



City of Palo Alto

City Council Staff Report

(ID # 9731)

Report Type: Study Session

Meeting Date: 11/19/2018

Summary Title: Recycled Water Study Session

Title: Study Session Regarding the Recycled Water Expansion and Other Water Reuse Opportunities

From: City Manager

Lead Department: Public Works

Recommendation

This is an informational report to facilitate the Council Study Session discussion on recycled water expansion and other water reuse opportunities. No action by Council will be taken.

Executive Summary

The Regional Water Quality Control Plant (RWQCP) is a local source of drought-proof, sustainable recycled water, of which only a small fraction is currently used for irrigation and toilet flushing. Investments in pipeline expansions and/or additional treatment facilities would increase the RWQCP's ability to be a local water source to meet future non-potable and potable demands and decrease Palo Alto's dependence on imported Tuolumne River water. To the extent wastewater is recycled rather than being discharged to the Bay, it lowers the risk of potential additional treatment costs associated with stricter discharge regulations staff expects to be adopted in the future.

Staff continues to explore expanded treated wastewater re-use through the Northwest County Recycled Water Strategic Plan (Strategic Plan). That work has led to discussions with the Santa Clara Valley Water District (District) on a potential new agreement in two areas. First, Palo Alto and its RWQCP partners (Partners) are seeking an 80% cost share from the District for a \$16 million dollar facility to remove salt and upgrade the quality of its current recycled water. Secondly, the District is seeking cooperation from the Partners as it studies the potential for sending treated wastewater south of Mountain View, most likely for groundwater recharge (indirect potable reuse). In the spring of 2019, the Strategic Plan will be completed and Council will be briefed on the potential for expanded reuse in the Northwest County. At that time, staff may recommend an alternative use for the water in the form of an agreement with the District to enable pumping treated wastewater from the RWQCP south. This will raise the policy question of how much treated wastewater to reserve for future Northwest County reuse projects. Discussion of that and related policy questions is being initiated at this Study Session.

Staff will provide an overview of reuse possibilities and preliminary results from the Strategic Plan. Staff will then give an update on discussions with the District on the potential agreement noted above.

Background

Council Policy

In November 2016 Council adopted the Sustainability and Climate Action Plan (S/CAP) Framework (Staff Report #[7304](#)) including four water-specific goals, all of which have implications for water reuse:

1. Utilize the right water supply for the right use;
2. Ensure sufficient water quantity and quality;
3. Protect the Bay, other surface waters, and groundwater; and
4. Lead in sustainable water management.

Two relevant strategies identified in the S/CAP are:

1. Verify ability to meet City's long-term water needs; and
2. Investigate all potential uses of recycled water.

Palo Alto's Current Water Supply

Palo Alto receives 100% of its potable water (about 11,000 acre-feet (AF)¹ per year) from the City and County of San Francisco's Regional Water System (RWS), operated by the San Francisco Public Utilities Commission (SFPUC). This supply is predominantly from the Sierra Nevada, delivered through the Hetch Hetchy aqueducts. About 85% of the supply on the RWS is from the Tuolumne River. The SFPUC allocation to Palo Alto is a qualified 16.57 million gallons per day (MGD). Currently Palo Alto uses less than 10 MGD. On August 20, 2018, Council voted unanimously that the City of Palo Alto "express its support for the State Water Resources Control Board's (SWRCB) Bay Delta Plan to have 30-50% of unimpaired flow in the San Joaquin Valley enter the Delta from February to June and associated Southern Delta salinity objectives." Adoption of the Bay Delta Plan would reduce the amount of Tuolumne River water available to RWS customers, including Palo Alto, during dry years. The decision to support the Bay Delta Plan reaffirmed Council's commitment to reduce the City's dependence on imported water. Water reuse is one of a limited number of water supply alternatives to imported water.

Description of the RWQCP Water Resource

The RWQCP treats and discharges wastewater collected from the communities of Palo Alto, Mountain View, Stanford University, Los Altos, Los Altos Hills, and the East Palo Alto Sanitary District. In 2017, the RWQCP treated 23,056 AF, or 7,513 million gallons of wastewater, of which 97% was discharged to the Lower South San Francisco Bay and 3% was treated further to produce high-quality recycled water for non-potable reuse in the City and Mountain View. The RWQCP currently has the treatment capacity to produce 5,040 AF per year, or 4.5 million gallons per day of non-potable reuse water, or 22% of the total wastewater treated in 2017. As

¹ Large volumes of water are often measured in acre-feet (one acre of water one foot deep). One acre-foot is equal to 435.6 hundred cubic feet (CCF) of water or 325,828 gallons.

a regional plant, only a portion of the total wastewater treated is owned and available for reuse by the City; this amount is equal to how much wastewater the City sent to the RWQCP for treatment. In 2017, this was 8,565 AF (2,791 million gallons) or 37% of the total flow. More of this wastewater could be used as a local source of sustainable water for the City.

Water Reuse Planning

In December 2016, Council approved a contract with RMC Water and Environment (now Woodard and Curran) for the development of the Strategic Plan in collaboration with the District (Staff Report #7024). City staff from the Public Works and Utilities Departments have worked closely with the consulting team and the District to evaluate the most effective uses of recycled water inside Palo Alto as well as within the RWQCP service area. All of the work under the Strategic Plan evaluates how best to implement the water-related sustainability goals adopted by the City in the December 2017 Sustainability Implementation Plan (Staff Report #8487).

In parallel, the District has been developing a Countywide Water Reuse Master Plan. One alternative under consideration is a water transfer from the RWQCP to the District for use in other parts of the county. City staff and the District are collaborating on potential contract structures for such a transfer, recognizing that no decision has been made regarding the use of that water within Palo Alto or by the other RWQCP partners.

