



Update on Water Supply Availability and Conservation Regulations

UTILITIES & ENVIRONMENTAL SERVICES

Jan Lee
Water Resources Manager

May 8, 2017

End of Drought Emergency Gives Way to Conservation as 'Way of Life'

📅 APRIL 21, 2017 👤 VALERIE NERA 📌 WATER

California Chamber of Commerce



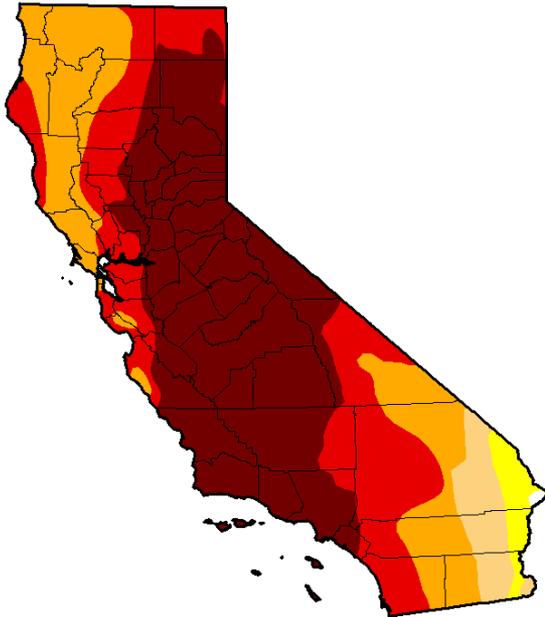
Photo courtesy of SFPUC

Recent Drought Conditions

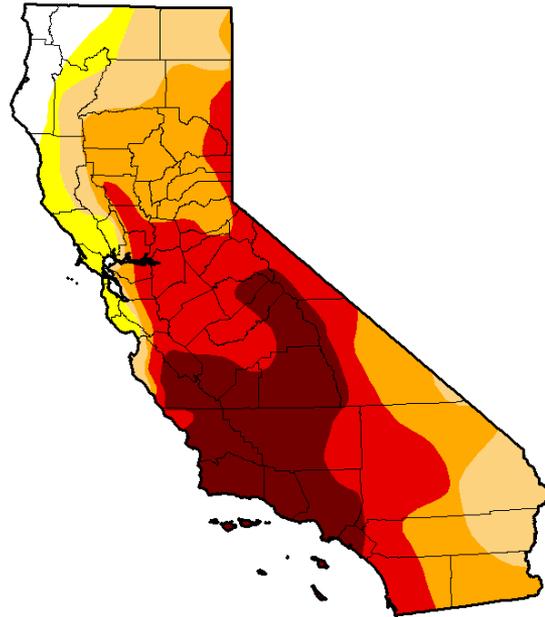
U.S. Drought Monitor - California



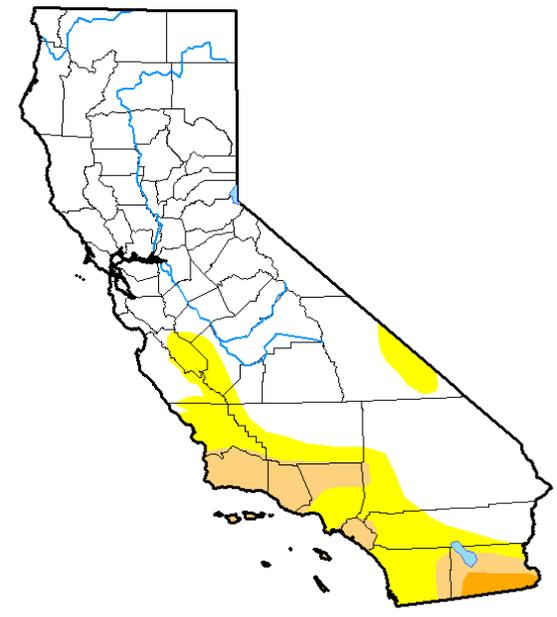
2015



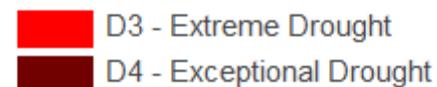
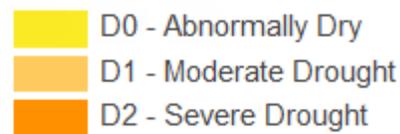
2016



