



WaterReuse
CALIFORNIA

Communications COLLABORATIVE GROUP

Thank you for joining!

- If you are calling in, please make sure you dial your audio pin to fully participate in the meeting.
- If you are using your computer for audio, please make sure you are connected to a microphone and speakers. A headset is recommended.

Eleanor Torres, Chair



6/26/19

Welcome



Recent Media

Rupam Soni
6/26/19

Metropolitan Water
District of Southern
California

Article #1

Morning Report: What Recycled Sewage Will Do to Your Water Bill

Published by: Voice of San Diego

Topic: Cost increase for recycled water

Tone: Neutral with a variety of comments via Twitter and online

Link: <https://www.voiceofsandiego.org/topics/news/morning-report-what-recycled-sewage-will-do-to-your-water-bill/>

Link: <https://twitter.com/voiceofsandiego/status/1112756901521977344>



From Twitter:

Exactly.

Mary is already drinking treated wastewater. 200 municipalities upstream from us currently dump their wastewater back into the Colorado.

Mary, the water you drink today, whether it's from a stream or a sparkletts bottle, likely passed through millions of people already.



From a "let's convince others this is a good idea" standpoint, it does no good to tell people they already drink water sourced from wastewater. If i said that your favorite ice cream was actually made of worms, would that make ice cream made of worms appetizing?



Article #2

California's Growing Demand for Recycled Water Has Ripple Effects

Published by: Public Policy Institute of California

Topic: Recycled Water Use and Growth

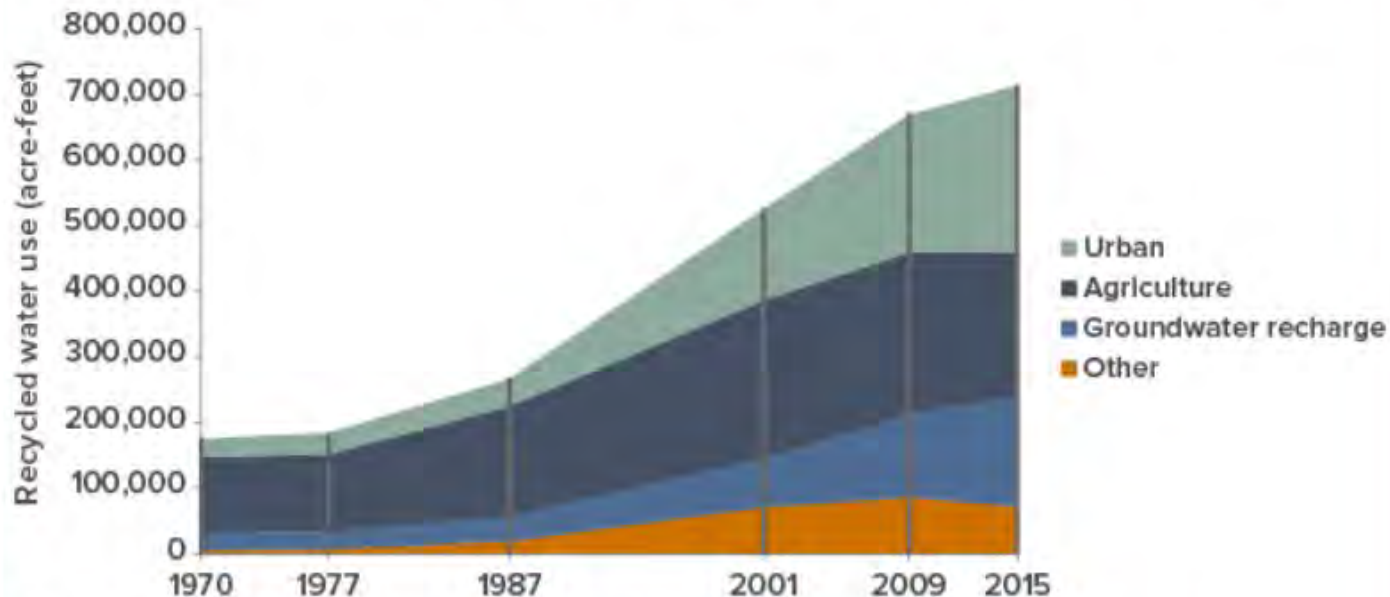
Tone: Fact and Research-based article

Link: <https://www.ppic.org/blog/californias-growing-demand-for-recycled-water-has-ripple-effects/>





THE AMOUNT OF RECYCLED WATER USE IS INCREASING IN CALIFORNIA



Source: State Water Board Municipal Wastewater Recycling Survey (2017).

Notes: Volumes are from a survey about recycled water use in the state (with survey years marked). Urban refers to use for landscape and golf course irrigation, commercial, and industrial. Groundwater recharge use refers to groundwater recharge for potable reuse and seawater barriers. Other uses of recycled water include natural systems restoration, recreational impoundment, and geothermal energy production.

From: PPIC Blog, May 2019.

PPIC

Article #3

From Toilet to Tap: What Cities Need to Do to Make It Happen

Published by: Wall Street Journal

Topic: Strategies for successful implementation of potable reuse projects

Tone: Neutral/Positive

Link:

https://www.wsj.com/articles/from-toilet-to-tap-what-cities-need-to-do-to-make-it-happen-11558105505?reflink=share_mobilewebshare&ns=prod/accounts-wsj





Quote: “The yuck factor can seem like an insurmountable barrier, especially in an era when public confidence in the safety of tap water has been shaken by reports of lead and fluorinated chemicals in water supplies. But it has proved not to be.”

