





Santa Clara Valley Water District

September 13, 2017

NOTICE OF MEETING - REQUEST FOR RSVPS

Members of the Joint Recycled Water Committee (City of Palo Alto/SCVWD)

Santa Clara Valley Water District:

Director Hon. Tony Estremera Director Hon. Barbara Keegan Director Hon. Gary Kremen, Chair

City of East Palo Alto:

Council Member Hon. Donna Rutherford

City of Mountain View:

Council Member Hon. Pat Showalter

City of Palo Alto:

Council Member Hon. Tom Dubois, Vice Chair Council Member Hon. Cory Wolbach

Supporting Water District Staff Members:

Norma J. Camacho, Chief Executive Officer Stan Yamamoto, District Counsel Anthony Fulcher, Sr. Assistant District Counsel Rick Callender, Chief of External Affairs Garth Hall, Acting Chief Operating Officer, Water Utility Katherine Oven, Deputy Operating Officer, Water Utility Capital Jerry De La Piedra, Acting Deputy Operating Officer, Water Supply Division Angela Cheung, Deputy Operating Officer, Water Utility and Maintenance Hossein Ashktorab, Unit Manager, Recycled and Purified Water Luis Jaimes, Senior Project Manager, Recycled and Purified Water Henry Barrientos, Associate Engineer (Civil), Recycled and Purified Water Paolo Baltar, Assistant Engineer II Civil Elise Latedjou-Durand, Environmental Planner II Marta Lugo, Public Information Representative III Toni Vye, Staff Analyst, Recycled and Purified Water

Supporting City of Mountain View Staff Member:

Gregg Hosfeldt, Assistant Public Works Director

Supporting City of Palo Alto Staff Members:

Beth D. Minor, City Clerk Phil Bobel, Assistant Director of Public Works Department Karin North, Manager, Watershed Protection David Carnahan, Deputy Clerk Jessica Brettle, Assistant City Clerk

A meeting and optional tour of the Santa Clara Valley Water District Joint Recycled Water Committee (City of Palo Alto/SCVWD) will take place at **9:00 a.m. on Tuesday, September 19, 2017**, at the **Silicon Valley Advanced Water Purification Center, 4190 Zanker Road, San Jose, CA 95134.**

Enclosed for your convenience is a copy of the agenda and corresponding materials. Please bring these materials to the meeting with you.

Please RSVP at your earliest convenience by calling Glenna Brambill at 1-408-630-2408, or by email to <u>gbrambill@valleywater.org</u>, if you plan on attending meeting and/or optional tour (or both).

Thank you!

Glenna Brambill Santa Clara Valley Water District Office of the Clerk of the Board 1-408-630-2408

Silicon Valley Advanced Water Purification Center 4190 Zanker Road, San Jose CA 95134



| From Oakland: | From Morgan Hill/Gilroy: |
|---|---|
| Take 880 South to To 237 West/Calaveras toward Mountain View Take Zanker Road Exit Turn Left on Zanker Road to 4190 Last Intersection Thomas Chew Foo Way | Take 101 North Take 680 North to 237 West/Calaveras toward Mountain View Take Zanker Road Exit Turn Right on Zanker Road to 4190 Last Intersection Thomas Chew Foo Way |
| if you reach Los Esteros Road, you've gone too far | If you reach Los Esteros Road, you've gone too far |
| From Sunnyvale: | From San Francisco: |
| Take 237 East/Calaveras Take Zanker Road Exit Turn Left on Zanker Road to 4190 Last Intersection Thomas Chew Foo Way if you reach Los Esteros Road, you've gone too far | Take 101 South Take 237 East/Calaveras Take Zanker Road Exit Turn Left on Zanker Road to 4190 Last Intersection Thomas Chew Foo Way If you reach Los Esteros Road, you've gone too far |
| From Downtown San Jose: | From Walnut Creek, Concord and East Bay areas: |
| Travel North on First Street Take 88 North to 237 Wast/Calaveras toward Mountain View Take Zanker Road Exit Turn Right on Zanker Road to 4190 Last Intersection Thomas Chew Foo Way | Take 680 South to 237 West/Calaveras toward Mountain View Take Zanker Road Exit Turn Left on Zanker Road to 4190 Last Intersection Thomas Chew Foo Way If you reach Los Esteros Road, you've gone too far |
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Joint Recycled Water Committee

- Hon. Donna Rutherford, Council Member, City of East Palo Alto
- Hon. Pat Showalter, Council Member, City of Mountain View Hon. Tom DuBois, Council Member, City of Palo Alto, Committee Vice Chair

Hon. Cory Wolbach, Council Member, City of Palo Alto

Hon. Tony Estremera, Board Member, Santa Clara Valley Water District

Hon. Barbara Keegan, Board Member, Santa Clara Valley Water District

Hon. Gary Kremen, Board Member, Santa Clara Valley Water District, Committee Chair

AGENDA

JOINT RECYCLED WATER COMMITTEE (CITY OF PALO ALTO/SCVWD)

TUESDAY, SEPTEMBER 19, 2017

9:00 a.m.