2017



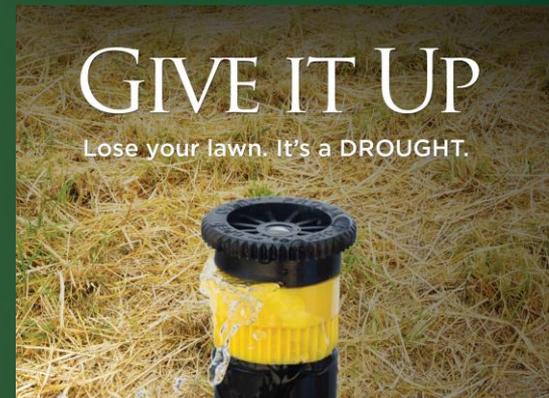
Intensity:



Drought Lessons



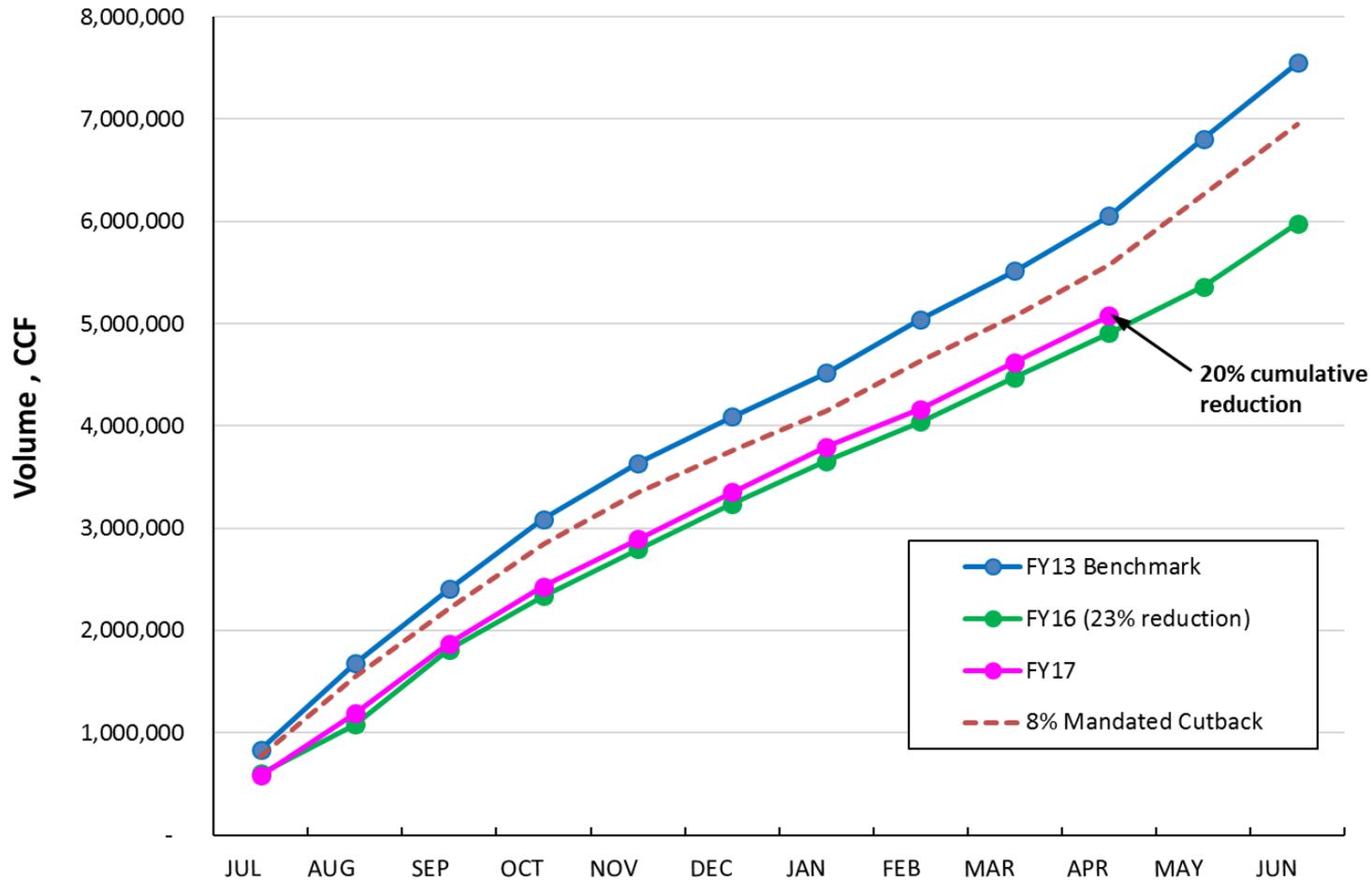
- ▶ Sustainable Groundwater Management Act
- ▶ State Board Emergency Conservation Regulations
- ▶ Proposition 1
- ▶ Accelerated urban conservation savings



