Drought Task Force Workshop No. 5: Draft DCP and Task Force Planning

Western Municipal Water District

April 21, 2022 • 1:30 – 3:30 p.m.

WESTERN MUNICIPAL WATER DISTRICT

Workshop Goals

Review the draft DCP and provide feedback

Conduct a Mock Drought Task Force meeting

Presenters/Facilitators

Katie Laird
Project Manager, GEI

Roger Putty
Water Resources Engineer, GEI

Melissa Matlock
Water Resources Specialist II, Western Municipal Water District

Ryan Shaw
Director of Water Resources, Western Municipal Water District

Laine Carlson
Civil Engineer, Water Systems Consulting (WSC)

Amy Stevens
Facilitator, Water Systems Consulting (WSC)

Workshop Agenda

- Welcome
- Drought Contingency Planning (20 min)

Mock Task Force Meeting

- Regional Drought Conditions and Potential Impacts - Metropolitan Water Distirct (10 min)
- WSCP Updates (20 min)
- Drought Communication Toolkits (20 min)
- Open Forum Poll /Discussion (15 min)

Reflection

- Task Force Planning (25 min)
- Close

Drought Contingency Planning

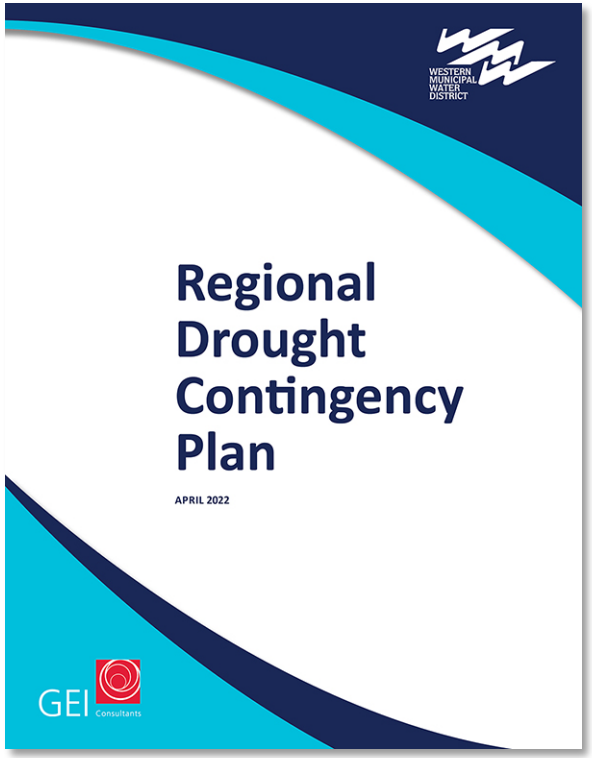
Katie Laird*, GEI*

Climate Change Vulnerability Assessment TM

Drought Monitoring TM

Workshops 1 - 4

Mitigation Actions TM



Look here for help to answer those questions

How will we recognize drought in its early stages?

How will drought affect us?

How can we protect ourselves from the next drought and increase opportunities for grant funding?

Workshop 5: April 21, 2022

How will we recognize the next drought in its early stages?

- **Regional Drought Portal**
- **Drought Task Force Meetings**

Benefits:

- Early alerts of troubling drought indicators
- Information and knowledge exchange
- Opportunity to promote consistent messaging
- Address regional challenges and identify collaborative opportunities
- Grant and other funding opportunities

How will we recognize the next drought in its early stages?

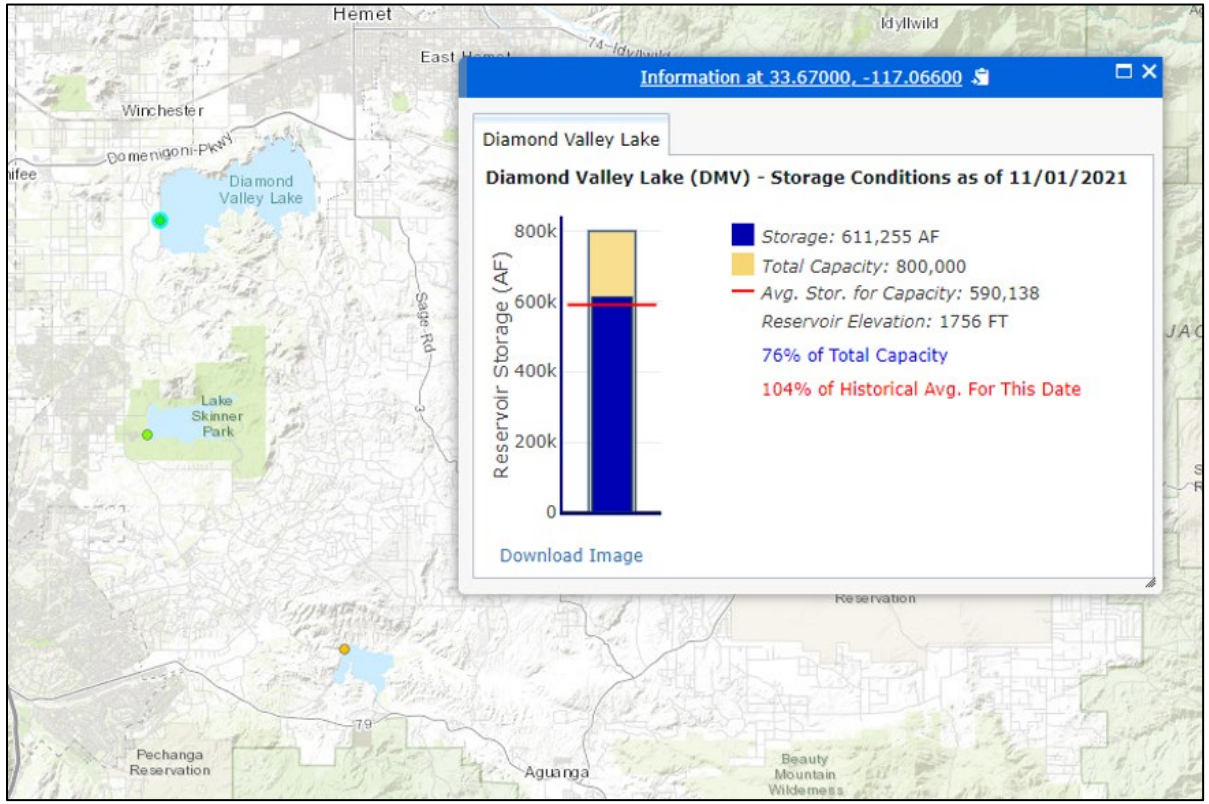
The **Regional Drought Portal** will provide a platform to post, collect, and disseminate key datasets for regional drought planning and response:

To assess local conditions:

- Groundwater levels
- Annual assessment results

To assess imported supplies:

- MWD storage levels



How will we recognize the next drought in its early stages?

Drought Task Force Meetings

Provide a forum for members to review data, share updates, and coordinate drought response

Convened based on regional conditions

Regional Drought Stage	Meeting Frequency	Triggers				
		Drought Monitor (DCP Region)	MWD WSAP/Similar Action	Agencies in Declared Shortage*	Statewide Drought Proclamation	Riverside County Drought Proclamation
Normal	Annual	None-Abnormally Dry	--	None	--	--
Watch	Quarterly	Moderate-Extreme Drought	Levels 1 and 2	3 or more	Drought	Drought
Alert	Monthly	Exceptional Drought	Levels 3 thru 5	6 or more	Drought	Drought
Emergency	Weekly	Exceptional Drought	Levels 6 and 10	10 or more	Drought	Drought