Silicon Valley Advanced Water Purification Center 4190 Zanker Road San Jose, CA 95134

Time Certain:

9:00 a.m. 1. Call to Order/Roll Call

2. <u>Time Open for Public Comment on Any Item Not on the Agenda</u> 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

3.1 Approval of Minutes – June 6, 2017, meeting

4. Action Items

- 4.1 Update on Collaboration Efforts to Assess Feasibility of Water Reuse Alternatives (Hossein Ashktorab/Phil Bobel/Gregg Hosfeldt)
 - A. District/City of Palo Alto Memorandum of Understanding
 - B. District/City of Mountain View Agreement

Recommendation:

- 1. Receive information and discuss next steps for District/City of Palo Alto Memorandum of Understanding; and
- 2. That the Joint Recycled Water Committee recommend that the District Board of Directors authorize the Chief Executive Officer to execute the Agreement between the Santa Clara Valley Water District and the City of Mountain View for Assessing the Feasibility of Water Reuse Alternatives.
- 4.2 Update on Northwest County Recycled and Purified Water Efforts (Hossein Ashktorab/Phil Bobel)
 - A. Advanced Water Purification System Feasibility Study
 - B. Northwest County Recycled Water Strategic Plan

Recommendation: Receive information and discuss next steps.

4.3 Update on Countywide Water Reuse (Recycled and Purified Water) Master Plan (Luis Jaimes)

Recommendation: Receive information and discuss next steps.

4.4 Update on Reverse Osmosis Concentrate Management Project (Hossein Ashktorab) **Recommendation: Receive information and discuss next steps.**

4.5 Recycled and Purified Water Outreach Efforts (Marta Lugo) **Recommendation: Receive information and discuss next steps.**

4.6 Next Meeting and Tentative Items (Hossein Ashktorab) Recommendation: Discuss and confirm next meeting date, location, and tentative items.

5. <u>Clerk Review and Clarification of Committee Requests and Recommendations</u> 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. <u>Adjourn</u>

7. Optional Tour

Tour of the SVAWPC and RO Concentrate Management Pilot Treatment Cells (Hossein Ashktorab)

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 Office of the Clerk of the Board at the Santa Clara Valley Water District Headquarters Building, 5700 Almaden Expressway, San Jose, CA., 95118, at the same time that the public records are distributed or made available to the legislative body.

The Santa Clara Valley Water District will make reasonable efforts to accommodate persons with disabilities wishing to attend commission meetings. Please advise the Clerk of the Board office of any special needs by calling 1-408-630-2277.

Santa Clara Valley Water District Clerk of the Board Unit 5700 Almaden Expressway San José, CA 95118 Palo Alto City Hall Office of the City Clerk 250 Hamilton Avenue Palo Alto, CA 94301

Joint Recycled Water Committee Purpose (City of Palo Alto/SCVWD): The City of Palo Alto and District Elected Officials Joint Recycled Water Committee was established for the purpose of developing a long-term proposal for how the District and the City of Palo alto can work together on recycled water opportunities, to advance common interests, and to establish a collaborative process to facilitate policy discussion and sharing of technical information on recycled water issues.









JOINT RECYCLED WATER COMMITTEE (CITY OF PALO ALTO/SCVWD)

DRAFT MINUTES

TUESDAY, JUNE 6, 2017 2:00 PM

(Paragraph numbers coincide with agenda item numbers)

A meeting of the Joint Recycled Water Committee (Committee) was held on June 6, 2017, in the Headquarters Building Boardroom at the Santa Clara Valley Water District (SCVWD), 5700 Almaden Expressway, San Jose, California.

1. CALL TO ORDER/ROLL CALL

A meeting of the Joint Recycled Water Committee was called to order by Vice Chair Director Tony Estremera at 2:05 p.m.

Committee Members in attendance were:

City of East Palo Alto Council Member: Hon. Donna Rutherford, City of Palo Alto Council Members: Hon. Tom DuBois and Hon. Cory Wolbach; SCVWD Directors: Hon Barbara Keegan, District 2, Hon. Tony Estremera, District 6; and Hon. Gary Kremen, District 7.

SCVWD Staff members in attendance were: Hossein Ashktorab, Henry Barrientos, Glenna Brambill, Jim Fiedler, Anthony Fulcher, Garth Hall, Luis Jaimes, Tony Mercado, and Katherine Oven.