Hayward Drought Reduction



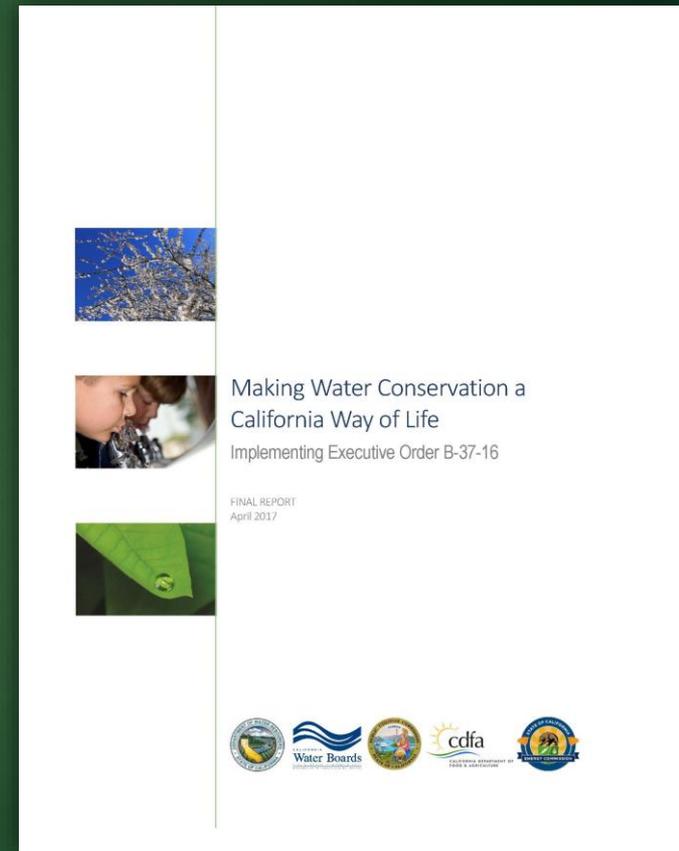
Cumulative Water Consumption (Purchases)



Making Water Conservation a California Way of Life



- ▶ Long-term conservation framework
- ▶ Promote efficient water use regardless of conditions
- ▶ Customized to unique conditions of each water agency
- ▶ Strengthen drought planning and resiliency



Long-term Conservation Framework Key Provisions



- ▶ Permanent prohibitions on wasteful activities
- ▶ Permanent monthly reporting of water usage
- ▶ Long-term water efficiency targets
 - Separate indoor and outdoor water use targets
 - Water efficiency standards for non-residential use
- ▶ Enhanced drought planning
- ▶ Water system leak management and minimization

Recommended Hayward Water Shortage Actions



1. Rescind Stage I Water Shortage declaration and Stage I Water Shortage Contingency Plan
2. Revise Wastewater Water Practices Prohibition Ordinance (formerly called Nonessential Water Use Ordinance)

Recommended Changes to City Ordinance



State Drinking Water Use Prohibition	Current City Ordinance Prohibition	Recommended Revision
Irrigating landscape that results in runoff onto non-irrigated areas	Included	Update language to be consistent with State requirement
Irrigating landscape during and within 48 hours after measureable rainfall	Not included	Add
Using a hose to wash vehicles without a shutoff nozzle	Included	None
Washing of driveways and sidewalks	Washing of hardscapes with hose unless fitted with a shutoff nozzle	Revise to prohibit washing of driveways and sidewalks
Use in non-recirculating fountains and other decorative water features	Limited to <u>new</u> fountains and decorative water features	Revise to prohibit in all non-recirculating fountains and decorative water features

Recommended Changes to City Ordinance



State Drinking Water Use Prohibition	Current City Ordinance Prohibition	Recommended Revisions
Irrigation of ornamental turf on public street medians	Not included	Add
Irrigation of landscapes of newly constructed homes and buildings inconsistent with State requirements	Not included	Add
Use of water due to a leak within the end-users control	Excessive water use due to broken or defective plumbing systems	Update language to be consistent with State requirement
Serving water other than upon request in eating and drinking establishments	Not included	Add
Require hotels and motels to offer guests option of not having towels and linens changed daily	Not included	Add

