NOTICE OF MEETING & REQUEST FOR RSVPS

Members of the Joint Recycled Water Committee:
Hon. Tony Estremera, Director, District 6, Chairperson
Hon. Gary Kremen, Director, District 7, Vice Chairperson
Hon. Barbara Keegan, Director, District 2, Committee Member

And Supporting Staff Members:
Norma Camacho, Interim Chief Executive Officer
Stan Yamamoto, District Counsel
Anthony Fulcher, Sr. Assistant District Counsel
Jim Fiedler, Chief Operating Officer, Water Utility
Rick Callender, Deputy Administrative Officer, Government Relations
Chris Elias, Deputy Administrative Officer, CEO & Board Support
Katherine Oven, Deputy Operating Officer, Water Utility Capital
Garth Hall, Deputy Operating Officer, Water Supply Division
Angela Cheung, Deputy Operating Officer, Water Utility & Maintenance
Hossein Ashktorab, Unit Manager, Recycled & Purified Water
Luis Jaime, Senior Project Manager
Miguel Silva, Associate Engineer (Civil)
Henry Barrientos, Associate Engineer (Civil)
Phillippe Daniel, Contractor
Marta Lugo, Public Information Representative III
Elise Latejou-Durand, Environmental Planner II
Toni Vye, Staff Analyst
Natalie Dominguez, Board Admin. Assistant II
Sylvia Van Diemen, Executive Assistant
Ana Ortiz-Horigan, Executive Assistant
Lillian Dennis, Executive Assistant
Liz Bettencourt, Executive Assistant
Ferlina DeLa Cruz, Administrative Assistant
Rita Khosla, Administrative Assistant
Debra Butler, Senior Project Manager

A meeting of the Santa Clara Valley Water District Recycled Water Committee will take place at 12:00 p.m., on Wednesday November 9, 2016, at the Santa Clara Valley Water District, Headquarters Building Boardroom, 5700 Almaden Expressway, San Jose, California.

Attached for your convenience is a copy of the amended agenda and related materials. Additional materials associated with the meeting may be distributed at or before the meeting, in accordance with the Brown Act.

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

(OVER)
Boxed lunches will be provided for Board members only, beginning at 11:30 a.m.

Regards,

Natalie F. Dominguez

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

Enclosures
AMENDED AGENDA
RECYCLED WATER COMMITTEE
Santa Clara Valley Water District Headquarters Boardroom
5700 Almaden Expressway, San José, CA

Wednesday, November 9, 2016
12:00 PM

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

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

3.  Approval of Minutes:  September 7, 2016
    Recommendation:  Approve the minutes.

4.  Action Items:

4.1  Update on Expedited Purified Water Program.  (K. Oven)
    Recommendation:  Receive information and discuss next steps.

4.2  Update on Recycled and Purified Water Expansion Efforts.  (G. Hall)
    Recommendation:  Receive information and discuss next steps.
    A. Sunnyvale
    B. Palo Alto/Mountain View
    C. San Francisco Public Utilities Commission

4.3  Update on Countywide Recycled Water Master Plan (Master Plan).  (G. Hall)
    Recommendation:  Receive information and discuss next steps.
    A. Schedule and Process for Master Plan
    B. Potential District Roles and Responsibilities

4.4  Update on South County Recycled Water Expansion Efforts.  (G. Hall)
    Recommendation:  Receive information and discuss next steps.

5.  Clerk Review and Clarification of Committee Requests and Recommendations
    This is an opportunity for the Clerk to review and obtain clarification on any formally moved,
    seconded, and approved requests and recommendations made by the Committee during
    discussion of Item 4.
6. **Adjourn**: Adjourn to next regularly scheduled meeting at 12:00 p.m., on January 4, 2017, in the Santa Clara Valley Water District Headquarters Boardroom, 5700 Almaden Expressway, San Jose, CA 95118.

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REASONABLE EFFORTS TO ACCOMMODATE PERSONS WITH DISABILITIES WISHING TO ATTEND COMMITTEE MEETINGS WILL BE MADE. PLEASE ADVISE THE CLERK OF THE BOARD’S OFFICE OF ANY SPECIAL NEEDS BY CALLING (408) 630-2277.

Meetings of this committee will be conducted in compliance with all Brown Act requirements. All public records relating to an open session item on this agenda, which are not exempt from disclosure pursuant to the California Public Records Act, that are distributed to a majority of the legislative body will be available for public inspection at the same time that the public records are distributed or made available to the legislative body, at the following locations:

Santa Clara Valley Water District
Clerk of the Board Unit
5700 Almaden Expressway
San José, Ca 95118

Recycled Water Committee Purpose: The Committee’s purpose is to develop a long term proposal for how the District can work together with other local agencies on recycled water opportunities within the district boundaries, to establish a collaborative process to facilitate policy discussion and sharing of technical information on recycled water issues. It is the role of the Recycled Water Committee to meet with the other entities (Sunnyvale, Palo Alto, CSJ SC/TPAC) in individual meetings as required and/or necessary. The Recycled Water Committee can also meet with new entities if the need arises.
A meeting of the Recycled Water Committee (Committee) was called to order in the Santa Clara Valley Water District Headquarters Boardroom, 5700 Almaden Expressway, San Jose, California, at 12:00 p.m.