City of Mountain View Staff Member in attendance was: Gregg Hosfeldt. City of Palo Alto Staff Members in attendance were: Phil Bobel, Samantha Engelage, Karin North and Kelsi Oshiro.

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

There was no one present who wished to speak.

3. <u>APPROVAL OF MINUTES</u>

It was moved by Director Gary Kremen, seconded by Hon. Tom DuBois, and carried, unanimously to approve the minutes of the December 13, 2016, Joint Recycled Water Committee meeting, as presented.

4. ELECTION OF CHAIR AND VICE CHAIR

It was moved by Director Tony Estremera, seconded by Director Barbara Keegan, and carried, unanimously to approve Director Gary Kremen as the Chair. It was moved by Director Gary Kremen, seconded by Director Tony Estremera, and carried, unanimously to approve City of Palo Alto Council Member Hon. Tom DuBois as the Vice Chair.

Hon. Lenny Siegel, City of Mountain View Council Member arrived at 2:10 p.m.

5. <u>ACTION/DISCUSSION ITEMS</u>

5.1 UPDATE ON MEMORANDA OF UNDERSTANDING TO ASSESS FEASIBILITY
 OF WATER REUSE ALTERNATIVES (Garth Hall/Phil Bobel/Gregg Hosfeldt)
 A. DISTRICT/CITY OF PALO ALTO MEMORANDUM OF UNDERSTANDING
 Mr. Garth Hall and Mr. Greg Hosfeldt from the City of Mountain View reviewed the materials as outlined in the agenda item.

Vice Chair Hon. DuBois had question about the second MOU in Mountain View.

Mr. Phil Bobel from the City of Palo Alto was available to answer questions.

No action was taken.

B. DISTRICT/CITY OF MOUNTAIN VIEW MEMORANDUM OF UNDERSTANDING

Mr. Hossein Ashktorab reviewed the materials as outlined in the agenda item.

No action was taken.

5.2 UPDATE ON NORTHWEST COUNTY RECYCLED AND PURIFIED WATER EFFORTS

A. ADVANCED WATER PURIFICATION SYSTEM FEASIBILITY STUDY

Mr. Garth Hall and Mr. Phil Bobel reviewed the materials as outlined in the agenda item.

Chair Director Kremen and Director Tony Estremera had question about irrigation, reverse osmosis and the site's expansion capabilities. Hon. Cory Wolbach had questions about the flexibility and costs.

No action was taken.

B. NORTHWEST COUNTY RECYCLED WATER STRATEGIC PLAN

Mr. Henry Barrientos reviewed the materials as outlined in the agenda item.

Hon. Lenny Siegel had question about potable reuse feasibility.

Ms. Karin North of Palo Alto was available to answer question.

Chair Director Kremen would like to see information on polling data (look at what has been done in this area) for the next meeting.

No action was taken.

5.3 UPDATE ON COUNTYWIDE RECYCLED AND PURIFIED WATER MASTER PLAN

Mr. Luis Jaimes reviewed the materials as outlined in the agenda item.

Hon. Cory Wolbach had a question about Palo Alto and Sunnyvale connecting to the system.

Ms. Karin North provided a map handout.

No action was taken.

5.4 UPDATE ON REVERSE OSMOSIS CONCENTRATE MANAGEMENT PROJECT

Mr. Hossein Ashktorab reviewed the materials as outlined in the agenda item. There will be a workshop conducted, June 14, 2017, 12:00 noon to 4:30 p.m. at the Silicon Valley Advanced Water Purification Center.

Chair Director Kremen asked about chloride, flushing to the bay, heavy metals and brine totals.

Council Member of Mountain View, Hon. Lenny Siegel questioned separating constituents, concerned about discharging to the bay and is there a study being conducted.

Ms. Katherine Oven and Mr. Phil Bobel were available to answer questions.

No action was taken.

5.5 NEXT MEETING AND TENTATIVE ITEMS

Chair Director Kremen polled about the next meeting, schedule Tuesday, September 19, 2017, 11:00 a.m., at the at the Silicon Valley Advanced Water Purification Center. Anyone wanting to tour may do so prior to the meeting, arrangements will be made by the Office of the Clerk of the Board.

6. CLERK REVIEW AND CLARIFICATION OF COMMITTEE REQUESTS AND RECOMMENDATIONS

Ms. Glenna Brambill reported there were no action items for consideration.

7. ADJOURNMENT

Chair Director Gary Kremen adjourned the meeting at 3:33 p.m. to the next scheduled meeting at the Silicon Valley Advanced Water Purification Center, September 19, 2017, 11:00 a.m.