*Not including state mandated shortage

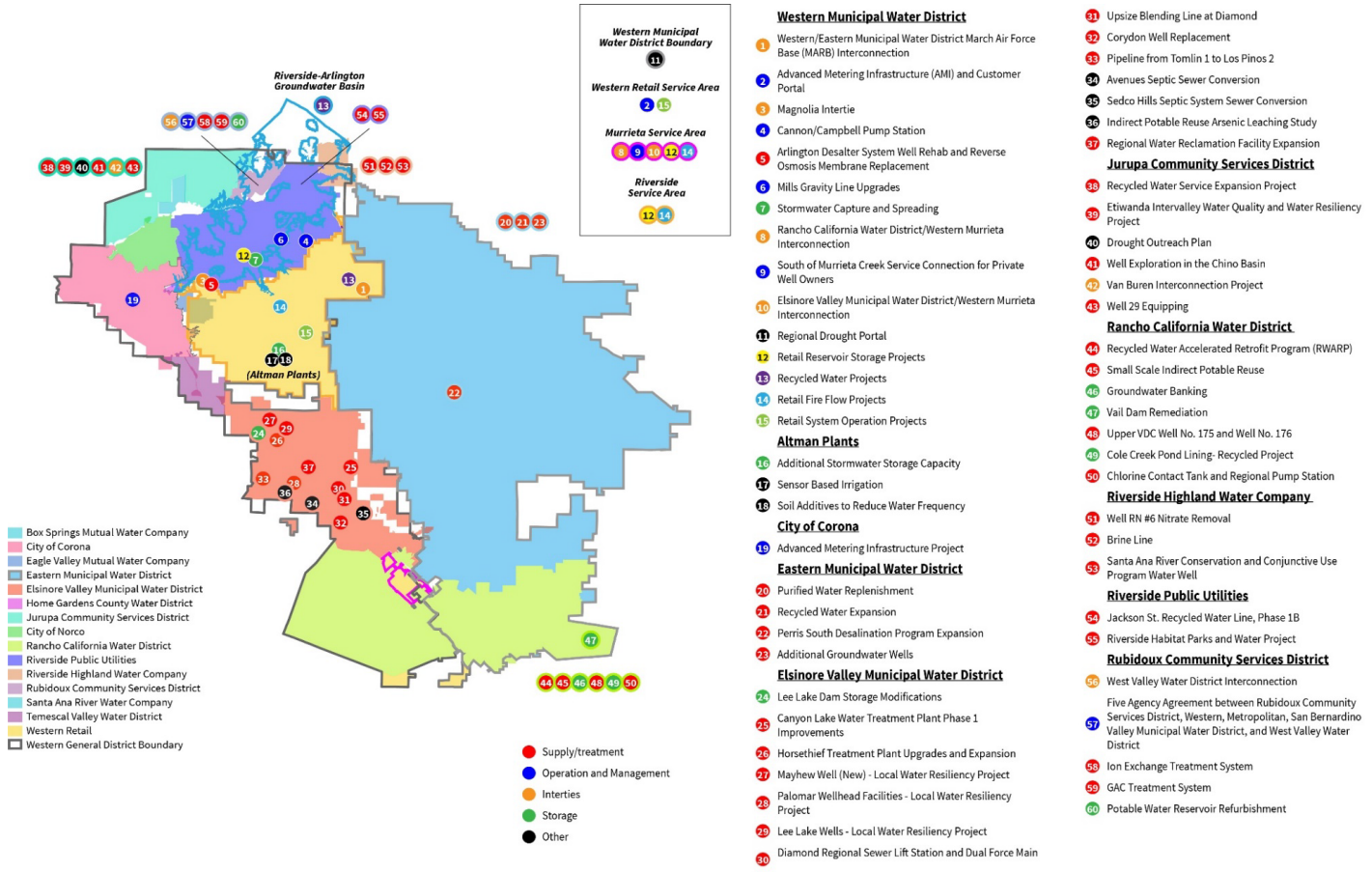
How will drought affect us?

A **climate change vulnerability assessment** performed as part of the DCP indicated that the **region's dependence on imported water** will **increase** if the region does not implement mitigation strategies ahead of drought

A tool which evaluates **future estimates of supplies and demands** considering the effects of climate change is available upon request from Western

How can we protect ourselves from the next drought?

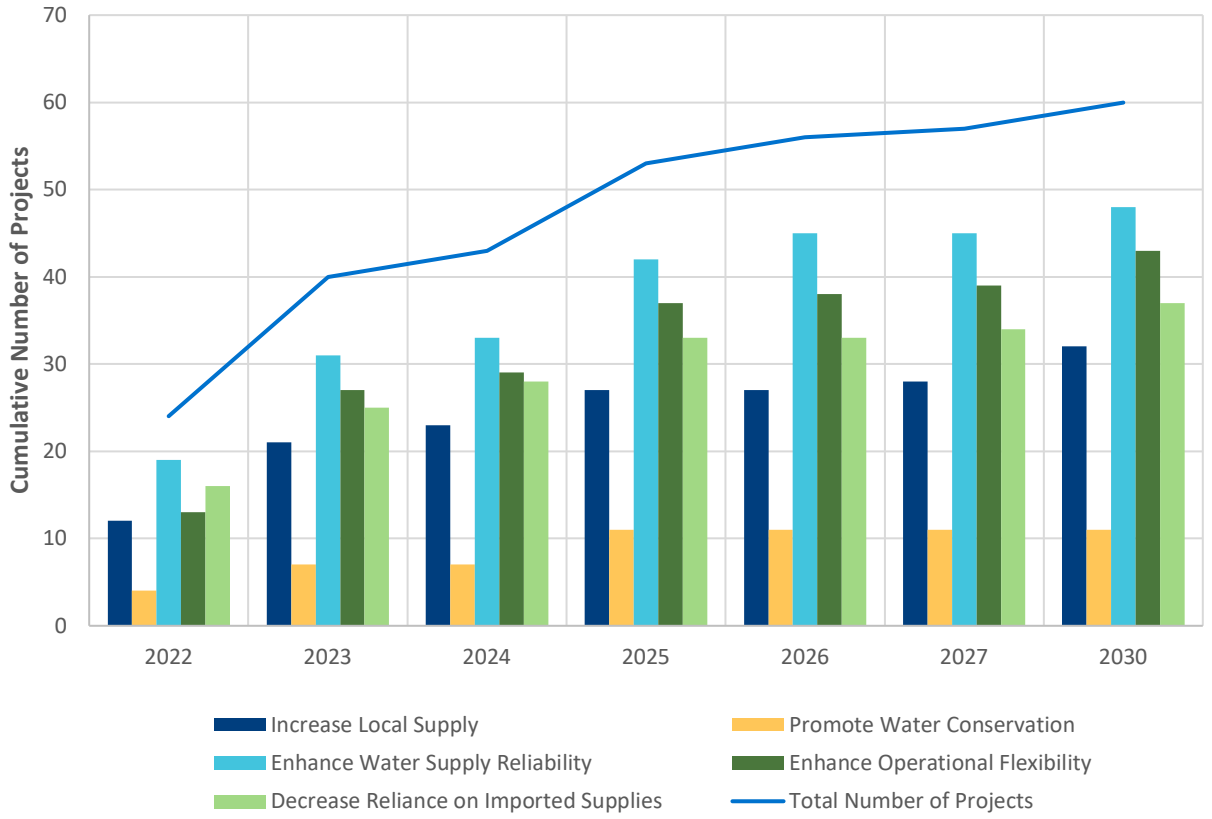
Identifying projects that align with yours to demonstrate a regional benefit can make your **grant applications more competitive**



How can we protect ourselves from the next drought?

A total of 60 projects, programs, and/or strategies were included in the DCP

By including projects in the DCP, the projects have increased opportunities for **grant funding – review the DCP to ensure your projects are included!**



Opportunity for Regional Collaboration for Mitigation Funding

- Regional Water Quality Project
  - Partner agencies: WMWD, RHWC, RCSD
- Applying to USBR's WaterSMART Drought Resiliency Project
  - Applying for funding group 3
  - Up to $5M in grant funds

Earn up to 15 extra points for projects included in the DCP!

Partnership arose through review of the DCP mitigation projects submitted. We found a common project theme that would be eligible under this funding opportunity and instead of competing against each other, **we are working together to make our grant submission as strong as possible.**

Mock Task Force Meeting

Amy Stevens, WSC

WESTERN MUNICIPAL WATER DISTRICT

Meeting Agenda

Mock Task Force Meeting

- Drought Conditions and Potential Impacts (10 min)
- WSCP Updates (20 min)
- Communication Toolkit (20 min)
- Open Forum Poll (15 min)

