



**California**  
**DRIP Collaborative**

**Meeting #1**

Drought Resilience Interagency & Partners (DRIP) Collaborative

April 6, 2023

California Natural Resources Agency Building

715 P Street

Sacramento, California

**Welcome!**

# Meeting Information

1. This meeting is being live streamed.
2. This meeting is being recorded.
3. Members of the public are welcome to listen.
4. There will be an opportunity for public comment later in the meeting.
5. Please be respectful.

# Public Comment

## 1. In-person participants:

1. Submit a comment card before or during the break.

## 2. Virtual participants:

- a) Raise your hand with the “Raise Hand” feature in Zoom and you will be asked to unmute and speak.
- b) Send a Zoom message to the webinar manager if you need technical assistance.
- c) If you are dialing in by phone, dial \*9 to raise your hand and dial \*6 when it you are called on to speak.

# Meeting Goals

- Introduce members and build relationships
- Provide DRIP Collaborative overview and vision
- Learn about current conditions
- Members answer the question:
  - *"What are our collaboration priorities?"*

# Meeting Agenda

- Opening Remarks
- Member Introduction
- 2023 Hydrology Update
- 2023 Drought Perspectives
- Member Visioning Discussion
- Public Comment
- Next steps

# Welcoming Remarks

## **Karla Nemeth**

Director, Department of Water Resources  
Chair, DRIP Collaborative



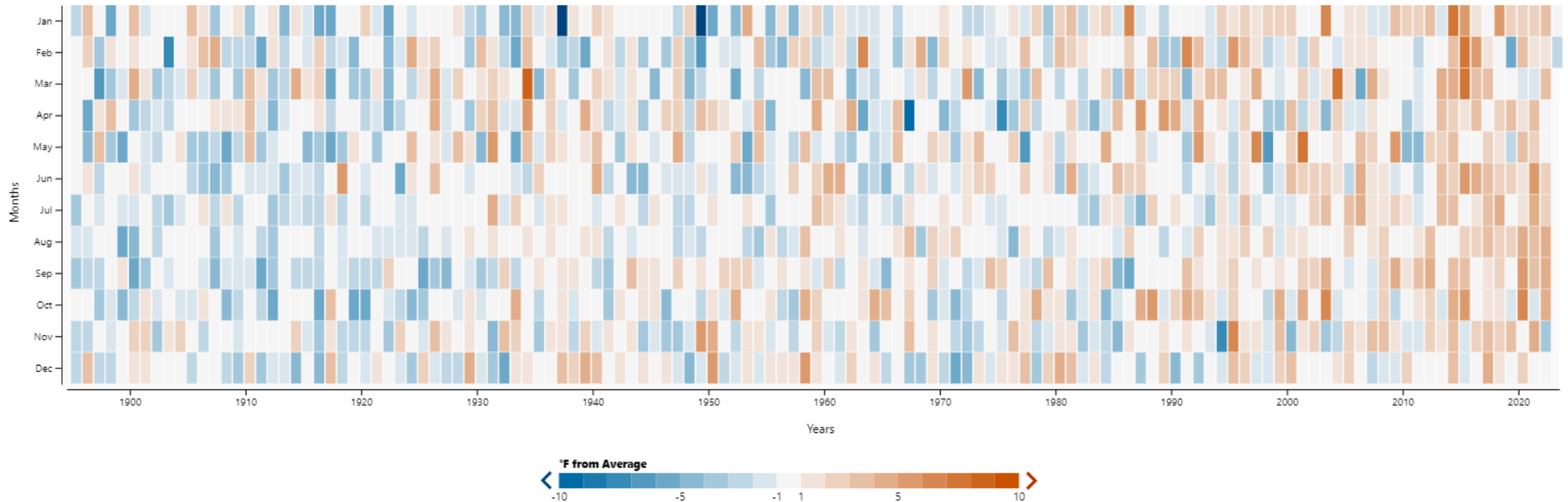
# Change Is Happening

Heat Map - California (Statewide) - Monthly Departures from 1991-2020 Computed Average(s) from Jan 1895 to Feb 2023

[Update Variable](#) ▶

Departure-based products are calculated from 1991-2020 Computed Average(s).

Mean Temperature



California Climate Tracker: <https://wrcc.dri.edu/my/climate/tracker/CA>





# Legislated Mandate

## **SB 552:** Establishment of Interagency Drought and Water Shortage Task Force

### What

- DWR to establish a standing Interagency Drought and Water Shortage Task Force in coordination with other state agencies

### Purpose

- Facilitate proactive state planning and coordination, both for predrought planning and mitigation, emergency response, and post-drought management
- Develop strategies to enhance collaboration between various fields
- Consider all types of water users

### Required Membership Representation

State agencies + non-state groups



# Look Back & Looking Forward

- **History of SB 552**

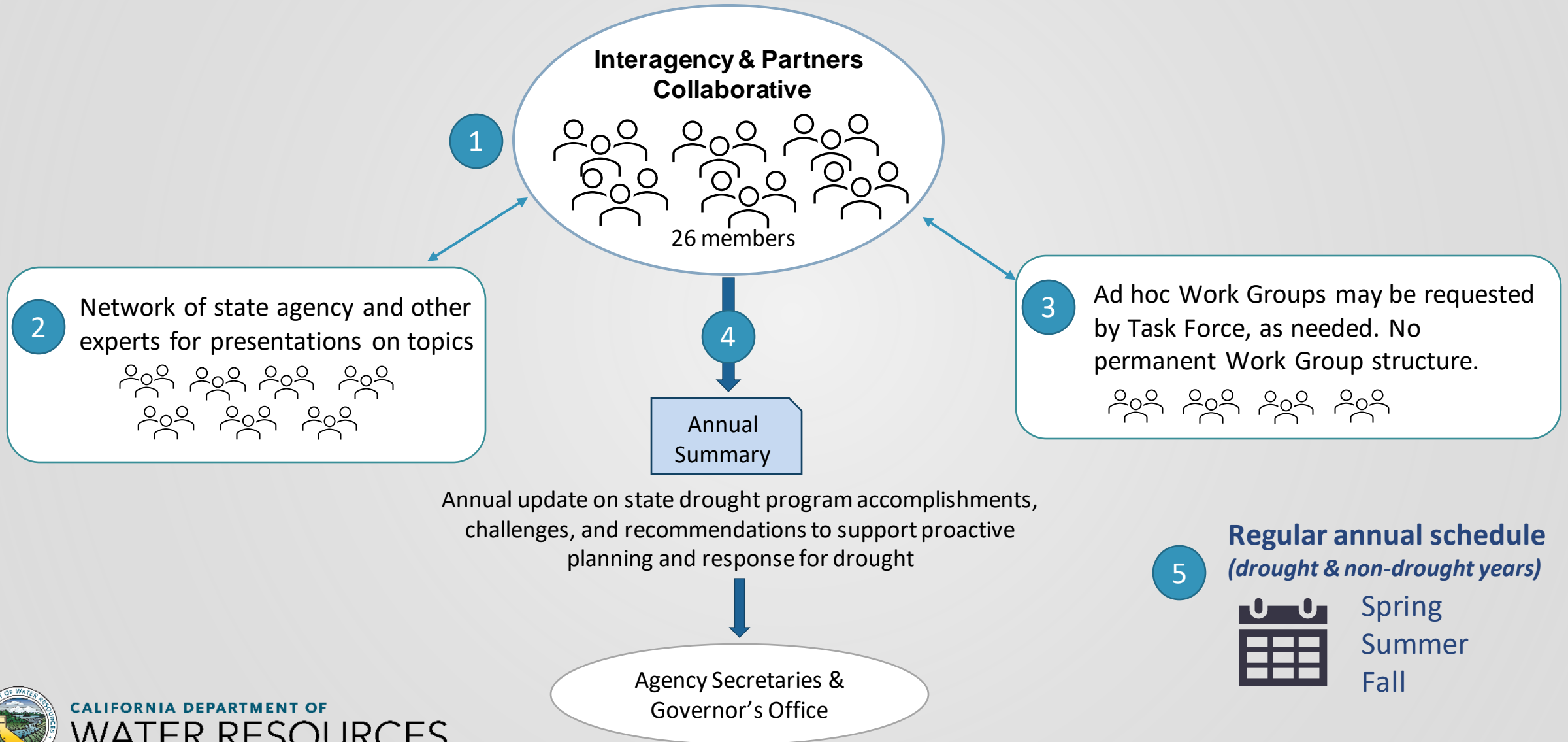
- Drought 2012-2016: Legislation (2018) to form the County Drought Advisory Group (CDAG)
- CDAG recommendations were passed as the basis of Senate Bill 552, including to establish this DRIP Collaborative

- **Looking Forward: Key Questions Today**

- How to make this DRIP Collaborative have real traction?
- Design with value-added
- Identifying core function over next year+
- Keep in mind: What would success look like by April 2024 for the task force?



