



California DRIP Collaborative

Drought Resilience Interagency & Partners (DRIP) Collaborative Meeting

Friday October 17, 2025
California Natural Resources Agency
715 P Street, Sacramento, CA
Room 02-221 A/B/C (Second Floor)

Meeting Information

1. This meeting is being live streamed and recorded.
2. Members of the public are welcome to listen. Public comments will be taken throughout the meeting.
3. Please practice electronics courtesy and turn off or mute your cell phones.
4. All viewpoints are welcome; we look forward to engaging, innovative, thoughtful, and respectful discussions!

Paul Gosselin, CA Department of Water Resources – Deputy Director of Sustainable Water Management

WELCOMING REMARKS

Meeting Objectives

- Objective #1:** Provide opportunities for collective learning about efforts to advance drought and water shortage resiliency.
- Objective #2:** Further the development of proposed 2025 recommendations and DRIP Collaborative inform and complement opportunities.
- Objective #3:** Discuss how the DRIP Collaborative can best respond if dry conditions exist into 2026.

Meeting Agenda

1. Welcome Remarks and Setting Intentions
2. Orientation to the Work of the Drip Collaborative, Progress to Date, and Considerations for 2026
3. Setting the Stage - Hydrology Report and Drought Outlook
4. Accomplishments Related to the DRIP Collaborative 2024 Recommendations
5. 2024 Communication Recommendation Development
6. Water Infrastructure and Planning Focus Area
7. LUNCH (12:45PM -1:45PM)
8. Reducing Ecosystem Impacts of Drought Focus Area
9. Land Use Planning for Drought Resiliency Focus Area/
[Including a Short Break]
10. Closing Out the Year and Looking Ahead to 2026
11. Public Comment
12. Closing Comments

DRIP Collaborative (Quorum is 14)

1. **Alvar Escriva-Bou**, University of California, Davis
2. **Anna Schiller**, Environmental Defense Fund
3. **Caitlin Loventhal**, California State Association of Counties
4. **Carolina Hernandez**, Los Angeles County Public Works
5. **Emily Rooney**, Agricultural Council of California
6. **Jason Colombini**, Jay Colombini Ranch, Inc.
7. **Joshua Cahill**, Yurok Tribe
8. **Karen Mogus (for Joaquin Esquivel)**, State Water Resources Control Board
9. **Laura Ramos**, California Water Institute at Fresno State
10. **Lorena Muñoz**, Community Water Center
11. **Maria Gallegos Herrera**, Rural Community Assistance Corporation (RCAC)
12. **Natalie Kuffel**, Governor's Office of Land use and Climate Innovation
13. **Redgie Collins**, California Trout Inc.

14. **Paul Gosselin**, California Department of Water Resources
15. **Sierra Ryan**, Santa Cruz County
16. **Tami McVay**, Self Help Enterprises
17. **Tiffany Tran (for Katie Ruby)**, California Urban Water Agencies (CUWA)
18. **Tim Worley**, California Association of Mutual Water Companies
19. **Virginia Jameson**, California Department of Food and Agriculture

Additional Members:

20. **[Vacant]**, Buena Vista Ranchera of the Me-Wuk Indians
21. **Anna Naimark**, California Environmental Protection Agency
22. **Brent Hastey**, Plumas Lake Self Storage, Owner
23. **Emiko Burchill**, California Department of Fish and Wildlife
24. **Nate Ortiz (for Christina Curry)**, California Office of Emergency Services
25. **Samantha Arthur**, California Natural Resources Agency
26. **Suzanne Pecci**, Domestic Well Advisory Group, South American Subbasin



DRIP Collaborative Purpose: Facilitate proactive state planning and coordination, both for predrought planning and mitigation, emergency response, and post-drought management, and to develop strategies to enhance collaboration between various fields, for all types of water users. (Water Code §10609.80., subd. (b))

Glen Low, The Earth Genome

ORIENTATION TO THE WORK OF THE DRIP COLLABORATIVE, PROGRESS TO DATE, AND CONSIDERATIONS FOR 2026



California
DRIP Collaborative

July 2025 DRIP Collaborative meeting

In July we discussed DRIP roles (pathways) of inform, complement, and lead. We applied that to ideas from three focus areas: Reducing Ecosystem Impacts, Land Use Planning, Water Infrastructure and Planning

Updated process for 2025	
2024	2025
We solely focused on "ideas" that became recommendations.	
We are sorting "ideas" into inform, complement and lead. We'll use DRIP Collaborative time to discuss all three <u>pathways</u>	
Focus Area	Recommendation
DROUGHT RELEVANT DATA	1. Drought Indicators and Metrics 2. Rapid Inventory of Drought-Related Tools and Resources
DROUGHT PREPAREDNESS FOR DOMESTIC WELLS	3. Empowering County Drought Resilience Planning for DW* and SWS** 4. Voluntary Community-Based Well Monitoring Program 5. Roles and Responsibilities
DEFINITION & NARRATIVE	6. Drought Definitions and Case Studies

California DRIP Collaborative

+



2025 DRIP Collaborative Ideas

Ecosystem	IDEA Eco1. In-stream Flow Requirements: Prioritization and Incentives Redgie Collins
	IDEA Eco2. Streamlining Grant and Contract Processes for Habitat Restoration Redgie Collins and Samantha Arthur
	IDEA Land1. Elevate regional approaches to proactively and inclusively plan for ag land transitions Anna Schiller
Land Use	IDEA Land2. Housing-Water Supply Nexus: Planning for housing needs and water supply Natalie Kuffel and Sierra Ryan
	COM Land3. Integrated Water Planning: Assess how plans interact and offer recommendations Natalie Kuffel and Sierra Ryan
Water Infrastructure	IDEA Infra1. Enhance Support and Collaboration for Vulnerable and Small Water Systems Infrastructure Needs Carolina Hernandez
	IDEA Infra2. Improve System and Regulatory Flexibility for Water Infrastructure Resilience Katie Ruby and Laura Ramos
	IDEA Infra3. Establish Groundwater Recharge Infrastructure Program for Local Drought Resilience Emily Rooney

California DRIP Collaborative Note: All ideas above are not yet sorted into ICL, except for the complement idea COM Land3



Discussion led to initial sorting of each idea into I, C or L.

That informed workgroup discussions in Aug/Sept.

2025 DRIP Collaborative Timeline



**Note: The timeline for each focus area/workgroup will vary. Voting for 2025 recommendations may extend into 2026.*

Key Themes from 2023, 2024, and 2025

2023

(Year 1)

"Puzzle pieces. **DRIP Collaborative is the forum to put those puzzle pieces together.** A collaborative forum to find the connections and synergies." – State Agency

"We need to find the right pace for this work, so we're not in a panic (like in 2014) or complacent. We need to institutionalize drought planning. **Dedicated, not sporadic.**" – State Agency

Challenge: **Focus.** 100+ suggestions of items to work on together. Should DRIP work on regulatory changes?

2024

(Year 2)

"Feeling very proud of what we've done. **Consensus is no small feat on CA water issues**" – Non-State

"Approving these recommendations is a **testament to the process working.**" – Non-State

Challenge: **Implementation.** Should DRIP do implementation? How do we take approved recs and ensure progress?

2025

(Year 3)

"Lot of work already underway on a complicated topic. **Is there a deliverable that would be valuable and to whom?**" – Non-State

"With possible drought, is DRIP good at **balancing response (near-term) with resilience (long-term)?**" – State Agency

Challenge: **Complexity.** Need lot of base knowledge, expertise and time to find best DRIP role (Inform, Complement or Lead)

Creative tension: DRIP value add role, appropriate scope, available resources.
"High Impact, Efficient Effort"

Year 4: Impact on Urgent Items

Year 1
Foundation Building
Shared process, initial ideation (needs, solutions), engagement

2023

Year 2
Building Muscle
Content work, focused on early wins and demonstrating success

2024

Year 3
Scaling Impacts
High impact, more difficult work.
System change (as needed)

2025

Year 4
Moving to Action
Work to address issues with near term impacts

2026



Cycle of Drought Management

- Risk Assessment
- Risk Reduction
- Improve coping capacity
- Improve emergency and shortage plans
- Build staff + resources (capacity)

Mitigation, Preparation & Capacity

Forecasting & Monitoring

- Ongoing forecasting and monitoring
 - Surface water
 - Groundwater
- Improve science
 - Precipitation, water supply and climate changes

- Impact assessments
- Replenish water supplies
- Evaluation of response & future needs
- Assistance to suppliers and locals
- Funds to boundary organizations to distribute assistance

Recovery

Response

- Implement emergency response procedures
- Communication, call for assistance, etc.

Cycle: Implications for 2026

Prepare & Resilience Building



Crisis Management

- **Response and Recovery:** Ensure urgent and important items get proactive attention, if dry/drought conditions persist in 2026. We need to be strategic and opportunistic (flexible).
- **Revisit recommendation process:** Outside of the recommendation process we used in 2024 and 2025, add a flexible process that allows State and Non-State members to quickly raise and address topics that need DRIP involvement
- **Implication for 2026:** Assume we will spend LESS time on formal recommendations (we may not have sufficient time to craft and review recommendations).

MORE time on positive impacts on urgent items.

**Possibly more a Complement role?
(Input/guidance on critical topics.)**

Jeanine Jones, Interstate Resources Manager, Executive Branch, DWR

Fethi BenJemaa and Ryan Bailey, Water Use Efficiency Branch, DWR

SETTING THE STAGE – HYDROLOGY REPORT/SUMMARY OF ANNUAL WATER SUPPLY AND DEMAND ASSESSMENTS



Hydrologic Conditions & Outlook

Jeanine Jones, California Department of Water Resources

Outline

- Beginning the new water year
- Outlooks
- Southern California

Precipitation Statistics (period of record: 1981-current)

**Statewide as of
09/27/2025**

Water Year to Date:
22.67"

% of Average: **96%**

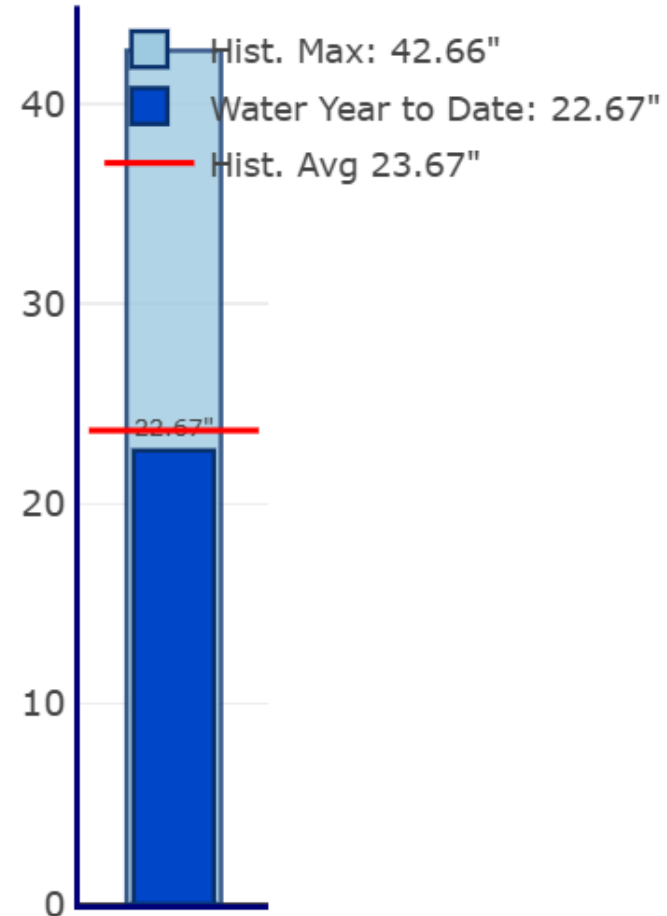
Precipitation % of
average for full water
year through
September 30th: **96%**