Regional Drought Conditions and Potential Impacts

Demetri Polyzos, Metropolitan Water District

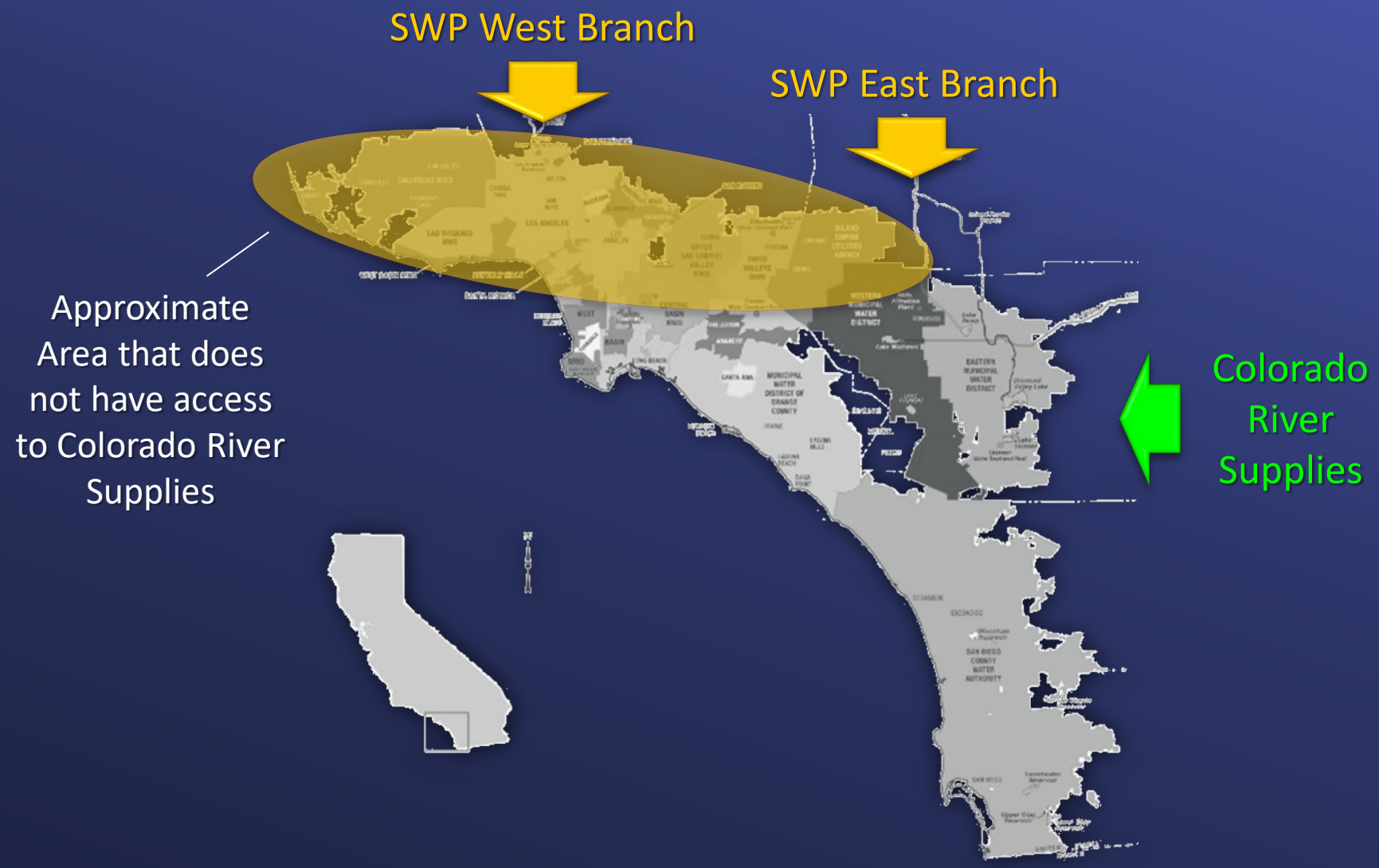
Western Drought Task Force Meeting

Metropolitan's Supply and Response Action Update

April 21, 2022

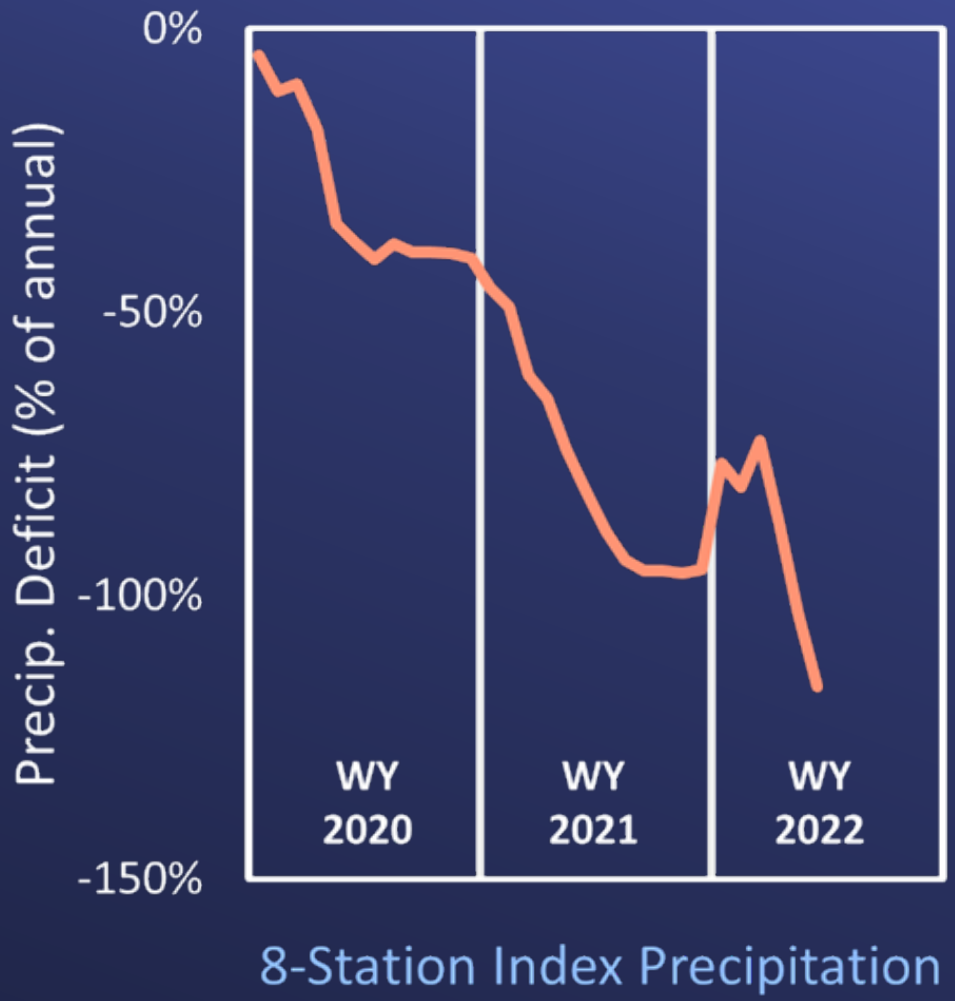
Metropolitan Water District Imported Supply

Colorado River Supplies do Not Reach All Portions of the Service Area

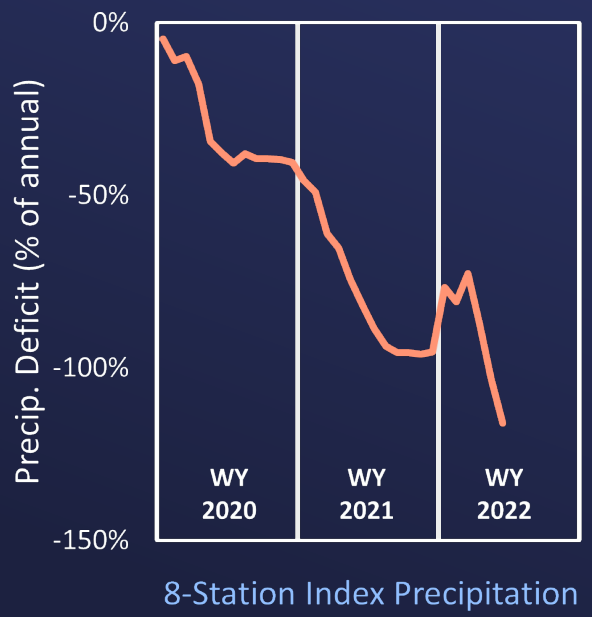


How did we get here?

Third Year of Drought



How did we get here?

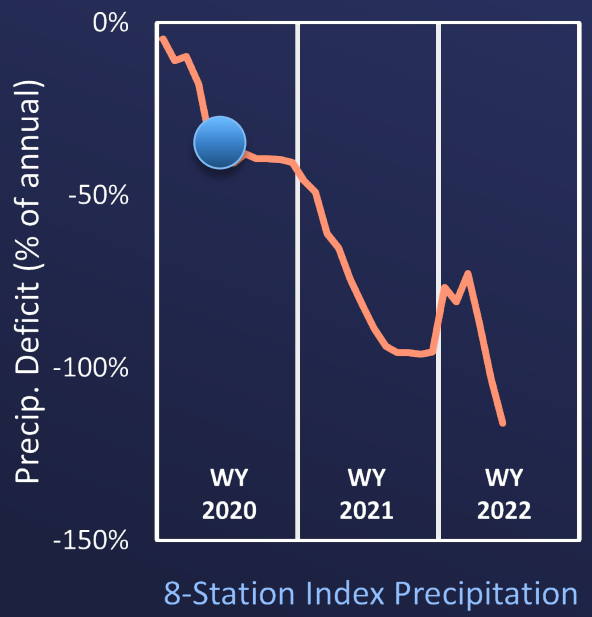


Third Year of Drought

- Driest 3 years
- Driest 3 months (Jan. – Mar.)
- Lowest 3-year total deliveries from State Water Project

Average Expectation for SWP	**3.2 million AF**
DWR's Lowest Forecast	**1.0 million AF**
Today	**0.6 million AF**

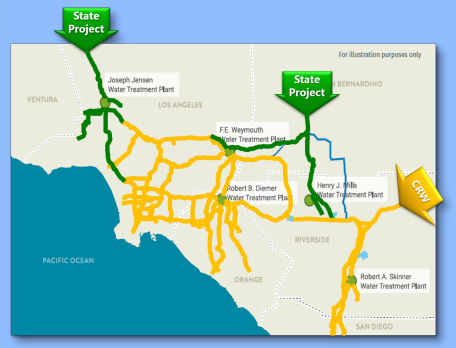
What did we do as the drought intensified?