1. CALL TO ORDER/ROLL CALL.

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


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

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

3. APPROVAL OF MINUTES.

It was moved by Director Keegan, seconded by Director Kremen, and unanimously carried to approve the minutes of July 6, 2016, as presented.
4. **ACTION ITEMS.**

4.1. Workshop on Expedited Purified Water Program – Dual Track Procurement.

Ms. Katherine Oven, Deputy Operating Officer, reviewed the information on this item per the attached Committee Agenda Memo. The following persons reviewed the presentation materials contained in Attachment 1 as follows: Ms. Oven, Slides 1-7, 16-22, and 29-30; Ms. Jill Jamieson, JLL Inc., Slides 8-15; and Ms. Charlene Sun, Treasury and Debt Manager, Slides 23-28.

A comparison of the Public-Private Partnership (P3) vs. Progressive Design-Build (PDB) method, identified as Handout 4.1-A, herein, was distributed to the Committee. Copies of the Handout were made available to the public.

Mr. Stan Williams, Vice President, Project Development, Poseidon Water, provided comments on his letter of September 6, 2016, regarding the PDB project delivery method, identified as Handout 4.1-B, herein. He suggested that the Committee not select a procurement method during this meeting; direct staff to develop information that provides a meaningful comparison of the alternative procurement methods including the value of the risks that are transferred to each party by each approach, and the impacts on groundwater production charges of the two approaches; review staff objectives to determine whether they are consistent with Board policies and objectives; and that staff provide the entire Board with a comprehensive comparison of each of the criteria outlined in the PowerPoint presentation, including an evaluation of risks, the allocation of risks to each party and the value of the risks that are transferred from the public to the private sector.

Ms. Oven noted that staff would give a presentation on the Expedited Purified Water Program – Dual Track Procurement process to the entire Board at a future meeting.

The Committee noted the information without formal action.

4.2. Update on District Partnership Discussions With Retailers.

Mr. Garth Hall, Deputy Operating Officer, reviewed the information on this item per the attached Committee Agenda Memo.

Director Keegan left the meeting and did not return.

The Committee noted the information without formal action.

4.3 Update on Reverse Osmosis Concentrate Management Plan.

Ms. Luisa Sangines Uriarte, Senior Engineer, reviewed the information on this item per the attached Committee Agenda Memo, and reviewed the presentation materials contained in Attachment 1, Slides 32-36.

The Committee noted the information without formal action.
5. **CLERK REVIEW AND CLARIFICATION OF COMMITTEE REQUESTS AND RECOMMENDATIONS.**

Ms. Natalie Dominguez, Board Administrative Assistant II, confirmed there were no new recommendations or formal action requiring Board consideration.

6. **ADJOURN.**

Chairperson Estremera adjourned the meeting at 2:20 p.m., to the next regular scheduled meeting at 12:00 p.m., on November 2, 2016, at the Santa Clara Valley Water District Headquarters Boardroom, 5700 Almaden Expressway, San Jose, California.

Subsequent to adjournment, the November 2, 2016, meeting was rescheduled to November 9, 2016, at 12:00 p.m.

Respectfully submitted,

Natalie F. Dominguez  
Board Administrative Assistant II

Approved:
COMMITTEE AGENDA MEMO

SUBJECT: Update on Expedited Purified Water Program.

RECOMMENDED ACTION:

Receive information and discuss next steps.

SUMMARY:
Since the last update to the Committee on the Expedited Purified Water Program (Program) at the May 12, 2016 Committee meeting, work on preliminary engineering analyses, groundwater modeling, and capacity/operation assessments continue. Several meetings to develop a Memorandum of Understanding (MOU) with the City of San José have also been held. These activities have included:

1. Evaluation of key program elements:
   a. Reverse osmosis concentrate – The potential for discharging through the existing outfall at the San José-Santa Clara Regional Wastewater Facility (RWF) without any adverse impacts on regulatory compliance to the existing and anticipated NPDES permit conditions for discharges to the San Francisco Bay.
   b. Pipelines – Alternatives for conveying purified water into the District’s system considering both indirect and direct potable reuse options.
   c. Groundwater basin – Investigation of recharge constraints (i.e., regulatory, capacity, geochemistry).
2. Assessment of factors influencing initial and ultimate Program capacity, including other planning efforts, utilization rate across a range of hydrologic conditions, and potential partnerships.
3. Development of an MOU with City of San José regarding siting of facilities near the RWF and other considerations.
4. Analysis of the Progressive Design-Build (PDB) and Public-Private Partnership (P3) project delivery for delivering the Program.