Open Discussion



 **WATER REUSE**
CALIFORNIA



Communications

COLLABORATIVE GROUP

Review, Revise & Adopt
Water Reuse Context &
Terminology Document

Eleanor Torres
Director of Public Affairs |
OCWD



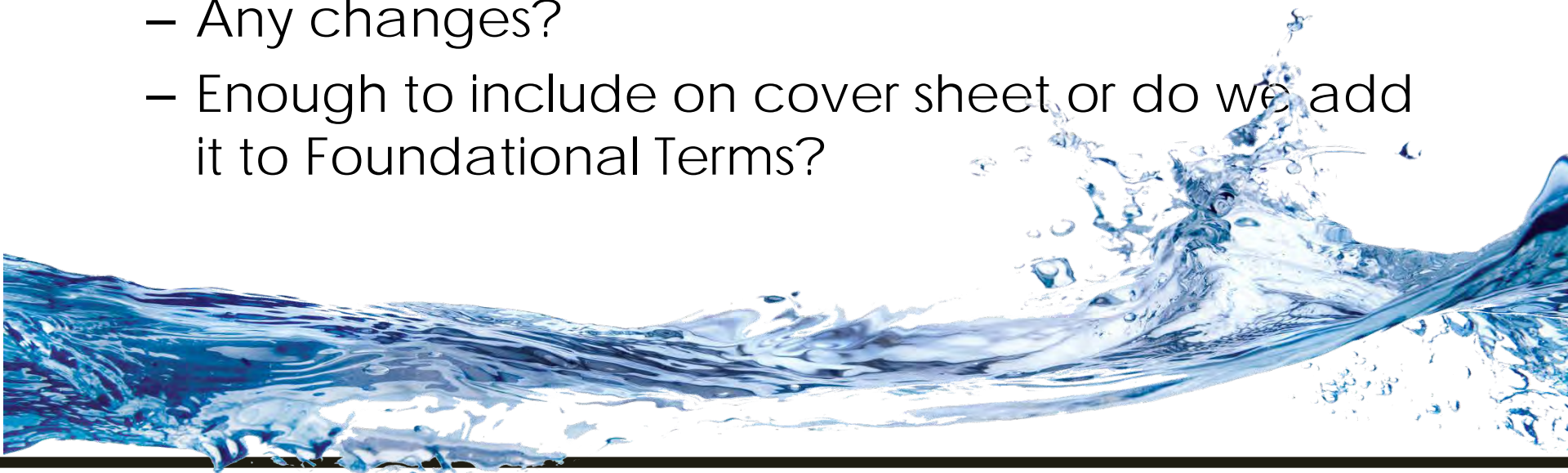
6/26/2019

- 2014 WRA National Public Education and Outreach Committee set out to create a terminology document
- 2016 – Success!



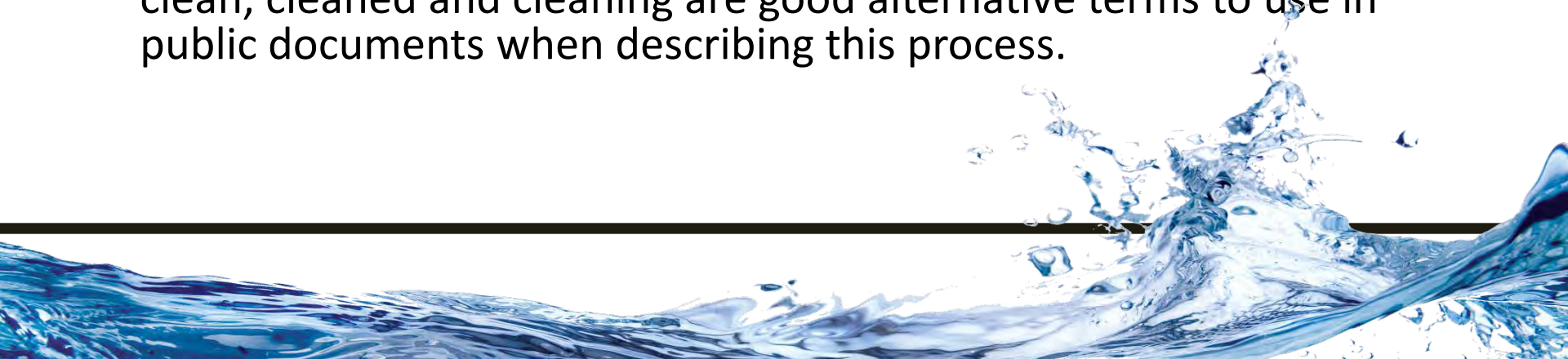


- Any changes?
- Enough to include on cover sheet or do we add it to Foundational Terms?



Treatment – Page 3

- **Treatment** is the term commonly used to describe the cleaning process or steps used to make water from any source safe for drinking or to make wastewater or sewage safe to dispose of in the environment. In both cases, treatment steps are applied to produce a product water that meets specific regulations, generally associated with the Safe Drinking Water Act in the case of drinking water or the Clean Water Act in the case of wastewater. While commonly used by water and wastewater professionals, the word “treatment” is not always clearly understood or viewed as a good thing by members of the public. Treatment implies chemicals or other substances are added to water rather than the process of removing such substances from water or wastewater. The words clean, cleaned and cleaning are good alternative terms to use in public documents when describing this process.



Purified Recycled Water– Page 6

- **Purified Recycled Water** has passed through multiple proven advanced treatment or cleansing processes. It has been verified through rigorous monitoring and testing to be safe to be added to drinking water and other supplies.



Augmentation– Pages 8-9

- **Augmentation** is the process of adding recycled water into an existing raw water supply (such as a reservoir, lake, river, wetland, and/or groundwater basin). The State of California defines various types of “augmentation” related to direct potable reuse (defined as the planned introduction of recycled water either directly into a public water system or into a raw water supply immediately upstream of a water treatment plant) in Section 13561 of the Water Code. The four types of augmentation include:

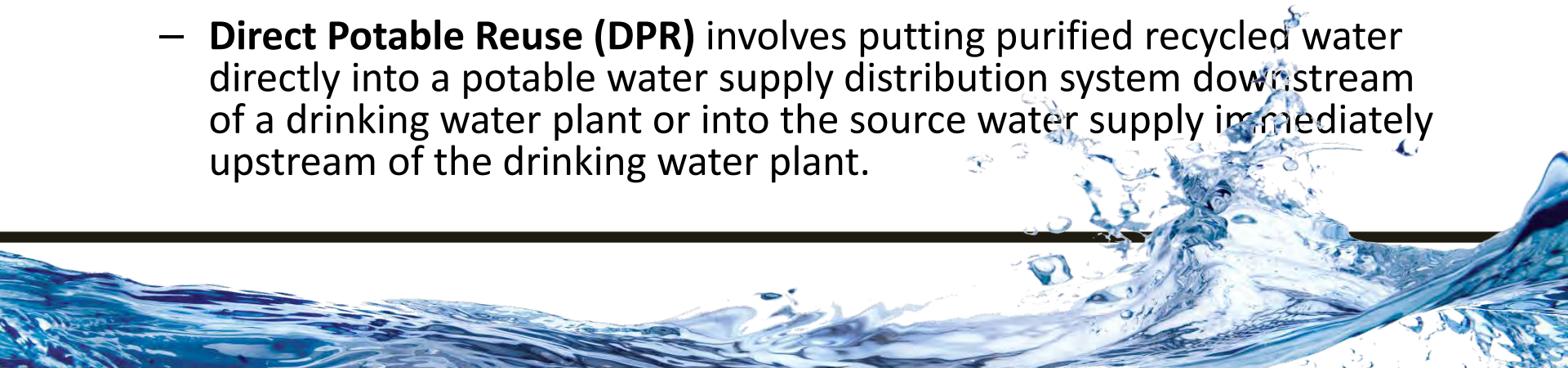


Types of Augmentation

- **Raw water augmentation** – the planned placement of recycled water into a system of pipelines or aqueducts that deliver raw water to a drinking water treatment plant that provides water to a public water system.
- **Treated drinking water augmentation** – the planned placement of recycled water into the water distribution system of a public water system.
- **Indirect potable reuse for groundwater recharge** – the planned use of recycled water for replenishment of a groundwater basin or an aquifer that has been designated as a source of water supply for a public water system.
- **Reservoir water augmentation** – the planned placement of recycled water into a raw surface water reservoir used as a source of domestic drinking water supply for a public water system.

Indirect/Direct Potable Reuse– Page 5

- **Planned Potable Reuse** is publicly acknowledged as an intentional project to use recycled water for drinking water by using purified recycled water to add to drinking water supplies. It is sometimes further defined as either **direct or indirect potable reuse**. It commonly involves a more formal public process and public consultation program than is observed with de-facto or unacknowledged reuse.
- - **Indirect Potable Reuse (IPR)** involves blending purified recycled water with other environmental systems such as a river, reservoir or groundwater basin, before the water is reused for drinking water.
 - **Direct Potable Reuse (DPR)** involves putting purified recycled water directly into a potable water supply distribution system downstream of a drinking water plant or into the source water supply immediately upstream of the drinking water plant.





Next Steps

- WRA CA Board – August
- WRA Board – September
- CASA and ACWA for review and adoption
- Implementation – how do we get water professionals to use this?

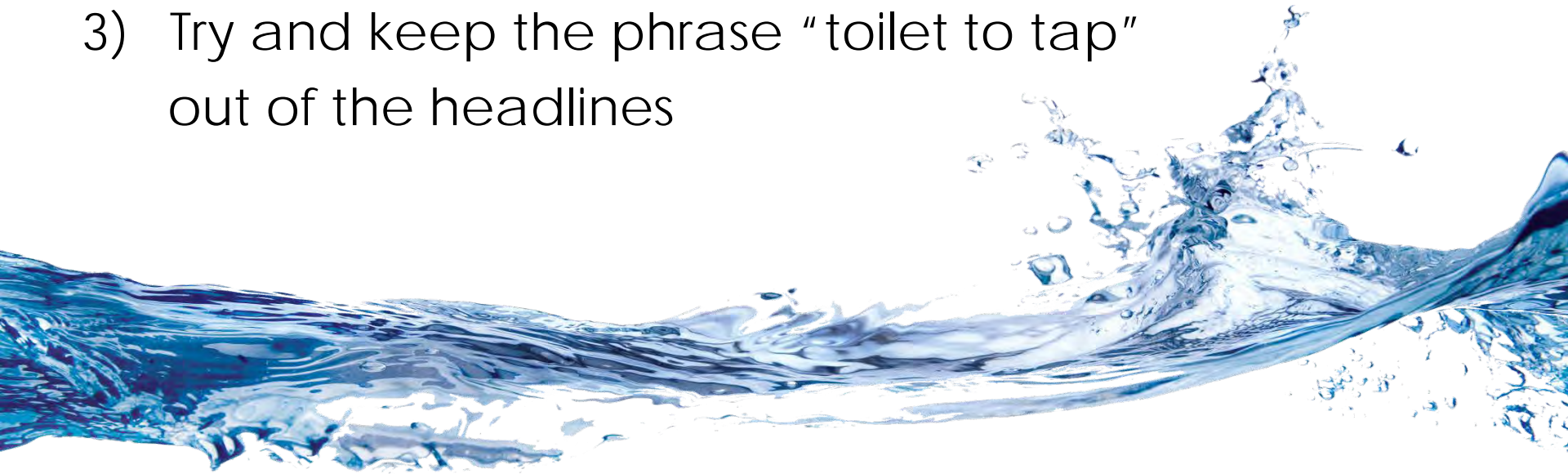


Water Reuse Terminology

“Wouldn't it be great if we all spoke the same way about water recycling?”

Goals:

- 1) Don't confuse policy makers, media & the public
- 2) Don't step on each other's toes or make it sound like one type of recycling is better than another
- 3) Try and keep the phrase “toilet to tap” out of the headlines



Open Discussion



PURE WATER PROJECT LAS VIRGENES-TRIUNFO

Bringing Our Water Full Circle

WaterReuse Communications Collaborative Group

June 26, 2019

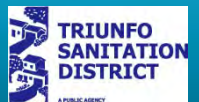


Mike McNutt

Public Affairs and Communications Manager



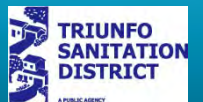
Las Virgenes – Triunfo Joint Powers Authority



Who is LVMWD?

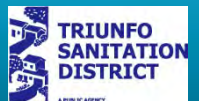


Las Virgenes – Triunfo Joint Powers Authority



Who is LVMWD?

