



**Wednesday, August 19, 2020**

**10am – 11:30am**

Virtual Meeting via Zoom

**Thank you for joining!**

Please use the chat box  
for question and answer feature  
if you have any questions or technical issues.



Welcome



Melanie Mow Schumacher,  
Soquel Creek Water District

8/19/2020



# Today's Agenda

**Wednesday, August 19, 2020**

**10:00-11:30am**

**Webinar Meeting**

Webinar Meeting Registration: <https://us02web.zoom.us/join/8WxIVdw>

## **AGENDA**

- |                   |   |
|-------------------|---|
| <b>10:00 A.M.</b> | <b>Welcome</b><br><i>Melanie Mow Schumacher   Soquel Creek Water District   Chair</i>   |
| <b>10:05 A.M.</b> | <b>Recent Media Clips</b><br><i>Rupam Soni   Metropolitan Water District of Southern California</i>   |
| <b>10:10 A.M.</b> | <b>Case Study: East County Advanced Water Purification Program and Virtual Tour of Advanced Water Purification Demonstration Project</b><br><i>Melissa McChesney   Padre Dam Municipal Water District</i> |
| <b>10:55 A.M.</b> | <b>Update from California WaterReuse Association's Managing Director (Legislative Update, CA Conference Update, and WaterReuse Symposium)</b><br><i>Jennifer West   WaterReuse California</i>             |
| <b>11:05 A.M.</b> | <b>Non-Potable Recycled Water Signage Working Group Update</b><br><i>Patsy Tennyson   Katz and Associates</i>   |
| <b>11:15 A.M.</b> | <b>WaterReuse Communications Collaborative Group's Survey Results</b><br><i>Gina Ayala   Orange County Water District</i>   |
| <b>11:25 A.M.</b> | <b>Round Table Discussion</b><br><i>Rebecca Rubin   Soquel Creek Water District</i>   |
| <b>11:30 A.M.</b> | <b>Wrap Up</b><br><i>Melanie Mow Schumacher   Soquel Creek Water District</i>   |



# Executive Team



**Melanie Mow  
Schumacher,  
Chair**  
Soquel Creek  
Water District



**Patsy  
Tennyson**  
Katz and  
Associates



**Carolyn Schaffer**  
Metropolitan  
Water District  
of Southern  
California



**Rupam Soni,  
Vice Chair**  
Metropolitan Water  
District  
of Southern California



**Gina Ayala**  
Orange  
County Water  
District



**Rebecca Rubin**  
Soquel Creek  
Water District



# Who We Are

The WaterReuse California Communications Collaborative Group provides a forum to discuss and collaborate on potable water reuse communications.

The group is open to all WaterReuse California members and we welcome fellow colleagues to learn about current challenges facing reuse communications, discuss tools and resources, and network with one another.

<https://watereuse.org/sections/watereuse-california/communications-collaborative-group/>





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particular phrase, "Toilet-to-Tap," is often used to describe potable reuse projects. While it is incorrect, it is most often used by headline writers who want to entice readers of a story about a potable reuse project – and will probably remain in use, especially by those who want to distinguish between the potable reuse process. This phrase leaves out the multiple treatment or advanced oxidation/purification steps involved in all potable reuse projects. Multiple alternative phrases have been suggested by water reuse professionals and include, but are not limited to: 1) "Toilet-to-Potable" (*a word that can be repeated as many as five times here depending on the type of cleaning the source water undergoes*); To Tap"; 2) "From Toilet to Potable" (the source water for a potable reuse project is not from toilets); and 3) "Potable Reuse."