Details of the analyses are found in the attachments and will be discussed in greater detail.

ATTACHMENT(S):

Attachment 1: PowerPoint Presentation
Attachment 2: Water Table at Sunnyoaks Ponds
COMMITTEE AGENDA MEMO

SUBJECT: Update on Recycled and Purified Water Expansion Efforts.

RECOMMENDED ACTION:

Receive information and discuss next steps.
A. Sunnyvale
B. Palo Alto/ Mountain View
C. San Francisco Public Utilities Commission

SUMMARY:

The purpose of this agenda item is to provide the Recycled Water Committee (Committee) with updates on partnerships being developed with the City of Sunnyvale (Sunnyvale), the City of Palo Alto (Palo Alto) along with the City of Mountain View (Mountain View), and San Francisco Public Utilities Commission (SFPUC). Three Memoranda of Understanding (MOU) are being negotiated with these agencies to assess the feasibility and potential cost-sharing participation of developing potable water reuse options in Santa Clara County (County).

A. Sunnyvale

Since 2014, District staff has been evaluating options in collaboration with Sunnyvale to produce purified water to be potentially used for potable reuse projects on the north side of the County.

Options 1-3

The first three potable reuse options (described below) with Sunnyvale involve membrane bioreactor facilities and an off-site District advanced water purification facility (AWPF). As reported to the Committee on July 6, 2016, the projected amount of treated wastewater immediately available for purification is estimated to initially produce approximately 5 million gallons per day (MGD) of purified water. Potential permitting requirements may limit the amount of effluent available from the Sunnyvale Water Pollution Control Plant (WPCP).

The increased uncertainty of water availability and associated increased unit cost projections for Options 1 and 2 make Option 3 a more attractive alternative than Options 1 and 2 at this time.
Options 4-8

As presented at the September 27, 2016, Joint Recycled Water Committee Meeting with Palo Alto and Sunnyvale, staff is also evaluating a broader set of options in the context of the Expedited Purified Water Program and it is timely to evaluate the additional options before making further commitments on Options 1, 2, and 3. The additional options are further described below. Common risks to all the options include conveyance costs and permitting issues. Further studies should be conducted to address water quality requirements, distribution system hydraulics of potential interties, and environmental concerns.

Description of Options

Options 1 through 8 are further described below.

**Option 1 – District-Sunnyvale Membrane Bioreactor (MBR) Cost-Share and On-Site AWPF.** This option focuses on a possible cost-sharing partnership between Sunnyvale and the District for the construction of an MBR water treatment system within the fence line of the WPCP. In addition to the MBR system, the District would need to construct an AWPF, as well as a distribution and recharge or injection system for the purified water.

**Option 2 – MBR-Treated Water Purchase and On-Site AWPF.** This second option focuses on negotiating a purchase agreement for MBR-treated water, whereby Sunnyvale would produce MBR-treated water to be purchased by the District. The MBR-treated water would be further treated at the AWPF (developed and owned by the District) which would be located within the WPCP fence line. The District would also need to construct a distribution and recharge, or injection system, for the purified water.

**Option 3 – Receive Secondary Treated Wastewater From Sunnyvale and Treat Further at an Off-Site AWPF.** This concept includes the District acquiring a site in the vicinity of the WPCP to build an AWPF (and all related infrastructure) to receive treated wastewater and produce purified water. The joint Sunnyvale and District project team has identified Sunnyvale’s decommissioned landfill as a potential location for the AWPF and is reviewing information about the site’s condition. District staff has tentatively identified the off-site potable reuse option as the preferred alternative among the first three options. The District would also need to construct a distribution and recharge, or injection system, for the purified water.

**Option 4 – Multi-level AWPF Within a Limited Footprint at WPCP.** As Sunnyvale implements its capital improvement program for the WPCP, certain components of the existing treatment plant will be decommissioned. The reclaimed areas could be used for advanced water purification facilities. However, the area available for an AWPF would be significantly less than that contemplated in Options 1 and 2; however, this issue could potentially be addressed by constructing a multi-level AWPF. Option 4 entails significant challenges, including the timing of facility decommissioning and difficulties associated with operating a multi-level treatment plant. The District would also construct a distribution and recharge, or injection system, for the purified water.

**Option 5 – Sunnyvale WPCP Effluent to Expanded Silicon Valley Advanced Water Purification Center (SVAWPC).** This concept considers supplementing flow into the Expanded SVAWPC with secondary/tertiary treated wastewater produced at the Sunnyvale WPCP. The additional source of water could make the expansion of the SVAWPC a more financially attractive option and could improve operational flexibility as well as providing additional outflow.
for enhanced reverse osmosis concentrate management. The District would construct a potentially enlarged version of the expanded SVAWPC.