# DRIP Collaborative Structure



State Agency Members



CALIFORNIA DEPARTMENT OF  
**WATER RESOURCES**



Governor's Office of  
**Planning and Research**



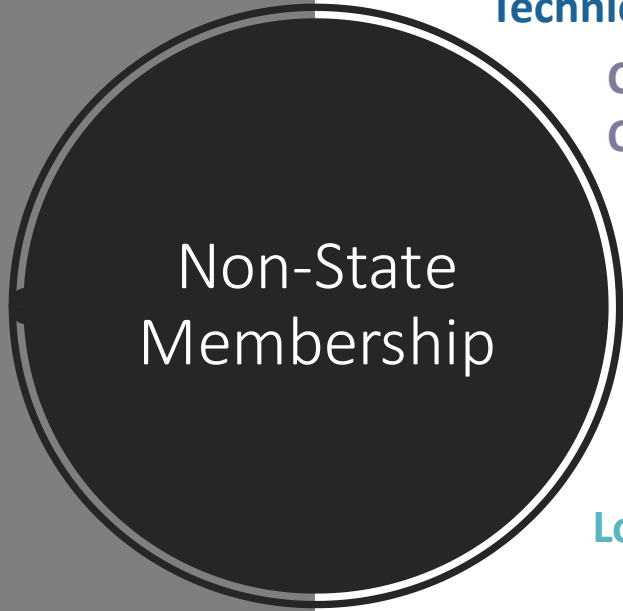
California Department of  
**Fish and Wildlife**



**Cal OES**  
GOVERNOR'S OFFICE  
OF EMERGENCY SERVICES

State Agency	Delegate
CA Natural Resources Agency	Nancy Vogel
Department of Water Resources	Karla Nemeth
CA Dept. of Fish and Wildlife	Josh Grover
California Environmental Protection Agency	Anna Naimark
State Water Board	Joaquin Esquivel
CA Dept of Food and Agriculture	Virginia Jameson (Tawny Mata)
California Office of Emergency Services	Tina Curry
Governor's Office for Planning and Research	Saharnaz Mirzazad (Sam Assefa)

*State Agency Members: 1 representative each*



Non-State  
Membership

**Tribal Representatives**

**Technical Assistance Provider\***

**Community-based  
Organizations\***

**The Public\***

**The Environment**

**Agriculture**

**Local Government\***

**Experts in Land Use/Water\***

**Public Water Systems**

<b>Name</b>	<b>Organization</b>
Michael Gerace	Yurok Tribe
Emily Moloney	Buena Vista Rancheria of Me-Wuk Indians
Justine Massey	Community Water Center
David Michalko	California Association of Mutual Water Companies
Tami McVay	Self Help Enterprises
Grace Person	CivicWell
Suzanne Pecci	Domestic Well Planning Group South American Subbasin
Brent Hastey	Plumas Lake Self Storage, Owner
Anna Schiller	Environmental Defense Fund
Redgie Collins	California Trout, Inc.
Emily Rooney	Agricultural Council of California
Jason Colombini	Jay Colombini Ranch, Inc.
Catherine Freeman	California State Association of Counties
Sierra Ryan	Santa Cruz County
Alvar Escriva-Bou	University of California Los Angeles
Laura Ramos	California Water Institute at Fresno State
Russ Bryden	Los Angeles County Public Works
Katie Ruby	California Urban Water Agencies (CUWA)

Non-State Agency Members:  
(18 total, 2 per category, asterisk \* indicates category specified in Water Code)

**Given extreme weather whiplash, droughts will persist.  
We must address drought planning and response  
head-on.**





California  
**DRIP Collaborative**



Sign up for the  
email notices

# **Introduction of DRIP Collaborative**



## **DRIP Member Introductions**

- **Name**
- **Affiliation**
- **What are the top three areas you want to collaborate with this group?**

# Hydrology Conditions Updates & 2023 Drought Perspectives

# **Hydrology Conditions Updates**

**Jeanine Jones**

**California Department of Water Resources**



## **California Water Conditions**

**Jeanine Jones, California Department of Water Resources**

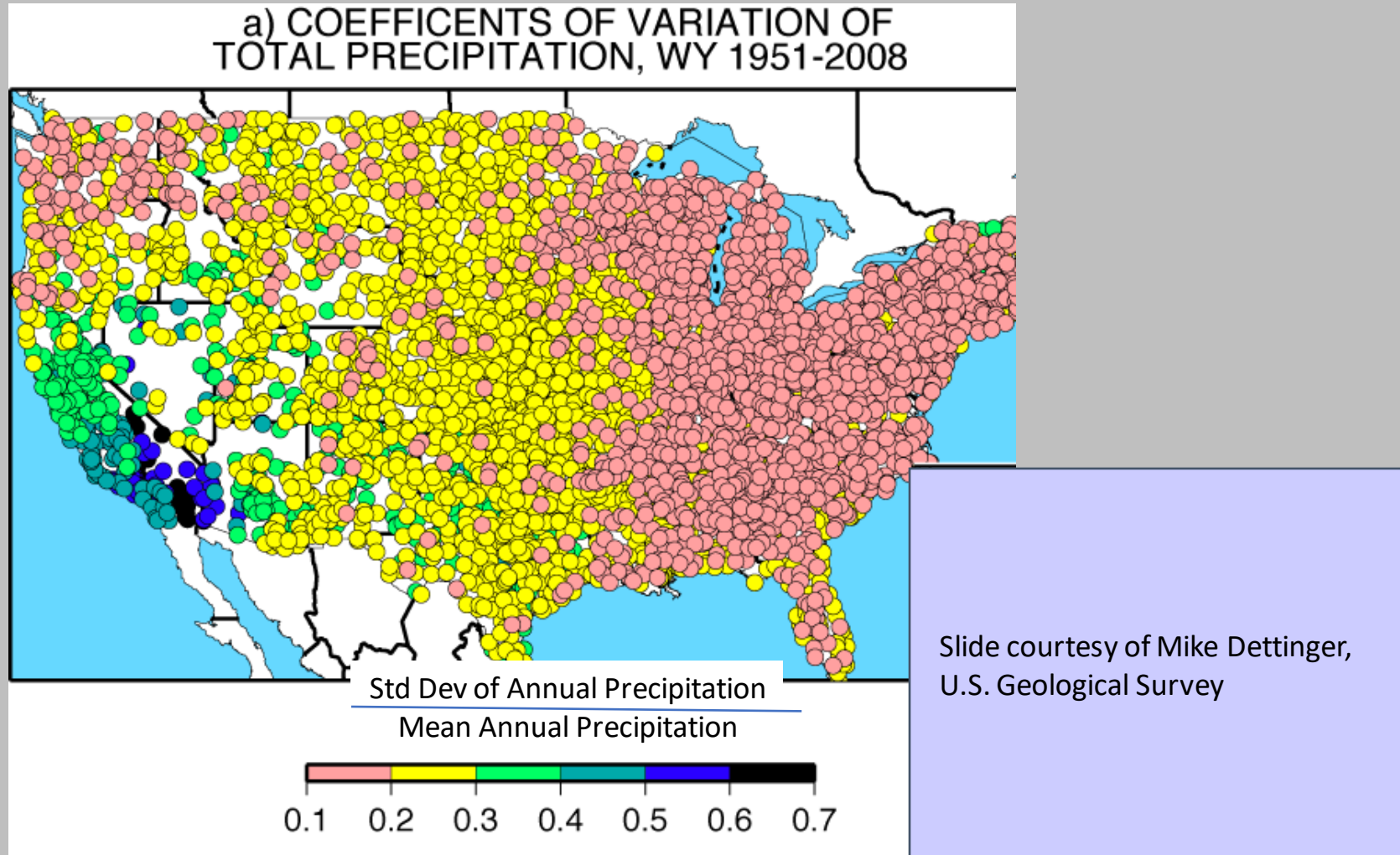
# Weather Whiplash

- From driest 3-year period in the historical record to highest snowpack on record
- From a state drought emergency proclamation to a flood emergency proclamation
- Major flood response actions in multiple parts of the state
- Tulare Lakebed is flooding