Treatment Options

Investments in pipeline expansions and/or additional treatment facilities would increase the demand and types of approved uses for the RWQCP recycled water, increasing the RWQCP's ability to be a local source to meet future non-potable and potable water demands. Since the construction of the current RWQCP recycled water treatment and transmission system, severe droughts and advances in treatment technology have driven regulatory support and municipal demand for the use of recycled water for potable reuse.² As expected, the treatment requirements for potable reuse are higher than that for non-potable reuse (Figure 1 & Attachment A). Similarly, the regulatory framework for indirect potable reuse is further along than that for direct potable reuse.

² Recycled water can be treated to a level suitable for non-potable uses like irrigation or toilet flushing, which requires a separate distribution system (purple pipe). This is the most common use. Less commonly, it can be treated by reverse osmosis followed by ultraviolet disinfection and advanced oxidation to a level suitable for potable use. Best practices and regulations are less developed for potable reuse.

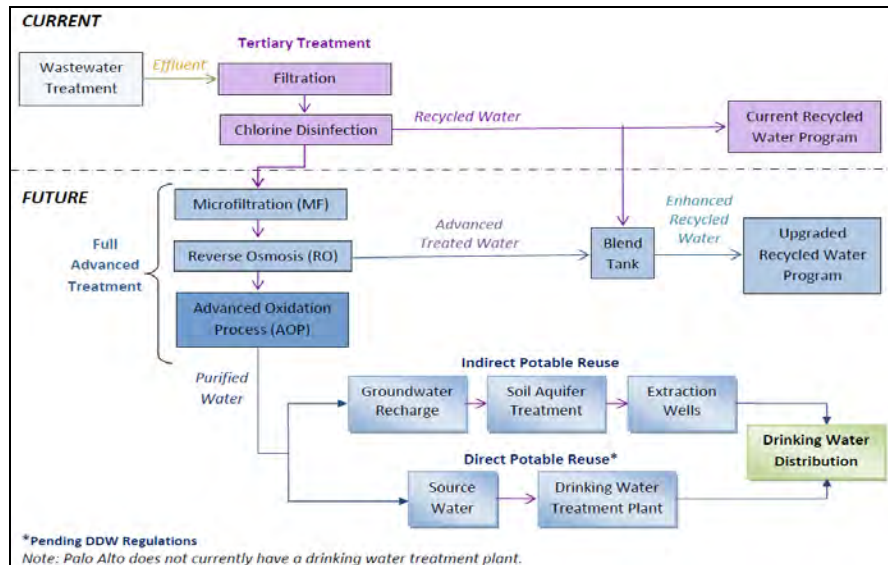


Figure 1: Treatment Requirements for Production of Different Types of Water Reuse

Recycled Water Distribution System Expansion and the Strategic Plan

In August 2018, the Utilities Advisory Commission (UAC) was briefed on the Recycled Water Phase 3 Expansion Business Plan, as a possible expansion opportunity for non-potable reuse being evaluated under the Strategic Plan. Phase 3 is a non-potable water pipeline extending the current recycled water distribution system to the Stanford Research Park. No recommendation regarding Phase 3 was made because the project is only one of many water reuse alternatives being evaluated in the Strategic Plan. In October 2018, the UAC was briefed on water reuse opportunities. No recommendation regarding these water reuse opportunities was made because the Strategic Plan has not been completed.

Discussion

In the coming months Palo Alto and the RWQCP Partners may recommend approval of an agreement with the District consisting of two parts:

1. Small Salt Removal Plant at the RWQCP

The first part concerns the funding of a relatively small salt removal plant to upgrade the quality of the RWQCP’s current recycled water, used principally for irrigation in Mountain View. In discussions to date, Palo Alto and Mountain View are seeking an 80% cost share from the District for this \$16 million facility which would be located at the RWQCP. District staff are currently suggesting a 50% cost share, well below the 80-90% cost share precedent set by agreements between the District and Palo Alto on recent recycled water planning projects. Palo Alto and Mountain View property taxpayers pay a tax for State Water Project (SWP) water, even though Palo Alto receives none and Mountain View receives a small percentage. Therefore, Palo Alto and Mountain View staff believe that the maximum District cost share should be used to partially offset this tax, which is between \$1 million

and \$2 million per year in Palo Alto alone. Discussion and input from Council on this issue is being sought in this Study Session. Refer to Attachment B for the October 26, 2018 letter from Palo Alto to the District concerning the SWP tax.

2. Potential Transfer of Treated Wastewater to the District for Use South of Mountain View

The second part of a potential agreement with the District concerns the District's interest in a transfer of approximately half of the RWQCP's treated wastewater for reuse south of Mountain View. The District is seeking a firm water transfer commitment for 40 years, with "off-ramps" before and after the 40 year period. The RWQCP Partners would receive approximately \$1 million per year in compensation for the water. This raises a number of policy issues for discussion by Council during this Study Session.

The first issue is whether any transfer should be made in light of uncertainties of future water supplies. A regional transfer would require, at a minimum, pipeline infrastructure to transfer the treated wastewater from the RWQCP to somewhere outside of the City. It may also include building a purification facility at the RWQCP that would further treat the recycled water prior to the transfer pipeline, or building a purification facility at the terminus of the transfer pipeline. The purification facility and the transfer pipeline would be paid for by the District. However, a regional transfer, whether the purification facility is constructed in Palo Alto or not, would preclude City and RWQCP Partner use of approximately half of the RWQCP's treated wastewater for a period of about 40 years, beginning two to ten years from now. While the remaining half of the water is sufficient to meet local needs for the next two to ten years; the longer-term water supply need is much more uncertain given threats to imported water such as climate change and State regulations. If the purification facility is constructed in Palo Alto, there may be an opportunity for Palo Alto to receive potable water after 40 years. If the purification facility is located at the terminus of the transfer pipeline, there will be no opportunity for Palo Alto to benefit from those water purification facilities in the future.