**Option 6 – Sunnyvale Recycled Water Intertie to South Bay Water Recycling (SBWR).** The existing SVAWPC is supplied with secondary-treated wastewater from the San Jose/Santa Clara Regional Wastewater Facility (RWF). To increase operational flexibility of RWF and the future expanded SVAWPC, recycled water from Sunnyvale WPCP could be conveyed to SBWR to augment its distribution system.

**Option 7 – Small AWPF at WPCP for Enhanced Recycled Water in Sunnyvale System.** This option would entail building a small water purification facility at WPCP to produce water with low total dissolved solids for blending with tertiary treated recycled water, similar to the current implementation of SVAWPC. In addition, this option would be combined with that in Option 6 to enhance the value of non-potable recycled water.

**Option 8 – Palo Alto Regional Water Quality Control Plant (RWQCP) Effluent to Sunnyvale WPCP or District Expanded SVAWPC.** Extensive regional connections could maximize the flexibility and reliability of potable water reuse systems in the County. Effluent from Palo Alto’s RWQCP could be used as a source for expanded treatment facilities in Sunnyvale or at the Expanded SVAWPC. Larger and more centralized purified water facilities could result in better economies of scale.

Attachment 1 includes a conceptual map of the options.

**Sunnyvale MOU Status**

The draft MOU is undergoing final revisions by District and Sunnyvale staff. The draft MOU includes a right of first refusal, during the life of the MOU, for the District to purchase source water from Sunnyvale WPCP. During the term of the MOU, Sunnyvale will not enter into any agreement to provide treated wastewater effluent to another entity or project that could materially reduce the amount of source water available to the District without District’s consent.

The MOU is a commitment to identify the requirements, issues, activities, resources, costs, and funding necessary to implement potable and non-potable water reuse options. Attachment 1 summarizes key aspects of the MOU. The terms of the MOU cover important assumptions and considerations such as source water availability, permitting, reverse osmosis concentrate management, land requirements, and governance.

The District-Sunnyvale MOU is expected to be presented to the Board for approval in February 2017.

**B. Palo Alto/Mountain View**

The District, in partnership with Palo Alto and Mountain View, continues to work on two recycled and purified water efforts in the Northwest County. The first effort is the Advanced Water Purification Feasibility Study (RO Study), which is currently underway. The RO Study is scheduled for completion in December 2017.

The second effort will focus on creating a Northwest County Recycled Water Strategic Plan (Strategic Plan) associated with the Palo Alto RWQCP and recycled water customers in Palo Alto, Stanford, Los Altos, Los Altos Hills, East Palo Alto, and Mountain View.
On October 11, 2016, the Board approved the cost-share distribution between the District and Palo Alto for the Strategic Plan. Staff from the District and Palo Alto finalized the scope of work with the selected consultant, RMC Water and Environment, and the cost-share agreement between the District and Palo Alto is scheduled for execution in November 2016. Consultant’s notice to proceed is planned to be issued in December 2016.

**Palo Alto/Mountain View MOU Status**

Staff is also working on a MOU between the District, Palo Alto, and Mountain View to study the feasibility of future potable reuse efforts. The MOU would commit the entities to jointly collaborate on the strategic planning in expansion of recycled water as well as developing potable reuse. The MOU also would evaluate additional option with the Cities of Sunnyvale and San José, such as conveying treated wastewater from the Palo Alto’s RWQCP to the City of Sunnyvale’s Water Pollution Control Plant and/or conveyance to the expanded SVAWPC. Staff expects the MOU will be presented to the Board for approval in April 2017 (see key MOU highlights in Attachment 1).

**C. San Francisco Public Utilities Commission**

SFPUC and District staff drafted a proposed MOU to participate in a feasibility study to evaluate alternatives to improve regional water supply reliability. The objective of the study is to evaluate the concept of having SFPUC participate financially in the District’s Expedited Purified Water Program in exchange for a portion of the purified water to increase water supply reliability for SFPUC customers. Potential benefits include improved reliability of regional water supplies and increased utilization of the expanded SVAWPC. Attachment 1 highlights the key terms of the agreement, which include: defining objectives; analyzing constraints; identifying conceptual alternatives; and deciding on next steps.

**SFPUC MOU Status**

District management met with SFPUC management on October 31, 2016, to discuss draft language for the MOU. Additional coordination with the Bay Area Water Supply and Conservation Agency, City of San Jose and City of Santa Clara is underway. Staff expects the MOU will be presented to the Board for approval in February 2017.

**ATTACHMENT(S):**

Attachment 1: PowerPoint Presentation
COMMITTEE AGENDA MEMO

SUBJECT: Update on Countywide Recycled Water Master Plan (Master Plan).