Publication Date	Publication Name	Article Title	Article Link	
10/29/2015	Treatment Plant Operator	Changing Minds: How the Industry is Gaining a Better View of Water Issues	<a href="https://www.epw.com/enline_exclusives/2015/10/29/01">https://www.epw.com/enline_exclusives/2015/10/29/01</a>	
4	11/11/2015	The Alamo San	County Approves 10M Gallon-a-Day County Advanced Water Purification Program	<a href="http://www.thecorral.com/story/news/2015/11/11/county-approves-10-million-gallon-a-day-water-purification-program/741111">http://www.thecorral.com/story/news/2015/11/11/county-approves-10-million-gallon-a-day-water-purification-program/741111</a>
5	11/18/2015	EC Renewable News	Setback: 17 What it Means to Recycled Water, Consumers Beware	<a href="http://www.ecwater.com/article/2015/11/18/setback-17-what-it-means-to-recycled-water-consumers-beware/">http://www.ecwater.com/article/2015/11/18/setback-17-what-it-means-to-recycled-water-consumers-beware/</a>
6	12/24/2015	Edmonton Journal	Recycler's High Hopes for Recycled Drinking Water	<a href="http://www.edmontonjournal.com/2015/12/24/recycled-water/">http://www.edmontonjournal.com/2015/12/24/recycled-water/</a>
7	12/24/2015	Wired News Services/Studyfinds.org	Despite Health, Most People Still Don't Drink Recycled Water to Drink It	<a href="http://www.wired.com/wired-news/2015/12/24/recycled-water/">http://www.wired.com/wired-news/2015/12/24/recycled-water/</a>
8	11/14/2015	Minnesota News Service	Minnesota Will Pioneer a \$3M Fee to Regulate Recycled Water Use	<a href="http://www.mnnews.com/story/news/2015/11/14/minnesota-will-pioneer-a-3-million-fee-to-regulate-recycled-water-use/">http://www.mnnews.com/story/news/2015/11/14/minnesota-will-pioneer-a-3-million-fee-to-regulate-recycled-water-use/</a>
9	11/19/2015	Daily News	West Basin Approves devastating potential impact report - while dozens of towns and agencies fight it	<a href="http://www.dailynews.com/story/news/2015/11/19/west-basin-approves-devastating-potential-impact-report-while-dozens-of-towns-and-agencies-fight-it/">http://www.dailynews.com/story/news/2015/11/19/west-basin-approves-devastating-potential-impact-report-while-dozens-of-towns-and-agencies-fight-it/</a>
10	12/20/2015	San Francisco Chronicle	From toilets to tanks: SF seeks new water recycling program	<a href="http://www.sanfranciscochronicle.com/bayarea/article/SF-seeks-new-water-recycling-program-1030861">http://www.sanfranciscochronicle.com/bayarea/article/SF-seeks-new-water-recycling-program-1030861</a>
11	12/9/2015	Environmental Leader	Drought Prompts California Towns to Recycle Water to Irrigate Public Spaces	<a href="http://www.environmentalleader.com/2015/12/09/drought-prompts-california-towns-to-recycle-water-to-irrigate-public-spaces/">http://www.environmentalleader.com/2015/12/09/drought-prompts-california-towns-to-recycle-water-to-irrigate-public-spaces/</a>
12	12/09/2015	United Health Courier	Testing the waters: Virginia treatment facility for a \$1.5 billion makeover	<a href="http://www.thehealthcourier.com/news/2015/12/09/testing-the-waters-virginia-treatment-facility-for-a-15-billion-makeover/">http://www.thehealthcourier.com/news/2015/12/09/testing-the-waters-virginia-treatment-facility-for-a-15-billion-makeover/</a>
13	11/10/2015	Water World News & Management	United Water: Issues and the Transformation of a \$1.5B Southern Division	<a href="http://www.waterworldnews.com/news/2015/11/10/united-water-issues-and-the-transformation-of-a-15b-southern-division/">http://www.waterworldnews.com/news/2015/11/10/united-water-issues-and-the-transformation-of-a-15b-southern-division/</a>
14	11/10/2015	OTW FOCUS	Douglas County will expand recycled water to Scotts Valley community	<a href="http://www.otwfocus.com/news/2015/11/10/douglas-county-will-expand-recycled-water-to-scotts-valley-community/">http://www.otwfocus.com/news/2015/11/10/douglas-county-will-expand-recycled-water-to-scotts-valley-community/</a>
15	12/13/2015	63TV San Diego	LIFE IN OCEANOGRAPHY: Oceanic to purify recycled water for a more sustainable future	<a href="http://www.63tv.com/news/2015/12/13/oceanic-to-purify-recycled-water-for-a-more-sustainable-future/">http://www.63tv.com/news/2015/12/13/oceanic-to-purify-recycled-water-for-a-more-sustainable-future/</a>
16	12/16/2015	The PRN Express	Why Private Residential Water Recycling has stalled in Sydney	<a href="http://www.theprenews.com.au/2015/12/16/why-private-residential-water-recycling-has-stalled-in-sydney/">http://www.theprenews.com.au/2015/12/16/why-private-residential-water-recycling-has-stalled-in-sydney/</a>
17	12/16/2015	Ministry Herald	Pine Water Machinery delivery now expected to start in early January	<a href="http://www.ministryherald.com.au/2015/12/16/pine-water-machinery-delivery-now-expected-to-start-in-early-january/">http://www.ministryherald.com.au/2015/12/16/pine-water-machinery-delivery-now-expected-to-start-in-early-january/</a>
18	11/19/2015	Technoedge	Bellini's recycled water essential part of future water planning	<a href="http://www.technoedge.com/2015/11/19/bellinis-recycled-water-essential-part-of-future-water-planning/">http://www.technoedge.com/2015/11/19/bellinis-recycled-water-essential-part-of-future-water-planning/</a>
19	12/19/2015	BU News	BU lawmakers' concern for water reuse for agriculture	<a href="http://www.bu.edu/news/2015/12/19/bu-lawmakers-concern-for-water-reuse-for-agriculture/">http://www.bu.edu/news/2015/12/19/bu-lawmakers-concern-for-water-reuse-for-agriculture/</a>
20	12/24/2015	The Nevada Independent	How Nevada's Recycled Water is Used in the South: In California water reuse project - In California	<a href="http://www.nevadaindependent.com/news/2015/12/24/how-nevadas-recycled-water-is-used-in-the-south-in-california-water-reuse-project-in-california/">http://www.nevadaindependent.com/news/2015/12/24/how-nevadas-recycled-water-is-used-in-the-south-in-california-water-reuse-project-in-california/</a>
21	12/19/2015	U.S. Bureau of Reclamation	Bureau of Reclamation makes funding available for LIFE 2000 Water Reclamation and Reuse Projects	<a href="http://www.usbr.gov/news/2015/12/19/bureau-of-reclamation-makes-funding-available-for-life-2000-water-reclamation-and-reuse-projects/">http://www.usbr.gov/news/2015/12/19/bureau-of-reclamation-makes-funding-available-for-life-2000-water-reclamation-and-reuse-projects/</a>
22	11/20/2015	Ministry Herald	Pine Water Machinery represents environmental study, reviews extended	<a href="http://www.ministryherald.com.au/2015/11/20/pine-water-machinery-represents-environmental-study-reviews-extended/">http://www.ministryherald.com.au/2015/11/20/pine-water-machinery-represents-environmental-study-reviews-extended/</a>
23	12/23/2015	WaterWorld	Dave: portable water supply a win in Texas	<a href="http://www.waterworldnews.com/news/2015/12/23/dave-portable-water-supply-a-win-in-texas/">http://www.waterworldnews.com/news/2015/12/23/dave-portable-water-supply-a-win-in-texas/</a>
24	12/26/2015	Yahoo Finance	Two Recycled Water Projects for California's Water Service & Gov Subsidies Included in House Bill 5502 (M&P)	<a href="http://finance.yahoo.com/news/two-recycled-water-projects-for-californias-water-service-gov-subsidies-included-in-house-bill-5502-m-p-131100000.html">http://finance.yahoo.com/news/two-recycled-water-projects-for-californias-water-service-gov-subsidies-included-in-house-bill-5502-m-p-131100000.html</a>
25	12/26/2015	Mountain View News	With recycled water deal signed, attention shifts to contentious buy-and-sell	<a href="http://www.mountainviewnews.com/news/2015/12/26/with-recycled-water-deal-signed-attention-shifts-to-contentious-buy-and-sell/">http://www.mountainviewnews.com/news/2015/12/26/with-recycled-water-deal-signed-attention-shifts-to-contentious-buy-and-sell/</a>
26	11/19/2015	South News	Proclamation signed gets and in the United States	<a href="http://www.southnews.com/news/2015/11/19/proclamation-signed-gets-and-in-the-united-states/">http://www.southnews.com/news/2015/11/19/proclamation-signed-gets-and-in-the-united-states/</a>
27	11/20/2015	Water World News	In the United States, water market environmental manager for the water service in SUEZ Water Technologies & S	<a href="http://www.waterworldnews.com/news/2015/11/20/in-the-united-states-water-market-environmental-manager-for-the-water-service-in-suez-water-technologies-and-s/">http://www.waterworldnews.com/news/2015/11/20/in-the-united-states-water-market-environmental-manager-for-the-water-service-in-suez-water-technologies-and-s/</a>
28	12/30/2015	The San Diego Union Tribune	Distilled? It's recycled water, but the industry wants to sell it as drinking water	<a href="http://www.sandiegouniontribune.com/news/2015/12/30/distilled-its-recycled-water-but-the-industry-wants-to-sell-it-as-drinking-water/">http://www.sandiegouniontribune.com/news/2015/12/30/distilled-its-recycled-water-but-the-industry-wants-to-sell-it-as-drinking-water/</a>