Any water transfer must be weighed against the potential for future water reuse projects in Palo Alto and the RWQCP Partner agency service territories. Preliminary evaluations under the Strategic Plan as well as parallel work for the District's Countywide Water Reuse Master Plan indicate that multiple water reuse opportunities are feasible for the City to meet both near and long term water demands (Table 1 and Figure 2). Near term projects that can be implemented within 5 years include a regional transfer and expanding the existing non-potable reuse program.

Long term opportunities that could be implemented within 10 – 40 years include indirect and direct potable reuse. Preliminary results indicate that indirect potable reuse is feasible within the City, but requires a purification facility at the RWQCP, injection wells, and the routine use of groundwater. Similarly, preliminary results also indicate that direct potable reuse is feasible within the City but requires a purification facility at the RWQCP. Preliminary results indicate that the City could reduce future reliance on water supplied by the RWS by more than 50% by

investing in potable reuse. However, potable reuse (both indirect and direct) when compared to non-potable reuse requires large investments into additional treatment and distribution facilities and presents some public acceptance challenges.

It should be noted that the near and long term solutions are not all explicitly distinct from each other; it may be possible to pursue a combination of near and long term solutions as shown in Figure 2. More important to note for this discussion is that both indirect and direct potable reuse opportunities within the City would require the full Palo Alto wastewater allocation and restrict a regional transfer of water. As shown in Figure 2, a regional transfer of water would not reduce Palo Alto’s dependence on imported water (the blue bars), unless an opportunity to utilize that water in the future (via indirect or direct potable reuse) was explicitly included in the potential agreement with the District. This is demonstrated by the four, right hand bars. Only in these four bars does the blue portion (imported water) go down significantly.

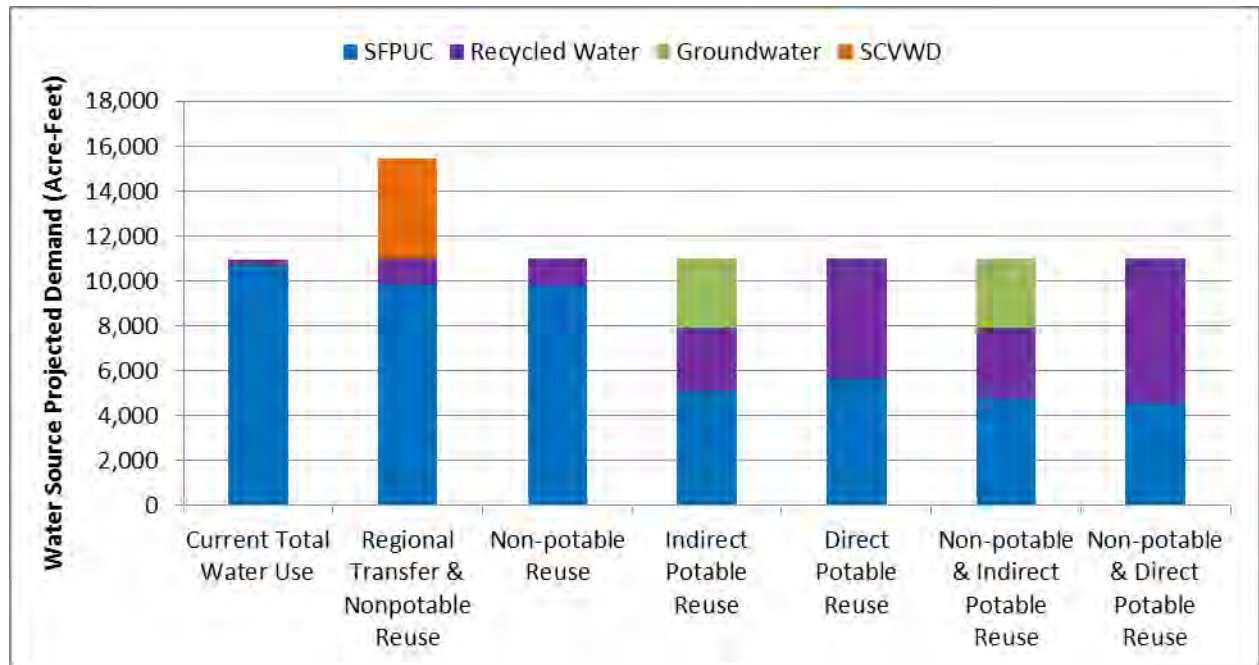


Figure 2: Potential Impacts to Amount of Palo Alto Imported Water Needed Under Different Water Reuse Opportunities Being Evaluated Under the Northwest County Recycled Water Strategic Plan (sources: Palo Alto 2015 Urban Water Management Plan & preliminary results from Northwest County Recycled Water Strategic Plan).

As previously mentioned, one of the City’s water-specific goals as outlined under the S/CAP is to utilize the right water supply for the right use. For recycled water, this would be applied by using the right quality of recycled water for the right purpose. Recycled water can be used for various demands based on its level of treatment. Non-potable reuse requires more treatment than typical wastewater that is discharged to the Bay; similarly, potable reuse requires significantly more treatment than non-potable reuse to ensure public safety when ingesting the water. The additional treatment needed to make the water potable is expensive, and would not

be recommended if the water was to be used to meet irrigation, toilet flushing, and/or industrial process demands alone.