Proportionate Response Since Mar. 2020

Mar. 2020

Minimized SWP flow to areas that can receive both SWP and CRW



Mar. 2021

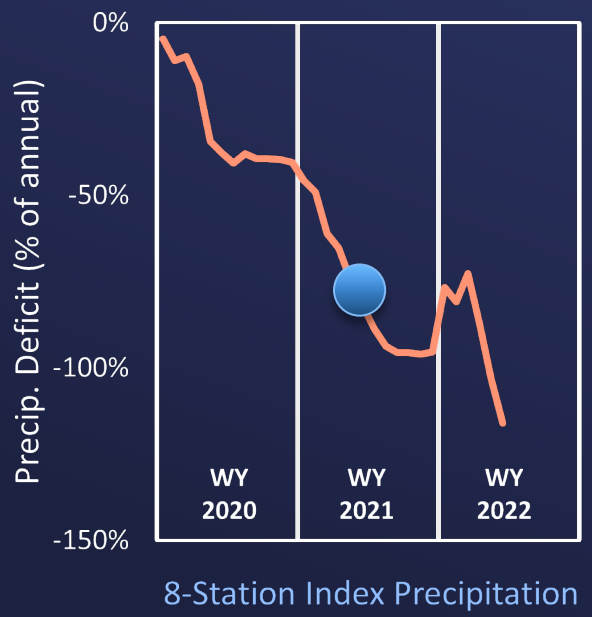
Started pump-in from Semitropic and Kern Delta storage programs

Apr. 2021

Operated Colorado River Aqueduct at full capacity

Board approved North-of-Delta water transfers up to $44 million

What did we do as the drought intensified?



Proportionate Response Since Mar. 2020

May 2021

Board approved new Operational Shift Cost-Offset Program

Fed Mills Plant from DVL for the first time

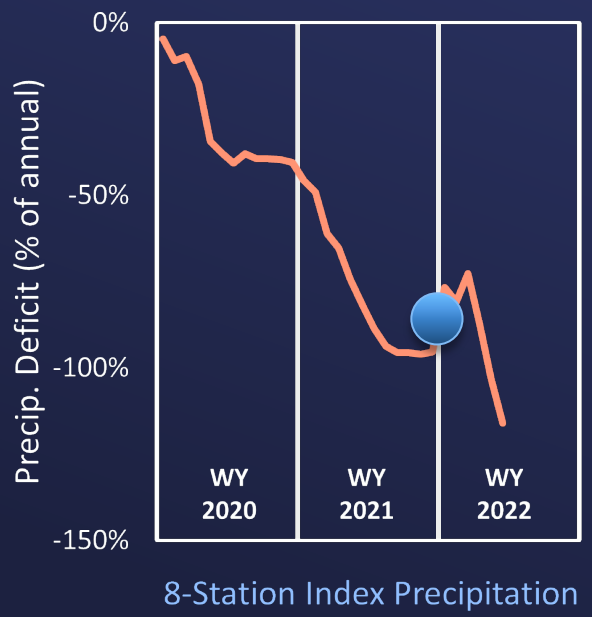
Jun. 2021

Rehabilitated Greg Avenue pumps began operation

Aug. 2021

Board declared Water Supply Alert, calling for consumers & businesses to voluntarily reduce water use

What did we do as the drought intensified?



Proportionate Response Since Mar. 2020

Oct. 2021

- Governor Newsom declares State of Emergency for all California counties
- Zero percent SWP allocation expected
- Metropolitan requests supplies for human health and safety* if drought persists

Nov. 2021

- Board declares drought emergency for SWP dependent area and warns of further action if drought continues
- Board expands conservation programs

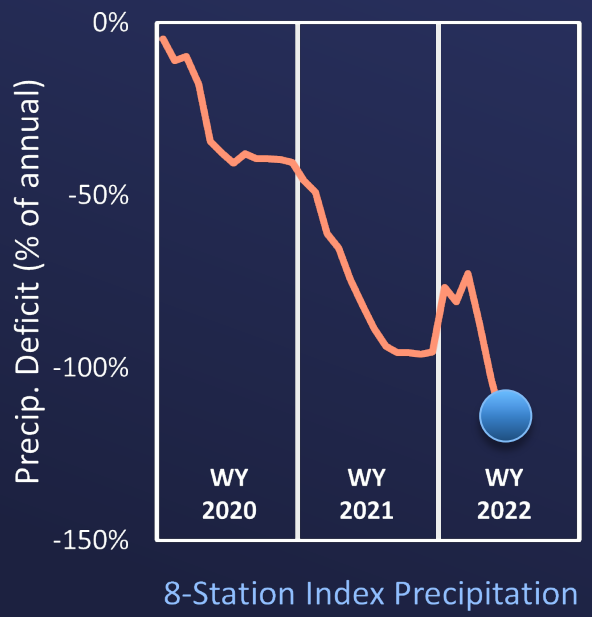
Dec. 2021

- More than 16 feet of snow falls in December

- Board approves SDCWA & San Bernardino Valley Water District agreements
- Board amends Capital Investment Plan to improve east area infrastructure reliability

*domestic supply, fire suppression, or sanitation

What did we do as the drought intensified?



Proportionate Response Since Mar. 2020

Jan. 2022

- **Improved water supply conditions allow DWR to increase SWP allocation to 15 percent**
- **Board approves reverse cyclic storage program**
- **Board amends Capital Investment Plan to improve west area infrastructure reliability**

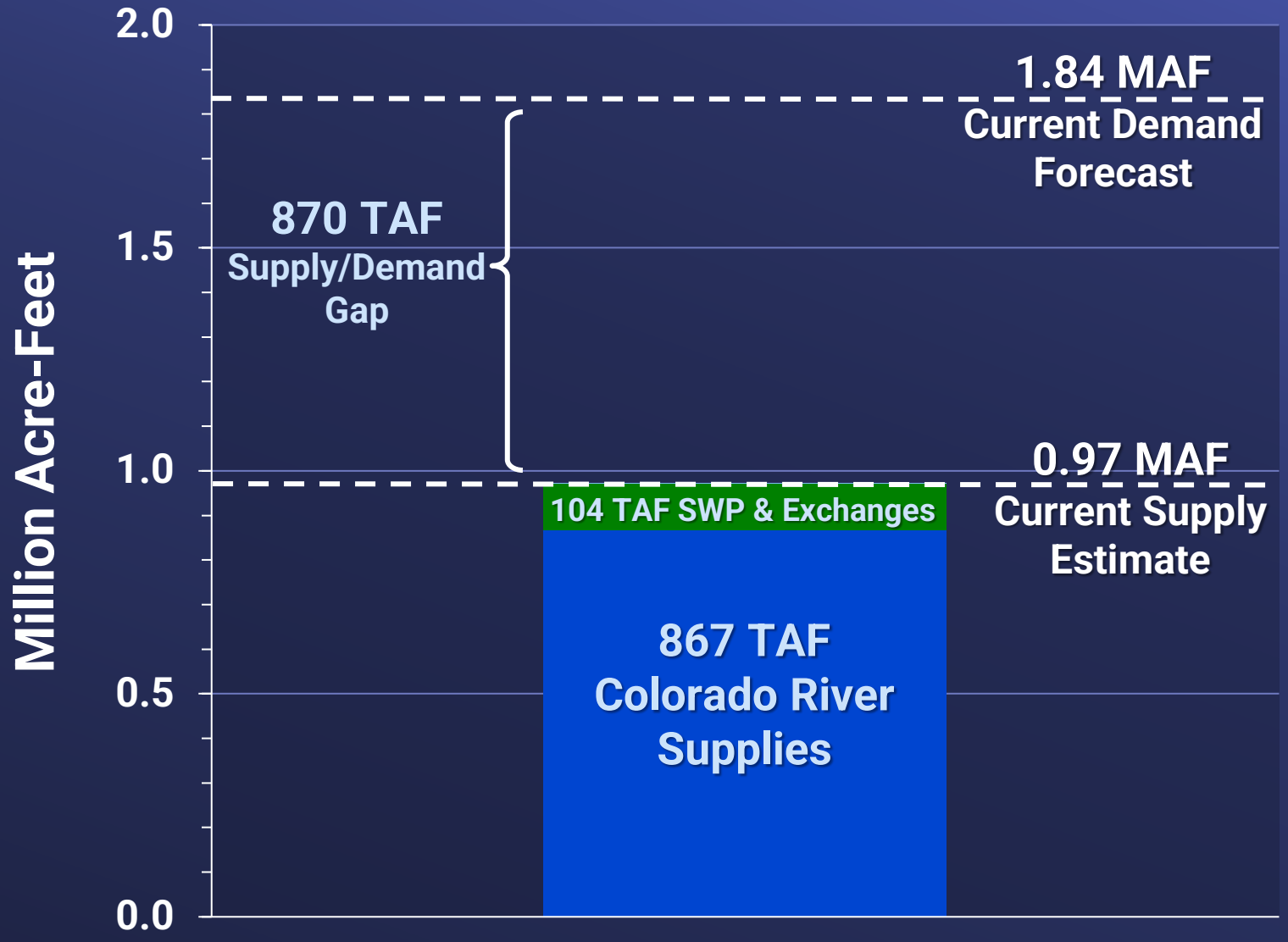
Mar. 2022

- **DWR reduces State Water Project allocation to 5%; provides human health and safety allocation**