- Formed in 1958
- Retail supplier of potable water to Calabasas, Hidden Hills, Westlake Village, Agoura Hills and Unincorporated areas in west LA County
- Member agency of the Metropolitan Water District of Southern California
- Rely 100% on imported water
- No groundwater and no locally-sourced water
- 104 full-time employees
- 122 square mile service area
- Serves 25,000 acre-feet annually (potable & recycled)
- Approximately 22,000 service connections and 75,000 customers served



Westlake Filtration Plant



Stores up to 9,600 A/F



Las Virgenes – Triunfo Joint Powers Authority



The JPA

- In 1964 LVMWD and the Triunfo Sanitation District formed a Joint Powers Authority
- LVMWD now operates the Tapia Water Reclamation Facility providing wastewater services to the LVMWD service area and a portion of Ventura County
- In 1972, the JPA began to recycle water and build a distribution system (purple pipe) to parks, golf courses, sports fields, median strips, etc...
- In 1994 the Rancho Las Virgenes Composting Facility began operating using the biosolids from Tapia and wood chips to make a soil amendment free to the community
- Approximately 105,000 customers served with sanitation services



Tapia



Rancho Las Virgenes Composting Facility



JPA Board



Las Virgenes – Triunfo Joint Powers Authority



A Wasted Resource

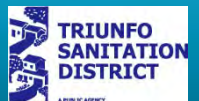
- 12 MGD Tapia Water Reclamation Facility produces 10,000 AF/Y of recycled water
- 6,000 AF/Y supplied through a purple pipe network, making up 20% of total water demands
- Remaining 4,000 AF/Y discharged to Malibu Creek



Effluent of Recycled Water



Las Virgenes – Triunfo Joint Powers Authority



Spray Fields



A Choice...

- Los Angeles Regional Quality Control Board has increased restrictions on discharges to Malibu Creek over the last several decades
- Current TMDL allows discharging into creek only from November 15 – April 15
- Phased approach where regulations require any discharge from Tapia into the creek to be higher than drinking water standards by 2030
- TMDL focus on macroinvertebrates in stream
- Claim that elevated nutrient levels causing decline in populations
- JPA funded study shows invasive crayfish to be the issue
- \$160 million to upgrade Tapia or \$120 million to build the ATF



Overlying Challenges Moving Forward

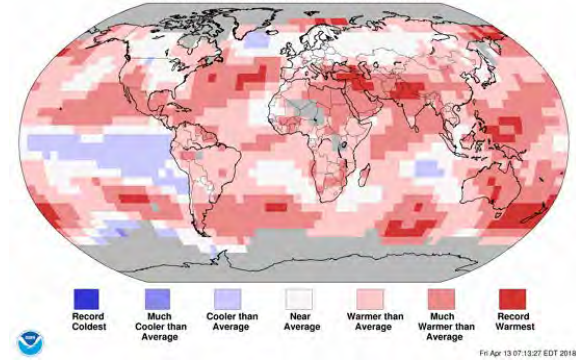
- SoCal Population Growth
- Competition for Resources
- Economic Stability
- Environmental Integrity



Climate Change

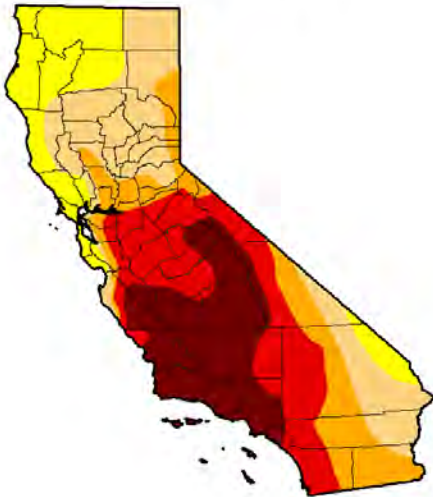
- California Climate Change Assessment #4 published in 2018 indicates a 5.6 – 8.8 degree increase by 2100
- By 2050 Water Supply from annual snowpack is expected to decline by 2/3 (where we get our water now)
- Some agricultural regions could see a 16% decline in available water supplies and a reduction in soil moisture due to heat
- Wildfire increases, public health impacts, higher electrical demands

Land & Ocean Temperature Percentiles Jan–Mar 2018
NOAA's National Centers for Environmental Information
Data Source: GHCN–M version 3.3.0 & ERSST version 4.0.0



Then and Now

U.S. Drought Monitor California



June 14, 2016
(Released Thursday, Jun. 16, 2016)
Valid 9 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	83.59	59.02	42.60	21.04
Last Week 6/7/2016	-4.27	95.73	82.91	58.02	42.99	21.04
3 Months Ago 3/15/2016	0.42	99.57	93.26	73.84	55.31	34.74
Start of Calendar Year 1/1/2016	0.00	100.00	97.33	87.55	89.07	44.84
Start of Water Year 9/26/2015	0.14	99.86	97.33	92.35	71.08	46.00
One Year Ago 6/14/2015	0.14	99.86	98.71	94.59	71.08	46.73

Intensity

D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate Drought	D4 Exceptional Drought
D2 Severe Drought	

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
Chris Ferimore
NOAA/NESDIS/NCI



<http://droughtmonitor.unl.edu/>

U.S. Drought Monitor California



June 18, 2019
(Released Thursday, Jun. 20, 2019)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	95.58	4.32	0.00	0.00	0.00	0.00
Last Week 6/11/2019	95.68	4.32	0.00	0.00	0.00	0.00
3 Months Ago 3/19/2019	93.42	6.58	0.00	0.00	0.00	0.00
Start of Calendar Year 1/1/2019	7.77	92.23	75.17	14.12	2.10	0.00
Start of Water Year 9/25/2018	12.18	87.82	47.97	22.82	4.94	0.00
One Year Ago 6/18/2018	30.37	69.63	37.07	20.75	2.77	0.00

Intensity

None	D2 Severe Drought
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate Drought	D4 Exceptional Drought