**Historical Record to
Date:**

Max: **42.66"**

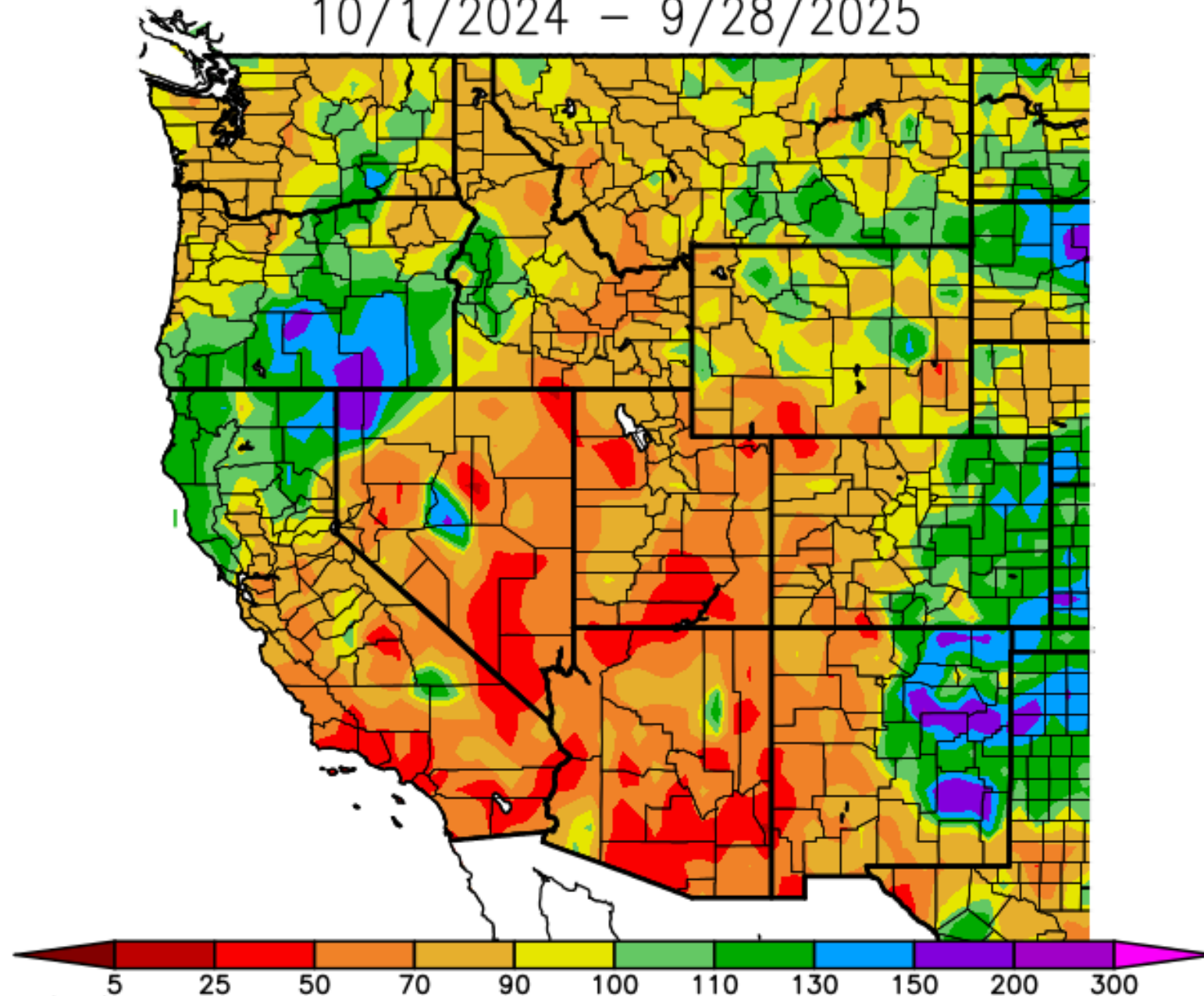
Mean: **23.67"**

Min: **11.8"**



Precipitation for water year to date
96% of historical average

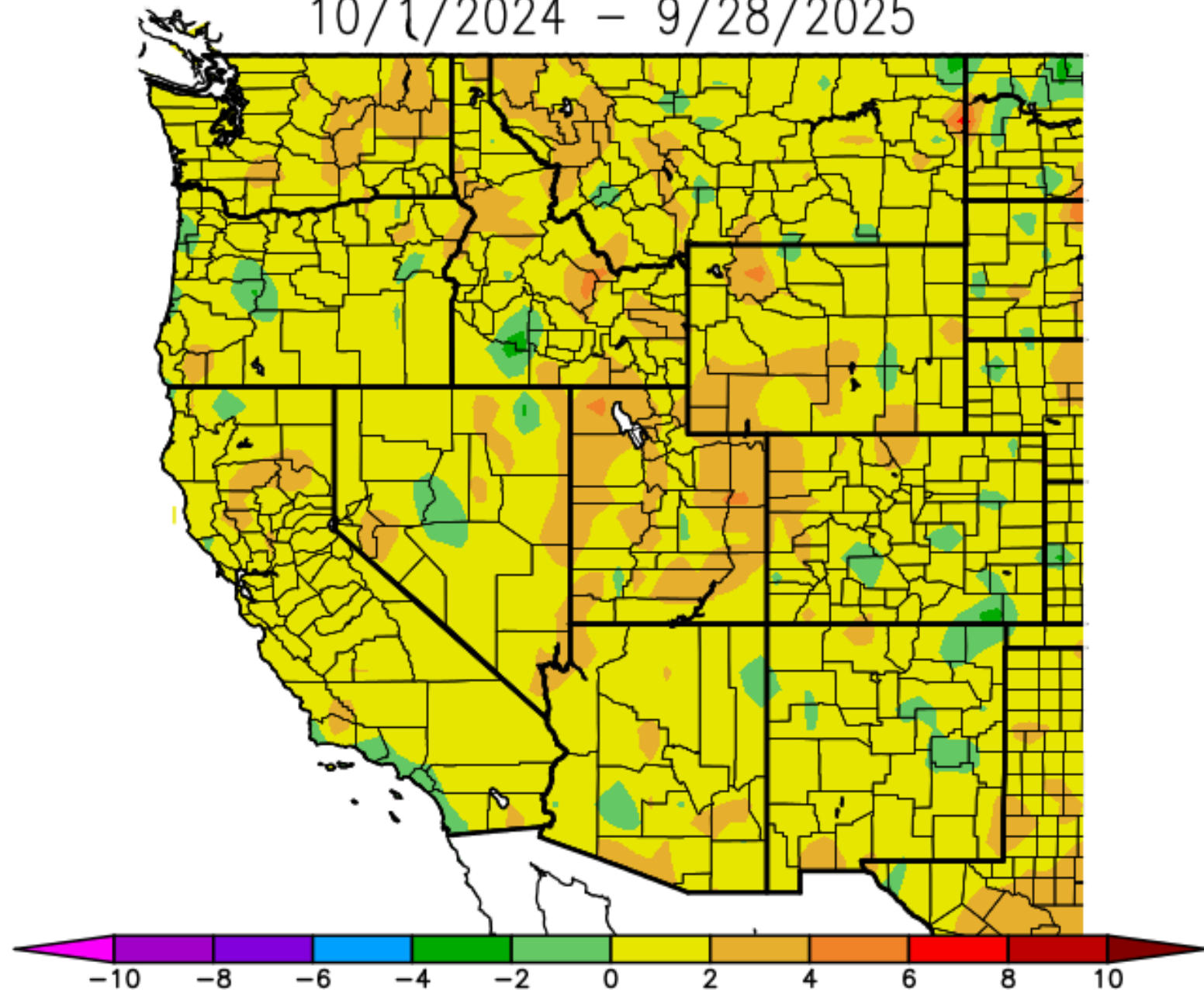
Percent of Average Precipitation (%) 10/1/2024 – 9/28/2025



Generated 9/29/2025 at WRCC using provisional data.