# Our Events

Event	Date	Type	Location
1-Kickoff	10/17/2018	Webinar/In-Person	Metropolitan Water District of Southern California
2	1/23/2019	Webinar/In-Person	Brown & Caldwell Walnut Creek Office
3	3/18/2019	Conference Session	WaterReuse California Conference, Anaheim
4	6/26/2019	Webinar	On-Line Only
5	1/29/2020	Webinar/In-Person and Tour	Monterey One Water
6	4/29/2020	Webinar	On-Line Only
7	8/19/2020	Webinar	On-Line Only



# Recent Media



Rupam Soni,  
Metropolitan Water District  
of Southern California

| 8/19/2020



# Handout #1:

## Media Handout

### Water Reuse News Articles: May - present 2020

Publication Date	Publication Name	Article Title	Article Link	Key Words/Phrases
4/30/2020	Water & Wastes Digest (press release)	OXELIA™ INTEGRATED OZONE-ENHANCED BIOFILTRATION IS PROPELLING POTABLE REUSE	<a href="https://www.wwdmag.com/channel/casestudies/oxeliatm-integrated-ozone-enhanced-biofil">https://www.wwdmag.com/channel/casestudies/oxeliatm-integrated-ozone-enhanced-biofil</a>	water reuse, recycled water, potable reuse
5/1/2020	San Diego Reader	Will Covid-19 turn San Diego's water plan into Toilet to Grave?	<a href="https://www.sandiegoreader.com/news/2020/may/01/ticker-covid-19-turn-san-diegos-water-t">https://www.sandiegoreader.com/news/2020/may/01/ticker-covid-19-turn-san-diegos-water-t</a>	water reuse
5/5/2020	Yahoo Finance	H2O Innovation Secures 7 New Projects, Totalling \$7.6 M and Received Notice of Cancellation for One	<a href="https://finance.yahoo.com/news/h2o-innovation-secures-7-projects-120010453.html">https://finance.yahoo.com/news/h2o-innovation-secures-7-projects-120010453.html</a>	water reuse, recycled water, potable reuse
5/4/2020	Monterey Herald	MPWMD calls for revisiting Pure Water Monterey expansion report	<a href="https://www.montereyherald.com/2020/05/04/mpwmd-calls-for-revisiting-pure-water-monter">https://www.montereyherald.com/2020/05/04/mpwmd-calls-for-revisiting-pure-water-monter</a>	recycled water
5/6/2020	The Roundup	USDA Announces \$15 Million For Conservation Innovation Grants	<a href="https://www.roundupweb.com/story/2020/05/06/ag-roundup/usda-announces-15-million-for">https://www.roundupweb.com/story/2020/05/06/ag-roundup/usda-announces-15-million-for</a>	water reuse
5/6/2020	Transport Topics Online	Senate Committee Approves Water Infrastructure Measures	<a href="https://www.ttnews.com/articles/senate-committee-approves-water-infrastructure-measures">https://www.ttnews.com/articles/senate-committee-approves-water-infrastructure-measures</a>	recycled water
5/6/2020	WaterWorld	Senate EPW Committee approves significant water recycling investments	<a href="https://www.waterworld.com/drinking-water/infrastructure-funding/article/14175444/senate">https://www.waterworld.com/drinking-water/infrastructure-funding/article/14175444/senate</a>	recycled water, water reuse
5/12/2020	Mirage News	Our water future's in pipeline	<a href="https://www.miragenews.com/our-water-future-s-in-pipeline/">https://www.miragenews.com/our-water-future-s-in-pipeline/</a>	recycled water
5/11/2020	LA Times	Editorial: Southern California doesn't have decades to figure out water recycling. We need it now	<a href="https://www.latimes.com/opinion/story/2020-05-11/water-recycling-surviving-drought">https://www.latimes.com/opinion/story/2020-05-11/water-recycling-surviving-drought</a>	water recycling
5/13/2020	Phys.Org	Rethinking (waste)water and conservation	<a href="https://phys.org/news/2020-05-rethinking-wastewater.html">https://phys.org/news/2020-05-rethinking-wastewater.html</a>	wastewater
5/19/2020	Engineering News-Record (ENR)	California 2020 Owner of the Year: Water District Launches Innovative Recycling Plan	<a href="https://www.enr.com/articles/49407-california-2020-owner-of-the-year-water-district-launche">https://www.enr.com/articles/49407-california-2020-owner-of-the-year-water-district-launche</a>	recycled water

# Media stories support water reuse

## Funding for reuse projects

- OCWD
- San Diego
- Others

## Editorial:

Southern California doesn't have decades to figure out water recycling. We need it now