Sub –issues related to future water reuse in the Palo Alto area are:

- a) Will the Palo Alto community accept groundwater as a future potable supply if it would enable indirect potable reuse?
- b) Is the Palo Alto community likely to accept purified water in a direct potable reuse project at some point in the future? If so, under what circumstances?
- c) Should Palo Alto pursue further non-potable project alternatives in the short-term with the knowledge that potable alternatives may be additionally implemented in the future, or should Palo Alto forego further non-potable projects now and wait for potable alternatives to become more feasible and more necessary to meet demands?

A third related issue is whether a transfer would be more acceptable if it could be for less than 40 years. The District believes that anything less would not be worth making the very large infrastructure investment.

A fourth issue is whether the District's proposed \$1 million per year in compensation for the treated wastewater is sufficient. One consideration is that the current plan for rehabilitating the nearly 50 year old RWQCP calls for approximately \$88 million in project expenses over the next five to ten years. This investment will affect wastewater rates for partner agencies, as the primary revenue source for RWQCP expenses. The treated wastewater could not be produced and transferred to the District without this capital expenditure. Therefore, the rehabilitation costs are a factor in the valuation of the treated wastewater. The Finance Committee is tentatively scheduled to review the proposed RWQCP capital rehabilitation plans and associated project financing at its December 4, 2018 meeting.

Table 1: Summary of Palo Alto Water Reuse Opportunities for Further Discussion

TYPE OF WATER REUSE	REGIONAL TRANSFER	NON-POTABLE REUSE	INDIRECT POTABLE REUSE	DIRECT POTABLE REUSE
BRIEF DESCRIPTION	Transfer of RWQCP effluent or recycled water to the Santa Clara Valley Water District	Enhanced recycled water used for irrigation and commercial uses.	Purified recycled water introduced into an environmental buffer, such as a groundwater basin, before being sent to the drinking water distribution system.	Purified recycled water introduced directly into the drinking water distribution system.
OPPORTUNITIES	<ul style="list-style-type: none"> • Near term implementation • Increases use of RWQCP recycled water regionally without City-funded infrastructure • No additional enforcement & administrative oversight of Palo Alto users • Reduced county-wide reliance on imported water, surface water, and/or groundwater 	<ul style="list-style-type: none"> • Near term implementation • Clear regulatory obligations • Slightly reduce City reliance on RWS & Tuolumne River water 	<ul style="list-style-type: none"> • Unlimited uses • Utilizes the RWQCP as a larger source of water • Clear regulatory obligations • No additional enforcement & administrative oversight of users • More potential to reduce City reliance on RWS & Tuolumne River water 	<ul style="list-style-type: none"> • Unlimited uses • Utilizes the RWQCP as a larger source of water independent of groundwater use • No additional enforcement & administrative oversight of users • Significantly reduce City reliance on RWS & Tuolumne River water
OBSTACLES	<ul style="list-style-type: none"> • Significant amount of water would no longer be available for City use for contract term (20-60 years minimum) 	<ul style="list-style-type: none"> • Limited uses per regulations • Requires significant pipeline infrastructure and additional capital funds for salt removal • Requires significant enforcement & administrative oversight of users 	<ul style="list-style-type: none"> • Long term implementation • Requires significant additional RWQCP treatment processes • Requires the use of groundwater with different aesthetic properties than current sources 	<ul style="list-style-type: none"> • Long term implementation • Requires significant additional RWQCP treatment processes • Requires significant engineered storage • Regulations not yet developed • Public acceptance

NEXT STEPS

Feedback received from UAC and Council will be incorporated into the Northwest County Recycled Water Strategic Plan. Staff will return to the UAC and Council with a recommendation regarding water reuse alternatives identified in the Strategic Plan, including a recommendation regarding the Phase 3 Recycled Water Expansion Project. Staff will also make a recommendation regarding a RWCQP water supply transfer agreement with the SCVWD. The two recommendations are expected to be considered in tandem and will be made in 2019.

Resource Impacts

This is an informational CMR for the November 19, 2018 Study Session on Recycled Water. As such, no financial resource decisions will be proposed or made at this time. Council is being asked, however, to discuss several projects which would have financial impacts. The first is a relatively small Palo Alto salinity removal facility which would cost approximately \$16 million; with a Palo Alto cost share of approximately \$800,000, likely spread over 20 to 30 years. The second is the transfer of treated wastewater to the District for use outside the Palo Alto area. This would generate at least \$1 million per year in revenue to the RWQCP. Another factor, however, in valuing the water is the fact that Palo Alto will likely be spending approximately \$88 million over the next five to ten years to rehabilitate the nearly 50 year old RWQCP.

Policy Implications

While there is no recommendation at this time, expanding the use of recycled water would be consistent with the Sustainability Climate Action Plan Framework (Staff Report [#7304](#)), the Sustainability Implementation Plan (Staff Report [#8487](#)), and the Council's decision to support the Bay Delta Plan.

Environmental Review

Council's review of the concepts in the forthcoming Northwest County Recycled Water Strategic Plan does not require California Environmental Quality Act review, because the review does not meet the definition of a project under Public Resources Code 21065.

Attachments:

- Attachment A ReW Reference Sheet
- Attachment B SWP Tax Letter to District Joint Recycled Water Committee



GLOSSARY

WATER TYPES AND QUALITY

EFFLUENT is the treated water leaving the wastewater treatment plant to be discharged to the San Francisco Bay. At the RWQCP, only some of the effluent is treated further to produce recycled water.

RECYCLED or RECLAIMED WATER is wastewater that has undergone secondary or tertiary treatment to allow for beneficial reuse. Recycled water produced at the RWQCP is treated to tertiary standards including disinfection.

SECONDARY TREATMENT is a process where dissolved and suspended biological matter (including suspended solids) is removed so that the water may be disinfected and discharged into a stream or river, or used for irrigation at controlled locations.