Glenna Brambill Office of the Clerk of the Board

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Committee:

Meeting Date: Agenda Item No.: Unclassified Manager: Email: Est. Staff Time: Joint Recycled Water City of Palo Alto/SCVWD 09/19/17 4.1 Jerry De La Piedra gdelapiedra@valleywater.org 10 minutes

COMMITTEE AGENDA MEMO

- **SUBJECT:** Update on Collaboration Efforts to Assess Feasibility of Water Reuse Alternatives
 - A. District/City of Palo Alto Memorandum of Understanding
 - B. District/City of Mountain View Agreement

RECOMMENDED ACTION:

- 1. Receive information and discuss next steps for District/City of Palo Alto Memorandum of Understanding; and
- That the Joint Recycled Water Committee recommend that the District Board of Directors authorize the Chief Executive Officer to execute the Agreement between the Santa Clara Valley Water District and the City of Mountain View for Assessing the Feasibility of Water Reuse Alternatives

SUMMARY:

The purpose of this agenda item is to provide the Joint Recycled Water Committee (Committee) with updates on the partnerships under development with the City of Palo Alto (Palo Alto) and the City of Mountain View (Mountain View). District staff has negotiated a Memorandum of Understanding (MOU) with Palo Alto, which will assess the feasibility to develop potable water reuse options in northwestern Santa Clara County (Northwest County).

A. District/Palo Alto Memorandum of Understanding

On June 27, 2017, the District Board of Directors authorized the Chief Executive Officer to execute the proposed MOU between the District and Palo Alto. Palo Alto City Council approved the MOU on August 28, 2017. District staff will continue to work with Palo Alto staff to draft a long-term agreement.

B. District/Mountain View Agreement

District and Mountain View staff have agreed on a draft Agreement and are presenting it today to the Committee for approval and recommendation to bring to the District Board of Directors and Mountain View City Council for execution in October 2017. As with the Palo Alto MOU, this Agreement serves as the basis for future collaboration and partnerships in expanding recycled water and developing purified water in Northwest County.

ATTACHMENT(S):

Attachment 1: PowerPoint Presentation

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4.1 Update on Collaboration Efforts to Assess Feasibility of Water Reuse Alternatives



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Joint Recycled Water Committee (City of Palo Alto/SCVWD) Meeting - September 19, 2017

4.1 Palo Alto Collaboration Effort

| ltem | Schedule/Milestones |
|---|---|
| MOU Status | MOU signed by District CEO on June 27, 2017 |
| MOU Approval/Execution by Palo Alto City Council | August 28, 2017 |
| Long Term Agreement/Funding Strategy | • Late 2018 |

4.1 Mountain View Collaboration Effort

| ltem | Schedule/Milestones |
|---|--|
| Agreement Status | Mountain View and District staff completed draft |
| Present Draft Agreement to Joint Recycled Water Committee | September 2017 |
| Approval/Execution by District Board and Mountain View City Council | October 2017 |

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Committee:

Meeting Date: Agenda Item No.: Unclassified Manager: Email: Est. Staff Time: Joint Recycled Water City of Palo Alto/SCVWD 09/19/17 4.2 Jerry De La Piedra gdelapiedra@valleywater.org 15 minutes

COMMITTEE AGENDA MEMO

- SUBJECT: Update on Northwest County Recycled and Purified Water Efforts
 - A. Advanced Water Purification System Feasibility Study
 - B. Northwest County Recycled Water Strategic Plan

RECOMMENDED ACTION:

Receive information and discuss next steps.

SUMMARY:

This agenda item provides updated information on the City of Palo Alto Advanced Water Purification System Feasibility Study and ongoing work for the Northwest County Recycled Water Strategic Plan.

A. City of Palo Alto Advanced Water Purification System Feasibility Study

The Advanced Water Purification System Feasibility Study (Feasibility Study) determined how to improve recycled water quality from the Regional Water Quality Control Plant (RWQCP) in Palo Alto. Following the completion of the Feasibility Study in April 2017, District and Palo Alto staff authorized the consultant to complete two optional tasks: 1) A Preliminary Design Report for 1 to 2 million gallons per day (MGD) Advanced Water Purification System (AWPS); and 2) A White Paper on utilizing a parcel of land adjacent to the RWQCP for the construction of a 6 to 10 MGD AWPS. The Preliminary Design Report is expected to be completed in late 2017. Staff from both the District and Palo Alto are currently reviewing the White Paper and expect to finalize this effort in September 2017.

B. Northwest County Recycled Water Strategic Plan

The Northwest County Recycled Water Strategic Plan (Strategic Plan) includes recycled water preliminary planning studies for the expansion of recycled water to Stanford Research Park, and customers in Los Altos, Los Altos Hills, Mountain View, East Palo Alto, and Menlo Park. The Strategic Plan also includes a groundwater assessment in Northwest County to better understand groundwater conditions and the potential for potable reuse in the area.