**Publication:** Various

**Publication:** LA Times

May 11, 2020



# Water Watchdogs Win Ruling On Treated Water Lost To The Ocean

ENVIRONMENT

## Water Watchdogs Win Ruling On Treated Water Lost To The Ocean

Updated August 13, 2020 7:00 AM | Published August 13, 2020 7:00 AM



Publication: LAist





## Case Study:

East County Advanced Water  
Purification Program and Tour of  
Advanced Water Purification  
Demonstration Project



Melissa McChesney,  
Communications Manager,  
Padre Dam Municipal Water  
District

| 8/19/2020





**East County  
Advanced Water  
Purification**

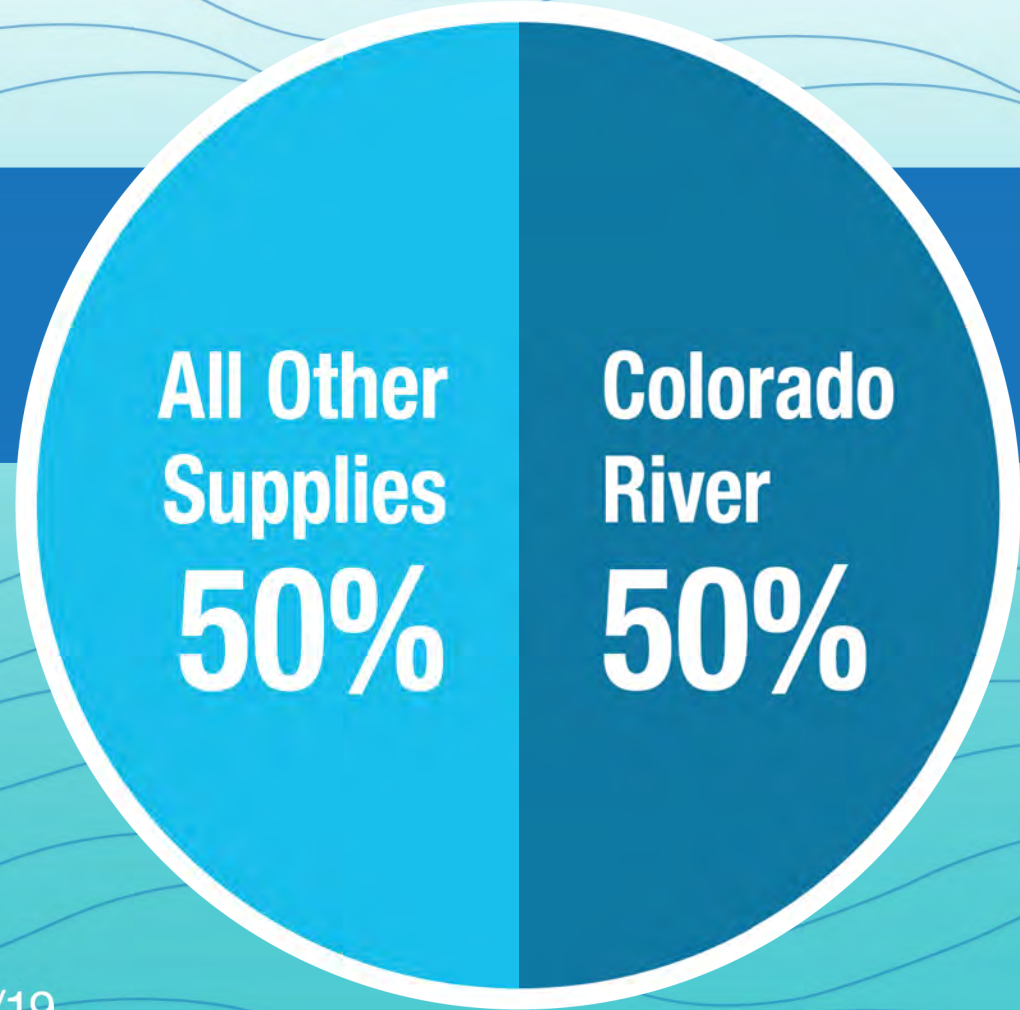
# We're at the End of a Very Long "Pipeline"