TERTIARY TREATMENT is an additional treatment process beyond secondary treatment, where water is further filtered and disinfected. It can also include treatment processes to remove nitrogen and phosphorus in order to allow discharge into a sensitive ecosystem.

ENHANCED RECYCLED WATER is recycled water blended with advanced treated water to support additional uses and reduce total dissolved solids (TDS).

ADVANCED TREATED WATER is water that has undergone additional treatment beyond tertiary treatment to reduce salts, nutrients, trace organics and constituents of emerging concern (CECs). Common treatments include microfiltration, reverse osmosis, and advanced oxidation.

PURIFIED WATER is recycled water that has undergone further treatment processes and has been verified through monitoring to be safe for augmenting drinking water supplies. Some of these processes include microfiltration, reverse osmosis, and if needed advanced oxidation.

SURFACE WATER is water stored in a reservoir typically conveyed from another surface water source via pipelines or aqueducts.

RAW WATER is surface or groundwater that has not gone through an approved water treatment process.

GRAYWATER is water segregated from a domestic wastewater collection system and reused on site for nonpotable uses, it can come from showers, bathtubs, washing machines, and bathroom sinks, but not toilets or kitchen sinks.

BLACKWATER is untreated wastewater from kitchen sinks, toilets, and other polluting activities.

WATER REUSE OPTIONS

NONPOTABLE REUSE is the beneficial reuse of recycled water for irrigation, industrial uses, or other non-drinking water purposes.

POTABLE REUSE is the use of recycled water for potable uses, such as drinking. This recycled water is purified to meet or exceed federal and state drinking water standards.

INDIRECT POTABLE REUSE (IPR) refers to the use of recycled water that has been further treated and introduced into an environmental buffer such as a surface water reservoir (through augmentation), or groundwater basin (through recharge), before being used for potable purposes. IPR regulations are specified in Title 22, Chapter 3, Division 4 of the California Code of Regulations (CCR).

DIRECT POTABLE REUSE (DPR) refers to the use of purified recycled water distributed directly into the raw water supply upstream of a drinking water treatment plant. In California, DPR regulations have not been adopted or specified in the CCR.

TREATMENT TECHNOLOGY

DUAL MEDIA FILTRATION (DMF) refers to the removal of particles in the water using two different types of filter media, usually sand and finely granulated anthracite (a type of coal). DMF can remove turbidity and suspended solids as small as 10-20 microns under high filtration rate conditions.

GRANULAR ACTIVATED CARBON (GAC) is a form of carbon that is processed to be porous, with large surface area for adsorption and used to remove dissolved contaminants. GAC can remove halogenated compounds containing chlorine and fluorine, organic contaminants, odor, and taste.

MICROFILTRATION (MF) is an advanced treatment process that removes contaminants from water using semi-permeable membranes. MF membranes can remove contaminants as small as 0.08 microns such as bacteria. Ultrafiltration (UF) membranes have smaller pore sizes and can remove contaminants as small as 0.005 microns such as viruses and proteins.

REVERSE OSMOSIS (RO) is an advanced treatment process that removes dissolved salts and trace contaminants from water. High pressure forces the water through a semi-permeable membrane, while filtering most contaminants. RO membranes have much smaller pore sizes than microfiltration and ultrafiltration membranes and can remove contaminants as small as 0.0001 microns.

RO PERMEATE is the treated water that passes through the RO membrane.

RO CONCENTRATE is the by-product from the RO process. It contains a high concentration of salts and other contaminants from the source water.

ADVANCED OXIDATION PROCESS (AOP) is a chemically reactive process that breaks down trace organic contaminants as well as pathogens in the water by oxidation. AOPs typically use hydrogen peroxide (H₂O₂) and ultraviolet (UV) light.

SOIL AQUIFER TREATMENT (SAT) is the natural process that occurs when water travels through the ground and is purified by the physical and biological processes that naturally occur in the soil.

STATE REGULATIONS

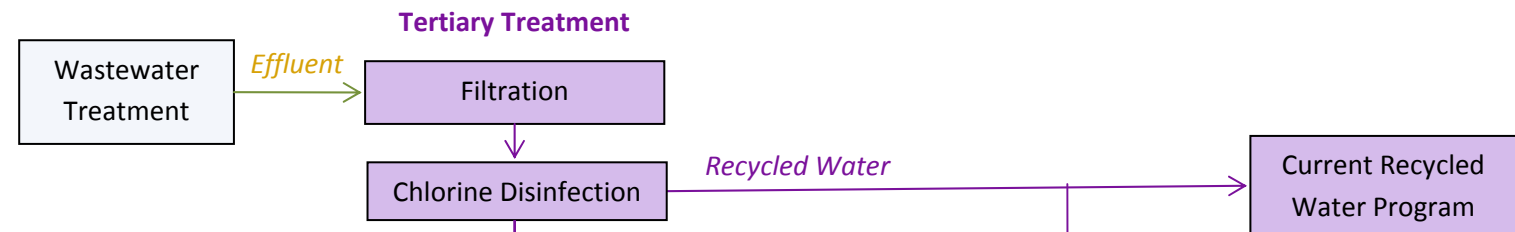
TITLE 22 STANDARDS are requirements established by the State Water Resources Control Board Division of Drinking Water for the production, distribution, and use of drinking water and recycled water. Recycled water standards are covered under Chapter 3, Division 4 of the California Code of Regulations, which outlines the different levels of treatment required for allowable uses of recycled water.