The Strategic Plan consultant is on track and on schedule, and has submitted several deliverables, including major components such as the workplan for the Phase III expansion to Stanford Research Park, Potable Reuse Feasibility, and External Funding framework. Staff is currently reviewing the draft Preliminary Design for Phase III, the draft Business Plan, and the draft Groundwater Assessment Report. The District submitted a letter of support to Palo Alto for the recently submitted funding application for the Phase III expansion under the Water Infrastructure Improvements for the Nation (WIIN) Act. The funding application was submitted to the U.S. Bureau of Reclamation on August 16, 2017.

ATTACHMENT(S):

Attachment 1: PowerPoint Presentation

4.2 Update on Northwest County Recycled and Purified Water Efforts



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Joint Recycled Water Committee (City of Palo Alto/SCVWD) Meeting - September 19, 2017



Part 1

Advanced Water Purification System (AWPS) Feasibility Study and Preliminary Design

Submittals:

Final Report Submitted on April 2017

Next steps:

Finalize White Paper on Site 4 (Measure E Site) for a
 6-10 MGD AWPS – September 2017



Finalize Preliminary Design for Site 1-2 MGD AWPS – December 2017



Northwest County Recycled Water Strategic Plan

Submittals:





Northwest County Recycled Water Strategic Plan

External Funding Strategy:

- Phase III Expansion Pipeline to South Palo Alto
 - Federal Grant (WIIN Title XVI)
 - □ 25% federal with 75% non-federal match
 - □ Submitted August 2017
 - State Loan (CWSRF)

> 1-2 MGD Advanced Water Purification System (Site 1)

- State Loan (CWSRF)
- Federal Grant (WIIN Title XVI)

6-10 MGD Advanced Water Purification System (Site 4)

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• Federal Grant (WIIN Title XVI)

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Committee:

Meeting Date: Agenda Item No.: Unclassified Manager: Email: Est. Staff Time: Joint Recycled Water City of Palo Alto/SCVWD 09/19/17 4.3 Jerry De La Piedra gdelapiedra@valleywater.org 15 minutes

COMMITTEE AGENDA MEMO

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

RECOMMENDED ACTION:

Receive information and discuss next steps.

SUMMARY:

District staff hosted the second stakeholder workshop on January 27, 2017, that brought together leadership from local producers, wholesalers, retailers, environmental groups, and stakeholders of water reuse systems to develop a vision statement and identify key components for the Countywide Water Reuse (Recycled and Purified Water) Master Plan (Master Plan). The workshop consisted of facilitated exercises focusing on visioning, opportunities, and Master Plan framework. Participants from thirteen agencies (including representatives from Palo Alto and Mountain View) provided feedback on ten proposed components of the Master Plan, including, stakeholder engagement, governance, regional planning and integration, water treatment and contributing sewersheds, economics and funding, water quantity and quality, environmental permitting and regulations, public perception and engagement, infrastructure and land, and schedule. Attending organizations were also asked to assign a representative from their agency to participate in a Technical Working Group, which will support development of the technical efforts of the Master Plan.

Additionally, staff developed a request for proposal to support development of the Master Plan. The scope of services allows for the integration and expansion of recycled and purified water systems in Santa Clara County, in partnership and collaboration with recycled water procedures, wholesalers, retailers, users, and other interested parties. Staff is working through the procurement process and the selection of a consultant is expected to be completed by spring of 2018. The projected completion date for the draft Master Plan is by the end of 2018 and a final Master Plan by June 2019 (see Attachment 1 for timeline update).

ATTACHMENT(S):

Attachment 1: PowerPoint Presentation

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4.3 Update on Countywide Water Reuse (Recycled and Purified) Master Plan



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Joint Recycled Water Committee (City of Palo Alto/SCVWD) Meeting – September 19, 2017

4.3 Recycled and Purified Water Program Timelines





Committee:

Meeting Date: Agenda Item No.: Unclassified Manager: Email: Est. Staff Time: Joint Recycled Water City of Palo Alto/SCVWD 09/19/17 4.4 Jerry De La Piedra gdelapiedra@valleywater.org 10 minutes

COMMITTEE AGENDA MEMO

SUBJECT: Update on Reverse Osmosis Concentrate Management Project

RECOMMENDED ACTION:

Receive information and discuss next steps.

SUMMARY:

On June 14, 2017, District staff hosted the first stakeholder Reverse Osmosis (RO) Concentrate Management Project workshop called "Project Objectives, Challenges, and Drivers". More than 30 representatives from fourteen agencies including regulatory agencies, recycled water producers, environmental groups, and experts in the field provided input and suggested potential criteria for evaluating and selecting RO concentrate solutions for the county.