NOAA Regional Climate Centers

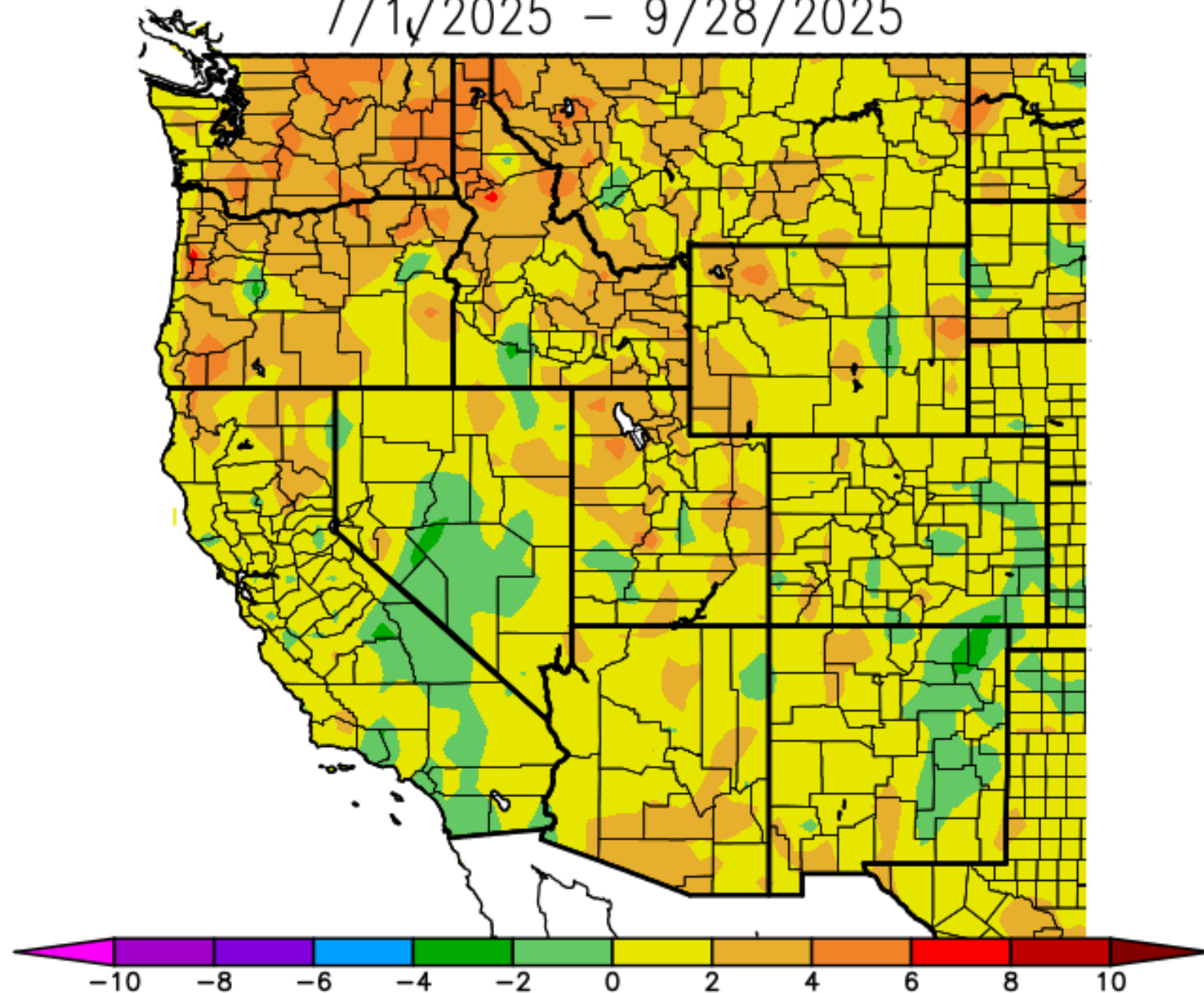
Ave. Temperature dep from Ave (deg F)
10/1/2024 – 9/28/2025



Generated 9/29/2025 at WRCC using provisional data.

NOAA Regional Climate Center

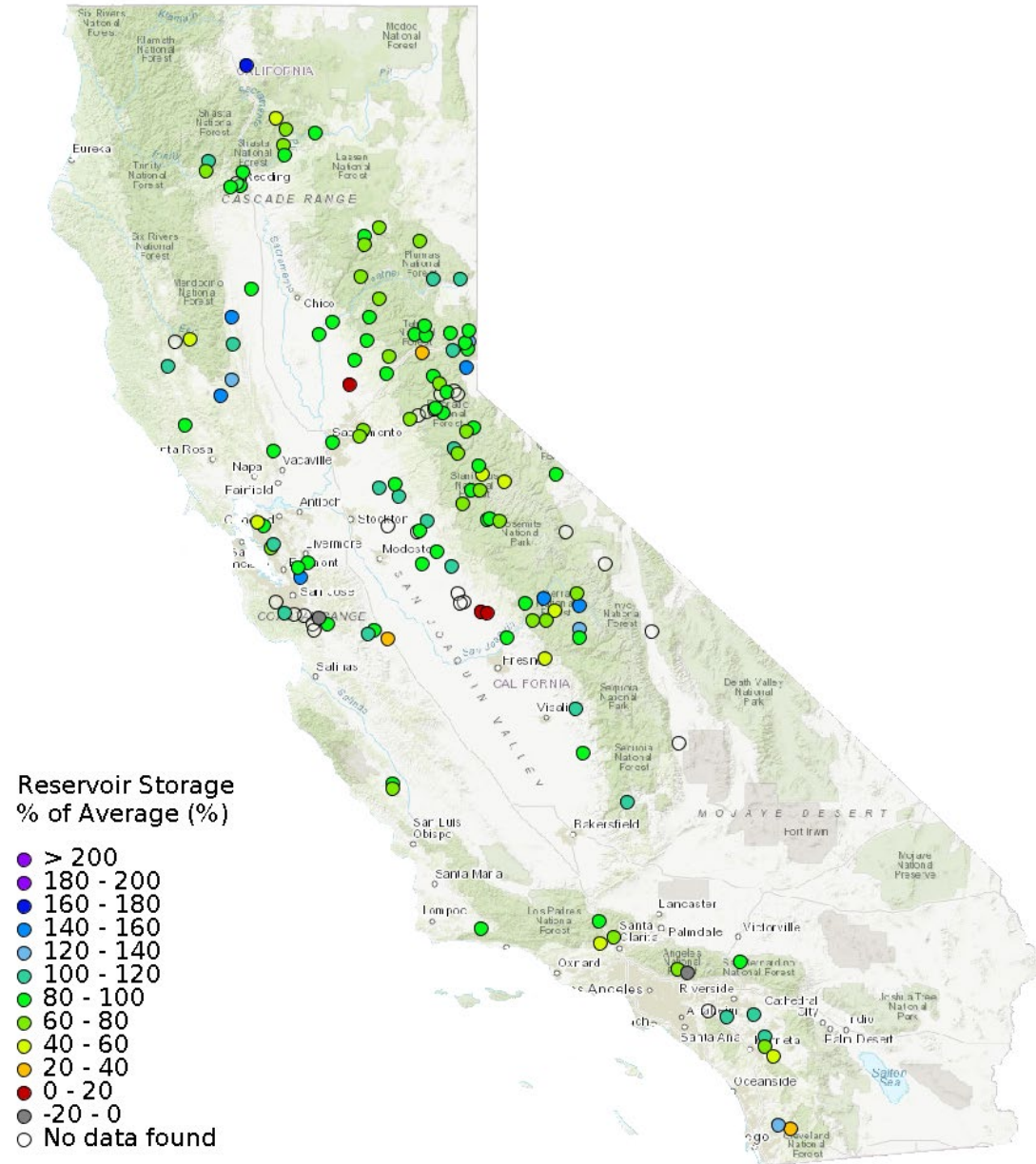
Ave. Temperature dep from Ave (deg F)
7/1/2025 – 9/28/2025

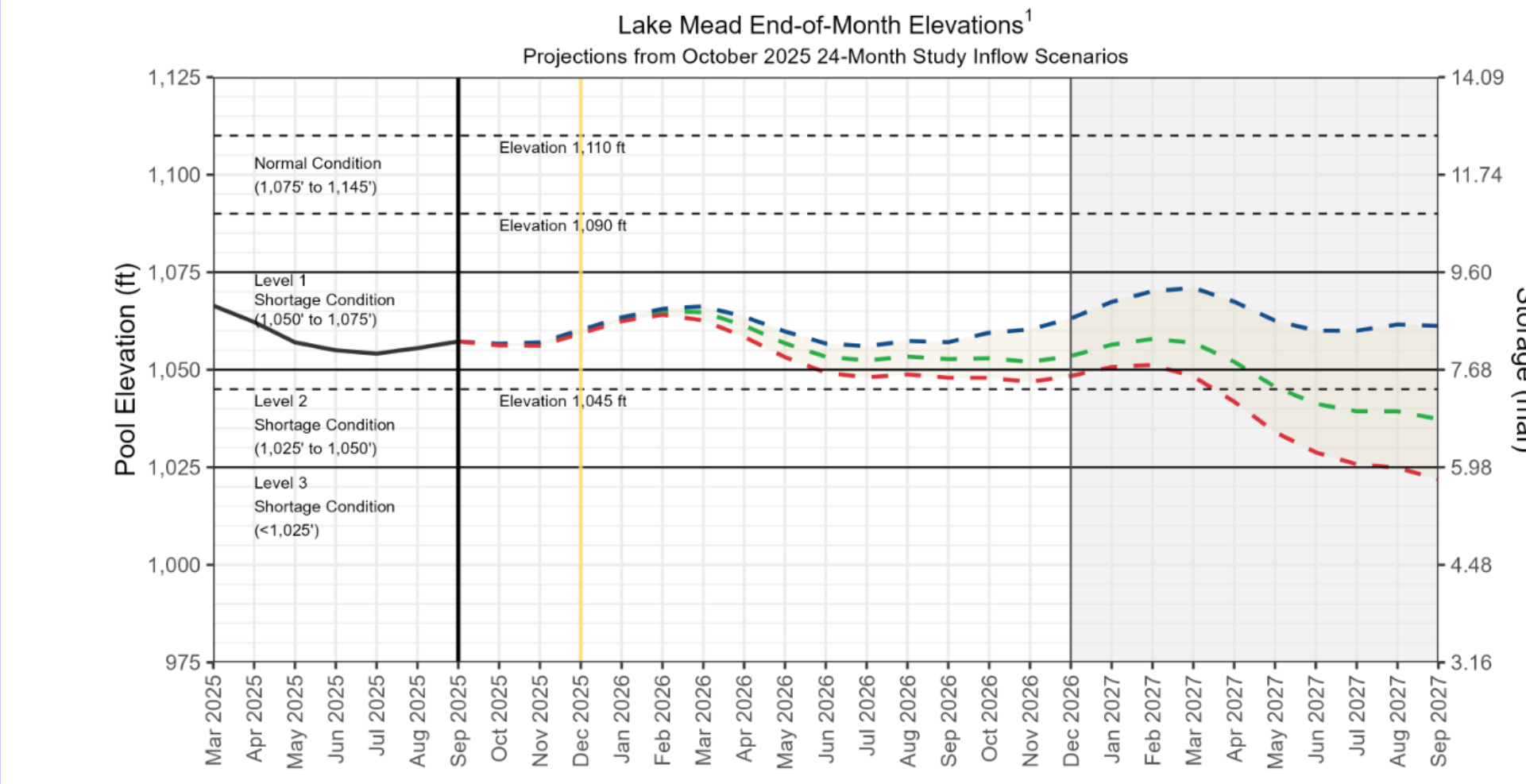


Generated 9/29/2025 at WRCC using provisional data.