SALINITY

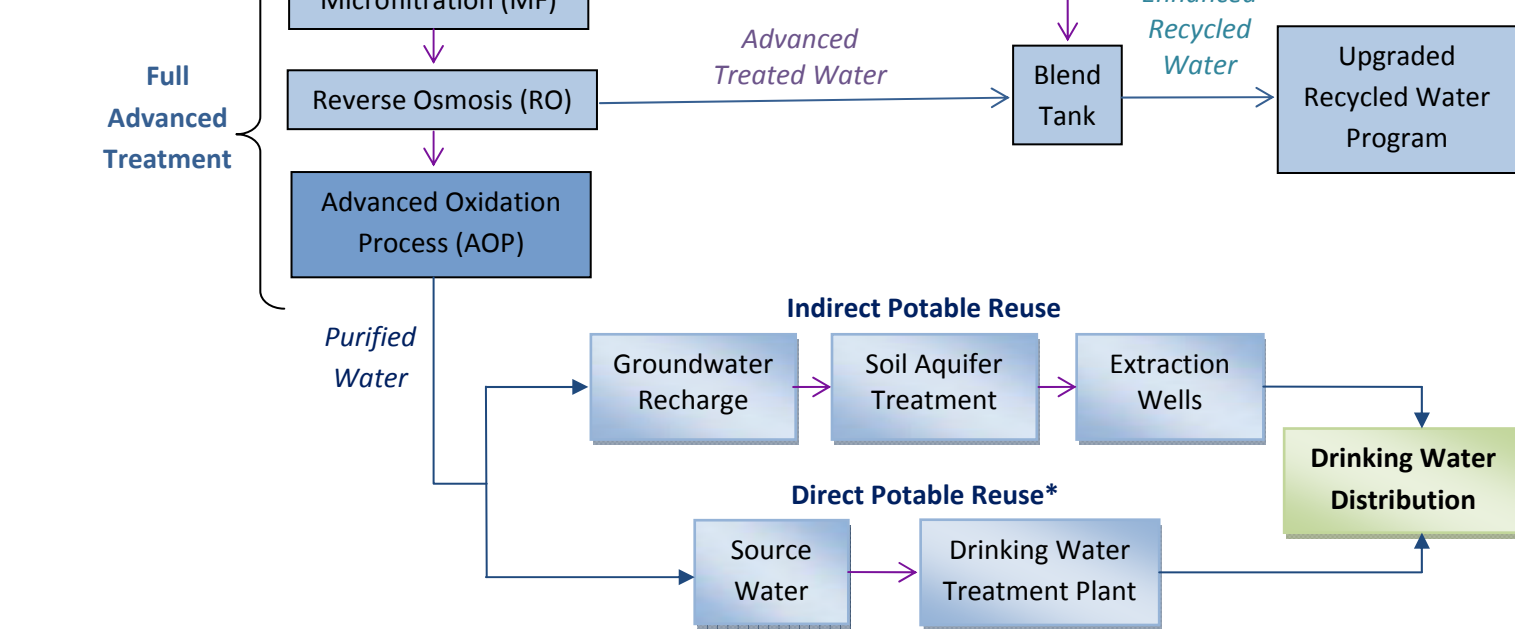
TOTAL DISSOLVED SOLIDS (TDS) is a measurement of salinity: the amount of salts, ions, and dissolved minerals per volume of water. The RWQCP aims to produce recycled water with a TDS of 600 mg/L and is moving towards developing advanced treatment in collaboration with the Santa Clara Valley Water District and the City of Mountain View to produce enhanced water with a TDS of approximately 450 mg/L for use on salt-sensitive species.

GENERAL TREATMENT PROCESSES

CURRENT



FUTURE



*Pending DDW Regulations

Note: Palo Alto does not currently have a drinking water treatment plant.

ALLOWABLE USES

Recycled Water

- Irrigation of:
 - Parks, playgrounds, schools
 - Residential & commercial landscapes
 - Cemeteries
 - Golf courses
 - Food crops, orchard, vineyard, pastures
 - Ornamental nursery & sod farm
- Impoundments & fish hatcheries
- Flushing toilets & urinals
- Decorative fountains
- Commercial laundries
- Street cleaning, dust control, soil compaction
- Boiler feed and cooling towers
- Flushing sanitary sewers
- Other uses approved under Title 22 Standards

Enhanced Recycled Water

- All uses listed under Recycled Water
- Irrigation of salt-sensitive species (e.g. Redwoods Trees)
- Sensitive industrial uses

Purified Water

- All uses listed under Enhanced Water
- Indirect potable reuse
- Direct potable Reuse

STANDARD UNITS

MGD – Million Gallons per Day
PPM – Parts Per Million
mg/L – Milligrams per Liter