The workshop was divided in two parts: 1) The first part consisted of presentations describing project overview and project goals, regulatory framework, environmental considerations, as well as potential advanced RO concentrate management approaches should treatment prior to discharge to the South San Francisco Bay be required; 2) The second part consisted of a facilitated collaborative framework discussion for the development of evaluation criteria that will be used by the project team to rank and select feasible RO concentrate management alternatives for the five potential purification facilities within the county. The proposed criteria were organized into environmental, social, cost, engineering, and regulatory categories for inclusion into the multi-criteria analysis matrix that will be used for the ranking of conceptual and feasible alternatives, and also for final alternative selection.

The following are some of the key outcomes from the stakeholder interaction:

- Regional Board and Environmental Protection Agency representatives were supportive of the project and willing to work with the District and local wastewater treatment facilities to find mutually acceptable regulatory solutions.
- Regional Board is willing to consider creative and unconventional permitting options
- Management of the "known unknowns" could pose a greater challenge than management of traditional pollutants.
- Important regulatory considerations include: (1) defining when a permit would be needed (timing); and (2) an acceptable period for the permit to be in effect (duration). Achieving an acceptable balance between certainty and adaptability is important to managing risk.

- Other important considerations should include added-value benefits and possible incentives for wastewater agencies to support reduced discharges to the South San Francisco Bay.
- Palo Alto and Sunnyvale could initially consider blending as a preferred strategy for RO concentrate discharge, and would be willing to discuss potential permit changes with balanced allocation of liability to each party to accommodate the discharge of RO concentrate, including a balance of concentration-based and mass-based limitations.
- A combination of technologies or alternatives may be the preferred option to accommodate the scalability of a project at a given site (i.e. one option might be best for the first phase of implementation and then as production is increased, additional technologies or options may be needed).
- Environmental and ecological impacts associated with RO concentrate management are very important to stakeholders.
- Wastewater and recycled water availability are critical to meeting water supply goals.
- Project scalability and modularity were deemed important considerations toward project success; adaptability to future environmental and regulatory conditions is also important.
- A regional solution could create multiple benefits and synergy with other Bay Area efforts; centralized vs. decentralized facilities comparison was recommended.
- Costs considerations related to land acquisition, capital costs and life cycle should be addressed.

A total of four workshops are planned for this project. The next workshop is tentatively scheduled for October 17, 2017. Installation of the pilot engineered-treatment system was completed in May 2017. Key deliverables include: a conceptual alternatives report in December 2017; a pilot engineered-treatment system final technical memorandum and feasible alternatives report in August 2018; and a final RO concentrate management plan report, in December 2018.

ATTACHMENT(S):

Attachment 1: PowerPoint Presentation Attachment 2: Workshop Agenda

4.4 Update on Reverse Osmosis Concentrate Management Project



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Joint Recycled Water Committee (City of Palo Alto/SCVWD) Meeting - September 19, 2017

4.4 Workshop No. 1 Goals (held June 14, 2017, 12:00 pm – 4:30 pm)

- Present Project Objectives, Challenges, and Drivers;
- Engage stakeholders in a collaborative process to develop Reverse Osmosis Concentrate (ROC) management solutions for future potable water reuse; and
- Invite stakeholders to provide project input to support the process





Joint Recycled Water Committee (City of Palo Alto/SCVWD) Meeting - September 19, 2017

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4.4 Workshop Key Outcomes

- Supportive regulatory representatives
- Are there any potential incentives for wastewater agencies for reducing discharges to the South San Francisco Bay?
- Blending is preferred strategy for some; others have concerns
- Wastewater and recycled water availability





- Adaptability to future environmental and regulatory changes
- Project scalability and modularity
- Importance of environmental and ecological impacts
- Regional solution could create
 multiple benefits
 Attachment 1

Joint Recycled Water Committee (City of Palo Alto/SCVWD) Meeting - September 19, 2017

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4.4 Workshop Proposed Criteria for Alternative Selection



Joint Recycled Water Committee (City of Palo Alto/SCVWD) Meeting – September 19, 2017

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4.4 Project Milestones and Timeline

- Overall project duration ~24 months
- Engineered treatment cells pilot testing ~18 months
- Develop and recommend ROC management plans for each site of potential advanced water purification facility sites





- Develop preliminary (10%) designs for each site
- ROC Management Plans Report

4.4 Project Milestones and Timeline

RO Concentrate Management Project

Project Submittals:

- Draft Gap Analysis
- Draft Project Requirements
- Draft Summary of Available and Emerging Technologies

Next Steps:

- Project Definition Report September 2017
- Workshop No. 2 Conceptual Alternatives October 2017
- Workshop No. 3 Feasible Alternatives July 2018
Reverse Osmosis Concentrate Management Workshop Agenda Project Objectives, Challenges, and Drivers