It's about water security

## San Diego's Water Supply in 2020



Source: San Diego County Water Authority, 7/19

# It's about water security

## Colorado River Lower Basin:

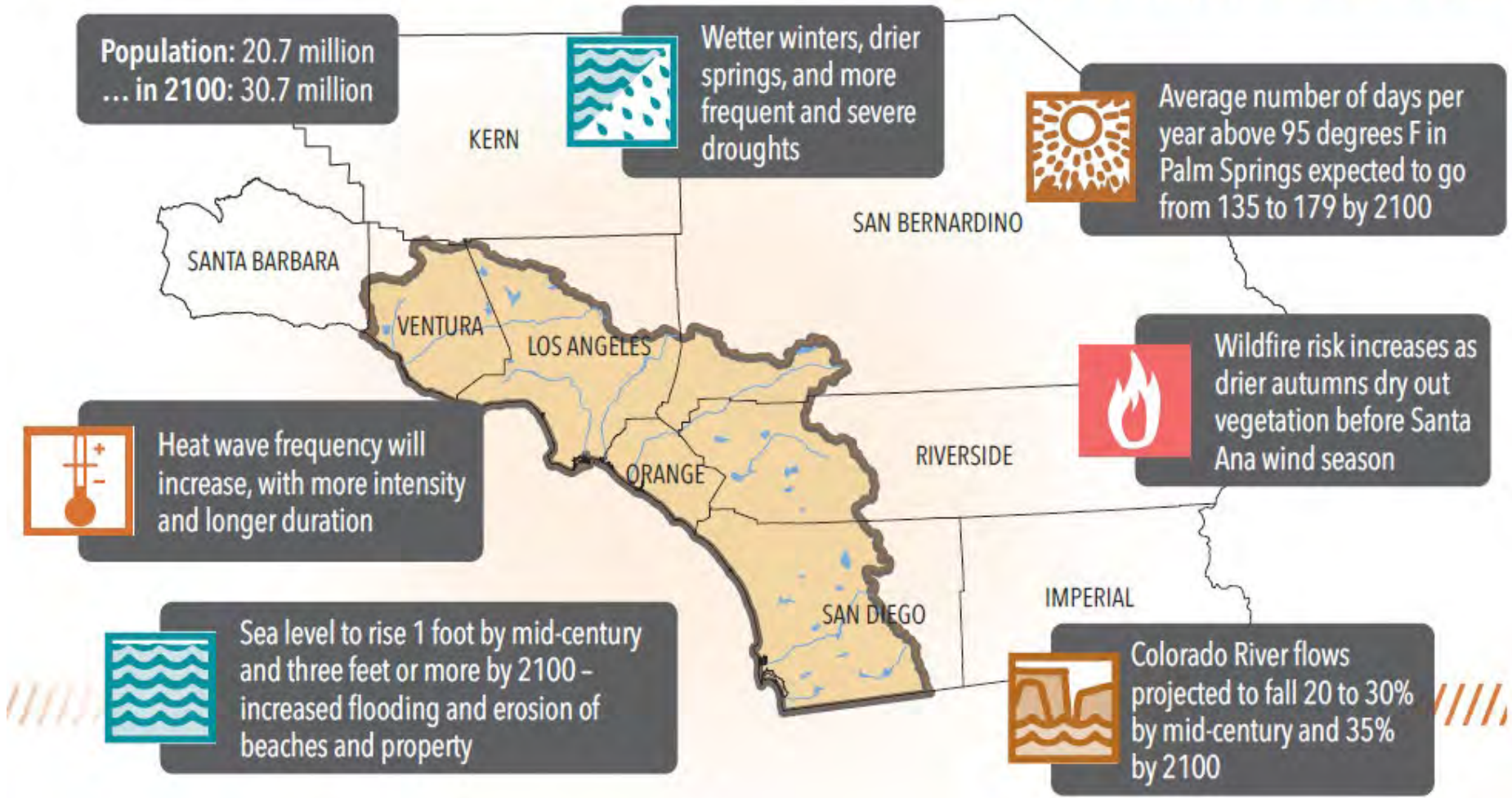
- Usage is oversubscribed by **1.5maf** annually;
- Reduced snowpack and heat impacts have already reduced total river supply by **10%**





# Future risks to our water supply

## South Coast Region Likely Climate Effects



Source: 2020 California Water Resilience Portfolio Draft



# Project Overview & Governance



# East County AWP Program



East County  
**Advanced Water  
Purification**

## 4 Participating Agencies



**PADRE DAM**  
Municipal Water District



**Helix**  
WATER DISTRICT

## Program Goals

Produce up to  
**30%**  
of East County's  
potable supply

Produce potable  
water costing  
**less than**  
imported water in  
the long run