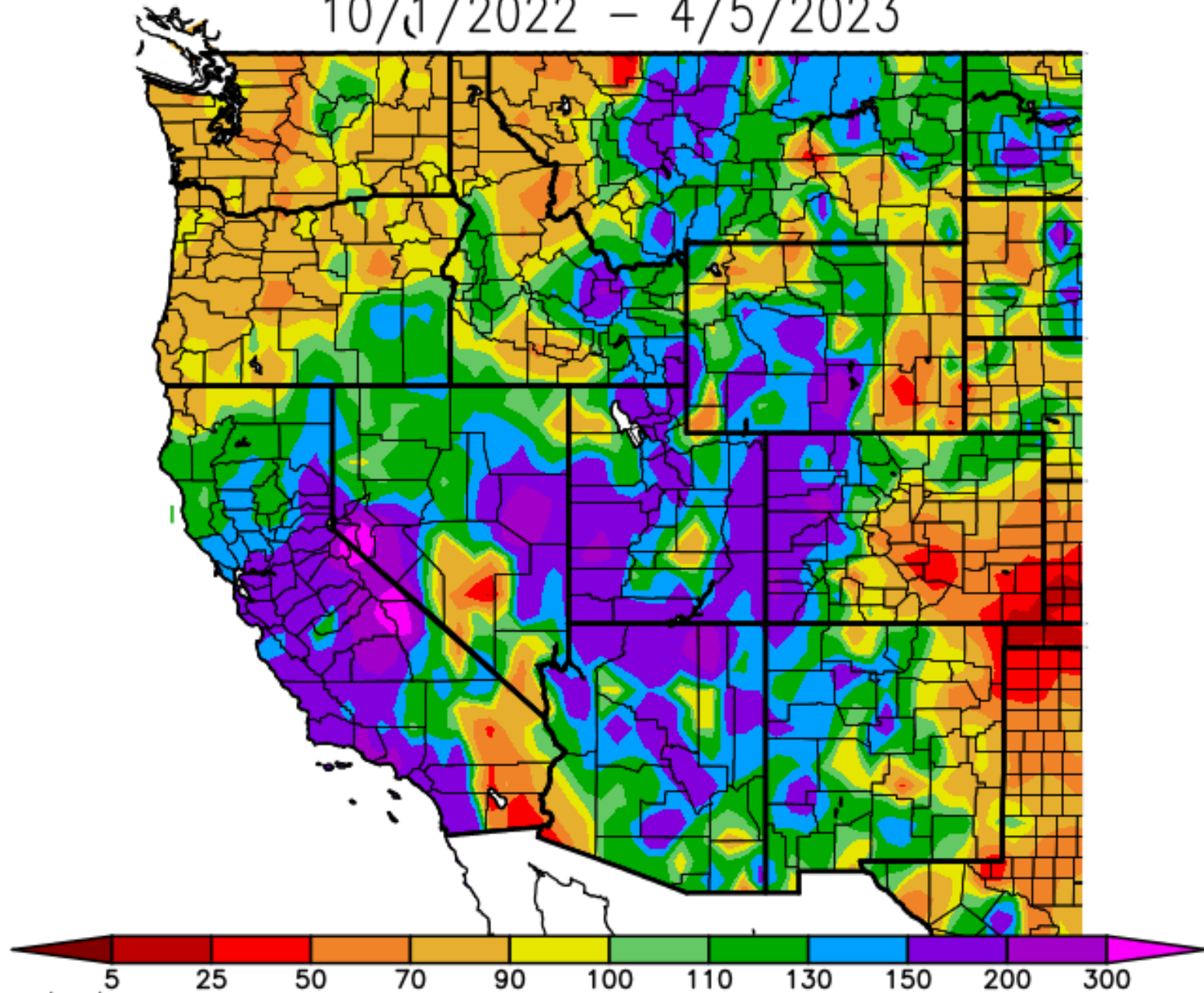


# Variability of Western Precipitation



# Percent of Average Precipitation (%)

10/1/2022 - 4/5/2023

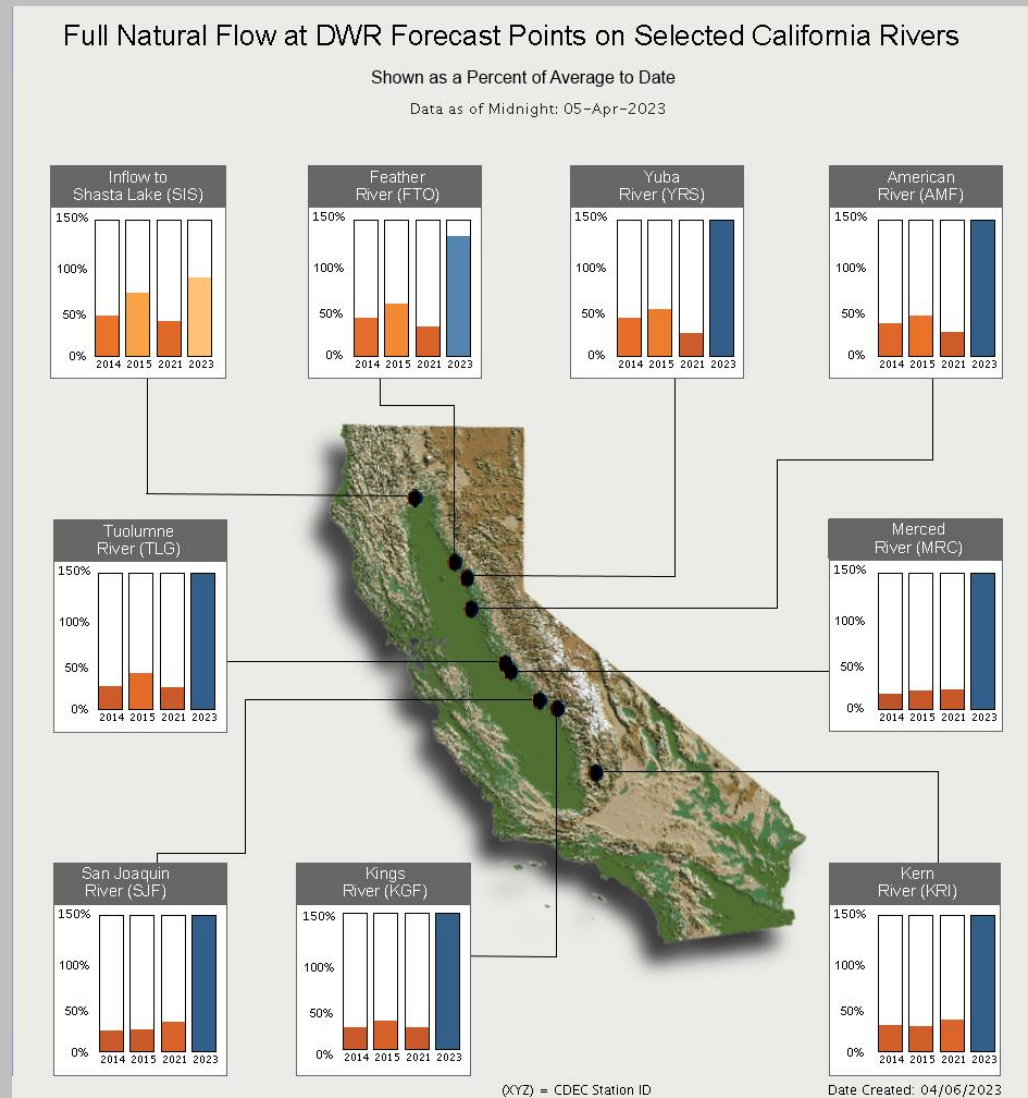


Generated 4/ 6/2023 at WRCC using provisional data.