Wednesday, June 14, 2017, 12:30 to 4:30 pm

Silicon Valley Advanced Water Purification Center, Visitor Center 4190 Zanker Road, San Jose, CA 95134

| Introduction Welcome and introductions Workshop purpose and objectives Background Project overview Overview of options | 12:30 pm | P. Brown H. Ashktorab L. Sangines |
|---|----------|---|
| 2. Regulatory Framework and Environmental Considerations Discharge and non-discharge environmental considerations | 1:00 pm | P. Collins |
| 3. Advanced Management Approaches Focus on treatment for discharge to the Bay AqMB approach to water quality analysis Metals removal, nutrients removal Engineered treatment wetlands | 1:20 pm | M. Donovan B. Goebel |
| BREAK | 1:40 pm | |
| 4. Collaborative Framework Discussion Stakeholder interaction Development of evaluation criteria | 2:00 pm | B. Goebel P. Brown |
| 5. Summary of Workshop and Future Actions Summary of outcomes and action items Next steps | 3:45 pm | P. Brown |
| 6. Adjoun | 4:30 pm | |

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Committee:

Meeting Date: Agenda Item No.: Unclassified Manager: Email: Est. Staff Time: Joint Recycled Water City of Palo Alto/SCVWD 09/19/17 4.5 Rick Callender rcallender@valleywater.org 10 minutes

COMMITTEE AGENDA MEMO

SUBJECT: Recycled and Purified Water Outreach Efforts

RECOMMENDED ACTION:

Receive information and discuss next steps.

SUMMARY:

Over the last and current fiscal year, staff has concentrated on expanding potable reuse education and outreach, specifically under stakeholder engagement and multi-cultural outreach efforts where several key milestones were met.

Multi-cultural outreach efforts have included extensive outreach to the Asian community this summer to promote the recycled and purified water program and tours. In April, staff participated in the annual Cherry Blossom Festival, hosting an informational table to promote the recycled water program, purification center tours and the July 15 Asian Community Day. Attending the event was part of staff's strategy to increase the district's visibility in the Asian community.

In July, the Asian Community Tour Day was held at the Silicon Valley Advanced Water Purification Center. The event was a big success with 250 community members attending, well above the projected number of 100 people. Directors Nai Hsueh and Richard P. Santos met guests with welcome remarks. Tours were offered in multiple languages, and staff were also able to capture video testimonials of residents drinking water and voicing their support for potable reuse. Over the next fiscal year, similar targeted events will be planned to reach additional groups as part of the overall outreach plan.

Stakeholder engagement has also continued to increase through speaker bureau presentations that promote potable reuse, specifically Direct Potable Reuse (DPR). During this new fiscal year, the outreach team has already coordinated several speaking engagements for our board members. In August, Directors Varela and Kremen addressed the San Jose and Palo Alto Kiwanis, respectively, about the importance and future of recycled water in Santa Clara County. Other prior engagements included a presentation made by Director Kremen to Los Altos Kiwanis on April 25 and a presentation made by Associate Engineer Miguel Silva to the Erickson Neighborhood Association on April 26 with an introduction by Director LeZotte. Future engagements are being coordinated for Directors to go out to the San Jose Rotary Club, Saratoga Rotary Club, and Almaden Kiwanis. Other stakeholder engagement efforts have included employee education and outreach through both planned brown bag events and employee tours.

Currently, staff is working on securing a PR/ Social Media contractor within the next few months to develop a Potable Reuse PR/social media plan that addresses DPR. As a part of this effort, staff is currently working on placing into the field an opinion poll survey that is specific to potable reuse and DPR to gather further data to inform the social media plan, which will include tailored messaging for different multi-cultural groups.

ATTACHMENT(S):

Attachment 1: PowerPoint Presentation

4.5 Recycled and Purified Water Outreach Efforts



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Joint Recycled Water Committee (City of Palo Alto/SCVWD) Meeting – September 19, 2017

4.5 Recycled and Purified Water Outreach Efforts

Quick Highlights

Successes and Milestones 2017

- Asian Community Tour Day 250 community members
- Cherry Blossom Festival event
- Speaker Bureau presentations to service clubs
- 41 Tours of SVAWPC 112 supporter cards
- Employee Engagement Brown Bag, Earth Day

In the works

- Potable Reuse Opinion Poll Survey on DPR
- Public Relations/Social Media Campaign
- Continued Speaker Bureau engagements
- Updated program Website
- Updated Potable Reuse materials
- Special Tour/Event outreach



Joint Recycled Water Committee (City of Palo Alto/SCVWD) Meeting - September 19, 2017

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Committee:

Meeting Date: Agenda Item No.: Unclassified Manager: Email: Est. Staff Time: Joint Recycled Water City of Palo Alto/SCVWD 09/19/17 4.6 Jerry De La Piedra gdelapiedra@valleywater.org 5 minutes

COMMITTEE AGENDA MEMO

SUBJECT: Next Meeting and Tentative Items

RECOMMENDED ACTION:

Discuss and confirm next meeting date, location, and tentative items.