Next Steps



- ▶ Receive input and direction from Committee
- ▶ Monitor and participate in State's efforts to implement new long-term conservation framework
- ▶ Continue to promote and support water conservation programs

Water Conservation. **IT'S FOR LIFE.**

Questions & Discussion





East Bay Community Energy

UTILITIES & ENVIRONMENTAL SERVICES

Erik Pearson
Environmental Services Manager

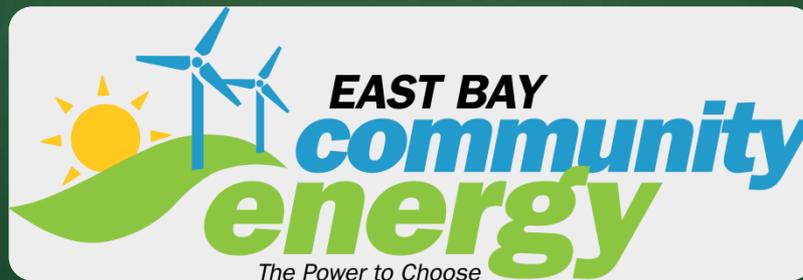
May 8, 2017

East Bay Community Energy



Background:

- ▶ Council approved Hayward's membership in JPA in December 2016
- ▶ EBCE Board had first meeting on January 30, 2017



East Bay Community Energy



- ▶ Hiring of consultants has delayed program launch
 - ▶ Energy and Technical Services
 - ▶ Community Outreach, Marketing & Customer Notification
 - ▶ Data Management & Call Center Services
- ▶ Now expect to begin serving customers in Spring 2018
- ▶ ALH Economics to prepare Local Development Business Plan