NOAA Regional Climate Centers

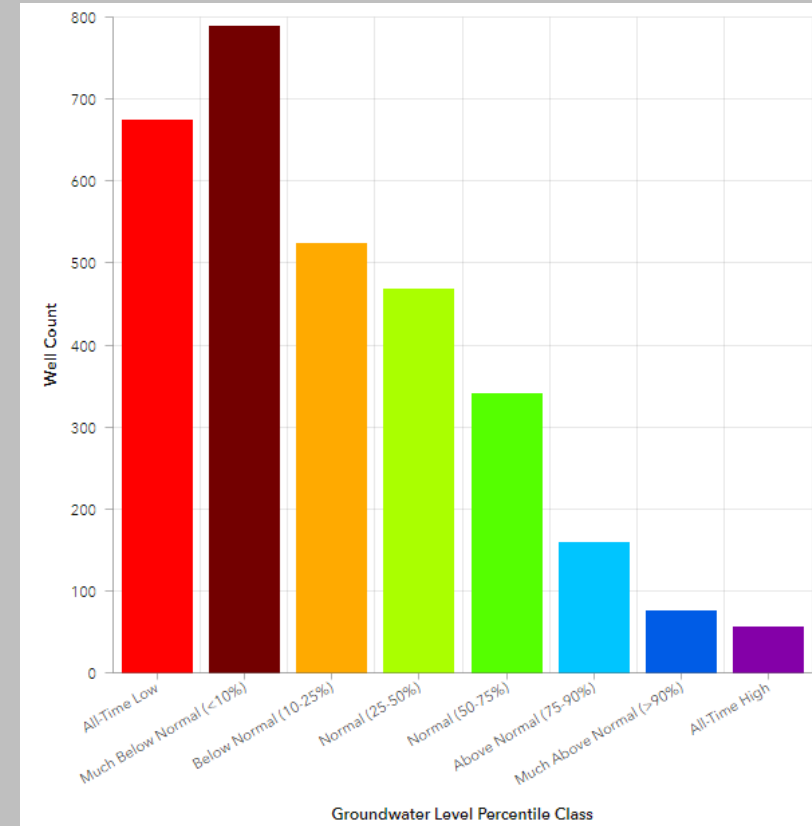
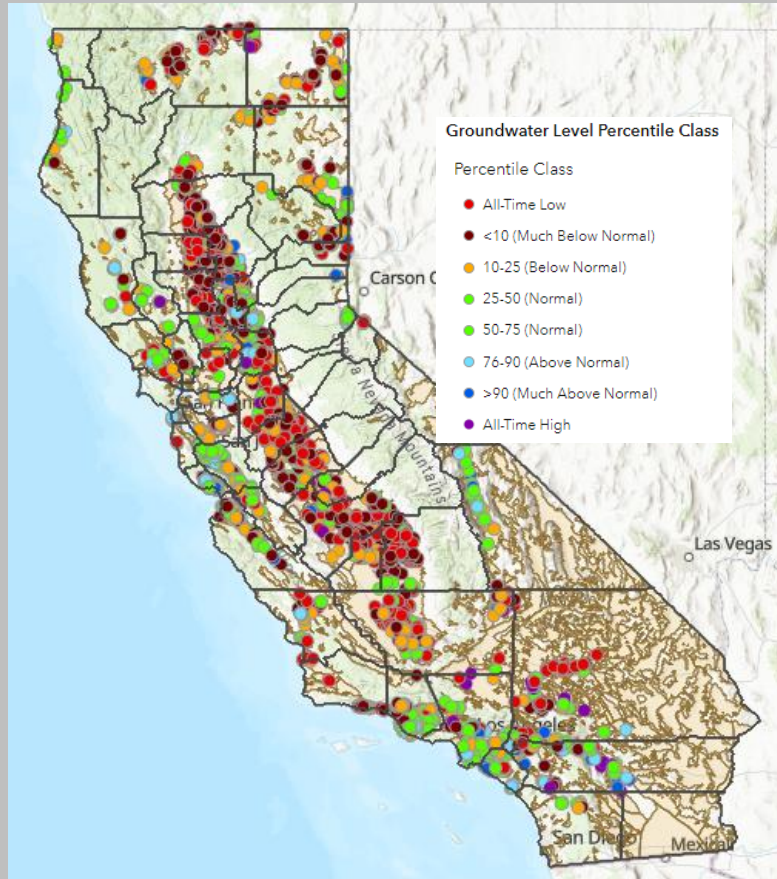
# Current Conditions

- Statewide precipitation: 149% of average for this date
- Statewide snowpack: 239% of historical April 1<sup>st</sup> average
- Statewide reservoir storage: 105% of average for this date





# Groundwater Levels – Past 6 Months



**Dry wells reported**

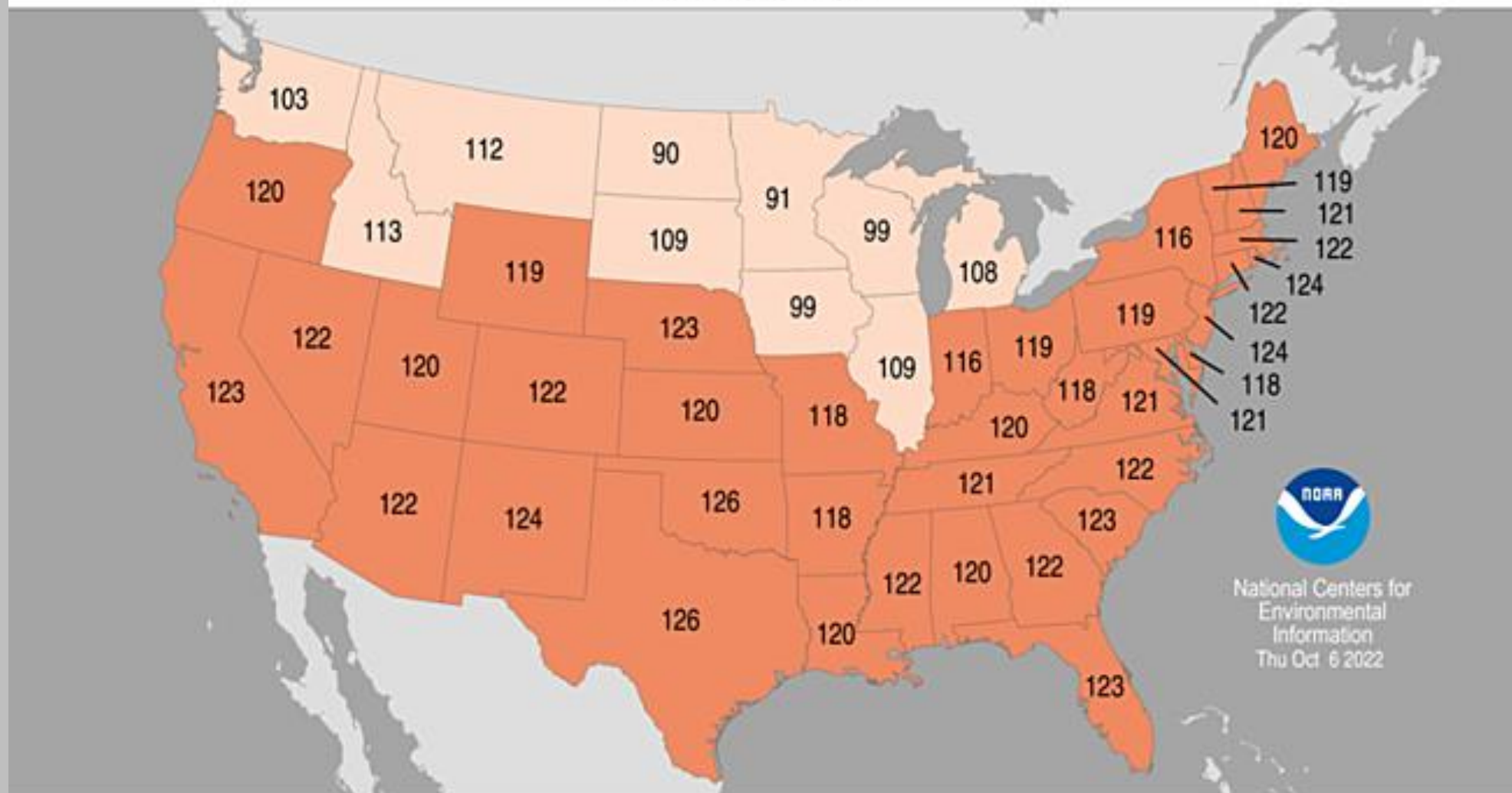
**Last 30 days: 42**

**Year to date: 133**

# Statewide Average Temperature Ranks

October 2021 – September 2022

Period: 1895–2022



National Centers for  
Environmental  
Information  
Thu Oct 6 2022

Record  
Coldest  
( 1 )