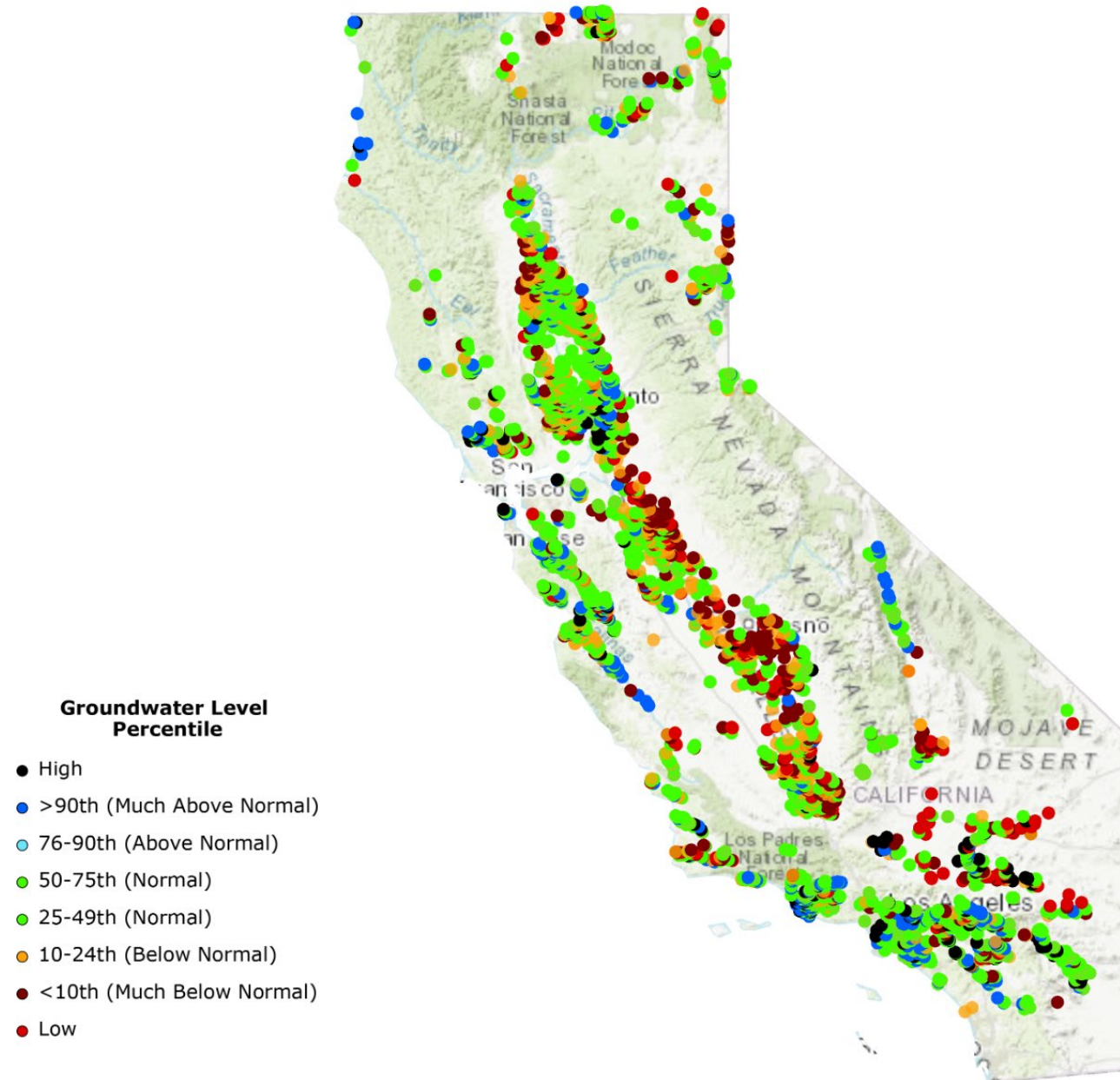
NOAA Regional Climate Center

Reservoir Storage % of Average - 09/28/2025

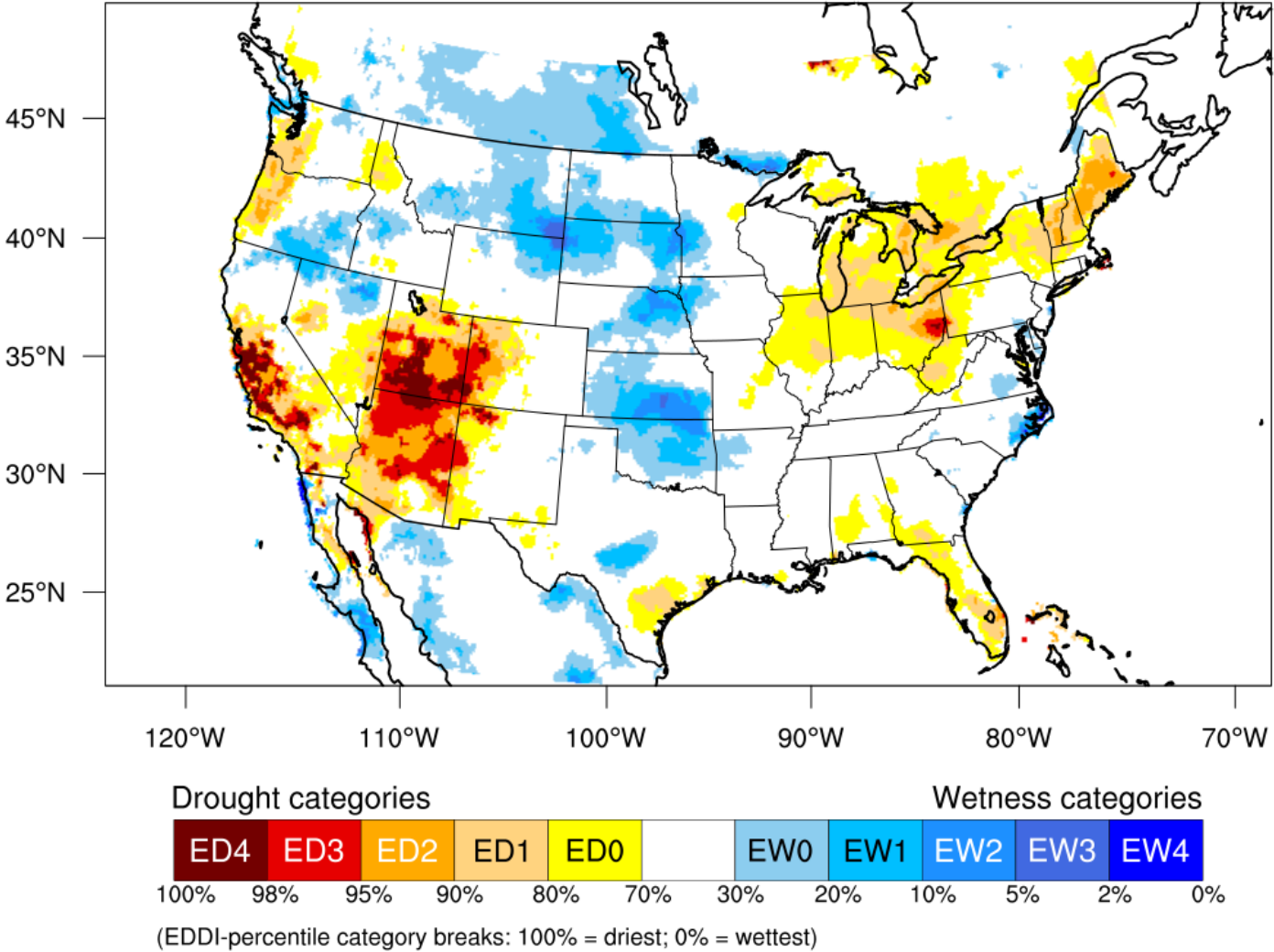




Groundwater Level Percentile - 09/28/2025



12-week EDDI categories for September 24, 2025

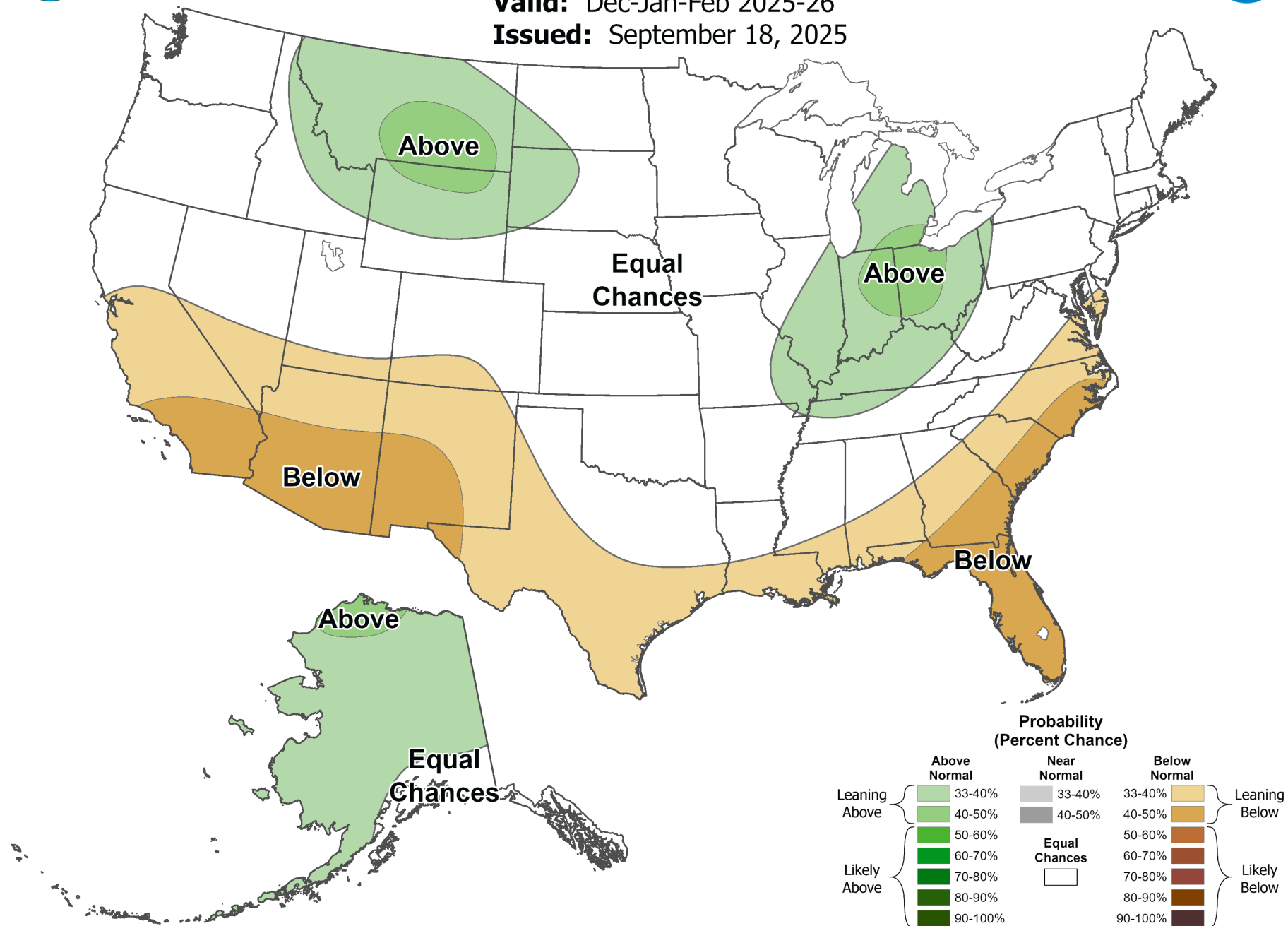


This Winter – Wet or Dry??