**Minimize**  
financial impacts  
from the projected  
increase in wastewater  
handling costs  
by Metro





Pacific  
Ocean

COUNTY OF SD

PADRE

PADRE

20  
miles

EL CAJON

N

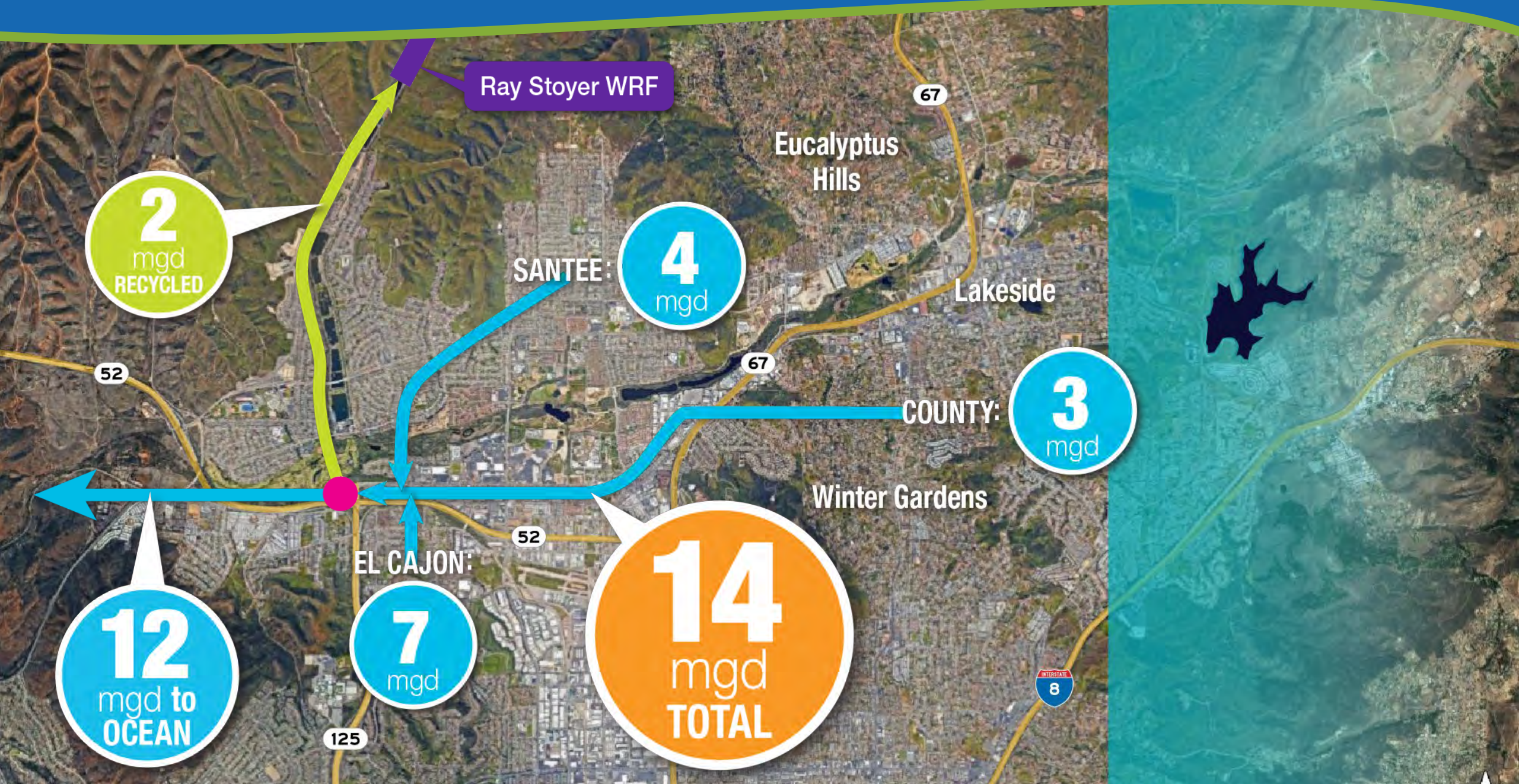
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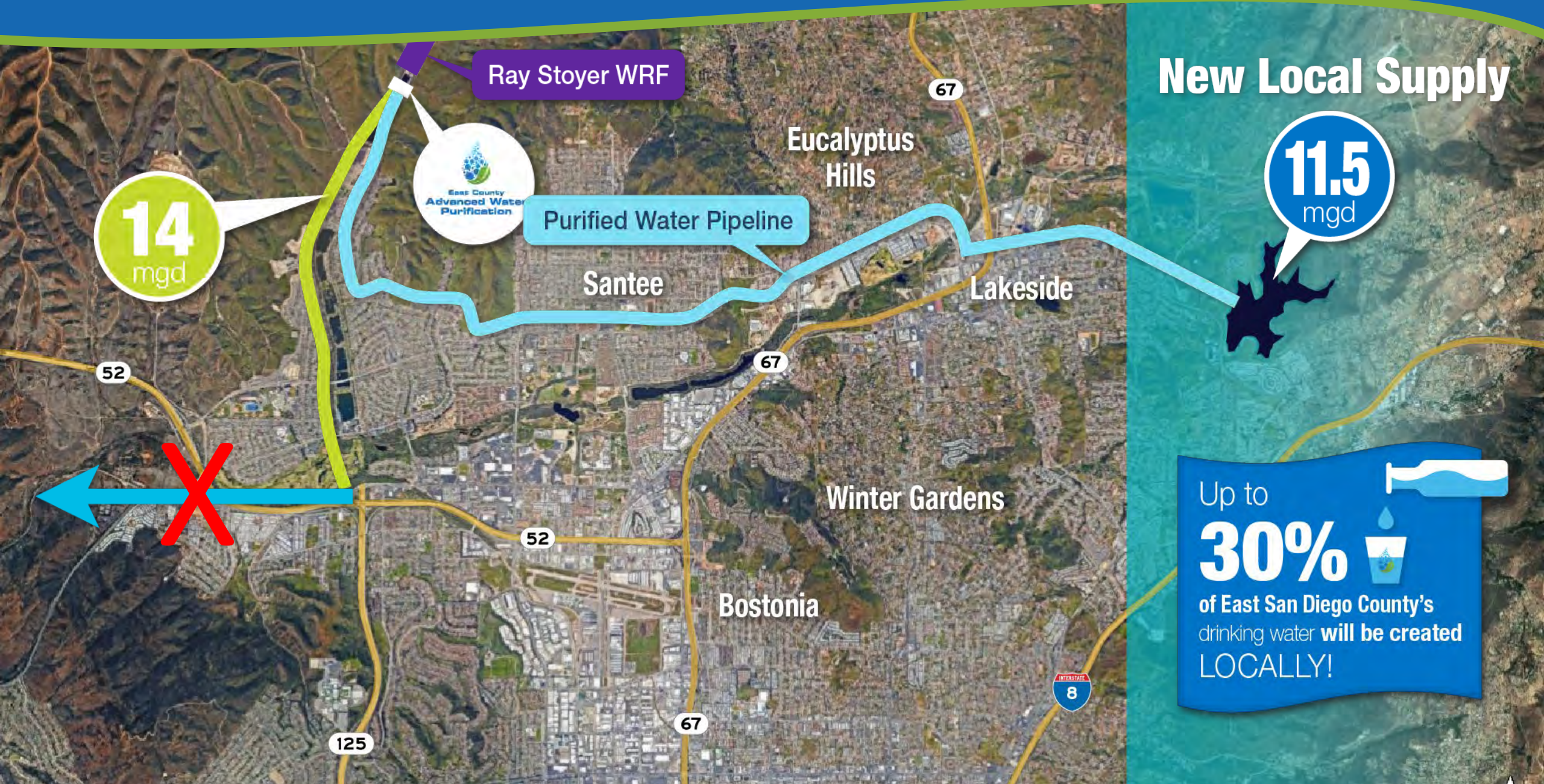


# East County AWP Project Overview





# East County AWP Project Overview





# Project Elements

## New Water Recycling Facility

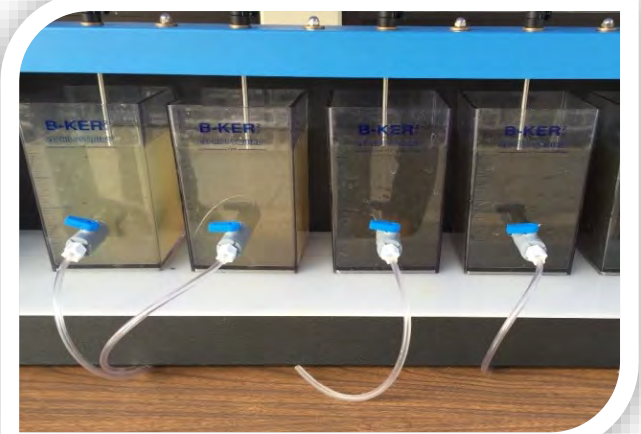
- 15 mgd tertiary treatment plant
- 4-stage Bardenpho Process for BNR