Contra Costa County to Join MCE

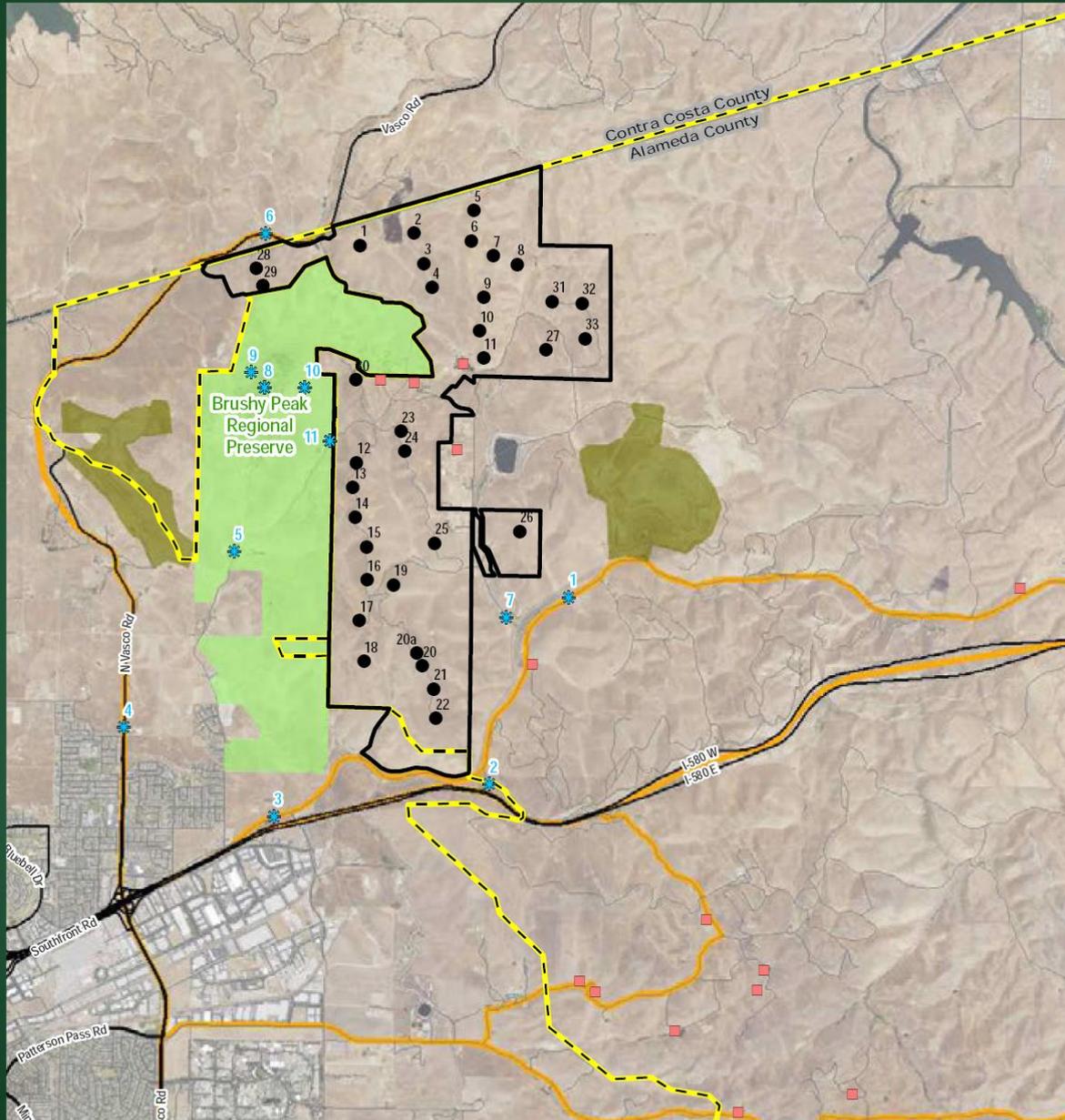


On May 2, 2017, CCCo Board of Supervisors voted 4:1 to join MCE

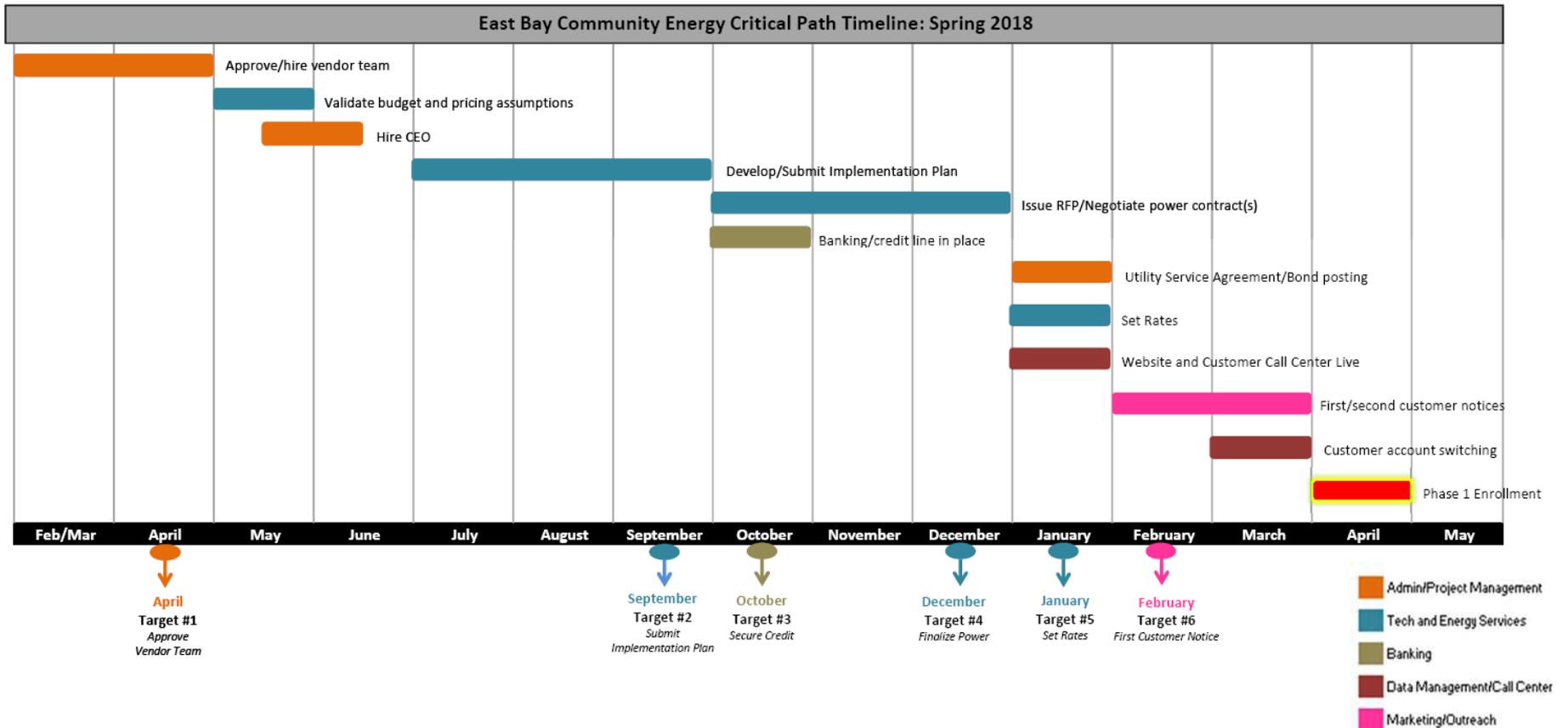
- ▶ 5 cities already in MCE (Richmond, San Pablo, El Cerrito, Lafayette and Walnut Creek)
- ▶ Moraga, Concord, and Pittsburg recently voted to join MCE
- ▶ Oakley citizens committee recommended MCE