Palo Alto Recycled Water Delivery and Expansion



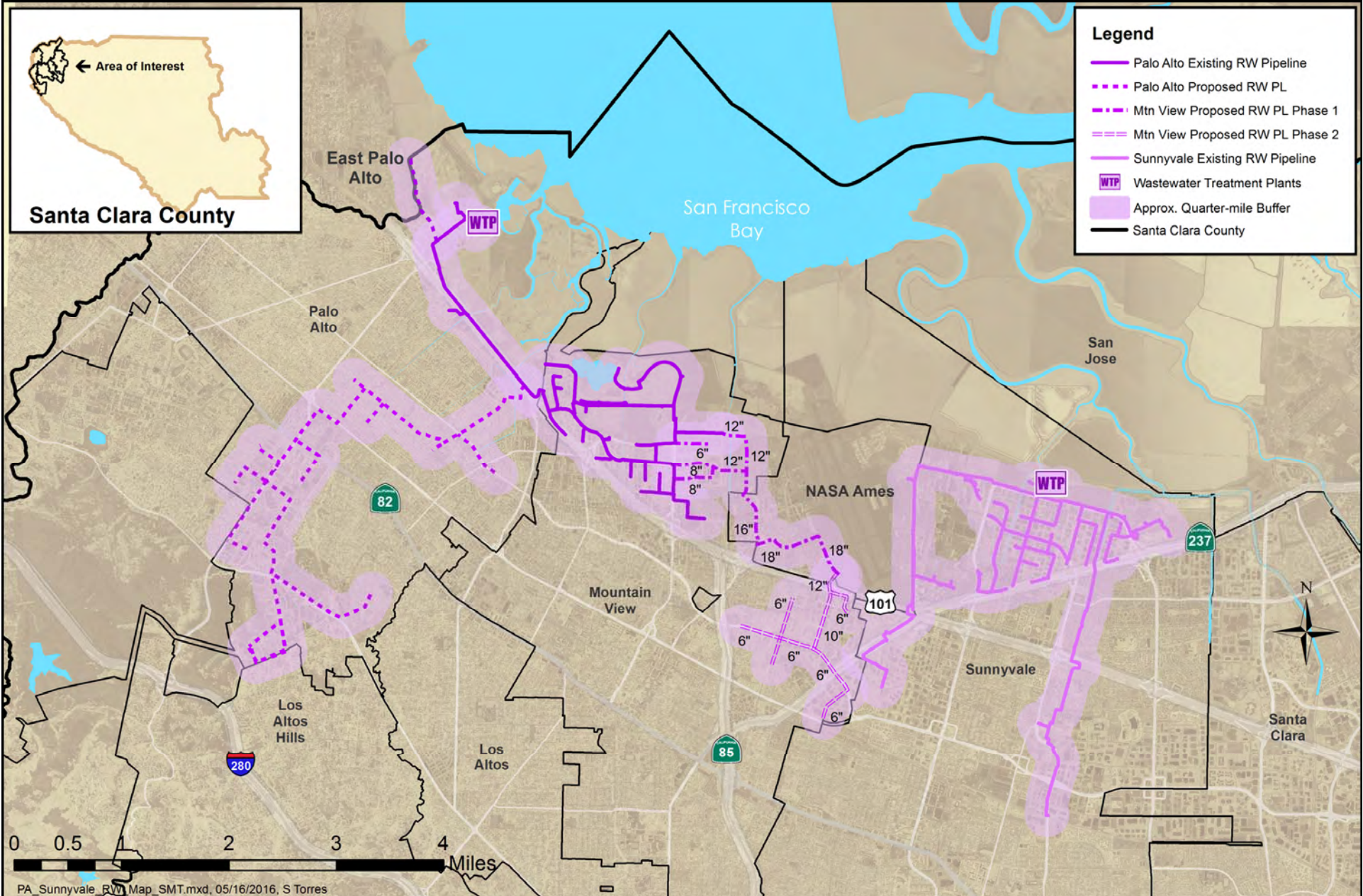
CITY OF
PALO ALTO



CITY OF
MOUNTAIN VIEW



Santa Clara Valley
Water District





CITY OF
**PALO
ALTO**

OFFICE OF THE CITY ATTORNEY

250 Hamilton Avenue, 8th Floor
Palo Alto, CA 94301
650.329.2171

October 26, 2018

VIA FIRST CLASS MAIL AND EMAIL

Santa Clara Valley Water District Board of Directors
Joint Recycled Water Committee – City of Palo Alto/SCVWD
Chief Executive Officer Norma Camacho
5750 Almaden Expressway
San Jose, CA 95118-3686

Dear Members of the Santa Clara Valley Water District Board, Members of the Joint Recycled Water Committee of the City of Palo Alto and SCVWD, and SCVWD Chief Executive Officer Norma Camacho:

At the September 2018 meeting of the Joint Recycled Water Committee, the City of Palo Alto's continuing concern about the unfair collection of the State Water Project (SWP) tax from Palo Alto property owners was briefly discussed. The purpose of this letter is to reassert the City's position that the Santa Clara Valley Water District's longstanding practice of taxing property owners in Palo Alto and other parts of Santa Clara County who do not receive water from the SWP to pay for the entirety of the District's SWP contractual obligations, rather than attempting to fund those costs from rate payers who use SWP water, is clearly inequitable and legally tenuous. For many years, the City has expressed a willingness to work with the District to address these concerns shared by the City and other affected jurisdictions, but the District has taken no concrete action to redress the inequity and has instead continued to fully fund its SWP obligations through taxation without adequate justification. The City urges the District to take immediate steps to eliminate the ad valorem property tax collection in Palo Alto, develop revised rates to address the inequities in assessing Palo Alto taxpayers the full cost of a system they cannot and do not use, or implement another mechanism that provides tangible credit for SWP property taxes collected in Palo Alto. The City is prepared to work with the District to those ends, and requests a meaningful response and action to address the inequities perpetuated by the District's funding practice.

State Water Project

The Burns-Porter Act (Water Code §§12930 *et seq.*), approved by California voters in 1960, authorized the construction and operation of specified state water facilities, including dams, reservoirs, levees and an aqueduct system to convey water from the Sacramento-San Joaquin Delta to other parts of the state and a \$1.75 billion bond for initial construction of

these facilities. The Act directed the State Department of Water Resources (DWR) to enter into contracts to sell water and power, so that revenue from those sales would pay to operate the facilities and repay the bond.

The Santa Clara Valley Water District (“SCVWD” or “District”) is one of 29 contractors that purchases SWP water from the State. The SWP is one source of potable water that the District receives and sells to water customers in many areas of Santa Clara County. The District has a long-term contract with the DWR for deliveries from the SWP system. As part of that long-term obligation, the District can collect SWP costs through water rates, though the District has authority to collect funding shortfalls through property taxation where necessary.