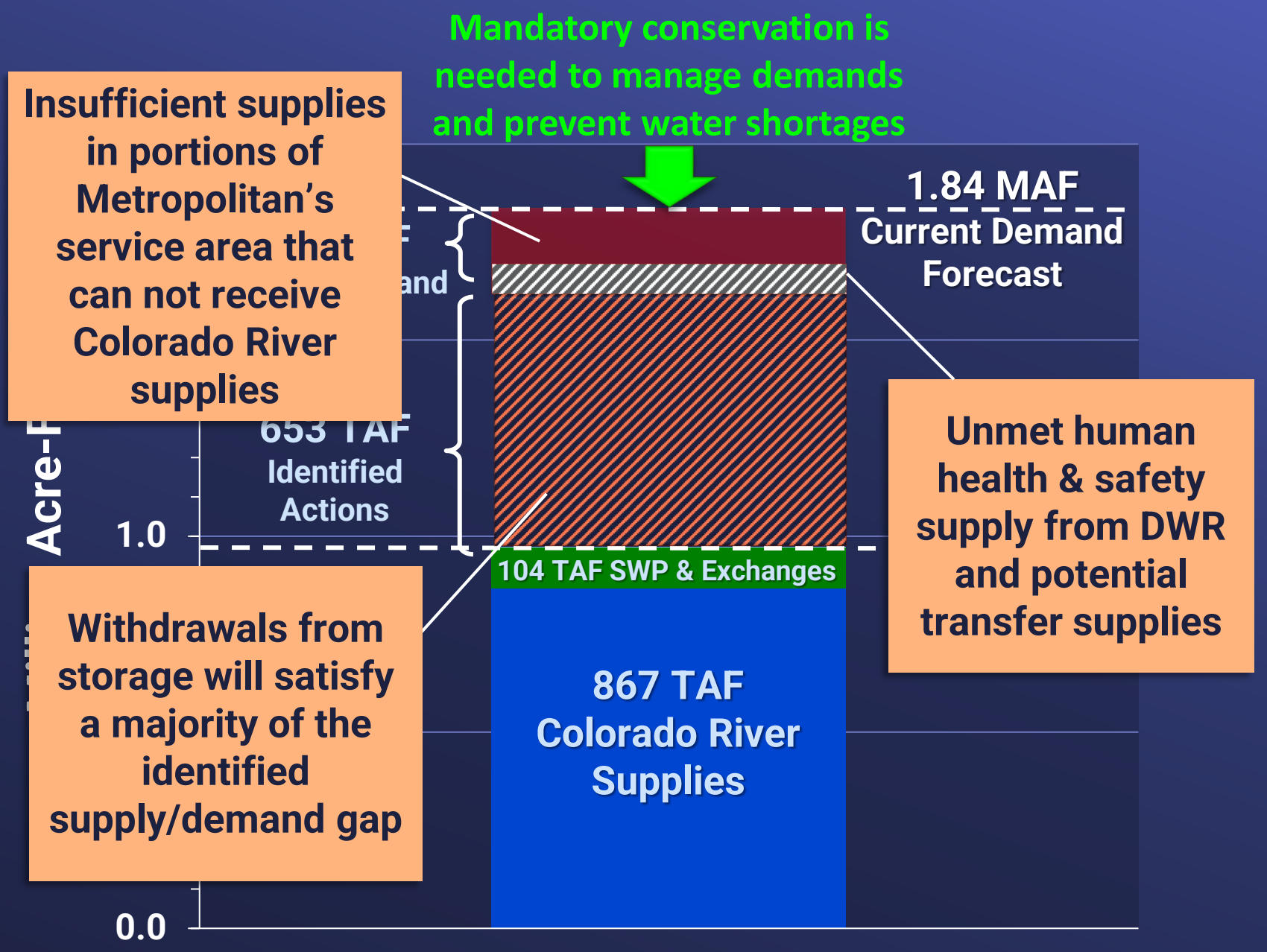
Apr. 2022

- **Board considers Emergency Conservation Program for current SWP Dependent areas**
- **Board considers North-of-Delta water transfers up to $60 million**

Regional Supply Demand Balance



Regional Supply Demand Balance



Proposed framework for Emergency Conservation Program

Three main elements of the Emergency Conservation Program

- Mandate and enforce conservation actions
  - Such as single day per week outdoor watering
  - Potentially no outdoor watering (if warranted)
- Volumetric penalty $ X per acre-ft
  - Assessed on all SWP delivered to non-compliant water provider (e.g., only part wholesale Member Agency delivery)
- Incentivize local production and conservation
  - Outdoor watering restrictions and penalties do not apply if agency eliminates need for delivery of water from SWP

Goals of the Emergency Conservation Program

Seeking three objectives

- Preserve scarce supplies this year
- Minimize take of human health and safety water
- Prepare for a potential fourth year of drought


THE METROPOLITAN WATER DISTRICT OF
SOUTHERN CALIFORNIA
1928

WSCP Updates

Amy Stevens, WSC

slido

What WSCP stage are you in now?

ⓘ Start presenting to display the poll results on this slide.

slido

Do you plan on moving to a different stage? Do you have a date in mind?

ⓘ Start presenting to display the poll results on this slide.

slido

Which types of water shortage response actions are you focusing on?

ⓘ Start presenting to display the poll results on this slide.

slido

What other types of water shortage response actions are you focusing on?

ⓘ Start presenting to display the poll results on this slide.

slido

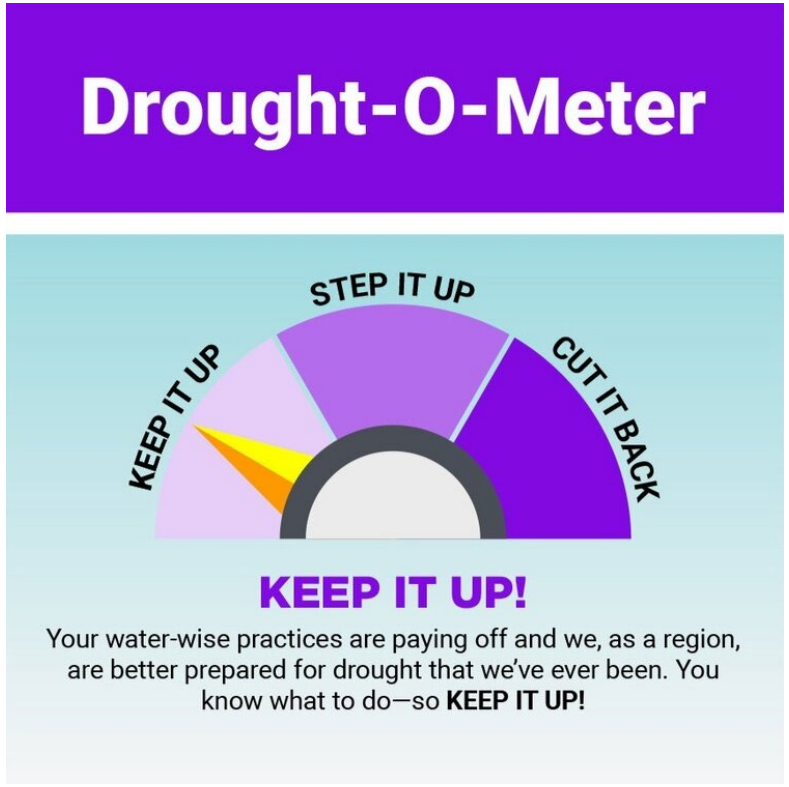
What information is helpful from water agencies and the media? What is missing?

ⓘ Start presenting to display the poll results on this slide.

Drought Communication Toolkits

Melissa Matlock, WMWD

Inland Empire Clean Water Partnership



Western Municipal Water District

- Continuing “Step it up” call-to-action with increased urgency.
- Regional effort launched via the Inland Empire Clean Water Partnership; uses the same images and call to action.
- Focus on water saving tips that customers can easily incorporate into their everyday routines.
  Remind customers about our enhanced rebates and encourage them to apply.

Future Efforts

- Blanket our region with drought messaging.
- Targeted messaging to out of budget customers.
- CII outreach for non-functional turf
- Increase the urgency/seriousness of messaging

Metropolitan Water District

Metropolitan's Board of Directors approved $10.5 million to expand advertising and outreach efforts to increase public awareness of the drought and the need for conservation

The multilingual campaign will be featured in a variety of ways:

- Radio
- Digital
- Social media
- Outdoor advertising platforms

Metropolitan Water District

Full campaign set to launch May/June 2022

- Photography based campaign showcasing real and diverse people from southern California.
- Saving tips are presented in a friendly and personal way
- Utilizes a combination of media platforms to blanket the southland with positive, helpful tips on how to save water
- Messages develop a greater sense of urgency, but not emergency
- Anticipating a long-term relevancy of a sustained high-level conservation effort

Open Forum Poll

Amy Stevens, WSC

slido

Which additional topic would you like to discuss today?

ⓘ Start presenting to display the poll results on this slide.