## Conveyance

- 11-mile long product water pipeline

## Solids Handling

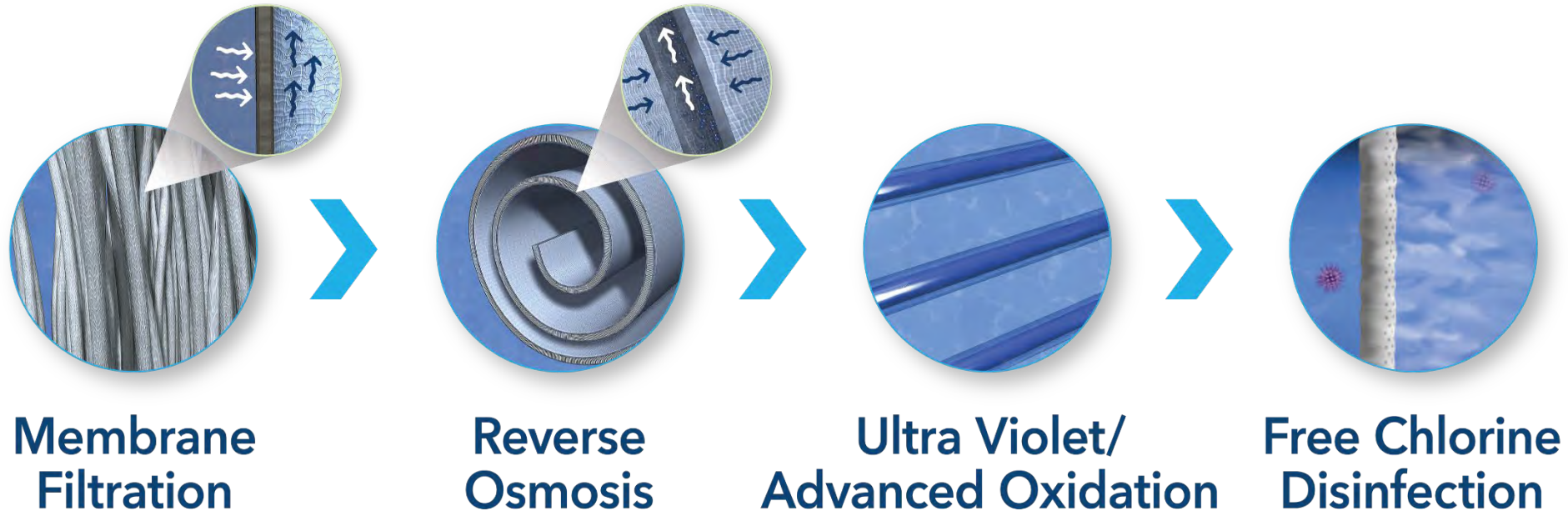
- Onsite solids handling using anaerobic digestion



# Project Elements

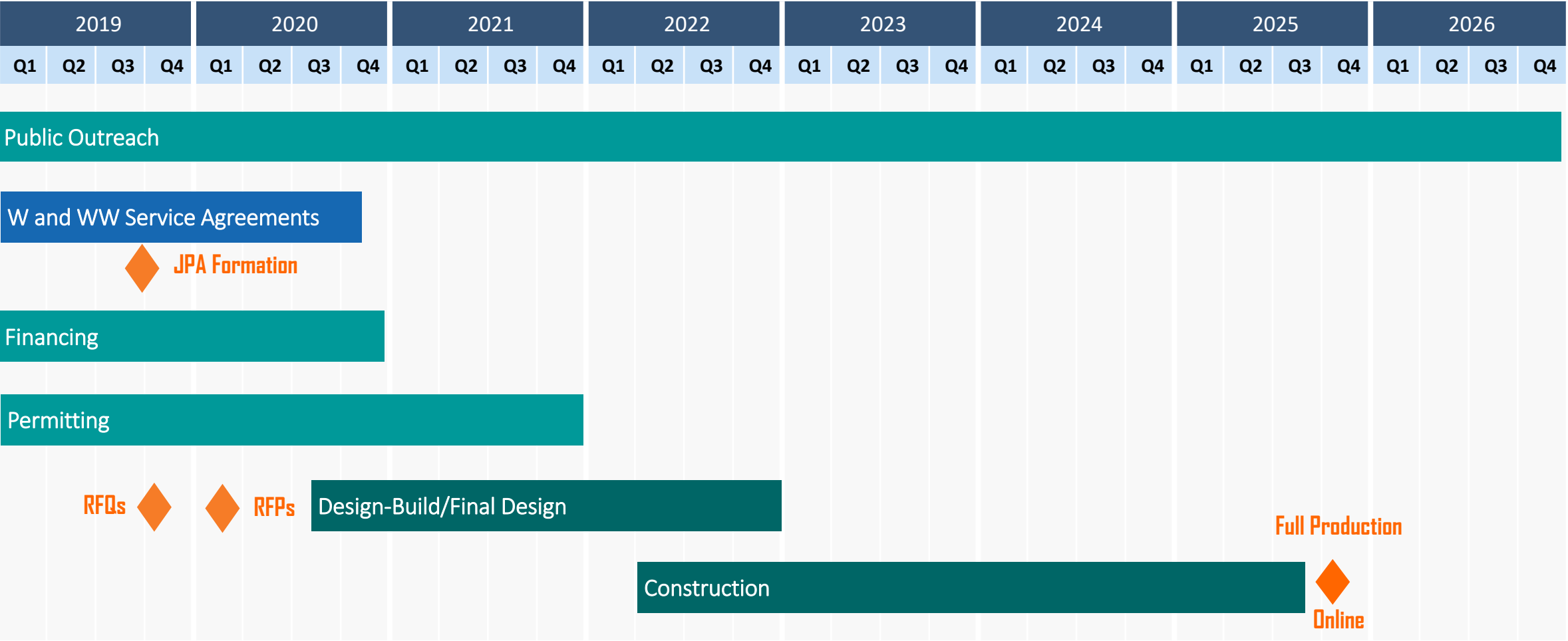
## Advanced Water Purification Facility

- AWP Demonstration Facility – still operating the facility
- UF Membrane Filtration, Reverse Osmosis, UV/AOP, Free Chlorine
- Completed Brine minimization pilot study in 2017 and selected a technology
- Currently pilot testing a post stabilization process and Desalitech