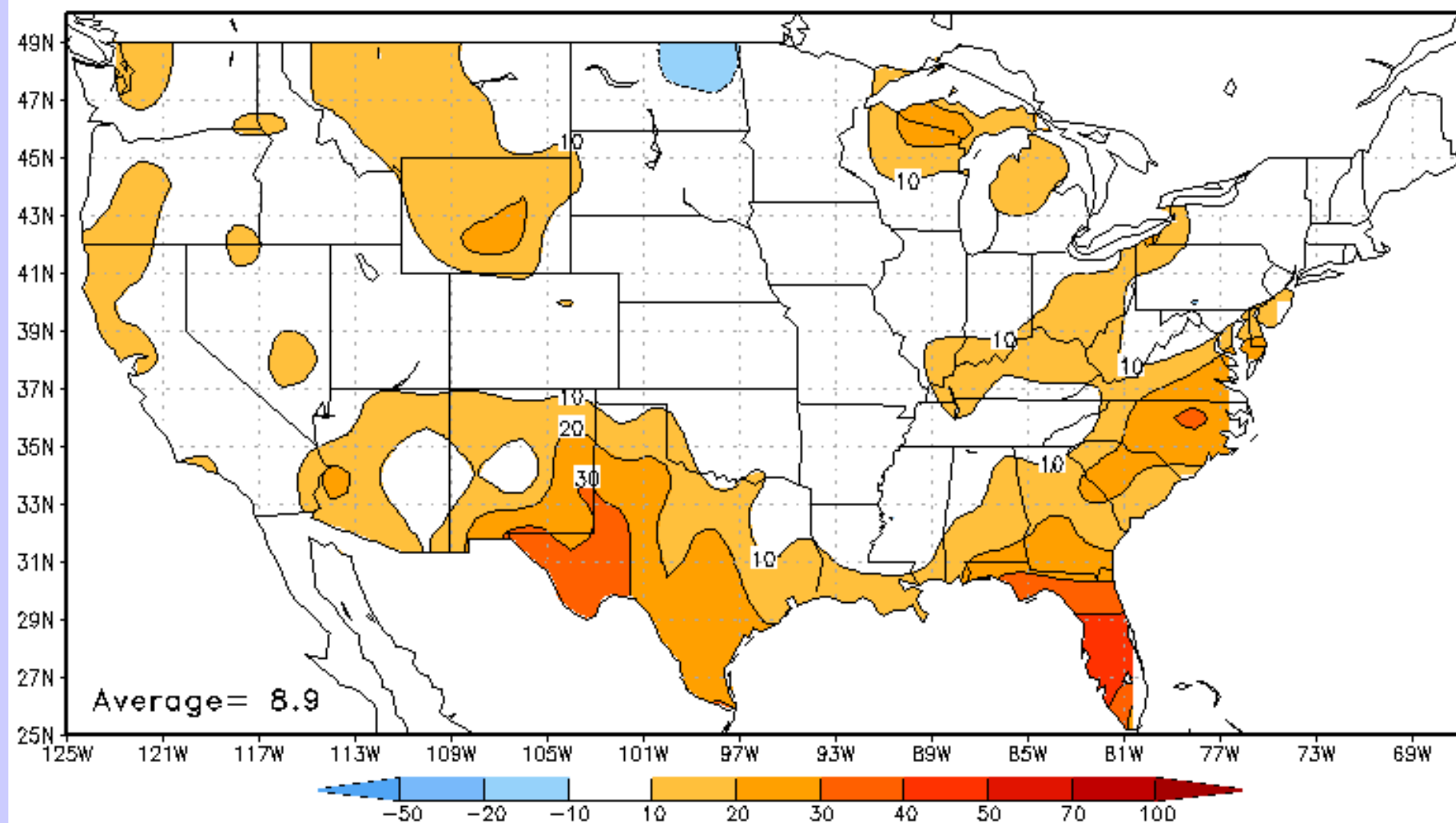




Issued: September 18, 2025



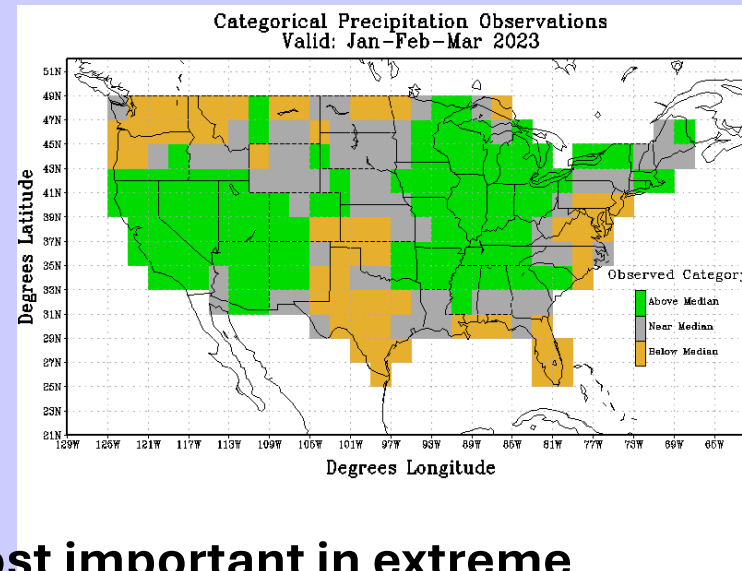
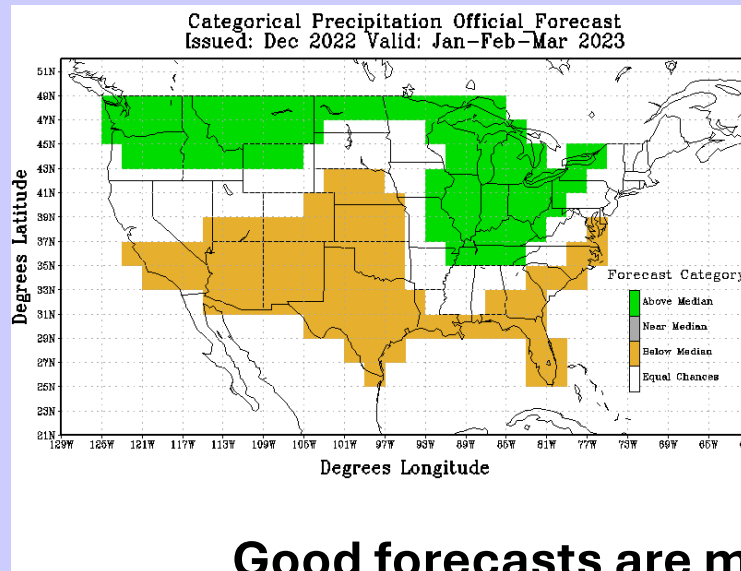
Seasonal (Lead 0.5 Months) Precipitation Heidke Skill Score DJF Manual Forecasts From 1995 to 2024



Big Misses in Important Water Years

WY 2023

(Weather whiplash, from extreme drought to flood)