RECOMMENDED ACTION:

Receive information on the Countywide Recycled Water Master Plan effort.
A. Summary of Master Plan components
B. District roles as part of current recycled water systems in the County

SUMMARY:

The purpose of this agenda item is to provide an update to the Recycled Water Committee (Committee) on the Countywide Recycled Water Master Plan (Master Plan). The update includes a summary of the outcome from a workshop held on May 16, 2016 to initiate the stakeholder engagement process for the Master Plan. Staff is seeking feedback from the Committee on these outcomes.

The May 16 workshop captured stakeholder input to frame the vision and identify key components for the Master Plan. The workshop consisted of facilitated exercises focusing on visioning, opportunities, risks, and challenges analysis. Stakeholders also participated in a brainstorming session aimed at identifying key components of the Master Plan. Attachment 2 tabulates these key components: governance, regional integration, sewershed considerations, economic analysis, funding/legal/project delivery, water quality/quantity, land requirements, residuals management, environmental/permitting, and public perception.

Governance considerations are a foundational component of the Master Plan’s framework. Attachment 1 contains a summary of current District roles related to the four recycled water producer systems in Santa Clara County, including South Bay Water Recycling, Sunnyvale, Palo Alto, and South County Regional Wastewater Authority. Staff is seeking feedback from the Committee on how the current District roles may possibly be changed over time to provide improved integration of countywide recycled and purified water systems and services.

Next steps include holding a follow-up stakeholder workshop in January 2017 to discuss and finalize the Master Plan’s vision statement, goals, and objectives. The January 2017 workshop will also focus on development of project alternatives and criteria for the Master Plan.

ATTACHMENT(S):

Attachment 1: PowerPoint Presentation
Attachment 2: Master Plan Development
Master Plan Development

- Governance
  - Collaborative partnerships
  - Guide system expansion

- Regional Integration
  - Optimize use of supply and infrastructure
  - Improve system reliability/redundancy/flexibility
  - Potential benefits for more stakeholders

- Sewershed Considerations
  - Central versus regional costs and benefits
  - Treatment of effluent from another sewershed

- Economic Analysis
  - Cost per acre foot
  - Cost/benefit allocation

- Water Quality & Quantity
  - Title 22 vs Purified, “right water for right application”
  - Balance supply among various uses

- Land Requirements
  - Leverage existing or underutilized assets
  - Opportunity for land partnerships

- Residuals Management
  - Potential for regional solutions
  - Potential to facilitate permitting

- Environmental & Permitting
  - Multi-agency collaboration
  - Leverage regional and central permit opportunities
  - Facilitate permitting requirements

- Funding/Legal/Project Delivery
  - Partnerships and cost sharing
  - State and federal partnerships
  - Private/public partnerships

- Public Perception
  - Identify and expand upon key outreach programs and messages
  - Partnership opportunities for regional outreach programs
COMMITTEE AGENDA MEMO

SUBJECT: Update on South County Recycled Water Expansion Efforts.

RECOMMENDED ACTION:

Receive information and discuss next steps.

SUMMARY:

The purpose of this agenda item is to provide the Recycled Water Committee (Committee) with an update on the existing and planned expansion projects, see Section A. Staff is also seeking support from the Committee on a proposed budget adjustment (up to an estimated $3 million) as part of a cost-share opportunity with Glen Loma Ranch development, see Section B. The Santa Clara Valley Water District (District) in partnership with the South County Regional Wastewater Authority (SCRWA) and Cities of Gilroy and Morgan Hill are engaged in efforts to expand non-potable water reuse in south Santa Clara County.

A. South Santa Clara County Recycled Water Project, Phases 1B and 2A

The South Santa Clara County Recycled Water Project, Phases 1B and 2A (District Phases 1B/2A), includes the design and construction of approximately 14,500 linear feet of non-potable recycled water pipeline and appurtenances ranging in diameter size from 18 inches to 36 inches. This includes approximately 2,100 feet of pipeline as part of the Camino Arroyo Service Line Extension, which was completed in June 2015. The approximate location of the pipeline alignments is illustrated in Attachment 1. The estimated schedule for the project includes:

1. Completion of Design: November 2016
2. Start of Construction: March 2017
3. Project Completion: July 2018

Upon project completion, the proposed project will eliminate existing flow capacity limitations in the system allowing for the full utilization of 1,200 Acre Feet per Year (AFY) of existing recycled water supplies. This project, along with the previously-completed Phase 1A element, will also provide for the distribution of 1,800 AFY of recycled water supplies to support new demands, thus increasing the total recycled water availability to 3,000 AFY through the expansion of the recycled water distribution system.
On September 19, 2016, the District entered into a grant funding agreement with the U.S. Bureau of Reclamation (Bureau) under the WaterSMART, Title XVI Program. The grant funding agreement authorizes the Bureau to provide the District with up to $5.7 million of funding towards the District Phases 1B/2A project. The Bureau has secured an appropriation to provide the District with $3.7 million of this $5.7 million of grant funding in 2016. Staff will continue to work with the Bureau to secure the remaining $2 million in grant funding in 2017.