Summit Wind Project



Timeline



Questions & Discussion





Recycled Water Project Update

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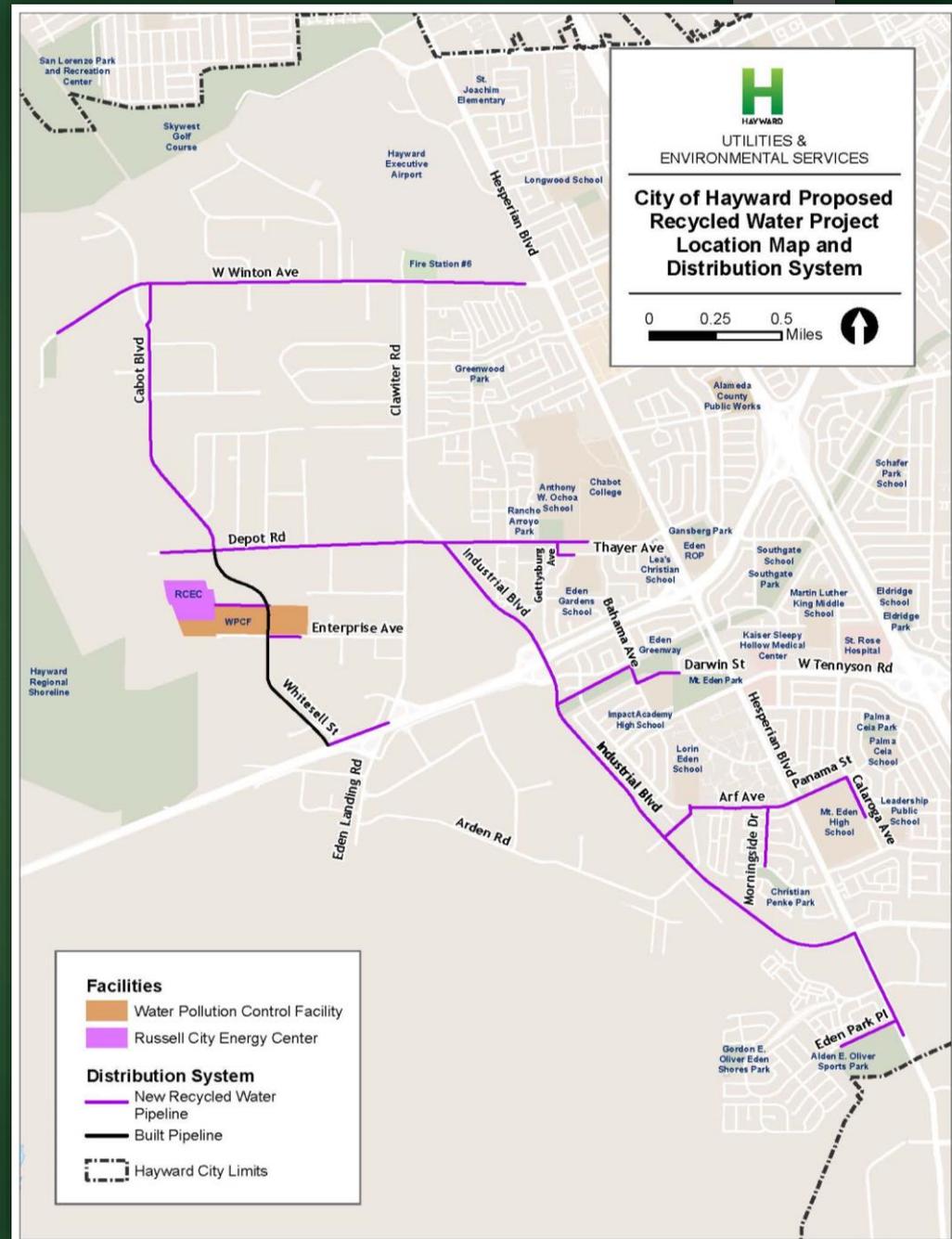