District’s Reliance and Burden on Taxpayers, Not Water Rate Payers, to Fund the District’s SWP Obligations is Inequitable

Some parts of the County, including Palo Alto, do not receive SWP water from the District. Instead, their potable water is supplied by and through contracts with the San Francisco Public Utilities Commission (SFPUC) from the Regional Water System (RWS). Although these property owners do not rely on SWP water, the District for decades has imposed an ad valorem tax (based on the assessed property value) on property owners throughout the County (even those who do not benefit from SWP water) to meet 100% of its SWP contract obligations, instead of recovering those costs through water rates charged to its customers who use and benefit from SWP water. As of July 1, 2018, property owners pay a tax of approximately \$42 per \$1 million in property valuation to fund the District’s SWP obligations. A property owner who directly benefits from SWP water pays the same as a property owner who does not receive SWP water. Palo Alto taxpayers collectively pay between \$1 million and \$1.5 million per year in property taxes to fund the SWP, effectively subsidizing the rates of SWP water consumers. These property owners who receive water from the RWS also separately pay for infrastructure and other contract costs associated with their water provider – SFPUC – which SWP water consumers do not pay.

In the past, the District acknowledged the inequity in charging taxpayers for a water system they do not use by providing jurisdictions who receive RWS water with an “in-county credit” to offset the amount paid for the SWP tax, but in 1982 stopped providing that credit to North County jurisdictions including Palo Alto. The District has continued providing the in-county credit in the South County, however.

District’s SWP Funding Practice is Inconsistent with State Law; District Has Not Shown That Its Sole Reliance on Taxation to Fully Fund Its SWP Obligations is Necessary

The District has the authority to fund its SWP costs in a variety of ways, including through rates charged to water users. While property taxes may also be utilized, according to the District’s contract with the DWR, the Water Code, and the Burns-Porter Act, property taxes are intended to be a secondary collection method that provides assurance to bond holders that

debts will be paid in years when other funding sources are insufficient to meet SWP costs. State law expresses a clear preference that water charges fund SWP obligations before taxation and that property taxes may be increased only if it is infeasible to increase the fees or rates of customers using system water or power or pumping groundwater. This hierarchy of funding sources is reflected in the legislative history of the Burns-Porter Act, as described at some length by the Attorney General:

The Burns-Porter Act expresses a preference for water charges over taxation in that it provides that the state system would be supported primarily by the sale of water and power. It directs the Department of Water Resources to enter into contracts to sell the water and power and it pledges the revenues from those contracts to the operation of the system and the service of the bonded debt. (Wat. Code § 12937.) The Legislature and the voters clearly contemplated an essentially closed, self-supporting system. The Act even provides that revenues from water and power sales would be sufficient to reimburse the California Water Fund for amounts that had been expended for the construction of the State Water Resources Development System. (Wat. Code § 12937(b)(3).) The ballot argument in favor of the Burns-Porter Act echoed this preference:

‘The program will not be a burden on the taxpayer; no new state taxes are involved; the bonds are repaid from project revenues through the sale of water and power. In other words, it will pay for itself.’ (Voters Pamphlet, Nov. 8, 1960, p.3; emphasis in original.)

The Burns-Porter Act and water contracts under that act do contemplate that local taxes may be required to pay the obligation to the state, and authorize such taxation. However, that authority is expressly limited to situations where it is necessary. The Burns-Porter Act incorporates by reference the Central Valley Project Act. ... The Central Valley Project Act authorizes local taxation, but only where necessary:

‘The governing body [of any public agency that has contracted with the State] shall whenever necessary, levy upon all property owners not exempt from taxation, a tax or assessment sufficient to provide for all payments under the contract then due or to become due within the current fiscal year or within the following fiscal year before the time when money will be available from the next general tax levy.’ (Wat. Code § 11652; emphasis added.)

Similarly, the contract with the Metropolitan Water District authorizes taxation only where revenue from the sale of water proves insufficient:

'If in any year the District fails or is unable to raise sufficient funds by other means, the governing body of the District shall levy upon all property in the District not exempt from taxation, a tax or assessment sufficient to provide for all payments under this contract then due or to become due within that year.' (Metropolitan Water District of Southern California contract, article 34(a); emphasis added.)

(61 Ops.Cal.Atty.Gen. 373 (1978).) SCVWD's 1961 contract with DWR uses this same language as in the Metropolitan Water District contract cited by the Attorney General.

Disregarding both state law and the fair treatment of County taxpayers, the District has made no effort to collect SWP from water rates; nor has it demonstrated an inability to raise funds by means other than taxation or, conversely, a necessity to utilize taxation. The District has simply, as a default, resorted to taxation to fund 100% of its SWP costs. The course of action taken by the District is not the norm among local water districts throughout the state. In contrast, other local water districts collect their SWP costs at least partially from retail water sales, not taxes. For example, Metropolitan Water District (MWD) and Alameda County Water District rely on water rates, not taxes, to fund a significant portion of their SWP obligations.

Local water districts that undertake SWP funding in the same manner as the District are susceptible to legal challenge by taxpayers, advocacy groups, and public agencies. The City is aware of at least one citizen-initiated effort in another part of the state to redress such unfair taxation, and the impetus to challenge these practices will become greater if SWP costs increase substantially as anticipated.

Conclusion

The District should take prompt action to correct its practice of relying on property taxpayers to meet 100% of its SWP obligations, rather than waiting until litigation is filed against it. Taking corrective action would be fair to County taxpayers who receive no SWP water and would be consistent with state law and the promises made to voters when the SWP was approved. The City remains open to working with the District collaboratively to achieve a solution to this longstanding problem.

Sincerely,


Molly Stump
City Attorney



Ed Shikada
Assistant City Manager