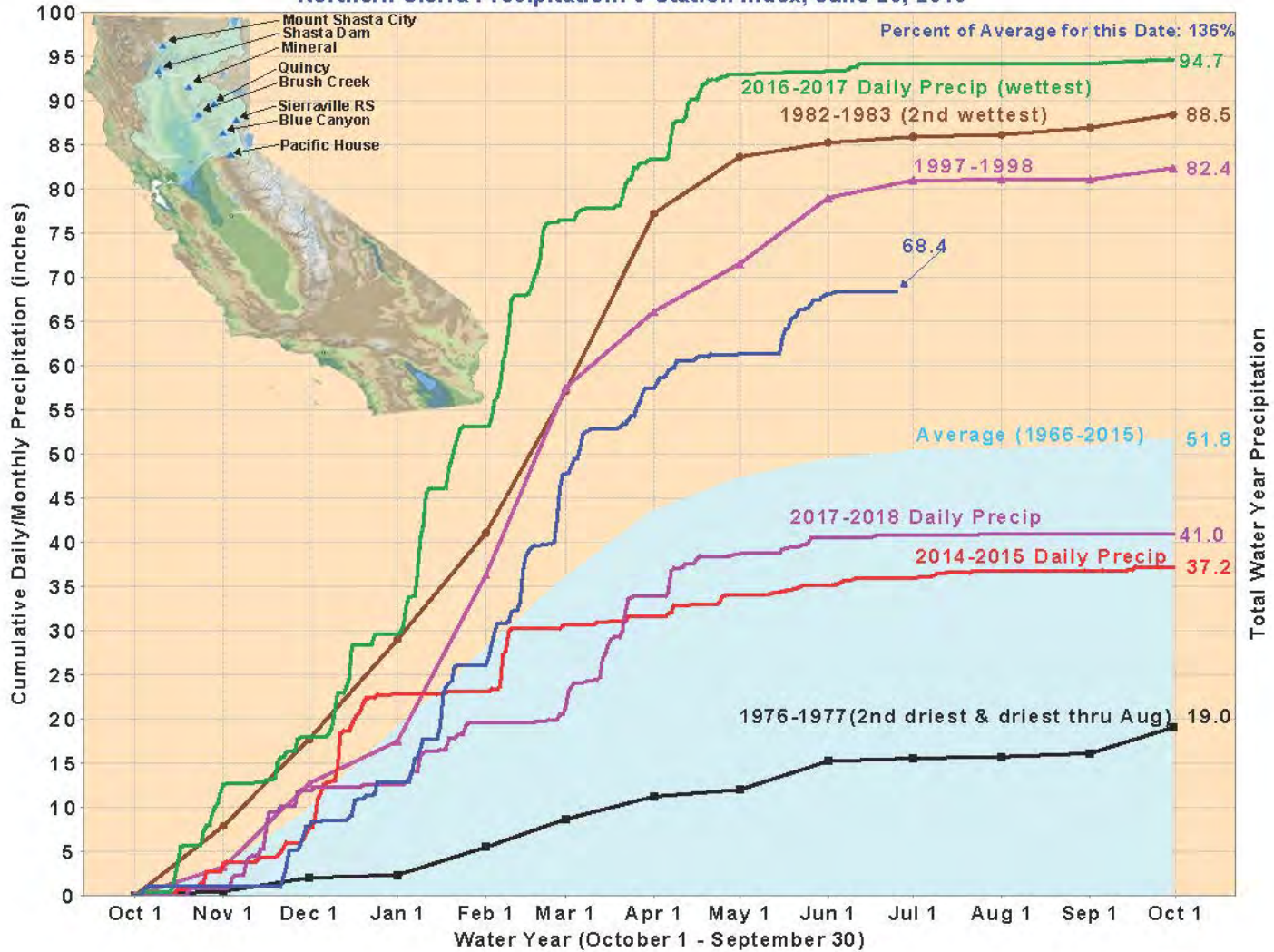
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
Brad Pugh
CPC/NOAA



droughtmonitor.unl.edu

Northern Sierra Precipitation: 8-Station Index, June 25, 2019



High Variability



Las Virgenes – Triunfo Joint Powers Authority



Why Pure Water and Why Now?

- TMDL Requirements
- Expense
- Reliability
- Resilient to Emergencies
- Locally-Sourced
- Forward Thinking
- Continues to Close the Sustainability Loop



How it Started

- Began in January 2015
- Developed a “roadmap” to fully utilize recycled water
- Established “Guiding Principles”
 - Maximize beneficial reuse
 - Seek cost-effective solutions
 - Seek partnerships beyond JPA
 - Gain community support
 - Govern with a partnership
 - Be forward thinking