Jan Lee
Water Resources Manager

May 8, 2017

Overview

- ▶ Sustainable and drought-proof water supply
- ▶ Phase I focuses on irrigation uses
- ▶ 290 acre-feet per year (~260,000 GPD)
- ▶ Facilities
 - 1 million gallon tank
 - Pump station
 - 10 miles of pipelines



RCEC Supply Arrangement



- ▶ **Supply:** Up to 0.5 million gallons per day (mgd)
- ▶ **Quality:** Title 22 disinfected tertiary treated water
- ▶ **Cost:** Incremental cost to produce recycled water
- ▶ **Recirculated water:** Provisions to allow RCEC to return non-compliant water to WPCF
- ▶ **Term:** two years, automatic one year renewals
- ▶ **Approvals:** Each party responsible for obtaining necessary permits



City Treatment Option



- ▶ Packaged membrane treatment system
- ▶ Title 22 tertiary treated recycled water
- ▶ 0.5 mgd capacity
- ▶ Lease or purchase
- ▶ 9 – 12 months for installation



Customer Retrofits



- ▶ Customer outreach
- ▶ Site evaluations
- ▶ Design and installation
- ▶ Regulatory approvals
- ▶ Site supervisor training
- ▶ Cross-connection and coverage testing
- ▶ Recycled water use permits



Customer Outreach



- ▶ Initial contact letters
- ▶ Customer meetings
- ▶ Outreach materials
 - Fact sheet
 - Frequently asked questions
 - Resources

City of Hayward Recycled Water Project

Frequently Asked Questions

What is recycled water?
Recycled water is "used" water that has been reclaimed and cleaned so that it can be reused for irrigation, landscaping and industrial purposes. Recycled water reduces the amount of fresh water required for non-drinking uses, ensuring...

How is Hayward's recycled water produced?
Recycled water is produced through a rigorous cleaning process. Wastewater flows through primary treatment, then secondary treatment which uses beneficial bacteria to break down organic matter. The water is then disinfected using UV light. The final process includes chemical treatment to remove any remaining disinfectant, resulting in recycled water that can be safely used for industrial and agricultural purposes.

Is recycled water safe?
Yes! Due to its advanced treatment process, recycled water is considered safe for irrigation, landscaping, and industrial uses. However, it is not safe for drinking. To ensure a consistent supply, the City of Hayward is implementing a Recycled Water Project to provide recycled water for irrigation of parks, schools, roadway medians, and landscaped areas around commercial and industrial buildings, as well as for industrial purposes.

Water for Irrigation and Industrial Purposes
Recent drought conditions have reminded us of the need to conserve drinking water supplies. One of the highest demands on our water supplies comes from irrigation of lawns and landscaping. To this end, the City of Hayward is implementing a Recycled Water Project to provide recycled water for irrigation of parks, schools, roadway medians, and landscaped areas around commercial and industrial buildings, as well as for industrial purposes.

Community Benefits

- ✓ Creates a locally sustainable water supply
- ✓ Conserves drinking water supplies
- ✓ Improves water supply reliability during droughts
- ✓ Reduces treated wastewater discharges to San Francisco Bay
- ✓ Keeps Hayward landscaping green
- ✓ Provides customers with a drought-proof supply

Every gallon of water that is recycled conserves a gallon of drinking water and reduces the volume of wastewater that is discharged to San Francisco Bay.

Safe, Drought Proof, High-Quality Water

Recycled water will be produced from wastewater that is collected from the homes and businesses within Hayward and treated at the City's Water Pollution Control Facility. Recycled water provided to customers will be tertiary-treated water that has undergone the advanced treatment processes of filtration and disinfection to produce high quality recycled water that is safe for reuse.

In California, the State regulates the production and use of recycled water and has adopted strict public health and safety regulations to protect the public from any potential risks associated with recycled water. Recycled water is routinely tested to ensure compliance with stringent water quality standards and can only be delivered to customers if it meets all requirements.