B. Glen Loma Ranch Development

The District will be executing a new reimbursement agreement with the City of Gilroy to take advantage of cost-saving opportunities to construct approximately 10,100 linear feet of recycled water pipelines within the future phases of the Glen Loma Ranch development Phases 2 and 3 (GLR Phases 2/3 of the project). Construction of these recycled water pipelines are in alignment with the 2015 South County Recycled Water Master Plan Update. The estimated cost of construction is $3 million. The estimated schedule for project completion is December 2020.

On February 26, 2015, the District executed an agreement with the City of Gilroy to cost-share in the design and construction to upsize 1,185 linear feet of recycled water pipeline within the Glen Loma Ranch development (GLR Phase 1A of the project). In the proposed new agreement for GLR Phases 2/3, the District would cost-share in the design and construction to upsize approximately 5,800 linear feet of additional 16-inch pipeline to 30-inch pipeline and construct approximately 4,300 linear feet of 24-inch pipeline within the development. The proposed 30-inch pipeline connects to the GLR Phase 1A project and extends through the development stopping short of the Christmas Hill Park Recycled Water Pump Station (Christmas Hill PS). The proposed 24-inch pipeline includes connections to the Christmas Hill PS and extends through the development to the south side of the Santa Teresa Boulevard crossing at Uvas Creek. The approximate location of the proposed pipeline alignments is illustrated in Attachment 1.

The Glen Loma Ranch Specific Plan (Specific Plan), adopted by the City of Gilroy, defines the development requirements for recycled water infrastructure. The Specific Plan did not include the requirement for construction of the 4,300 linear feet of 24-inch pipeline. Representatives of the Glen Loma Ranch development have engaged in discussions with the City of Gilroy and District to construct the additional pipeline at the cost of construction.

ATTACHMENT(S):

Attachment 1: PowerPoint Presentation
Recycled Water Committee

November 9, 2016

Santa Clara Valley Water District
4.1 Update on Expedited Purified Water Program (K. Oven)

4.2 Update on Recycled and Purified Water Expansion Efforts (G. Hall)

4.3 Update on Countywide Recycled Water Master Plan (G. Hall)

4.4 Update on South County Recycled Water Expansion Efforts (G. Hall)
4.1 Update on Expedited Purified Water Program
4.1 Presentation Outline

1. Program Elements
2. Capacity Determination
3. MOU with City of San Jose
4. Dual Track Procurement
1. Potential Program Elements

SVAWPC Expansion

- Los Gatos Ponds
- Injection Wells
- Treatment Plants
  - Ponds
  - Injection Wells
  - Ponds

- Ford Pond
- Sunnyvale
Expedited Purified Water Program
Potential Components

Legend

- IPR/DPR Purified Water Pipeline
- Future Wolfe Road Pipeline
- Existing Recycled Water Pipeline
- District Raw Water Pipeline
- Expanded SVAWPC
- Water Pollution Control Plant
- Water Treatment Plant
- Pump Station

Several Options

- Sunnyvale WPCP
- SVAWPC Expansion
- SI/SC Regional Wastewater Facility

Modified Injection Well Area

- Los Gatos Recharge Ponds IPR - 20,200 AFY
- Ford Recharge Pond IPR – 4,200 AFY
• RO concentrate analysis results are favorable.
• 25,000 AFY+ of additional potable reuse appears feasible.
• Is District willing to share liability for CSJ’s NPDES permit compliance?
• Document testing results.

• Work with SJ-SC on chronic toxicity strategy:
  – Regulatory sufficiency.
  – Lab impacts.
  – Supplemental testing.

• Support SJ-SC in engaging with the Regional Board.
Pipeline: SVAWPC to Los Gatos Ponds

- Narrowed from 5 to 3
- Currently identifying best alignments
- Crossings significant:
  - Trenchless (Total) 15
    - Caltrans: 4
    - Expressway: 2
    - VTA/Railroad: 5
    - High Pressure Gas: 4
Raw Water Augmentation Alternatives

- IPR/DPR Purified Water Pipeline Alternatives 1 & 2
- SVAWPC Expansion
- South Bay Aqueduct
- Penitencia Water Treatment Plant
- IPR Purified Water Pipeline Alternative
- Central Pipeline
- Los Gatos Recharge Ponds
Localized Groundwater Recharge Limited at Higher Program Capacity

(Refer to Attachment 2 in Item 4.1 Agenda Memorandum)
Impact of Program Capacity on Santa Clara Plain Groundwater Levels
2. Capacity Determination Considerations