Much  
Below  
Average

Below  
Average

Near  
Average

Above  
Average

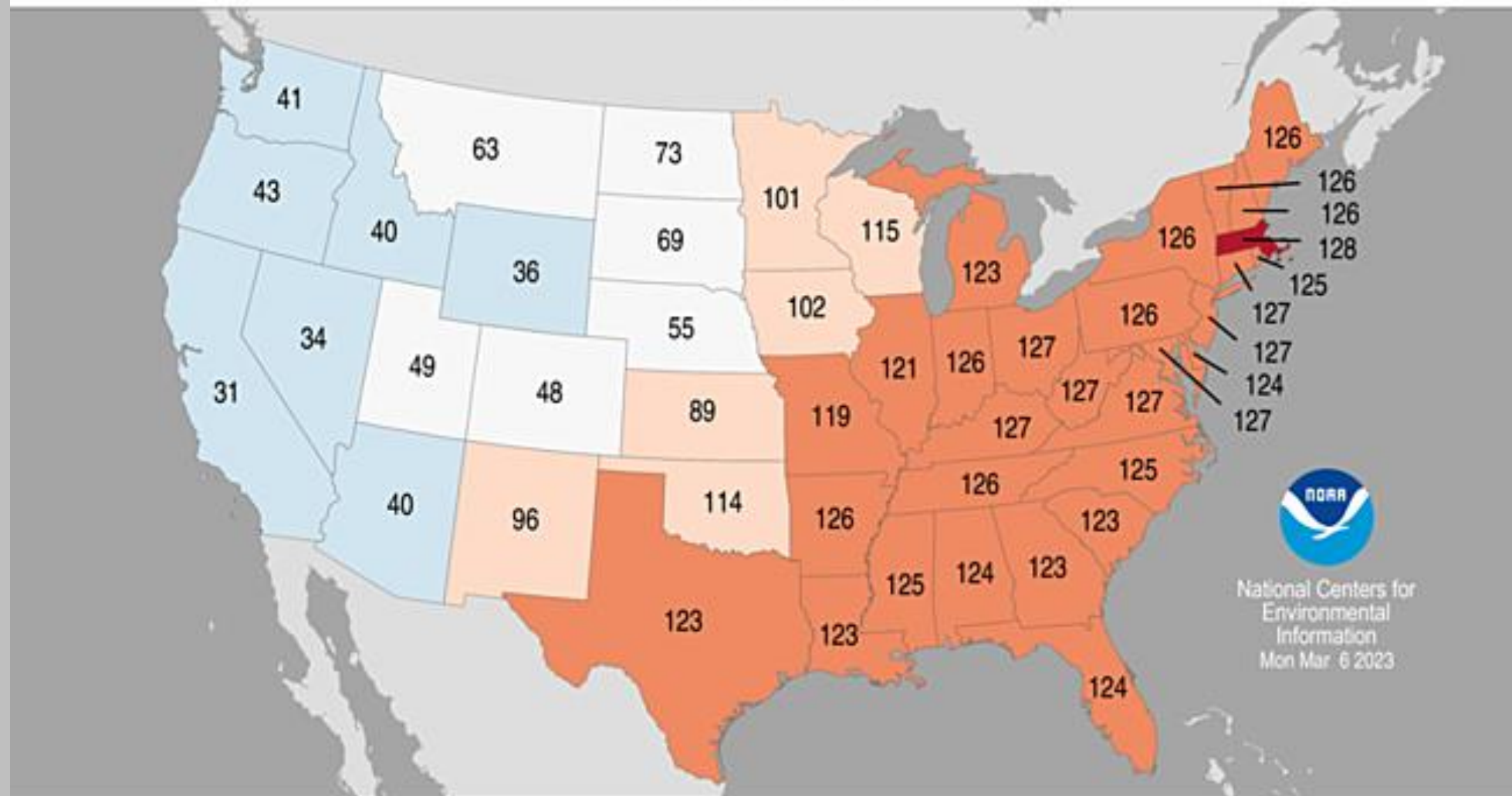
Much  
Above  
Average

Record  
Warmest  
( 127 )

# Statewide Average Temperature Ranks

December 2022 – February 2023

Period: 1895–2023

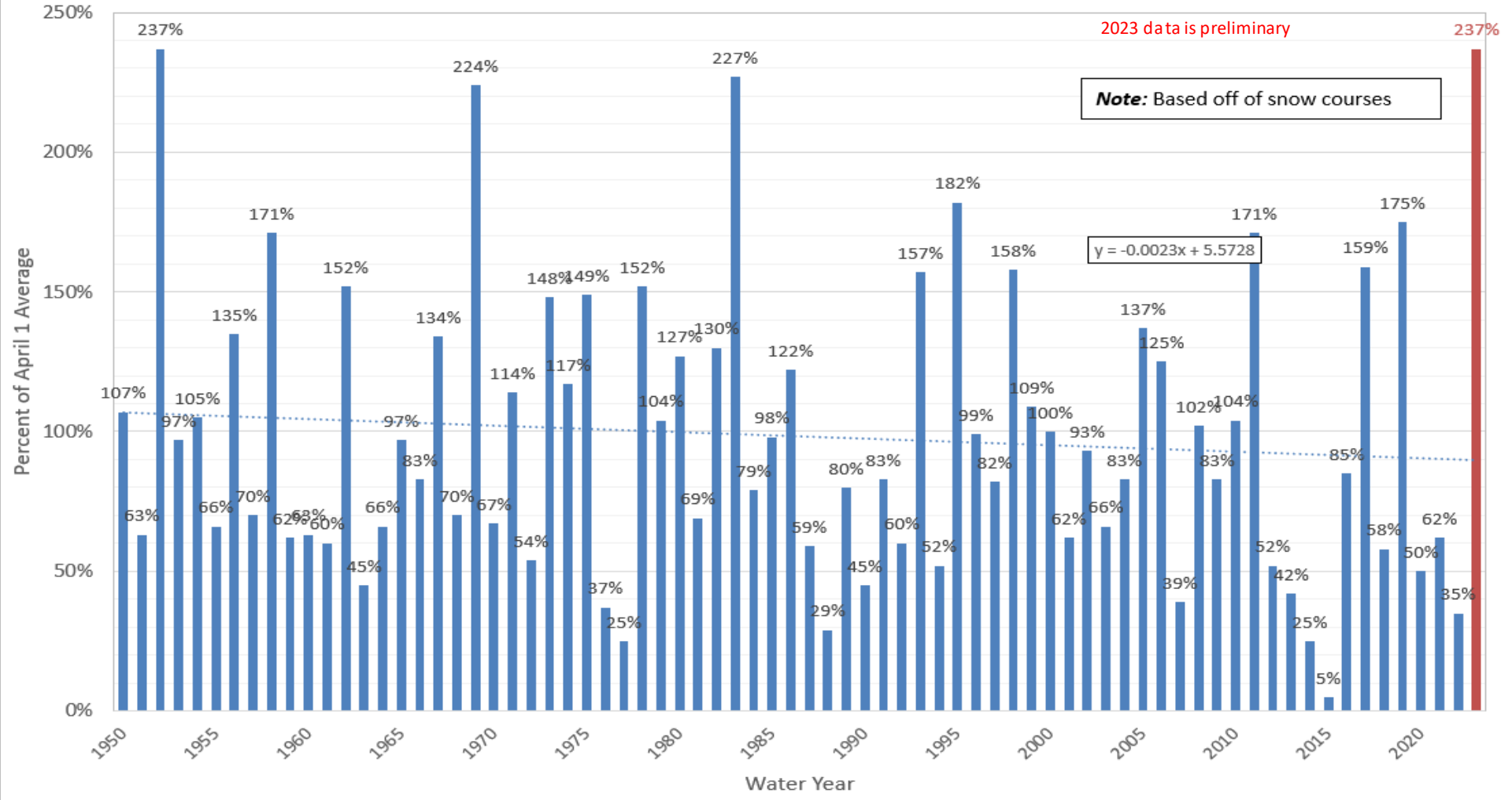


National Centers for  
Environmental  
Information  
Mon Mar 6 2023



# Statewide Snowpack

## California Statewide April 1 Snow Water Equivalent





# Current Water Project Allocations

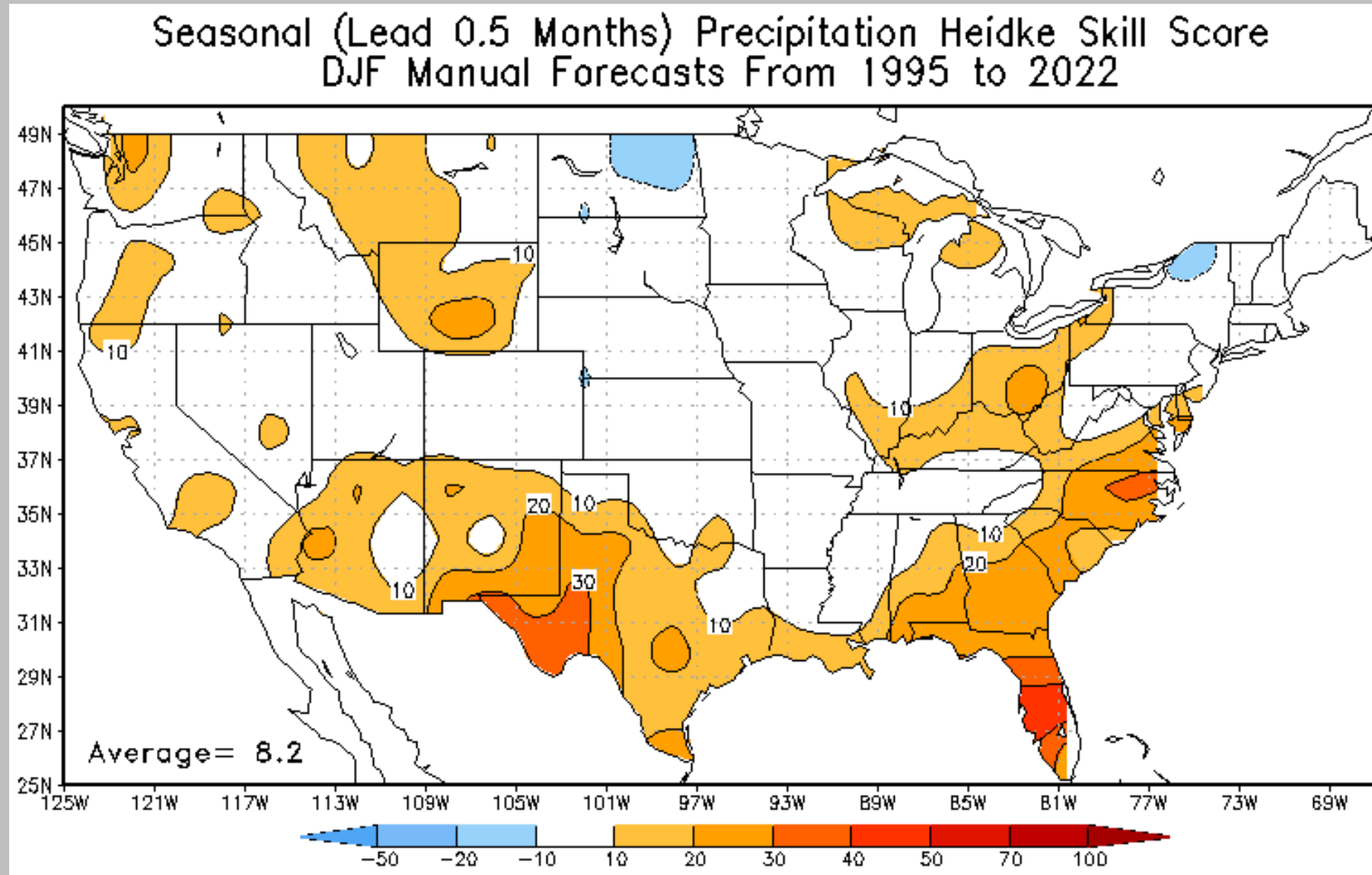
- SWP: 75%
- CVP: Ag – 80%  
Urban – 100%
- Colorado River: to be determined