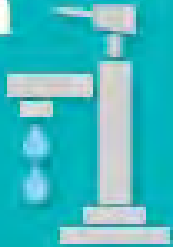


# Timeline



# Project Benefits

**REDUCES**  
our dependence  
on imported  
**WATER**



**CREATES**  
**a NEW,**  
local and reliable  
**DRINKING**  
**WATER**  
supply.



**PRODUCES**  
**up to 30%**  
of East San Diego County's  
water  
supply.



**PROVIDES**  
a safe, high-quality  
**DRINKING**  
**WATER**  
source.



**ECONOMIZES**  
long-term  
**COSTS**  
by being  
**COMPETITIVE**  
with **Imported water**  
and wastewater treatment.



**SUSTAINS**  
and safeguards our  
**ECONOMY**  
and quality of life by providing a  
**DROUGHT-PROOF**  
and uninterrupted  
**drinking water**  
supply.



**PROTECTS**  
sensitive **ecosystems**  
**& HELPS**  
the **ENVIRONMENT**



# Governance Structure





# JPA Agreement Formation

- Governing document for JPA
- Members: Padre, County SAN & El Cajon
- First meeting held Nov. 5, 2019
  - Adopt by-laws
  - Authorize issuance of RFQ for Package #1
  - Approve contract with Legal Counsel
  - Adopt resolutions & ordinances



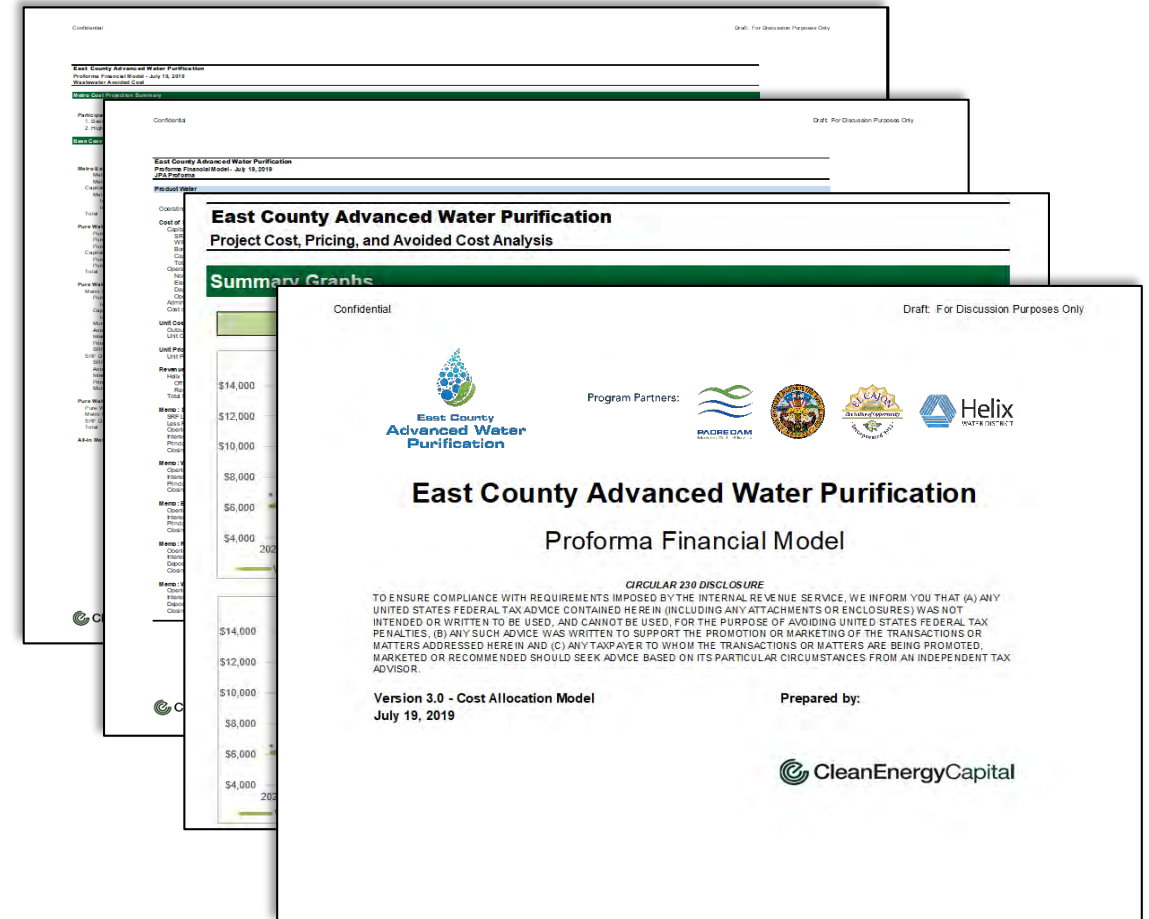




Financial

# Proforma Financial Model Overview

- Project Cost, Avoided Cost & Pricing
- Cash Flow Projections
- O&M Budget
- Capital & Acquisition Costs
- Financing Assumptions
- Renewal and Replacement Funds
- Operating Reserves & DSC targets



# Project Financing

IRWM  
Prop. 84 Grant  
\$6M



SWRCB  
Prop. 1 Grant  
\$15M



SRF Loan  
@ 1.7%  
\$101M



USBOR Title XVI  
\$16.4M Grant  
Up to 25%



Additional  
SRF  
Loan



USBOR  
WaterSMART  
WIIN Loan



US EPA  
WIFIA Loan  
\$342M



MWD LRP  
Up to  
\$475/AF



Municipal  
Bonds