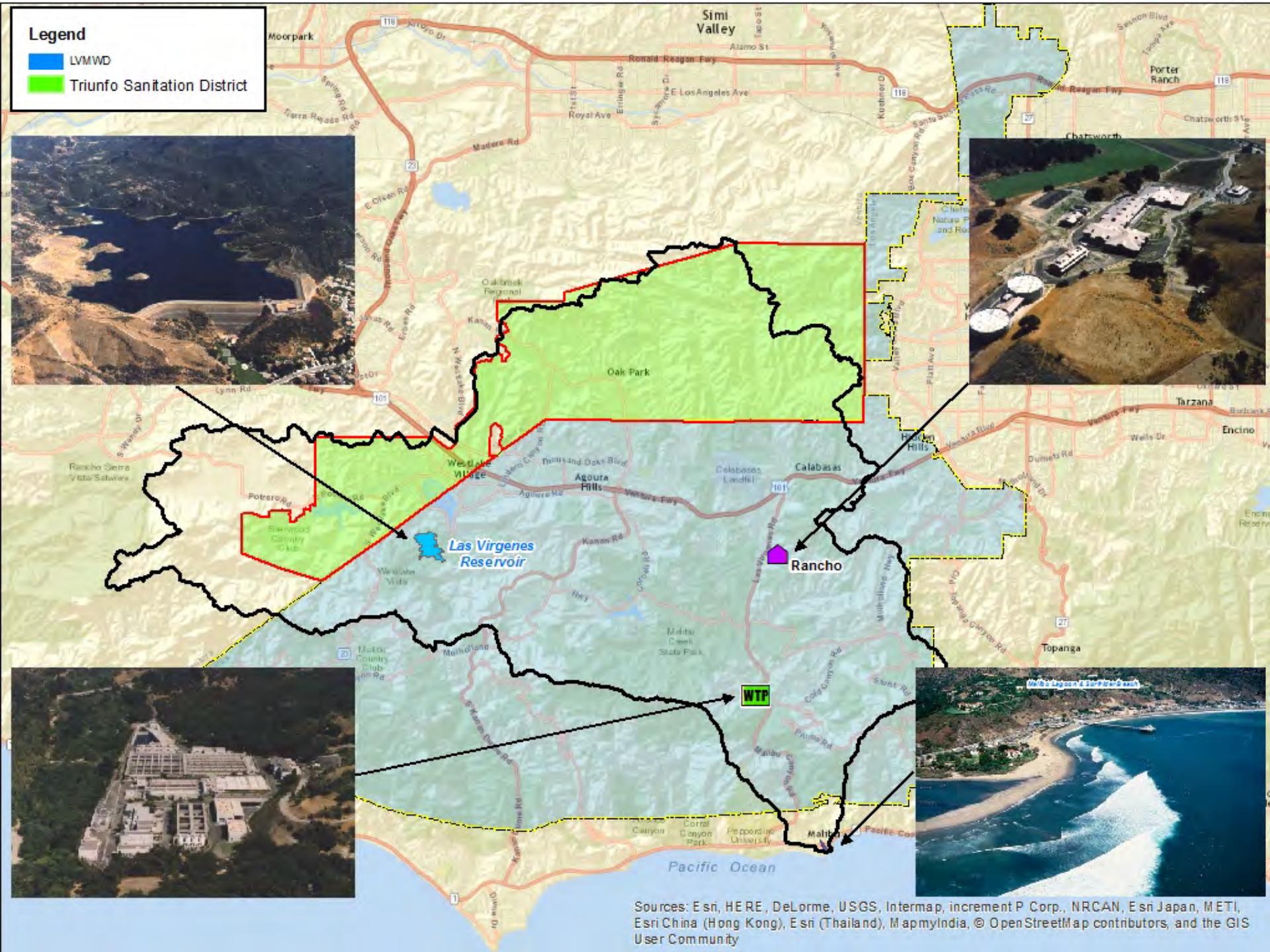
Stakeholder Driven

- Heal the Bay
- Los Angeles Waterkeeper
- National Park Service
- California State Parks
- Mountains Restoration Trust
- Santa Monica Mountains Conservancy
- Resource Conservation District of Santa Monica Mountains
- Santa Monica Mountains Fund
- Los Angeles DWP
- Calleguas Municipal Water District
- Senator Fran Pavley's Office
- Supervisor Sheila Kuehl's Office
- City of Calabasas
- City of Thousand Oaks
- Malibu Creek MS4 Watershed Management Committee



Legend

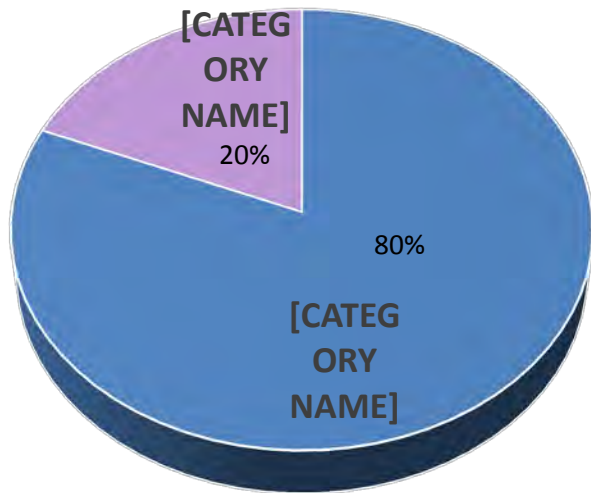
- LVMWD
- Triunfo Sanitation District



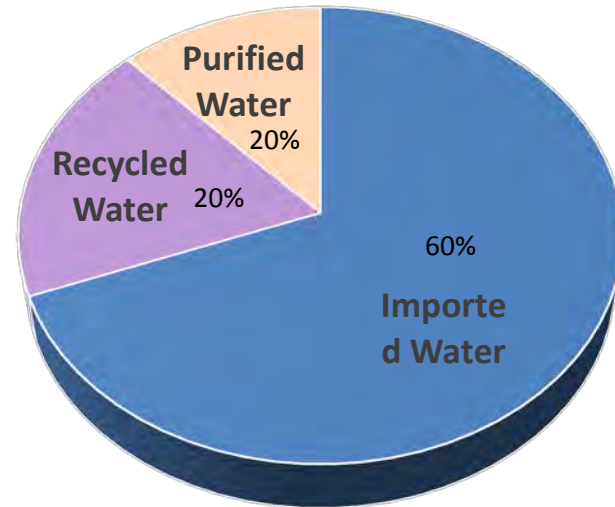
Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Breakdown of Supply