# Life Beyond a Weather Forecast: Sub-Seasonal to Seasonal (S2S) Precipitation Forecasting

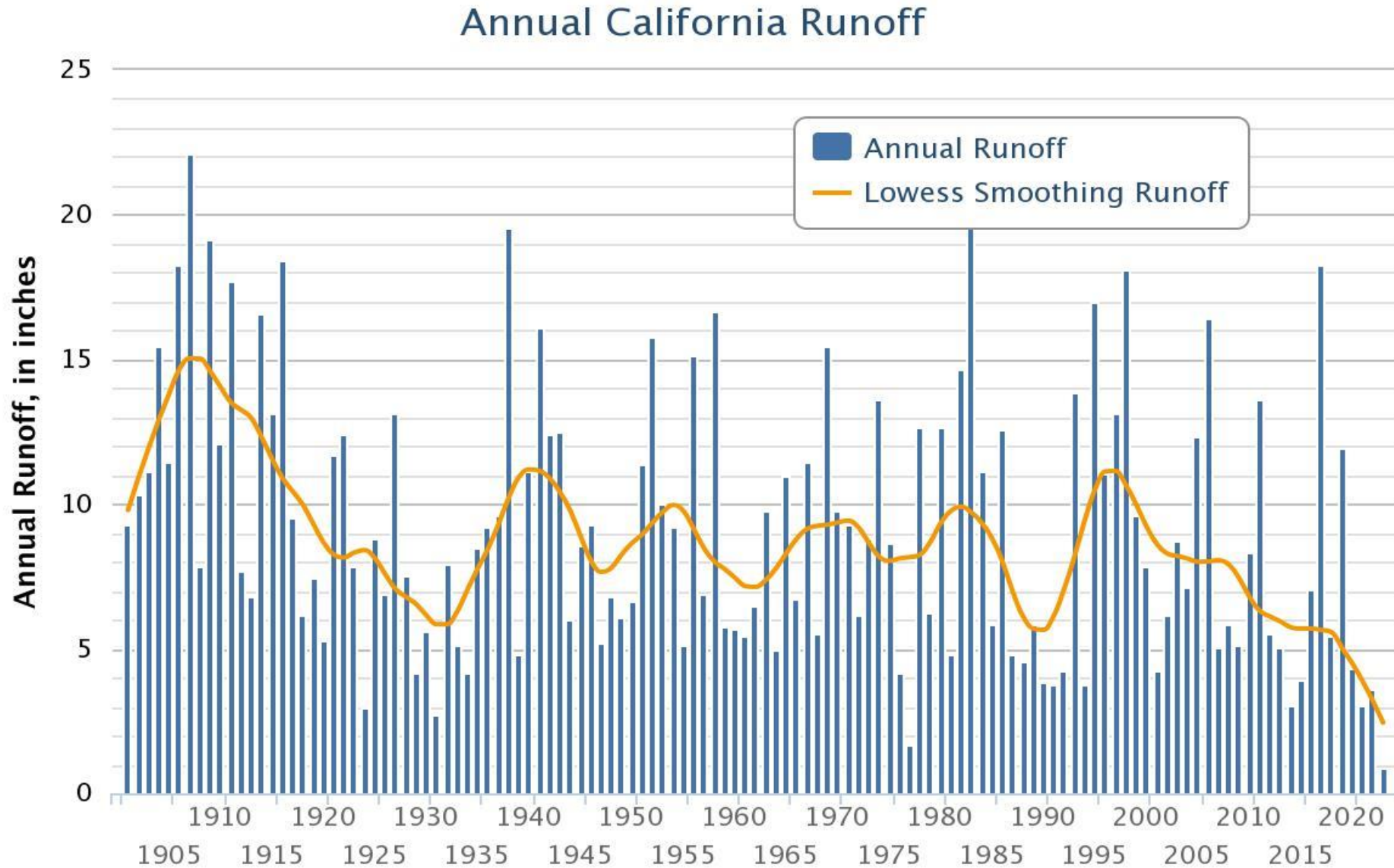
- Operational weather models – typically 2 weeks out (higher skill in first week)
- Sub-seasonal – 2 weeks to about 60 days
- Seasonal – up to 12-24 months
- Unfortunately S2S forecast aren't skillful

# Historical Skill of NOAA Seasonal Outlooks – Not Usable for Water Management



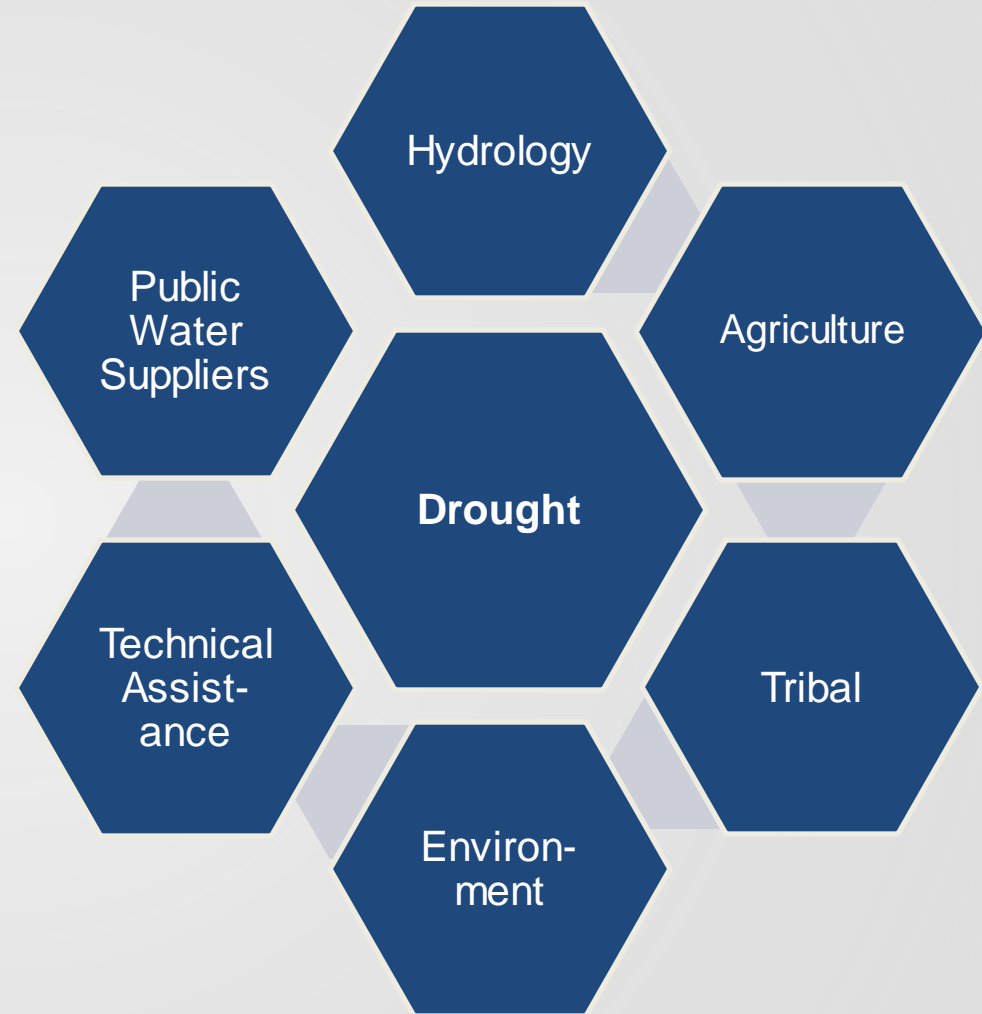
# USGS Calculated Statewide Runoff

## Will WY24 Be Déjà Vu All Over Again?





# Drought Perspectives Panel



# Drought Perspectives Prompts

- What does drought mean from your perspective?
- What challenges do you face and what solutions do you suggest?
- What actions/preparations are underway for the upcoming drier summer months?