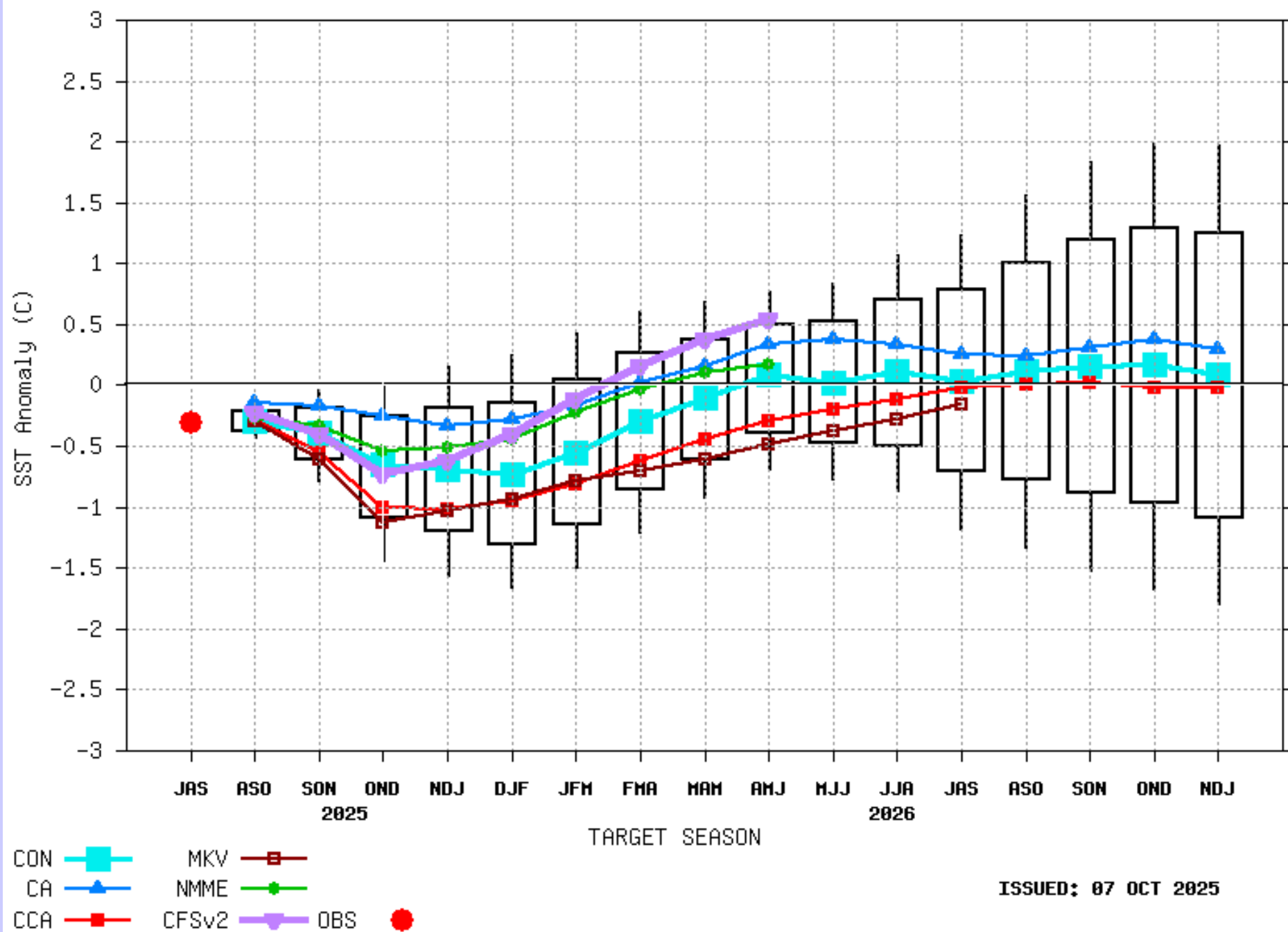


Good forecasts are most important in extreme years



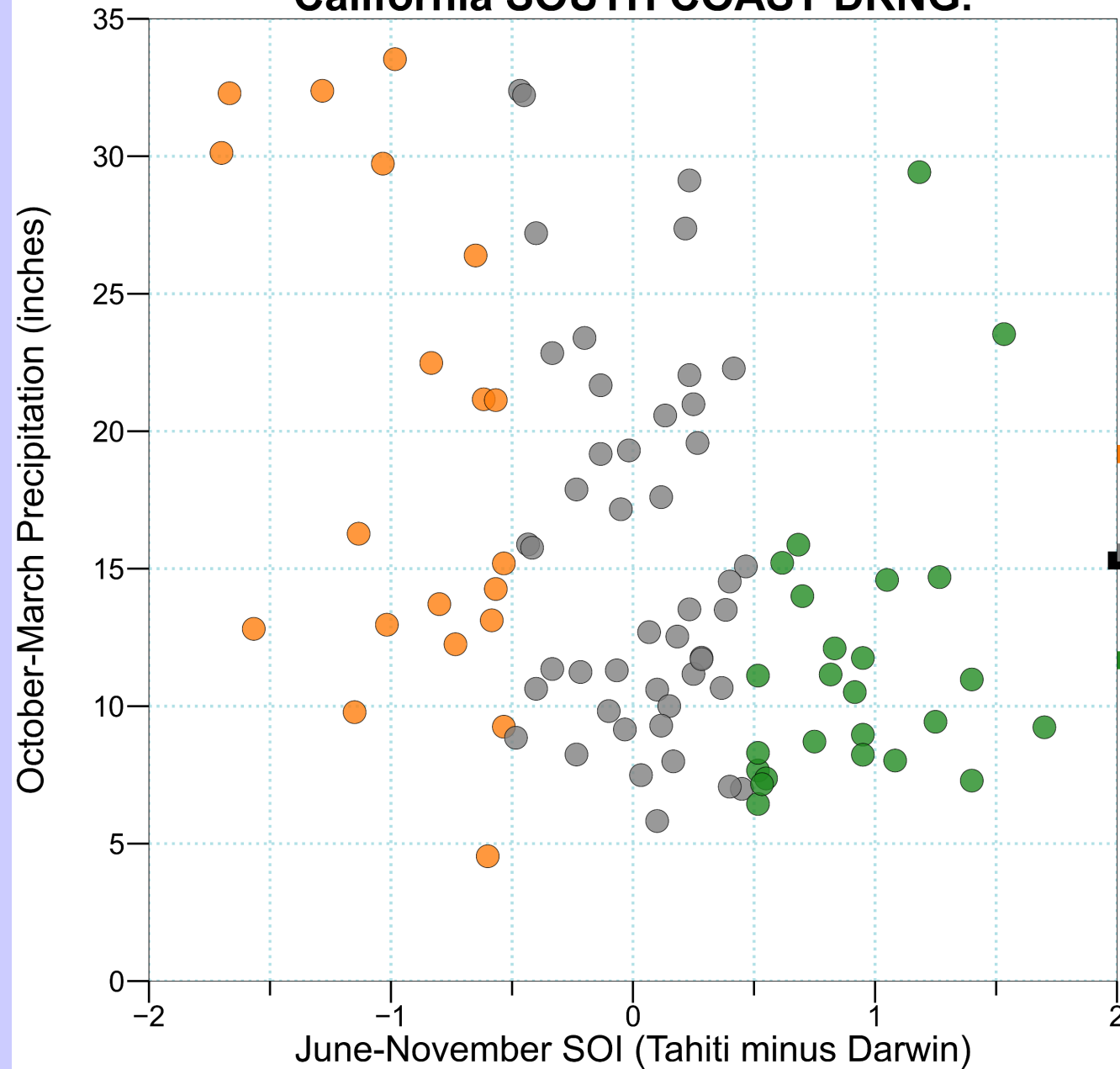
ENSO

SST CONSOLIDATION NINO 3.4



ISSUED: 07 OCT 2025

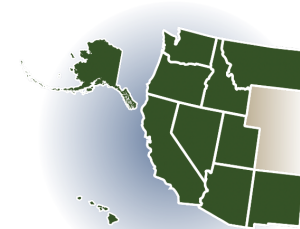
California SOUTH COAST DRNG.



Years:
1933/1934 - 2023/2024

$r^2 = 0.16$
Correlation = -0.40

- Mean El Niño = 19.17
- Mean Neutral = 15.59
- Mean All = 15.30
- Mean La Niña = 11.67

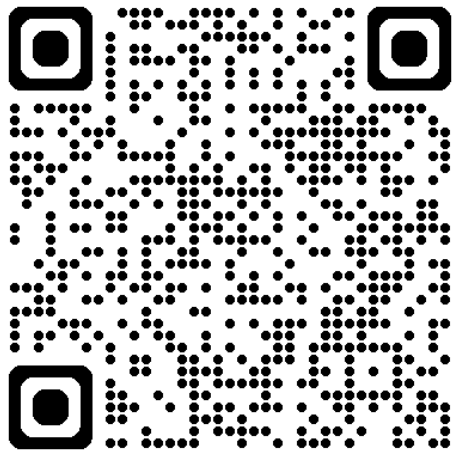


**WESTERN
REGIONAL
CLIMATE CENTER**

S2S Forecasting



Improving Subseasonal to Seasonal Precipitation Forecasting For Water Management



S2Sforecasting.org

Southern California Focus: Colorado River

- Existing Interim Guidelines for Lakes Mead & Powell operations expire in 2025, but still determine CY 2026 operations
- Negotiations for new guidelines occurring, would be implemented via USBR NEPA process
- Most recently, consultation per Section 6(E) of the 2024 SEIS ROD triggered by USBR modeled 2026 elevation of Lake Powell

DWR's 2025 Annual Supply & Demand Assessment

- Required by statute
- Covers 446 urban water suppliers required to prepare UWMPs
- With a 100% compliance rate, 426 suppliers reported no expected shortages if the next year is dry. 20 suppliers projected some level of shortage that can be handled by their UWMPs' water shortage contingency plans

Table A-2. Urban Water Suppliers Anticipating Shortage that can be Fully Addressed by Implementing Actions

Urban Water Supplier's Name	Anticipated Annual Supply Shortage Before Actions (%)	Anticipated Annual Supply Surplus After Actions (%)
Alameda County Water District	-13%	3%
Arvin Community Service District	-10%	3%
Bakersfield City of	-10%	0%
Cambria Community Service District	-1%	8%
Covina City of	-10%	28%
El Centro City of	-10%	0%
Glendale City of	-1%	29%
Hanford City of	-6%	3%
Lake Arrowhead Community Services District	-6%	3%
Los Angeles City Department of Water and Power	-15%	0%
Metropolitan Water District of Southern California	-18%	0%
Morgan Hill City of	-14%	6%
Mountain House Community Services District	-1%	0%
Patterson City of	-9%	1%
Redlands City of	-4%	6%
San Gabriel Valley Municipal Water District	-23%	8%
Santa Fe Irrigation District	-12%	0%
Stanislaus Regional Water Authority	-8%	19%
Susanville City of	-4%	148%
West Basin Municipal Water District	-9%	0%

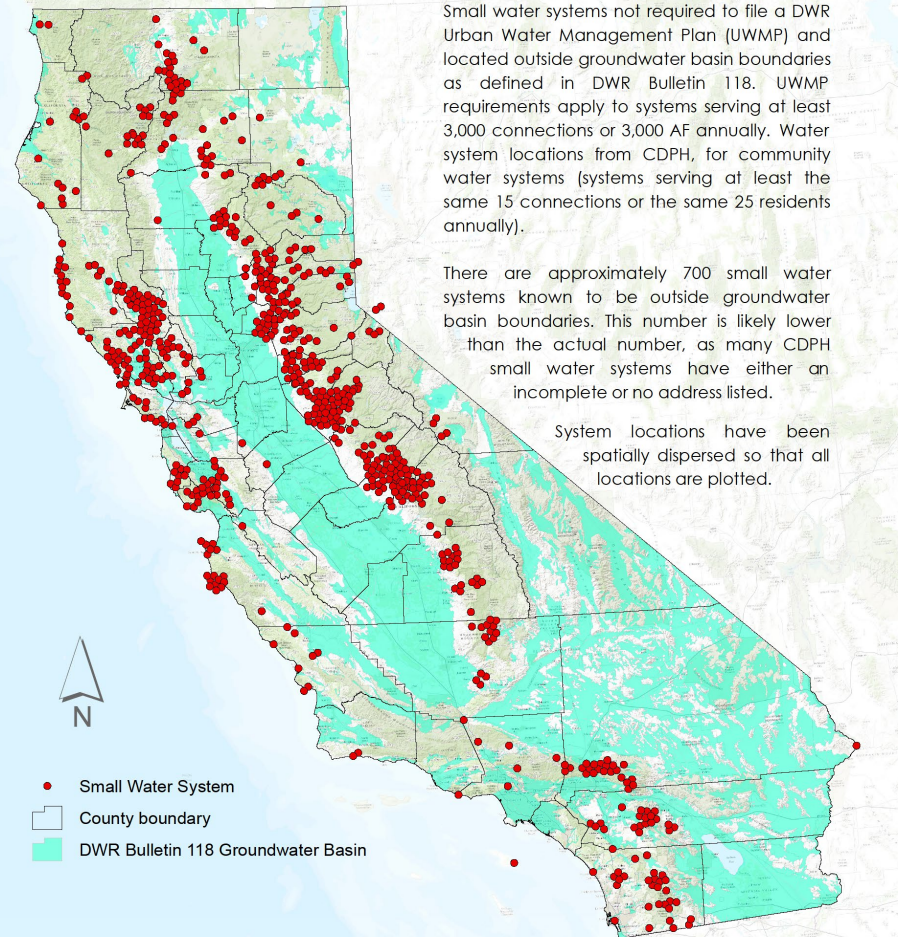
2025 Water Supply/Demand Balance: Regional View



Note: Data as of October 02, 2025.