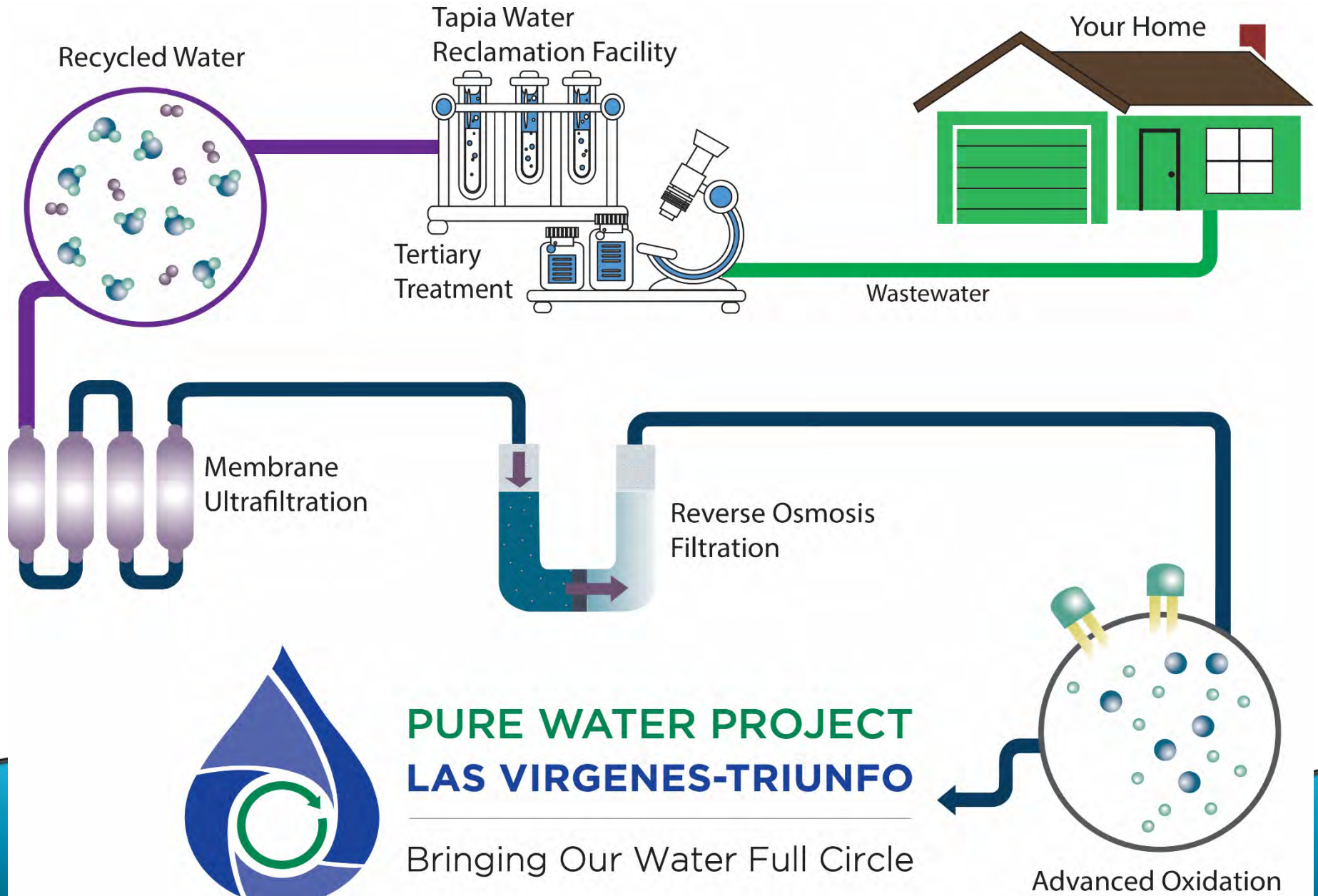
Current



Future



How it Works...



Potable Reuse w/ Las Virgenes Reservoir



Indirect/Direct Potable Reuse U.S.A.



Figure 2-1. Planned and constructed IPR and DPR projects in the United States as of 2017

Indirect/Direct Potable Reuse Abroad



Figure 2-2. Overview of selected planned and constructed IPR and DPR projects worldwide (not intended to be a complete survey)

Funding

- Prop 12 Grant Funding - \$925,000 – Demo Facility (Awarded)
- Bureau of Reclamation WaterSmart Grant - \$3.3 Million – Design Phase of ATF (Applied)
- Looking at Future Funding Options



What's Next?

- Community Outreach
- Demonstration Project
- Becoming More Educated
- LV –TAP Brand



Demonstration Facility



Las Virgenes – Triunfo Joint Powers Authority



Will Begin Tours in Early 2020

- Updating Boardroom
- In Process of making a Video
- At 90% Design Phase Currently
- ATF Components being Fabricated



Education

- Aggressive outreach to LVUSD discussing tap water and all water related information



5,000 students in six weeks



Las Virgenes – Triunfo Joint Powers Authority



Branding Tap Water



- **70% of LVMWD Customers Drink Tap Water (may use home filters)**
 - **Environmental**
 - **Cost**
 - **Quality**

Annual Outreach Theme



#ThirstyWorldThursdays
#TheWorldIsThirsty
#ExploreThePowerOfWater

240 Gallons



Korean Delegation



Ministry of Environment



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LVMWD HQ – Woolsey Fire



Tapia – Woolsey Fire





PURE WATER PROJECT LAS VIRGENES-TRIUNFO

Bringing Our Water Full Circle



Las Virgenes – Triunfo Joint Powers Authority



Open Discussion



Communications
COLLABORATIVE GROUP

Legislation and California WaterReuse Action Plan

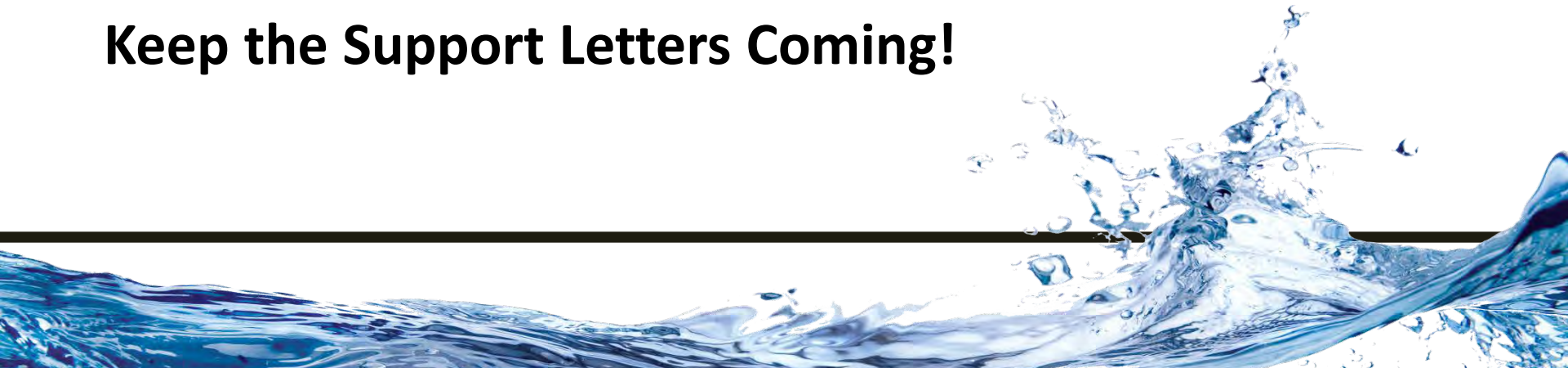
Jennifer West
6/26/19

Managing Director
WaterReuse California

WaterReuse California Sponsored Legislation

- **AB 292 (Quirk)** Deletes Terms “Indirect” and “Direct”
 - Status: Senate Water and Natural Resources Committee – **July 9**
- **AB 1180 (Friedman)** Requires Update of Non-potable Title Regulations
 - Status: Senate Appropriations Committee – **On Suspense**

Keep the Support Letters Coming!