Open Forum Discussion Topic Options

- Funding Opportunities
- Annual Water Supply and Demand Assessment
- CA Water Watch web portal overview

WESTERN MUNICIPAL WATER DISTRICT

Drought Funding Opportunities

Spring 2022 Update

WaterSMART Drought Resiliency - Federal

- Funds projects that build resiliency to drought by increasing reliability of water supplies, improving water management, and providing benefits for fish and wildlife
- Needs to be supported by a drought planning effort
- Group 1: Up to $500K completed in 2 years; Group 2: Up to $2M completed in 3 years; Group 3: Up to $5M completed in 3 years
- Cost match = 50%
- Due June 15, 2022

WaterSMART Small-Scale- Federal

- Funds small on-the-ground projects that conserve, better manage, or use water more efficiently
- Up to $100K grant available per project; total budget less than $225K
- Cost match = 50%
- Due April 28, 2022

WaterSMART WEEG - Federal

- Water and Energy Efficiency Funding Opportunity
- Projects that result in quantifiable water savings, renewable energy components, broader sustainability benefits
- Up to $2M to be completed in 3 years
- Cost match = 50%
- Anticipated Spring 2022

Funding announcement not released: Details subject to change

Environmental Water Resources - Federal

- Projects focused on environmental benefits that developed as part of a collaborative process to carry out increases in water reliability
  - Quantifiable water savings
  - Increase water supply reliability for ecological values
  - Developed in a collaborative process
  - Component of an established water reliability strategy
- Up to $2M to be completed in 3 years
- Cost match = 25%
- Anticipated Fall 2022

Funding announcement not released: Details subject to change

US EDA Public Works and Economic Adjustment Assistance

- Provide strategic investments to support economic development, foster job creation, and attract private investment in economically distressed areas
- Pre-application call with regional representative is recommended
- Public Works: $600K-$3M; Economic Adjustment Assistance: $150K-$1M
- Cost match = 20%
- Implementation of construction 12-48 months
- No submission dates; ongoing basis

Annual Water Supply and Demand Assessment

Annual Water Supply and Demand Assessment (AWSDA)

- New report defined in each agency's adopted Water Shortage Contingency Report (prior to July 2021)
- Due to Executive Order N-7-22, preliminary assessment is due June 1, 2022

AWSDA Reporting Tables

- Demands (Table 2)– DWR's suggestion procedure is to use the past fiscal year's actual demands (split by treated and untreated). They ask for monthly, but if you do not wish to provide monthly, put your annual data into the June column
- Supplies (Table 3) – DWR's suggestion procedure is to use the single dry year supply estimate provided in your UWMPs, unless you have more accurate supply reductions available for the next fiscal year. They ask for monthly, but if you do not wish to provide monthly, put your annual data into the June column
- If you have planned supply augmentation or demand reduction actions, place the estimated values into the Tables 4P & 4NP and then provide more details in the Actions area (Table 5)

CA Water Watch Web Portal Overview

California Water Watch – Landing Page

Track Latest Water Conditions

Welcome to California Water Watch! This site offers the most current local and statewide water conditions down to your region and even your neighborhood. This information is updated dynamically from a variety of data sources. Everyone is welcome to research, learn, and stay informed about California's most precious resource -- water.

Understanding Our Current Drought

Read Latest State Hydrology Update

Snapshot of California Hydroclimate and Water Supply Conditions

California has a Mediterranean climate characterized by warm, dry summers and mild, wet winters. The climate can vary depending on the geographical region where you live, and climate change is increasing this variability.

The maps below show current statewide hydroclimate and water supply conditions, including precipitation, temperature, reservoir storage, groundwater conditions, snowpack, streamflow, soil moisture and vegetation conditions.

To view the conditions in your local area, enter your address or zip code in the location finder.

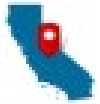
View Watershed Conditions

Search by Address or Zip Code

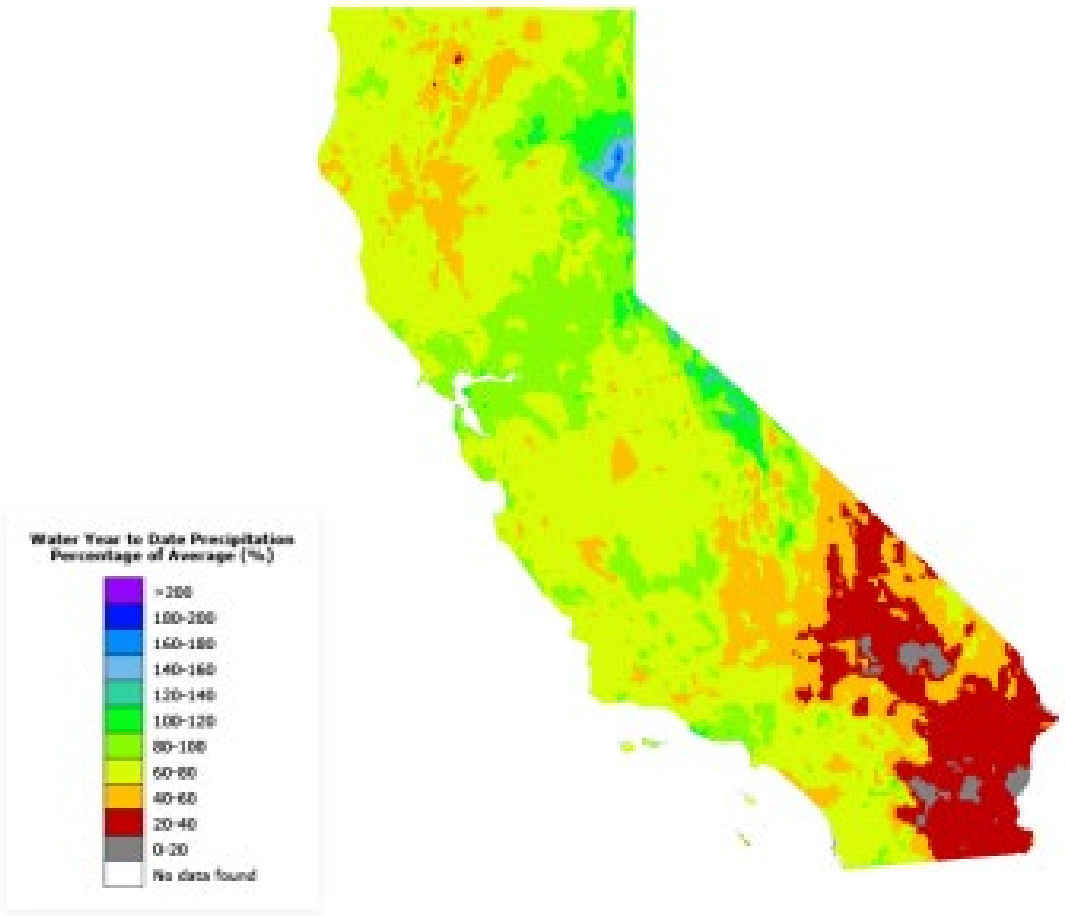
Enter Address or Zip Code

Search on Map

View



California Water Watch – Landing Page



Precipitation as of 04/18/2022

California's annual precipitation can vary greatly from year to year and region to region. The map of California shows how this water year's precipitation compares to what has been observed historically. The chart below breaks down this same data into discrete ranges to illustrate the levels of precipitation different portions of the state are seeing relative to historical averages.

PERCENT OF AVERAGE PRECIPITATION (%)	PERCENT OF STATE (%)
0-19	1.32
20-39	12.19
40-59	15.84
60-79	49.78
80-99	17.17
100-119	2.49
120-139	0.74
140-159	0.35
160-179	0.10
180-199	0.00
>= 200	0.00

California Water Watch – Understanding Our Current Drought

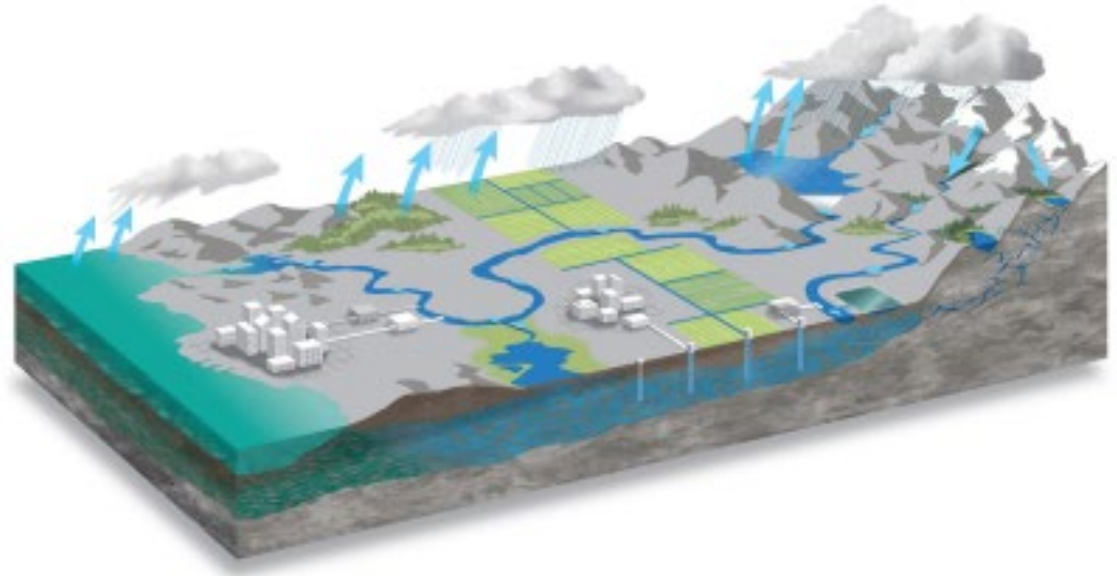
Drought conditions are not experienced uniformly across California. Water users experience drought differently, depending on the type of water supply being accessed and the user's ability to manage drought impacts.