Small Water Systems Outside Groundwater Basins

As of February 21, 2014



1:1,542,907

Coordinate System: NAD 1983 UTM Zone 10N
Projection: Transverse Mercator

Produced by Division of Statewide Integrated Water Management, Data Management, Publication and Exchange Section
Document Path: K:\Statewide Data Management\Drought\CDPH\SmallWaterSystems20140507.mxd



Advice For The Coming Water Year

**Always Be Prepared For Either
Wet Or Dry Extremes**

CALIFORNIA DEPARTMENT OF WATER RESOURCES

2025 Annual Water Supply and Demand Assessments and Reporting



DRIP Collaborative Meeting
Friday, October 17, 2025

Annual Water Supply and Demand Assessment Water Code Requirements

CWC §10632.1

*An urban water supplier shall **conduct an annual water supply and demand assessment** pursuant to subdivision (a) of Section 10632 and, **on or before July 1** of each year, **submit an annual water shortage assessment report** to the department with information for anticipated shortage, triggered shortage response actions, compliance and enforcement actions, and communication actions **consistent with the supplier's water shortage contingency plan**. An urban water supplier that relies on imported water from the State Water Project or the Bureau of Reclamation shall submit its annual water supply and demand assessment **within 14 days of receiving its final allocations, or by July 1** of each year, whichever is later.*



Water Code Requirements

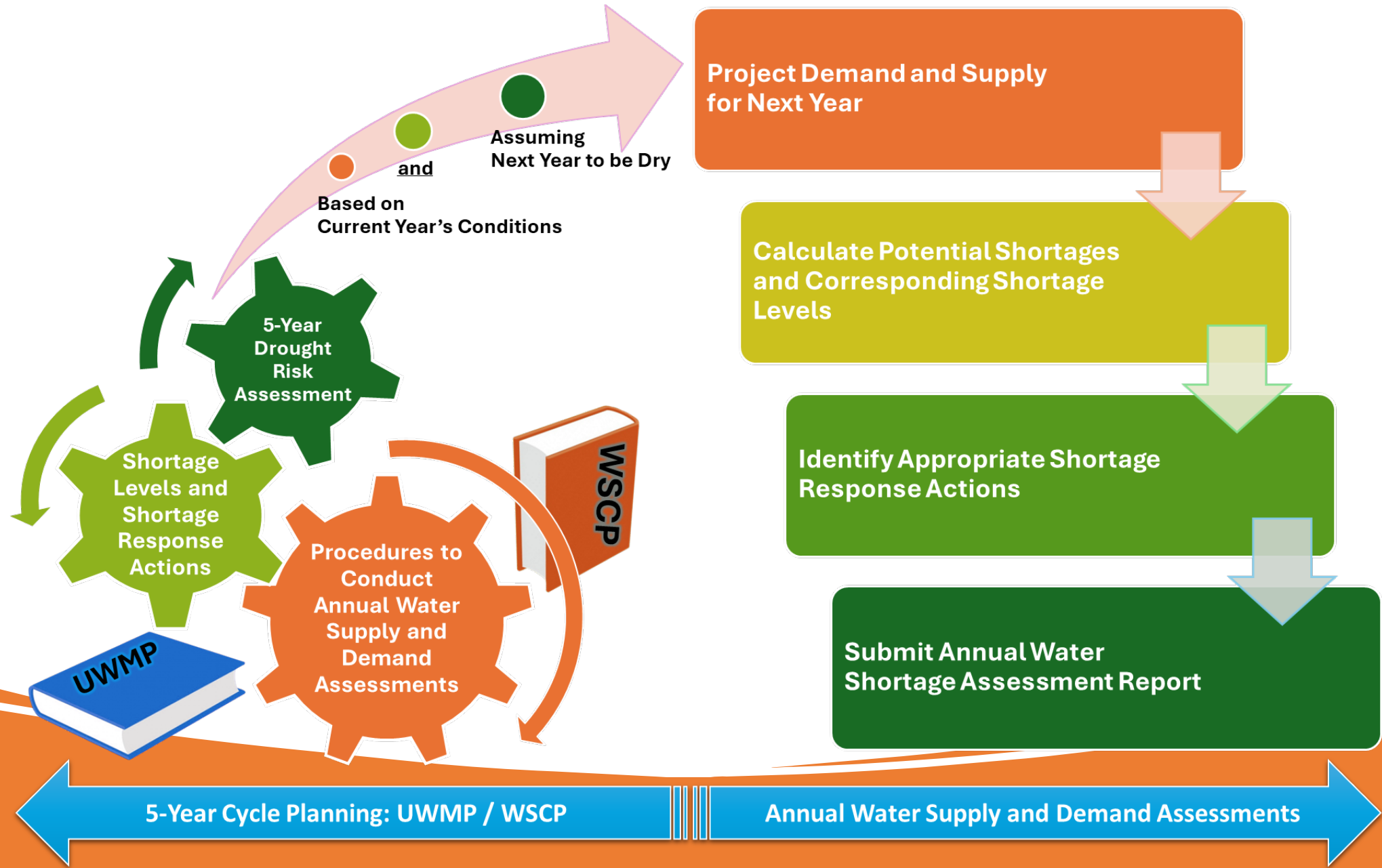
CWC §10632 (a)(2)

*(B) The **key data inputs** and assessment methodology used to evaluate the urban water supplier's water supply reliability for the current year and one dry year, including all of the following:*

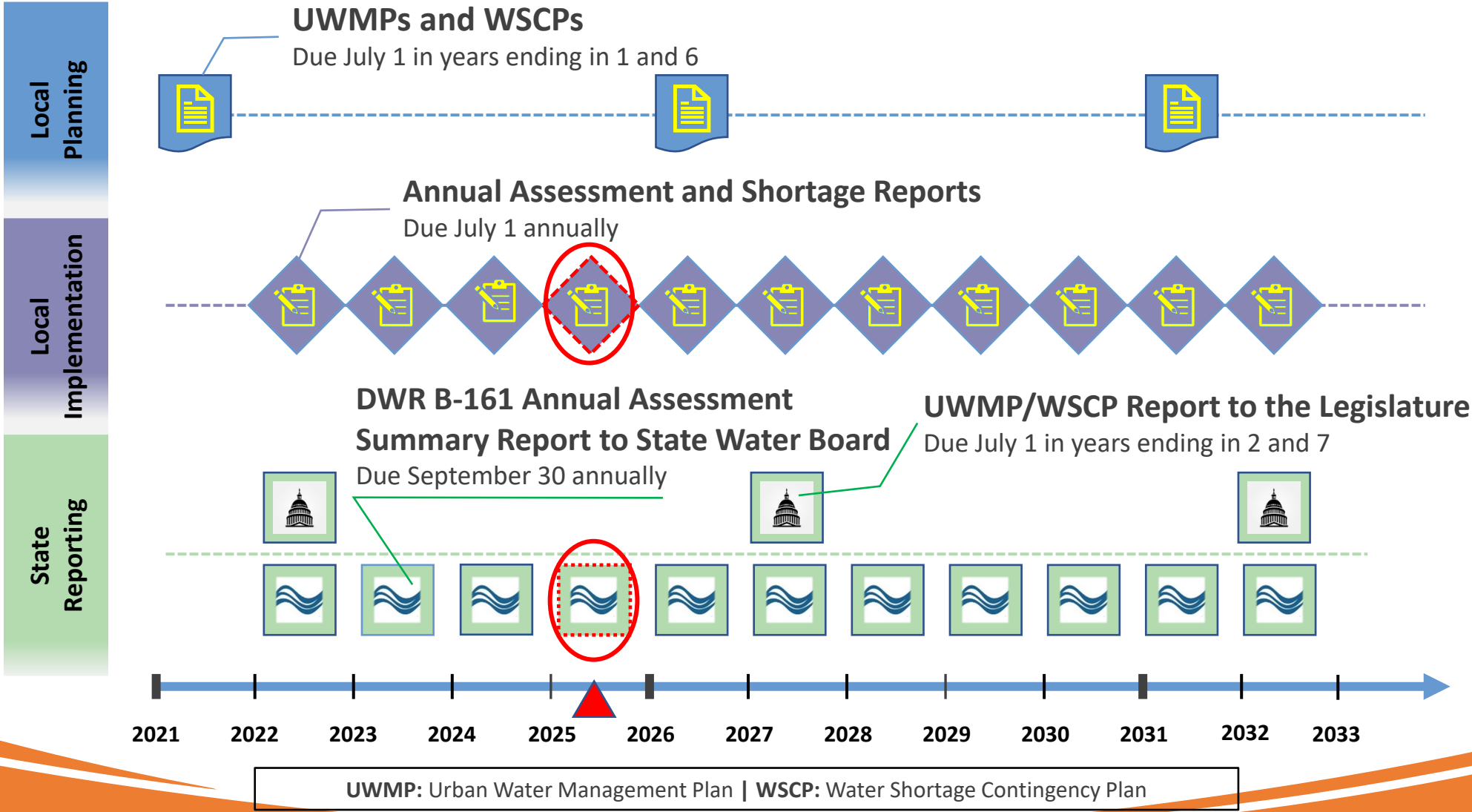
- (i) **Current year unconstrained demand**, considering weather, growth, and other influencing factors, such as policies to manage current supplies to meet demand objectives in future years, as applicable.*
- (ii) **Current year available supply**, considering hydrological and regulatory conditions in the current year and one dry year. The annual supply and demand assessment may consider more than one dry year solely at the discretion of the urban water supplier.*
- (iii) **Existing infrastructure capabilities and plausible constraints.***
- (iv) A defined set of **locally applicable evaluation criteria** that are consistently relied upon for each annual water supply and demand assessment.*
- (v) **A description and quantification of each source of water supply.***



AWSDA: A Proactive Stress Test to Prepare to Implement the WSCP



Water Shortage Contingency Planning and Implementation Timeline



Annual Water Shortage Assessment Reports

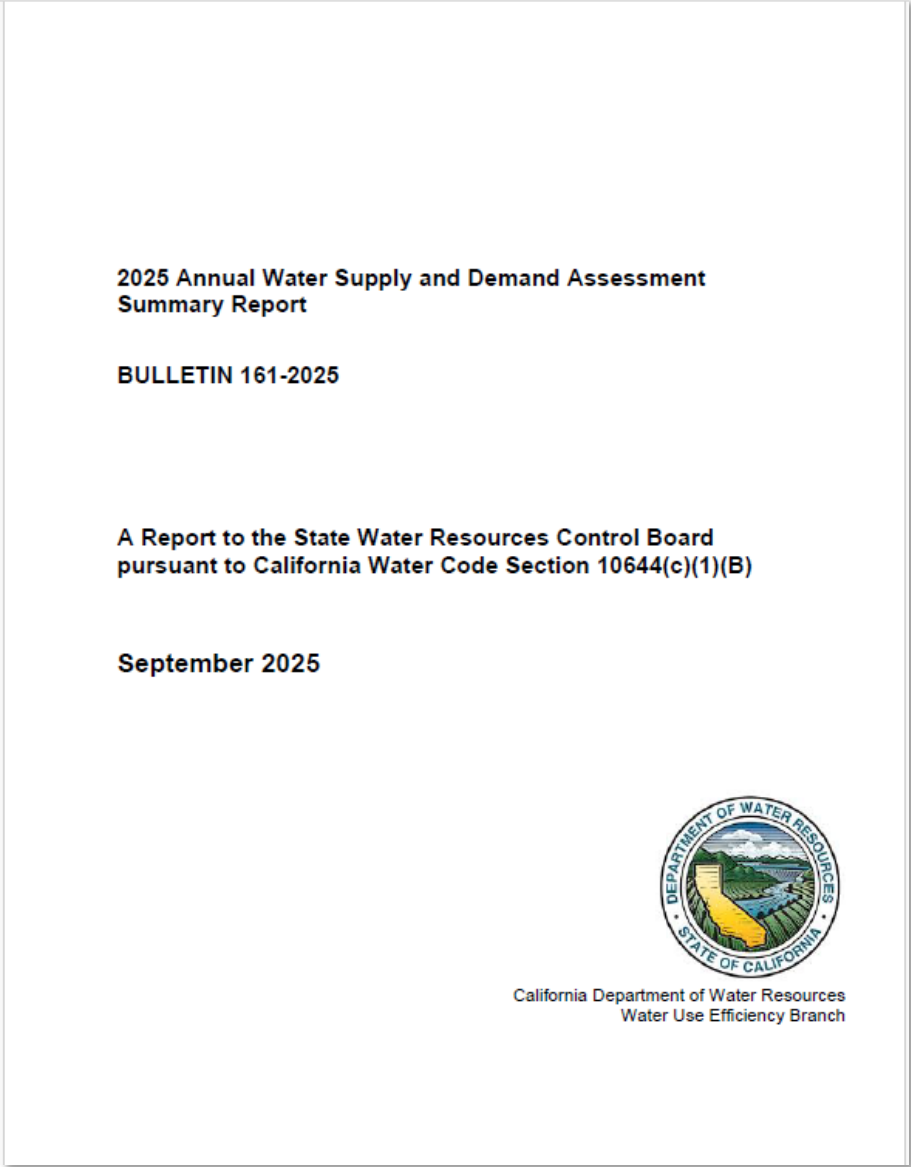
Identify suppliers' planned actions to response to anticipated water shortages