# **Self Help Enterprises**

**Tami McVay**

Inequities

Responsibility

Fear

Action

Shame

Uncertainty

What does  
drought  
mean?

# Challenges

- Lack of Licensed Professional Well Drillers
- One Size DOES NOT FIT ALL
- Funding
- Systematic/Legislative Deficiencies
- Trust

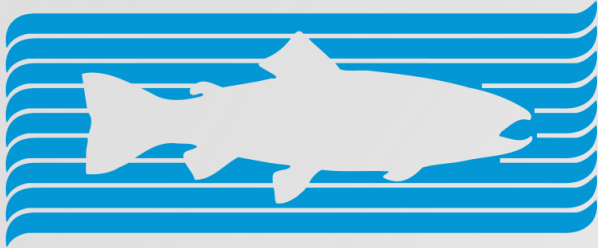
# Solutions

- One Size DOES NOT FIT ALL – Broaden language in programs to allow alternative solutions. (ex. hauling water outside GSA/county/city boundaries)
- Funding – Ongoing Annual Allocation in the State Budget for Drought Response. Remove disaster specific silos and consider “climate related disasters” which allows funds to provide a broader impact instead of saying “sorry wrong disaster”
- Systematic/Legislative Deficiencies – Major Reform
- Trust – Provide adequate funding for outreach and trust building in communities.

# Is Self-Help *Listo*?

- Fully Staffed Preparedness/Education team, Residential and Community Emergency Response Teams, Recovery Teams, Resiliency Team & Data Analyst Team
- Updated Software & Mapping Systems
- Strengthened Existing & Created New Partnerships
- Building Capacity Statewide
- Amazing Contractors & Vendors
- Organizational Dedication & Support

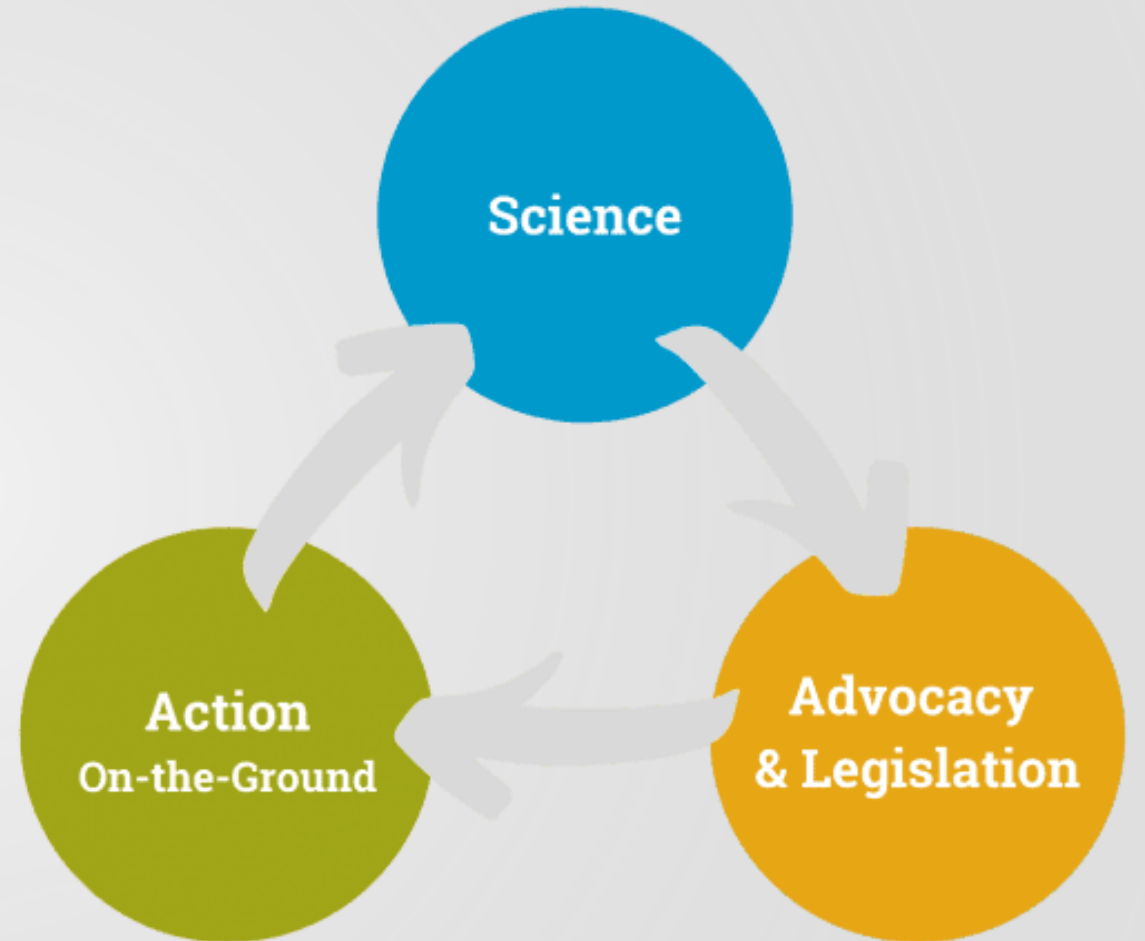
# CALIFORNIA TROUT



FISH · WATER · PEOPLE



**REGGIE COLLINS**  
LEGAL AND POLICY  
DIRECTOR  
CALIFORNIA TROUT





THE EVIDENCE FOR CHANGE

45% of native salmon, steelhead and trout species extinct in 50 years if present trends continue



FISH IN HOT WATER

and solutions for California salmon, steelhead and trout.

by Dr. Bob Lusvardi and Patrick Samuel commissioned by California Trout.