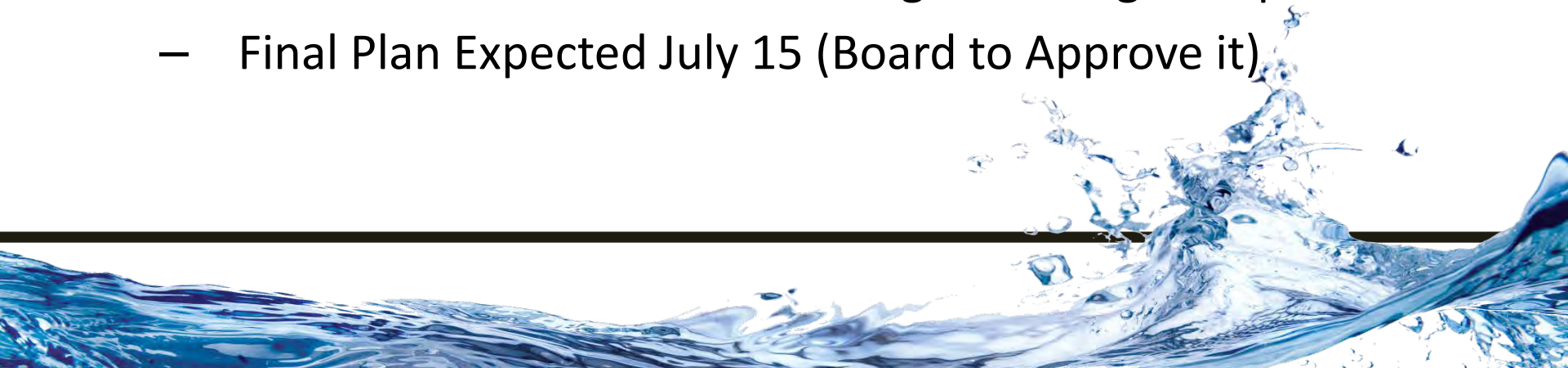
Development of California WaterReuse Action Plan

Drivers:

- Reuse Policy Primer for Legislators and New Administration
- Informs Governor Newsom's Water Resilience Portfolio
- Act as New Strategic Policy Plan for WaterReuse California

Process:

- Started in March 2019 With Large Working Group
- Final Plan Expected July 15 (Board to Approve it)



Development of California WaterReuse Action Plan

Includes 19 Specific Recommendations for Recycled Water and Potable Reuse in Following Areas:

- Complete Reuse Research
- Develop and Streamline Regulations and Permitting
- Increase Local and Regional Collaboration
- Increase Grant and Loan Opportunities



Open Discussion



Communications COLLABORATIVE GROUP

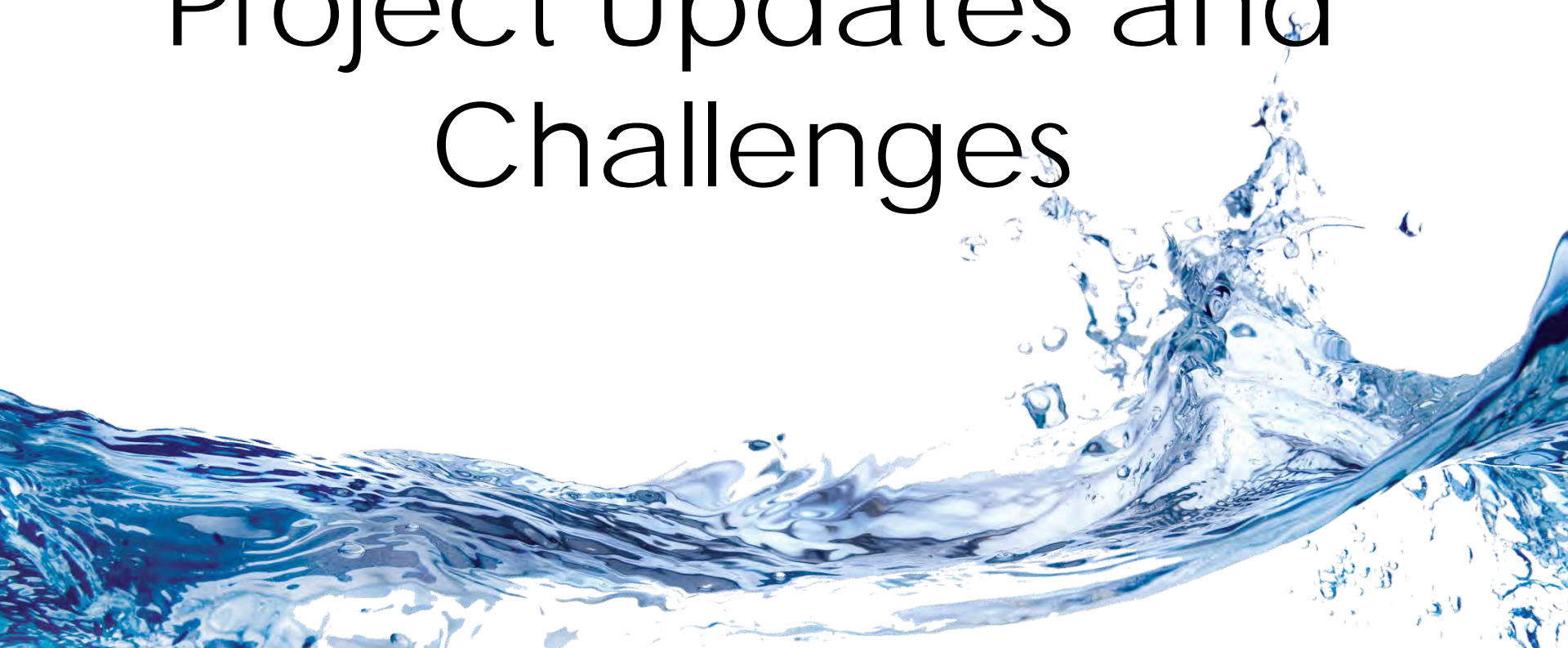
Roundtable – Project Updates and Challenges

Becca Rubin
Soquel Creek Water
6/26/19





Roundtable – Project Updates and Challenges





Ideas for Next Meeting





Wrap-up





Save the Date:
Next Meeting on October 23
at Pure Water Monterey





Thank you for
participating!