Dry conditions can quickly lead to impacts for ranchers grazing livestock on non-irrigated rangeland or for rural residents relying on private wells for groundwater. In contrast, large urban water agencies with multiple water sources have the potential to weather multiple dry years. As drought conditions persist, eventually all water users experience impacts.

Risk of drought impacts occur when precipitation is below normal levels. Risk also increases when dry conditions combine with above-average temperatures, as has been observed in California's recent droughts.

Maps on this page show three different indicators that provide a measure of the severity of the current drought in California. The use of multiple drought indicators is preferred given the diversity of California's water users. The three indicators displayed here include:

- "Weather drought indicator" – Indicator represents a measure of atmospheric moisture supply and demand over time by integrating the effects of precipitation, temperature, and evapotranspiration.
- "Runoff drought indicators" – Indicators represent the effects of changes in atmospheric conditions on a watershed's snowpack and runoff.
- "Water supply drought indicators" – Indicators represent the amount of surface and groundwater storage available.

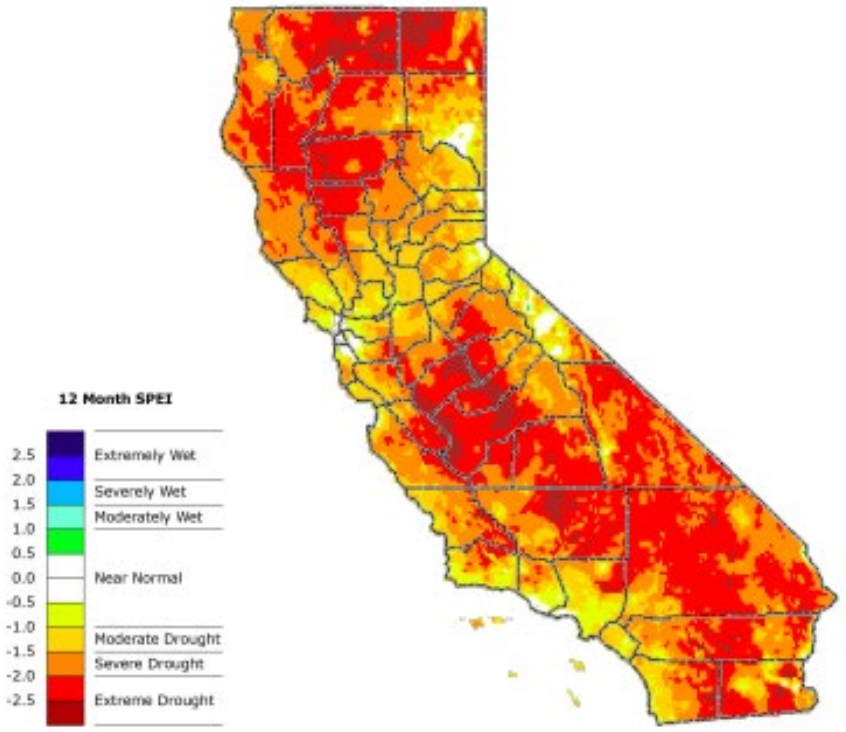


California Water Watch - Understanding Our Current Drought

WEATHER DROUGHT INDICATOR

RUNOFF DROUGHT INDICATORS

WATER SUPPLY DROUGHT INDICATORS



Weather Drought Indicator

California is experiencing extreme dryness. Low precipitation combined with higher temperature is resulting in dry conditions throughout the state. This map integrates measures of precipitation, air temperature, and evapotranspiration, key factors in California's water cycle.

Note: Map shows the Standard Precipitation-Evapotranspiration Index (SPEI).
Source: Western Regional Climate Center
(https://wrcc.dri.edu/wwdt/index.php?folder=spei12)

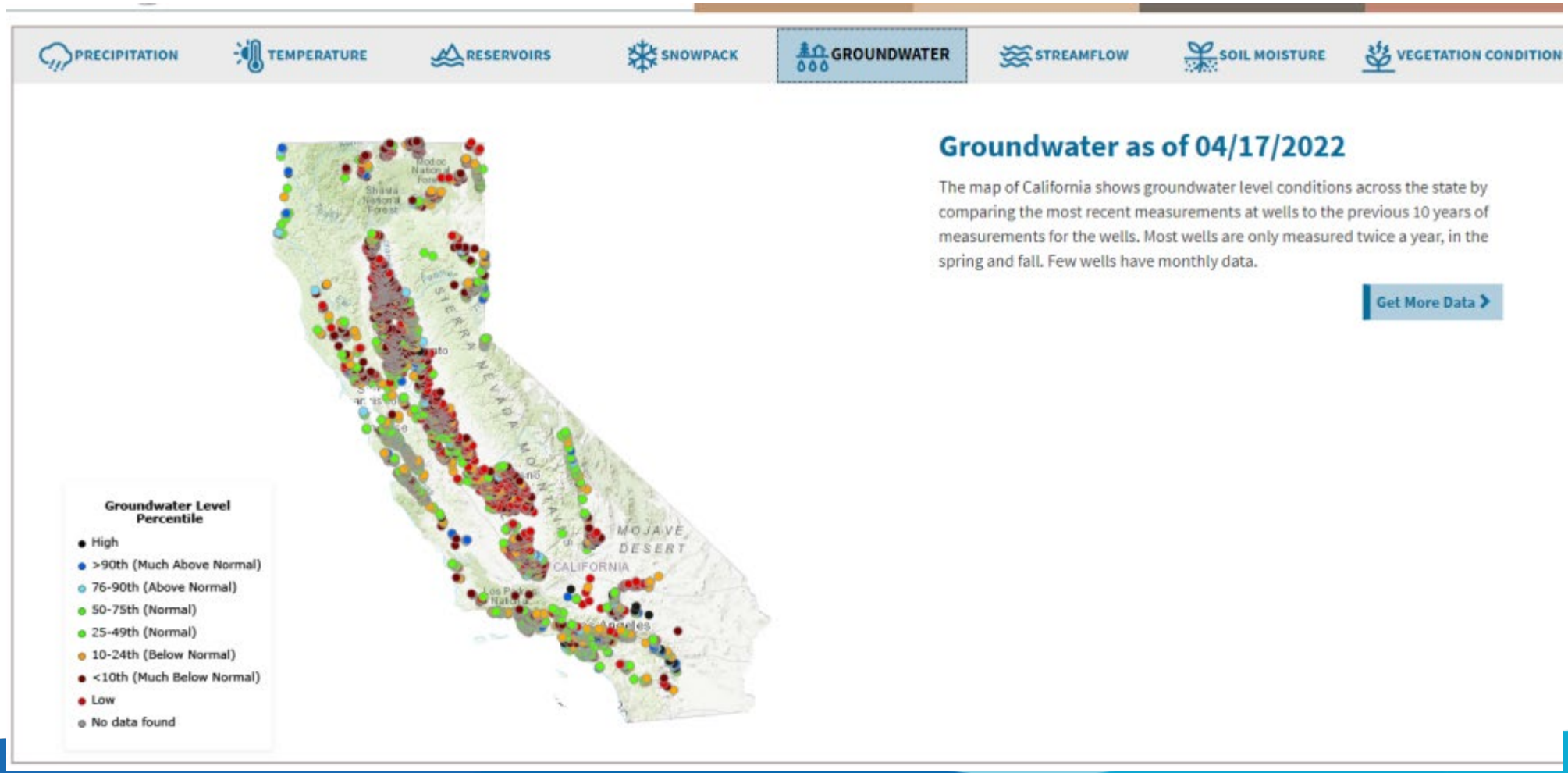
California Hydrology Update – April 14, 2022

The California Hydrology Update is a regular summary of current weather conditions in the State of California and serves as a supplement to the data on the California Water Watch website. It is produced by the California State Climatologist, Mike Anderson, and the hydrology and forecasting team at the California Department of Water Resources. For the latest on drought conditions, visit drought.ca.gov. For tips and resources for conserving water, please visit saveourwater.com.