CALIFORNIA

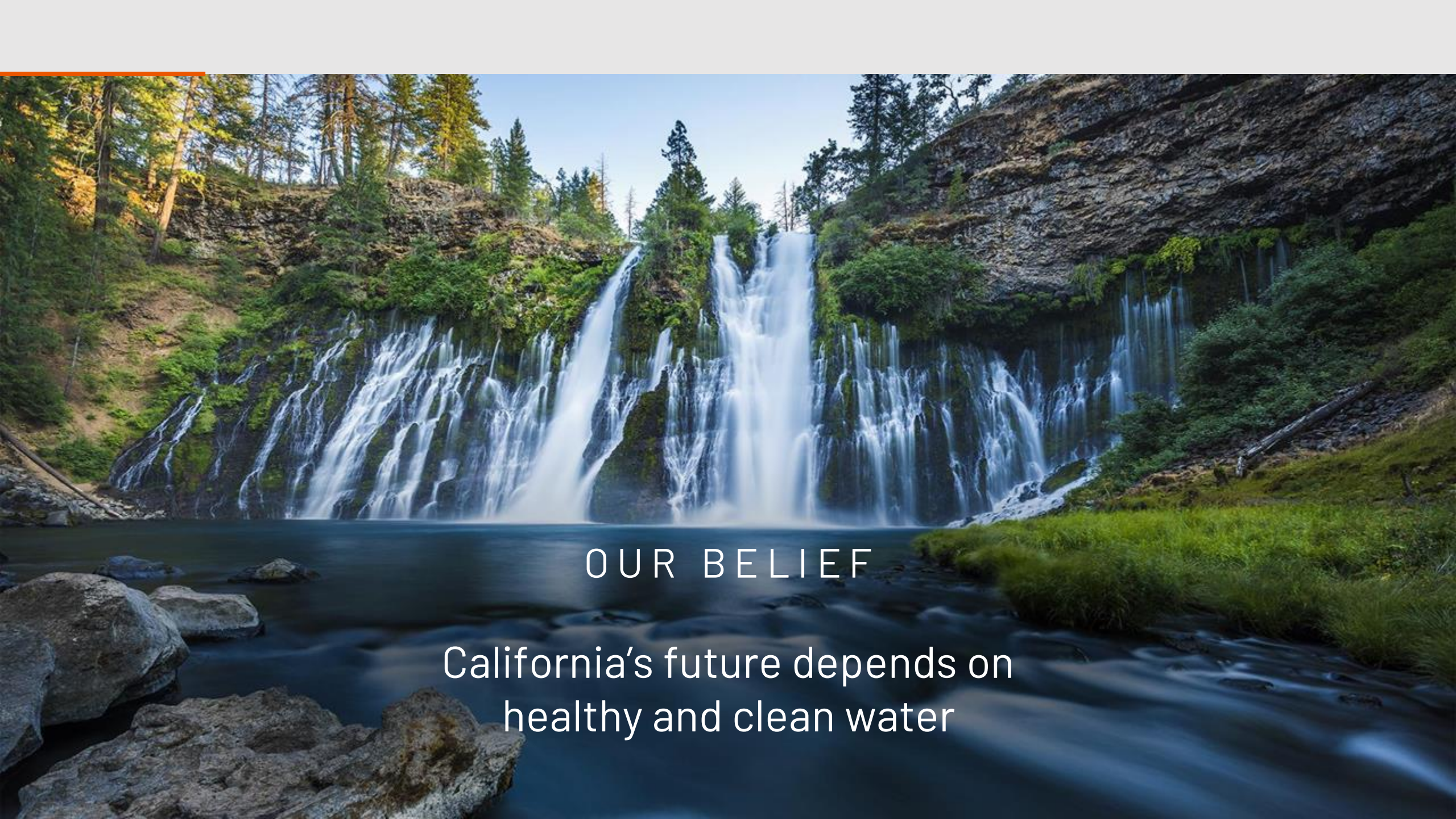


FISH AND WILDLIFE



UCR CENTER FOR WATERSHED SCIENCES





## OUR BELIEF

California's future depends on  
healthy and clean water





**Agricultural Council**  
of California

Drought Perspective Panel  
DRIP Collaborative Meeting #1  
*April 6, 2023*





## Snapshot: Drought in Sacramento Valley

### Three-year drought in Sac Valley:

- Rice -50%
- Fruit/trees -10%
- Vegetables/others -20%
- 14,300 jobs lost and over \$1.3 billion in economic value added lost in regional area
- Impacts to wildlife and local communities
  - 230 wildlife species rely on rice fields
  - Rural communities rely on successful, local ag economy



## Snapshot: Flooding in San Joaquin Valley

### Impacts of Tulare Lake Flooding

- Communities evacuated
- Crops under water
- Dairies evacuated
- No solid, comprehensive data yet:
  - Projected losses in permanent and annual crops
  - Feed prices likely to skyrocket for livestock producers
- Food processing plant(s) shut down
- Meetings being held now on how to plan for Spring run-off



## Common Themes

- Planning, planning, planning: key to managing climate crisis
- When drought or disaster comes in rural communities, impacts are broader than agriculture
  - Wildlife, local communities also impacted
- Improved timelines needed for disaster-related programs
- Modern technology could be utilized to improve data collection process
- Upgraded water infrastructure always imperative
- More to learn





**Agricultural Council**  
of California

Questions?

Emily Rooney, [emily@agcouncil.org](mailto:emily@agcouncil.org)

# CUWA agencies serve two-thirds of the state's population and are committed to providing reliable water supply.



**Retail Agencies:**

- Alameda County Water District (ACWD)
- East Bay Municipal Utility District (EBMUD)
- City of Fresno
- Los Angeles Department of Water and Power (LADWP)

**Retail/Wholesale Agencies:**

- Contra Costa Water District (CCWD)
- City of San Diego
- San Francisco Public Utilities Commission (SFPUC)

**Wholesale Agencies:**

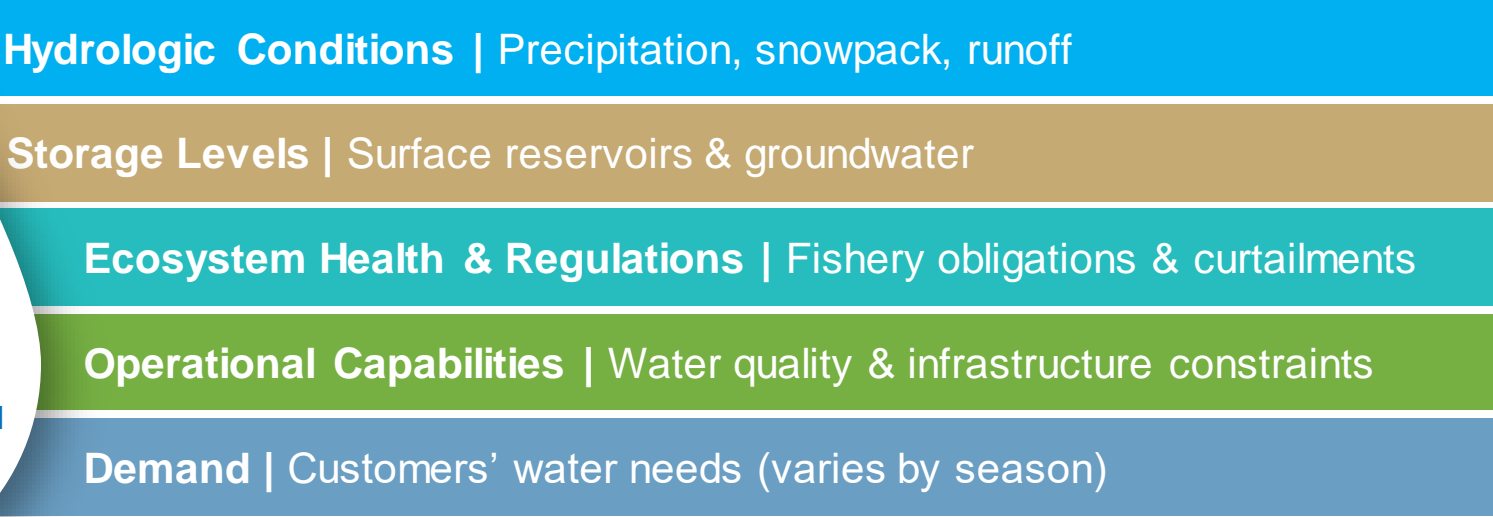
- Metropolitan Water District of Southern California (MWDSC)
- Santa Clara Valley Water District (Valley Water)
- San Diego County Water Authority (SDCWA)
- Zone 7 Water Agency (Zone 7)

Drought is a recurring feature of California's climate, and urban water suppliers have many tools to prepare and respond.

# While every water supplier must plan for drought, the path to resilience looks different for everyone.

Water shortage can be caused by many different factors, which vary across the state.

At any given time, shortage conditions (of varying levels) may exist for some agencies and not others, based on local and regional factors.



## Urban water suppliers have many tools to respond:

**Using Diverse Local Supplies**

**Water Transfers and Exchanges**

**Withdrawals from Storage**

**Shifts in Operations**

**Demand Reduction**

# Overcoming barriers to water supply reliability projects.



**Public  
Perception**



**Cost**



**Affordability**



**Regulations  
& Permitting**

***Collaboration is key for advancing drought resilience.***

# DRIP Member Q&A

# Break

## Public Comment Reminder

1. Fill out comment card in-person
2. Join online through Zoom
  - If you **do not** want to make a comment, please watch the livestream on YouTube

For more information: <https://bit.ly/DRIP-News>



# **DRIP Collaborative Visioning Discussion**

# Word Cloud



Large Investments

Floodplain Restoration

Local considerations

Scaling-up Drought Response

Resilient Systems and Back-up Plans

Streamlining Permitting

Trust-building IRWP  
Science and Data

Land Use, Land Management, Transition and Repurposing

Emergency Response

Collaborative Decision Making

Improving Statewide Water Infrastructure

Identifying Multi-Use Solutions

Improve Communications/Messaging

SGMA Collaborating on Common Goals

Groundwater Recharge

Small Systems

Best Practices Drought Rebranding

Consensus Building

Monitoring and Closing Knowledge/Data Gaps

Institutionalizing Drought Planning

Opportunities for Increased Collaboration

Climate Change

Rural Communities

Supporting Innovative Ideas

Grant Programs

# Visioning Discussion



**Think:** *(use your worksheet)*

- What drought actions have been successful?
- What are current or future drought challenges or barriers?



**Share:** *(write ideas on chart paper)*

- What opportunities exist that could or should be explored by this Collaborative?
- What does success look like for this DRIP Collaborative?



**Vote:** *(use your stickers)*

- What are our collaboration priorities?

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# Next Steps & Evaluations





California  
**DRIP Collaborative**

**Adjourn**

**Thank you!**