For More Info:
www.Hayward-CA.gov
Phone: 510-881-2200
Email: Environment@hayward-ca.gov

HAYWARD

www.Hayward-ca.gov/RecycledWater

Site Evaluations



Proximity to distribution system



Alternative water supply sources



Changes to drought-friendly landscaping



Relatively low irrigation use compared to high cost of extending distribution system

Future Expansion Plans



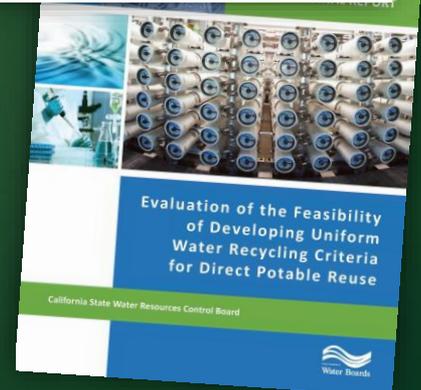
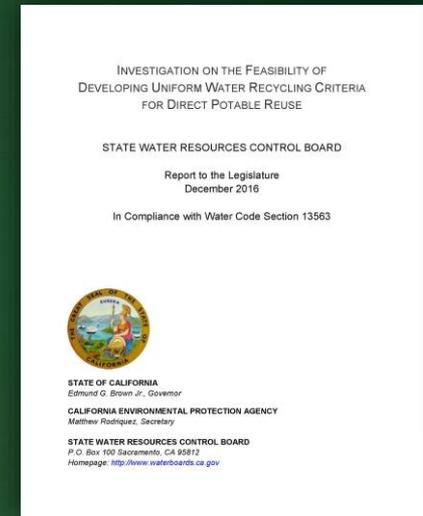
- ▶ Update Recycled Water Facilities Plan
- ▶ Identify future customers and options to expand recycled water system
 - Industrial users
 - Additional irrigation users
- ▶ Long-term options for recycled water supply



Future Potable Reuse Regulations



- ▶ Report to Legislature in 2016
 - Feasible to develop and adopt regulations for using recycled water as drinking water
 - Additional research needed to address public health issues
- ▶ Legislative efforts to advance development of potable reuse regulations (AB 574 Quirk)
- ▶ Local agencies studying potable reuse opportunities



Public Contact



- ▶ In November 2014, Council adopted CEQA document and approved Project
- ▶ December 2015: Council adopted the Recycled Water Use Ordinance
- ▶ May 2017: Staff plans to initiate contact with customers to begin site evaluations
 - Maintain regular communications with customers
 - Work closely with Hayward Unified School District and Hayward Area Parks and Recreation District

www.Hayward-ca.gov/RecycledWater

Project Cost



- ▶ Capital cost estimated at \$20 million
- ▶ Proposition 1 funding secured
 - \$5.8 million in grant funding
 - \$13.5 million in low interest loans
- ▶ Staff pursuing federal funding under Bureau of Reclamation's Title XVI program
- ▶ Project costs recovered through recycled water rates

Schedule & Next Steps



PROJECT ELEMENT	2016				2017				2018				2019			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4
Recycled Water Supply Arrangement	[Blue bar]				[Blue bar]											
Permitting																
General Order Permit					[Blue bar]											
Customer Site Approvals									[Blue bar]							
Storage Tank and Distribution System																
Design	[Blue bar]															
Construction									[Blue bar]							
Customer Retrofits																
Outreach					[Blue bar]				[Blue bar]				[Blue bar]			
Site Surveys and Feasibility Determinations					[Blue bar]											
Design, Construction, Testing, and Connections									[Blue bar]				[Blue bar]			

Questions & Discussion





Proposed 2017 Agenda Planning Calendar

UTILITIES & ENVIRONMENTAL SERVICES

May 8, 2017

Suggested Agenda Topics



July 2017

Pay As You Save (PAYS)

E3 PACE Program

WMAC Franchise Agreement Annual Report (July)

2015 GHG Inventory

September 2017

Car Sharing

Sustainable City Year Program (moved from July)

Energy Performance and Disclosure – Alternative Approaches

Unscheduled Items

Lead Testing in Schools

Stormwater Trash Reduction Requirements

Review of Mountain Tunnel Shutdown (January 3 – March 3)

Laundry to Landscape Ordinance

Downtown Specific Plan -A/Mission/Foothill