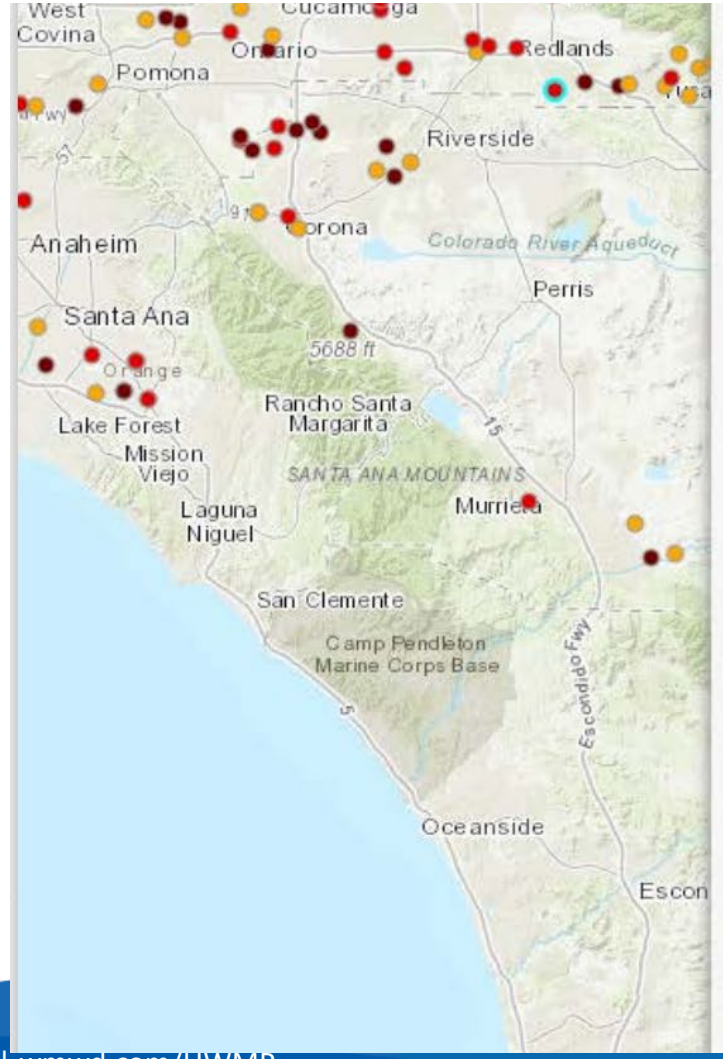
- **Precipitation** To date statewide precipitation for the current water year (October 1, 2021- April 15, 2022), is 70% of average. A series of storms the second week of April brought much needed moisture to Northern California, augmenting the below-average snowmelt and keeping the landscape from drying out as quickly as spring moves toward summer. However, the precipitation was not statewide, and this amount of moisture will not offset the record dry conditions experienced the first three months of 2022.
- **Temperature** A couple of early-season heat waves led to many new high-temperature records across California. Fortunately, the transition month of April also includes the passing weather systems that bring cooler temperatures. In some places like Redding new low-temperature records have been set with clear skies overnight. The cooler days between the heat really help to slow down the drying out of the landscape and offer some respite to urban communities. This pattern is expected to continue through the rest of April.

- **Reservoirs** Statewide reservoir storage has increased at a slower pace than normal but has been helped by the recent storms and associated runoff. While it will augment the snowmelt, it will not make up for the below average snowpack and dry conditions from earlier in the year. At the end of March, the statewide storage is at 69% of average storage for this time of year which is consistent with other year 3 droughts at this point in the water year.
- **Snowpack** The peak of the statewide snowpack as measured by the automated sensors appear to have happened on March 8 with about 57% of a seasonal snowpack which equates to 16.1 inches of snow water equivalent or SWE. The April 1 snowpack ended up being in the bottom 10 in the period of record due to the amount of snow melting in March with the lack of storms, clear skies and warmer than average temperatures. The current storms will slow the pace of melt and may add an inch or two which will help the spring runoff but will still be well below average. It is better than the record dry and warm conditions of last year.
- **Streamflow and Groundwater** are also both well below average across much of the state. The start of the calendar year has been much drier than average which intensified drought conditions. Early snowmelt is pushing some Sierra Nevada rivers above values normally seen this time of year, but many areas have already peaked and are now beginning to recede. The recent storms will help sustain flows where precipitation fell. As we head into May and the start of the dry season, the flows will drop off rapidly given the third year of drought and the heat of summer beginning. Groundwater levels will hit their spring peak and then begin to drop as water use picks up and surface supplies are unable to meet demands. Additional heat events and any further spring precipitation will determine how quickly the landscape dries out. The landscape will then continue to dry until the first rains of water year 2023 fall.

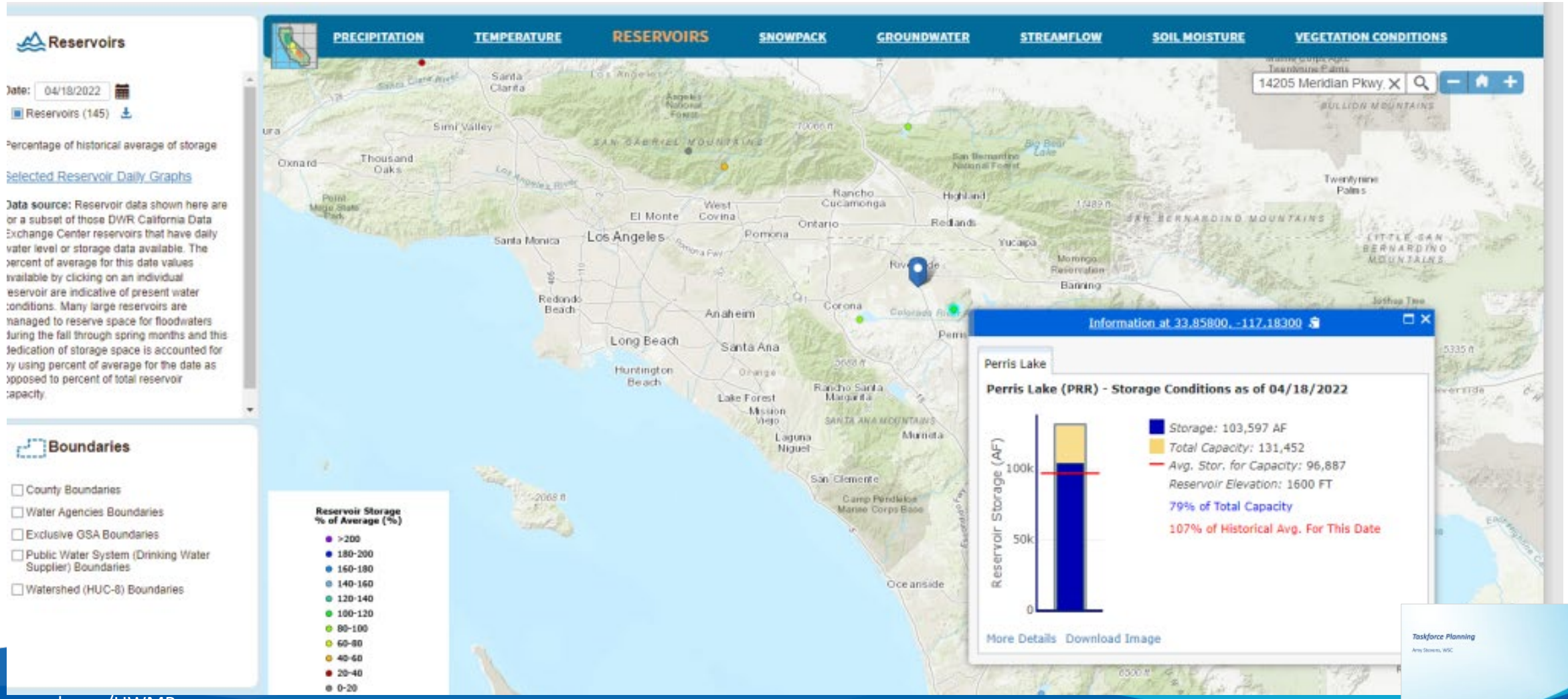
California Water Watch - Groundwater



California Water Watch – Groundwater Zoom In



California Water Watch - Reservoirs



Taskforce Planning

Amy Stevens, WSC

slido

Rank how beneficial you found each section of the mock task force meeting. (Most beneficial to least)

ⓘ Start presenting to display the poll results on this slide.

Draft Future Meeting Agenda Outline

- Guest Presentation/Update
- Grant/Funding Opportunities and Current Applications
- WSCP Updates
- Communication Update
- Open Forum
- Close

Questions to Consider

1. What would make this beneficial to you and your agency?
2. Is there anything else we should be striving for to accomplish our goals?
3. What discussions should this group be having?
4. What information would be helpful?
5. Are there any guests that you would like to hear from on a regular basis?
6. How often do we want to meet? Does it align with the drought triggers?

How will we recognize the next drought in its early stages?

Drought Task Force Meetings

Provide a forum for members to review data, share updates, and coordinate drought response

Convened based on regional conditions

Regional Drought Stage	Meeting Frequency	Triggers				
		Drought Monitor (DCP Region)	MWD WSAP/Similar Action	Agencies in Declared Shortage*	Statewide Drought Proclamation	Riverside County Drought Proclamation
Normal	Annual	None-Abnormally Dry	--	None	--	--
Watch	Quarterly	Moderate-Extreme Drought	Levels 1 and 2	3 or more	Drought	Drought
Alert	Monthly	Exceptional Drought	Levels 3 thru 5	6 or more	Drought	Drought
Emergency	Weekly	Exceptional Drought	Levels 6 and 10	10 or more	Drought	Drought

*Not including state mandated shortage

Next Steps

Amy Stevens, WSC

Next Steps

DCP

- 5/11 – Comments due on the Draft DCP from the Task Force
- Mid-June – incorporate Task Force comments into the Final DCP for adoption by Western's Board

Task Force Meetings

- Planning Committee Volunteers? Contact Melissa: mmatlock@wmwd.com
- Watch your emails for upcoming calendar invite and agenda