sources</li> <li>Water storages</li> </ul> </li> </ul>	
Ongoing	Clean Water State Revolving Fund (CWSRF)	- \$650 million	<ul> <li>Provides low-cost financing to protect California's waters from pollution</li> <li>Offers below-market interest rates, 30-year financing, loan forgiveness, compatibility with other funding sources</li> <li>Financing limits: No maximum, but depends on available funding and applicant's ability to repay</li> <li>Repayment: Begins 1 year after completion of construction</li> </ul>	<ul> <li>Public agencies</li> <li>Non-profit organizations</li> <li>Private entities</li> <li>Federally recognized tribes</li> </ul>	<ul> <li>Constructing of publicly owned treatment works (POTWs)</li> <li>Nonpoint source projects</li> <li>National estuary program projects</li> <li>Decentralized wastewater treatment systems</li> <li>Stormwater projects</li> <li>Measures to reduce the demand for POTWs capacity through water conservation, efficiency, or reuse</li> <li>Development and implementation of watershed projects</li> <li>Measures to reduce the energy consumption needs for POTWs</li> <li>Water reuse projects</li> <li>Security measures at POTWs</li> <li>Provide technical assistance to owners and operators of small and medium sized publicly owned treatment works to plan, develop, and obtain financing for CWSRF eligible projects and to assist each treatment works in achieving compliance with the Clean Water Act</li> </ul>	







Status	Funding Program	Funding Available	Details	Who is eligible?	What projects are eligible?
Ongoing	Technical Assistance (TA) Funding Program	- Prop 1 is funding source	<ul> <li>TA is available to help small DACs develop, fund, and implement eligible drinking water, wastewater, stormwater, or groundwater needs.</li> <li>Stormwater resources are limited, not currently accepting new communities for stormwater TA, but can submit a request for future consideration as resources allow</li> </ul>	<ul> <li>Small DACS</li> <li>Small community is defined as having a population less than 10,000 people</li> <li>Disadvantaged community is defined as median household income (MHI) &lt; 80% of the statewide MHI</li> <li>Requests relating to one or more of the following will generally be given priority:         <ul> <li>Systems that are out of compliance or experiencing insufficient water delivery capabilities; extension of service for drought/contamination impacted communities;</li> <li>Consolidation projects</li> <li>Systems serving less than 200 connections</li> <li>Applicants with small or relatively low-cost needs that will enable an otherwise complete funding application to move forward</li> </ul> </li> </ul>	<ul> <li>Coordination and development of capital improvement projects</li> <li>Facilitation of operation and maintenance</li> <li>Engineering and environmental analysis</li> <li>Legal assistance</li> <li>Leak detection/water audits</li> <li>Compliance audits</li> <li>Financial analysis</li> <li>Technical managerial and financial (TMF) assessments</li> <li>Board or operator training</li> </ul>
	One Water	Heaterdhy DAM	2000this	Old environment	





#### Funding Programs from the United States Environmental Protection Agency (EPA) **Funding Available Funding Program** Status

		_		_	
Since September 6, Letters of Interest can be submitted	Water Infrastructure Finance and Innovation Act (WIFIA)	<ul> <li>\$20 million is minimum project size for large communities</li> <li>\$5 million is minimum project size for small communities</li> <li>Maximum portion of eligible cost that WIFIA can fund is 49%</li> </ul>	<ul> <li>Accelerated investment in nation's water infrastructure by providing long-term, low-cost supplemental loans for regionally and nationally significant projects</li> <li>In a Letter of Interest, the prospective borrower provides information to demonstrate its projects eligibility, financial creditworthiness, engineering feasibility, and alignment with EPA's policy priorities. If EPA selects the projects, then the prospective borrower is invited to submit an application.</li> </ul>	<ul> <li>Local, state, tribal, and federal government entities</li> <li>Partnerships and join ventures</li> <li>Corporations and trusts</li> <li>Clean Water and Drinking Water State Revolving Fund programs</li> </ul>	<ul> <li>Wastewater conveyance and treatment projects</li> <li>Drinking water treatment and distribution</li> <li>Enhanced energy efficiency projects at drinking water and wastewater facilities</li> <li>Brackish or seawater desalination, aquifer recharge, alternative water supply, and water recycling projects</li> <li>Drought prevention, reduction, or mitigation projects</li> <li>Desalination/aquifer recharge and water recycling projects</li> <li>Acquisition of property if it's integral to the project or will mitigate the environmental impact of a project</li> </ul>
<b>Funding Program</b>	ns from the California I	nfrastructure and Economic Develop	ment Bank (IBank)		
Ongoing	Infrastructure State Revolving Fund (ISRF) Program	- Ranging from \$1 million to \$65 million	<ul> <li>Program provides low-cost, direct loans to local governments and nonprofits sponsored by public agencies for a wide variety of public infrastructure and economic expansion projects (excluding housing) that improve and sustain communities</li> </ul>	<ul> <li>Must be located in California and include any subdivision of a local government (including cities, counties, special districts, assessment districts, joint powers authorities, and non- profits sponsored by a government entity</li> </ul>	<ul> <li>Eligible projects (including, but not limited to):</li> <li>Streets, highways, and public transit</li> <li>Water, sewage, and solid waste</li> <li>Ports, parks, and recreational facilities</li> <li>Organic-recycling projects</li> <li>Zero emissions vehicle fleets, maintenance</li> <li>vehicles, school buses, charging stations</li> <li>Infrastructure related to housing</li> </ul>

Details





Who is eligible?

What projects are eligible?



155 Bovet Road, Suite 650 San Mateo, California 94402