- Other Supply Alternatives
- Groundwater Storage Limitations
- Countywide Recycled and Purified Water Master Plan
- Urban Water Management Plan
- Water Supply Master Plan

Boards Ends Policy

Recycled Water Committee Meeting – November 9, 2016
Based on analyses to date, staff is leaning to a recommendation of 20,000 to 24,000 AFY for initial IPR production.
Estimated Surplus Capacity* Presents Partnership Opportunities

*Based on latest WEAP Modeling efforts
3. Purified Water MOU with San José  
(Basis for Comprehensive Agreement)

<table>
<thead>
<tr>
<th>Issues</th>
<th>District Proposed</th>
<th>Comments</th>
</tr>
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<tbody>
<tr>
<td><strong>Land</strong></td>
<td>25+ acres</td>
<td></td>
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<tr>
<td><strong>Treated Wastewater</strong></td>
<td>~30 MGD initially</td>
<td>Initial phase ~ 30 mgd with provision for right of first refusal pending analysis/agreements of future non-potable water use and environmental flows.</td>
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<tr>
<td><strong>Wastewater Quality</strong></td>
<td>Secondary or Tertiary</td>
<td>Strong source control program in place. Current water quality (Secondary) acceptable; operational considerations for RWF may be driver on source decision.</td>
</tr>
<tr>
<td><strong>RO Concentrate</strong></td>
<td>+6 MGD</td>
<td>Based on expanded SVAWPC with 24 MGD production. Chronic toxicity dominant factor; ensure adequate margin for regulatory compliance.</td>
</tr>
<tr>
<td><strong>Regulatory Compliance</strong></td>
<td>Risk-sharing</td>
<td>IPR will increase RO concentrate volume in RWF outfall; NPDES permit requirements may change; District asked to share in compliance liabilities for response and remediation.</td>
</tr>
<tr>
<td><strong>Project Development Costs</strong></td>
<td></td>
<td>San Jose staff cannot use wastewater funds; General Fund availability limited; need to determine funding source(s).</td>
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4. Dual Track Procurement

- Next Full Board meeting:
  - Invite San Diego County, Orange County and City of Stockton (perhaps West Basin).
  - Agency discussion on context, financial situation, procurement methods considered and experience with each, O&M approach, financing decision and lessons learned.

- Meeting to be scheduled in January 2017
4.2 Update on Recycled and Purified Water Expansion Efforts
4.2 Recycled and Purified Water Collaboration

A. Sunnyvale Water Reuse Options

B. Sunnyvale and Palo Alto/Mountain View Draft MOUs
   1. Draft Terms
   2. Timeline

C. San Francisco Public Utilities Commission
   1. Draft Terms
   2. Timeline
4.2 Sunnyvale Water Reuse Options Schematic

1. MBR Cost-share
2. MBR Water Purchase
3. District Off-site AWPF
4. District Multi-level AWPF
5. Transfer Treated Wastewater to SVAWPC
6. Supply Recycled Water to SBWR
7. Sunnyvale Small-scale AWPF
8. Transfer Treated Wastewater to WPCP and/or SVAWPC
## 4.2 Sunnyvale and Palo Alto/Mountain View Draft MOU Assumptions

<table>
<thead>
<tr>
<th>Draft MOU Terms of Agreement (Assumptions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunnyvale</td>
</tr>
<tr>
<td><strong>Source Water and Quality</strong></td>
</tr>
<tr>
<td>• 5-10 MGD tertiary</td>
</tr>
<tr>
<td>• District right of first refusal</td>
</tr>
<tr>
<td>• District consent before other source water agreements</td>
</tr>
<tr>
<td><strong>Land</strong></td>
</tr>
<tr>
<td>• City’s decommissioned landfill (5 acres)</td>
</tr>
<tr>
<td>• Other sites near WPCP</td>
</tr>
<tr>
<td><strong>RO Concentrate</strong></td>
</tr>
<tr>
<td>• Engineered wetlands, existing ponds, or San Francisco Bay</td>
</tr>
<tr>
<td><strong>Governance</strong></td>
</tr>
<tr>
<td>• Joint Recycled Water Committee</td>
</tr>
<tr>
<td>• Technical Advisory Committee</td>
</tr>
<tr>
<td><strong>Potential Impacts</strong></td>
</tr>
<tr>
<td>• Reduced flow to Bay</td>
</tr>
<tr>
<td>• Loss of existing open space</td>
</tr>
</tbody>
</table>
### 4.2 San José, SFPUC, Sunnyvale, and Palo Alto/Mountain View Draft Timeline