SUMMARY:

Consider and select dates for remaining 2017 calendar year.

ATTACHMENT(S):

None.

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Tour Information

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We look forward to seeing you at the Silicon Valley Advanced Water Purification Center on Tuesday, September 19th after the Joint Recycled Water Committee (City of Palo Alto/SCVWD) Meeting, approximately 11:00 a.m. The address is 4190 Zanker Road, San Jose, CA.

PLEASE RSVP by Monday, 9-18-17, Glenna Brambill, 1-408-630-2408 or gbrambill@valleywater.org.

http://www.purewater4u.org/

General Information:

- This is a walking tour that takes about approximately 45 minutes, including questions at the end. Please plan for an hour or more.
- Please arrive 10 minutes prior to your tour and please check in at the visitor Center as soon as you arrive.

<u>Safety Requirements:</u>

- For safety purposes, sturdy closed-toe shoes/ boots are required for all participants as this is a walking tour of a working plant.
- High heels and sandals are **<u>not</u>** permitted.
- Please check the weather and dress appropriately for both outdoor/indoor setting. Light rain will not cancel walking tour.
- Failure to comply with protocol will prohibit one's participation in the tour.

Parking Guidelines:

- Carpool is highly encouraged as parking is extremely limited.
- Once your tour ends, please promptly exit as parking spaces are needed for the next group.

Media Guidelines:

- While still photography of the tour is allowed and encouraged, please note that any type of filming using video camera, mobile device, tablets, or other electronic devices is strictly prohibited and against Water District policies. Further, visitors must stay with the tour group and are not allowed to wander unescorted throughout the facility.
- All press requests for media interviews or footage, should be coordinated directly with the District's Media Relations Team. To submit a media request in advance, please contact the media team directly at 408-630-9265 to arrange a separate media tour/ media interview with a subject matter expert. All unescorted members of the media will be asked to leave the tour without prior clearance.
- Visitors that do not comply with any parts of the Tour or Media Guidelines may be asked to leave the premise by the Tour Guides/ Coordinators or security personnel. The Water District reserves the right to deny tours to any visitor that is not in compliance with tour policies.

PURIFYING WATER FOR A SUSTAINABLE TOMORROW

Santa Clara Valley Water District

> Silicon Valley Advanced Water Purification Center

Purified Water and the Water Cycle

Ways to Reuse Water

What the Experts are Saying

About the Water District

Search





Watch videos on water reuse in Santa Clara County >



Searching for Sustainable Water Supplies

Information

and FAQs

The Santa Clara Valley Water District

(http://www.valleywater.org/) is responsible for securing, managing and delivering a safe and reliable water supply to the region. Searching for sustainable local water supply sources that match the right quality with the right use is part of that responsibility. The Santa Clara valley needs additional supplies, and highly purified recycled water is our new, locally developed and reliable water supply.

Location of Purification Center: 4190 Zanker Road, San Jose CA 95134

Sign up for a Tour of the new Purification **Center!** (http://purewater4u.org/tourschedule)

Keep up to date with recycled water and other water-related issues! Sign-up for our emails:

Email *





Contact Us! (http://purewater4u.org/contact)

Advanced Water Purification Processes



(http://purewater4u.org/advanced-water-purification-processes)

- The new water purification center (http://purewater4u.org.cp14.ezhostingserver.com/advanced-watertreatment-facility) uses the most advanced technologies (http://purewater4u.org/advanced-water-purification-processes) to purify up to 8 million gallons of highly purified water per day
- The global water cycle ensures that all water is reused water: Learn how in this interactive world map (http://www.purewater4u.org/Interactive-World-Map)
- Purification Center grand opening celebrated July 18, 2014 (http://www.yalleywater.org/EkContent.aspx?id=11491)
- See the water purification processes in action take a tour of the new Purification Center! (http://purewater4u.org/tour-schedule)



Information and FAQs

(http://purewater4u.org/advanced-water-treatment-facility)

- Take a tour of the new state-of-the-art Water Purification Center (http://purewater4u.org/tour-schedule)
- Learn more (http://www.purewater4u.org/Information-fags) about the benefits of water reuse
- Take a virtual tour (http://www.purewater4u.org/SVAWPC-Tour) of the Purification Center
- (http://www.purewater4u.org/advanced-water-treatment-facility)
- Local water purification in the news (http://purewater4u.org/node/79)