<table>
<thead>
<tr>
<th>Item</th>
<th>City of San José</th>
<th>SFPUC</th>
<th>City of Sunnyvale</th>
<th>City of Palo Alto / City of Mountain View</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete MOU</td>
<td>January 2017</td>
<td>February 2017</td>
<td>February 2017</td>
<td>April 2017</td>
</tr>
<tr>
<td>Conduct Feasibility Studies</td>
<td>June 2017</td>
<td>December 2017</td>
<td>December 2017</td>
<td>December 2018</td>
</tr>
</tbody>
</table>
Conduct joint feasibility study to evaluate potential SFPUC participation in District’s Expedited Purified Water Program

<table>
<thead>
<tr>
<th></th>
<th>Feasibility Study</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>SFPUC financial contribution for feasibility study up to $75K</td>
</tr>
<tr>
<td>2</td>
<td>Consider allocation of 5 to 15 MGD of District’s purified water</td>
</tr>
<tr>
<td>3</td>
<td>Identify water delivery alternatives</td>
</tr>
<tr>
<td>4</td>
<td>Increase utilization of District purified water facilities</td>
</tr>
</tbody>
</table>
4.3 Update Countywide Recycled Water Master Plan (Master Plan)
### 4.3 Master Plan Development

<table>
<thead>
<tr>
<th>Governance</th>
<th>Water Quality &amp; Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaborative partnerships</td>
<td>Title 22 vs Purified, “right water for right application”</td>
</tr>
<tr>
<td>Guide system expansion</td>
<td>Balance supply among various uses</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Regional Integration</th>
<th>Land Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimize use of supply and infrastructure</td>
<td>Leverage existing or underutilized assets</td>
</tr>
<tr>
<td>Improve system reliability/redundancy/flexibility</td>
<td>Opportunity for land partnerships</td>
</tr>
<tr>
<td>Potential benefits for more stakeholders</td>
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</table>

<table>
<thead>
<tr>
<th>Sewershed Considerations</th>
<th>Residuals Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central versus regional costs and benefits</td>
<td>Potential for regional solutions</td>
</tr>
<tr>
<td>Treatment of effluent from another sewershed</td>
<td>Potential to facilitate permitting</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Economic Analysis</th>
<th>Environmental &amp; Permitting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost per acre foot</td>
<td>Multi-agency collaboration</td>
</tr>
<tr>
<td>Cost/benefit allocation</td>
<td>Leverage regional and central permit opportunities</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Funding/Legal/Project Delivery</th>
<th>Public Perception</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partnerships and cost sharing</td>
<td>Identify and expand upon key outreach programs and messages</td>
</tr>
<tr>
<td>State and federal partnerships</td>
<td>Partnership opportunities for regional outreach programs</td>
</tr>
<tr>
<td>Private/public partnerships</td>
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</tbody>
</table>

Recycled Water Committee Meeting – November 9, 2016
## 4.3 Governance: Potential Non-potable Reuse (NPR) Models

<table>
<thead>
<tr>
<th>Category</th>
<th>Current Conditions</th>
<th>Palo Alto/ Mountain View</th>
<th>South County</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>SBWR</td>
<td>Sunnyvale</td>
<td></td>
</tr>
<tr>
<td><strong>District</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Role</td>
<td>Producer (Purified Water Only) and <strong>Wholesaler</strong> Silver Creek Pipeline (Future Customers)</td>
<td>Wholesaler (Limited Service Area) Wolfe Rd Pipeline</td>
<td>Funding Only</td>
</tr>
<tr>
<td>Responsibility (Ownership and O&amp;M)</td>
<td>Advanced Treatment Facility</td>
<td>Wolfe Rd Pipeline, Pump Station, and Appurtenances</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Retailer</strong></td>
<td>Distribution and interface end user</td>
<td>Distribution and end user interface</td>
<td>Distribution and end user interface</td>
</tr>
</tbody>
</table>

Footnote
1. District provides wholesale service directly to retailers and customers who are located outside the local retailer’s service area within the county.
4.3 Next Steps

- Stakeholder Workshop: Planned for January 2017
  - Finalize Master Plan vision, goals, and objectives
  - Develop project alternatives and criteria
- Draft report by December 2017
- Final report by December 2018
4.4 Update on South County Recycled Water Expansion Efforts
4.4 South Santa Clara County Recycled Water Project, Phases 1B and 2A

• Design and Construction of 14,500 feet of recycled water pipeline

• Provides for the reliable distribution of 1,200 acre feet per year of existing recycled water supplies

• Provides for the distribution of an additional 1,800 acre feet per year of recycled water supplies

• Project Completion: July 2018
4.4 Map of Recycled Water System
4.4 Glen Loma Ranch Development

- Cost-share opportunity with City of Gilroy

- Develop and negotiate new Agreement for:
  - Construction of an upsize 16-inch to 30-inch pipeline, for 5,800 feet of recycled water pipeline
  - Construction of 4,300 feet of 24-inch recycled water pipeline

- Request support for up to $3 million budget adjustment

- Project Completion: December 2020