Inform state on potential supply shortfalls and impacted suppliers in the next 12 months



2025 Annual Shortage Reports Summary

DWR Bulletin 161



BULLETIN 161-2025

ANNUAL WATER SUPPLY AND DEMAND ASSESSMENT SUMMARY REPORT

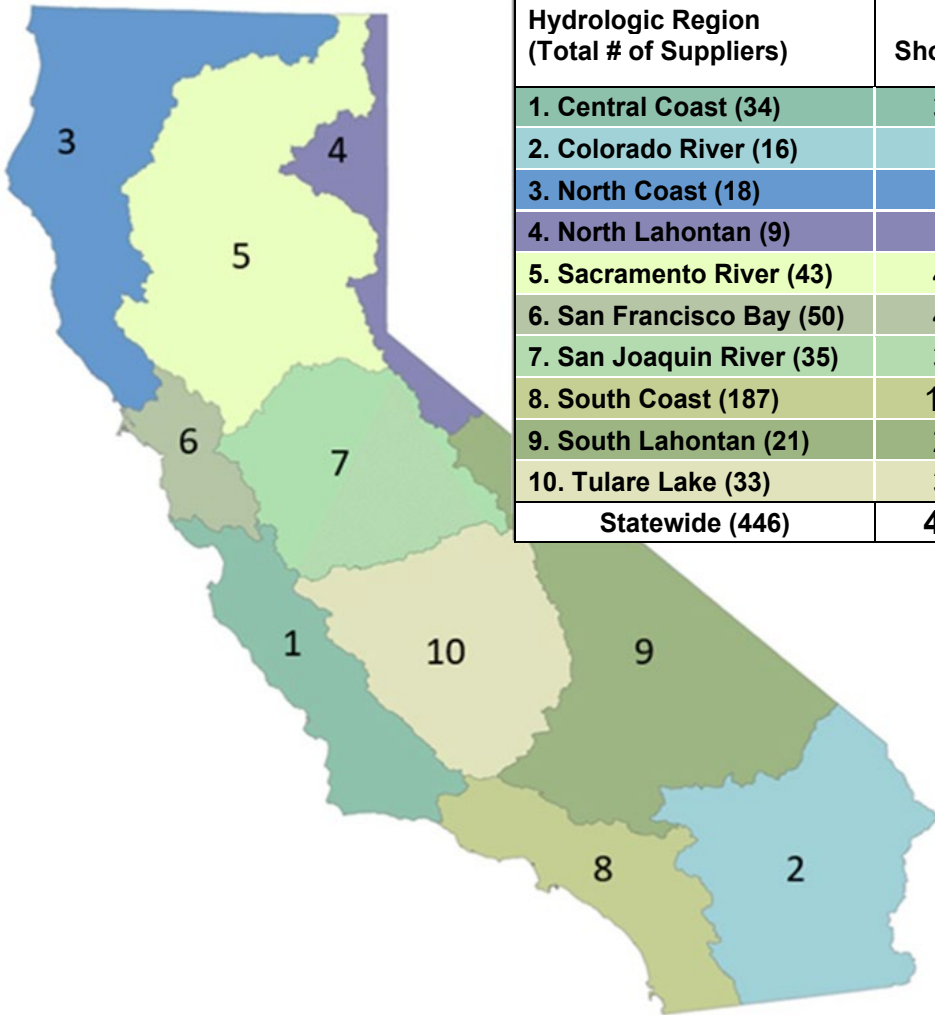
Reporting Compliance

Total Number of Urban Water Suppliers	446
- Suppliers that Submitted Reports	446
- Suppliers that Did Not Submit Reports	0
Compliance Percentage	100%
Voluntary Submittals by Small Water Suppliers	1
Total Number of Suppliers that Submitted Reports (Required + Voluntary)	447

2025 AWSDAs – Shortage Projections



BULLETIN 161-2025 ANNUAL WATER SUPPLY AND DEMAND ASSESSMENT SUMMARY REPORT



Hydrologic Region (Total # of Suppliers)	No Shortage	Shortage Fully Addressed by Actions	Shortage Not Fully Addressed by Actions	Did Not Report
1. Central Coast (34)	32	2	0	0
2. Colorado River (16)	15	1	0	0
3. North Coast (18)	18	0	0	0
4. North Lahontan (9)	8	1	0	0
5. Sacramento River (43)	43	0	0	0
6. San Francisco Bay (50)	49	1	0	0
7. San Joaquin River (35)	32	3	0	0
8. South Coast (187)	179	8	0	0
9. South Lahontan (21)	20	1	0	0
10. Tulare Lake (33)	30	3	0	0
Statewide (446)	426	20	0	0

Annual Shortage Projections

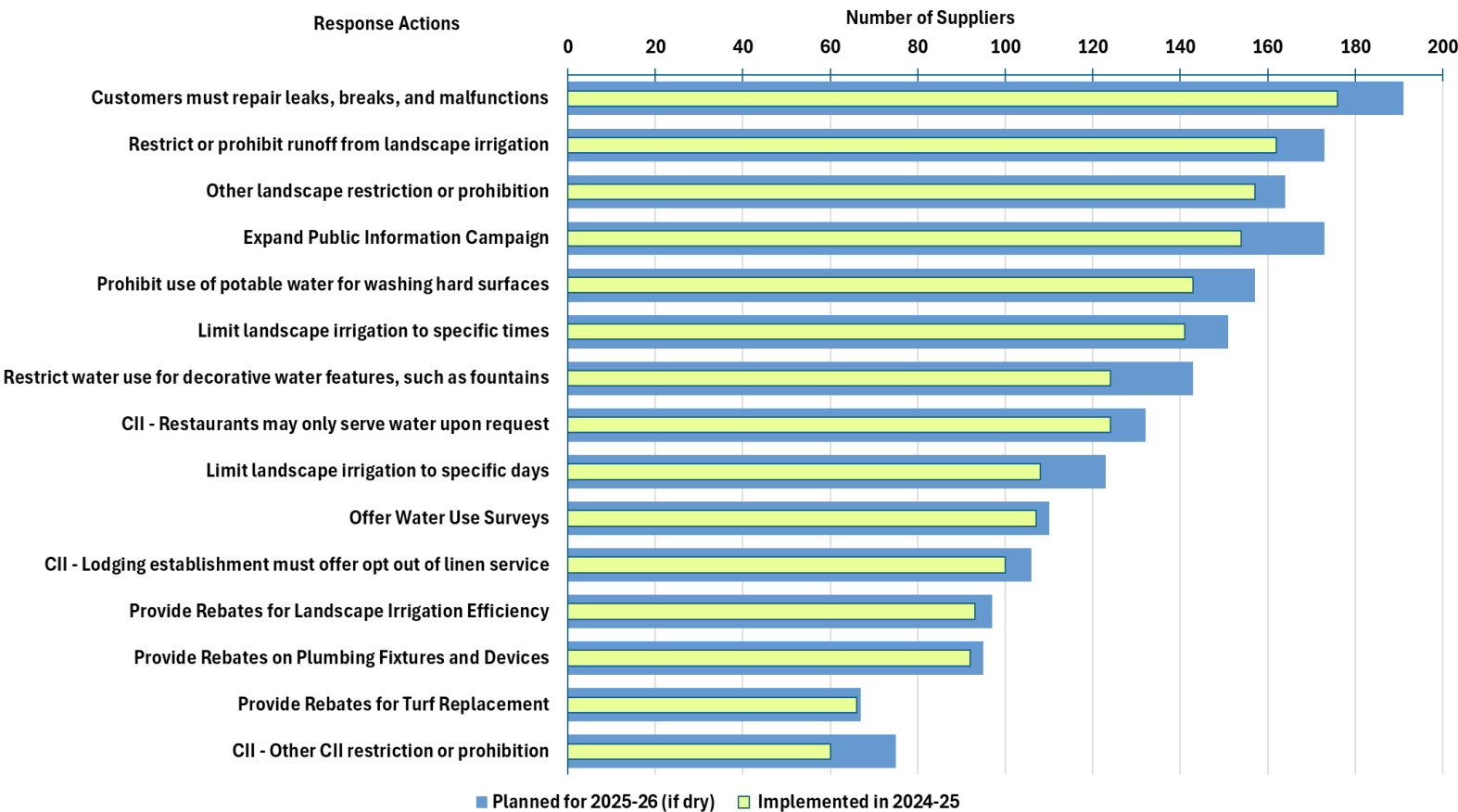
Reported Projected Shortage Status	Number of Suppliers	%
No shortage	426	95.5%
Shortage can be fully addressed by suppliers' actions	20	4.5%
Shortage is not fully addressed by suppliers' actions or additional actions may be needed	0	0%
Total number of urban suppliers who submitted shortage assessment reports	446	100%

2025 AWSDAs – Suppliers Planned Actions



BULLETIN 161-2025
ANNUAL WATER SUPPLY AND
DEMAND ASSESSMENT
SUMMARY REPORT

Top 15 Shortage Response Actions Implemented and Planned to be Implemented



- Top implemented shortage response actions include leak repairs, outdoor water use restrictions, and expanding of public outreach
- Most of the top response actions rely on individual customers' involvement as well as CII participation.

2025 AWSDAs – Suppliers Planned Actions



BULLETIN 161-2025 ANNUAL WATER SUPPLY AND DEMAND ASSESSMENT SUMMARY REPORT

Top implemented shortage response actions include:

- Fixing leaks by customers

- Outdoor irrigation and CII water use restrictions

Actions rely on individual customers' involvement as well as CII participation

→ Thus, the importance of Public Outreach.

2025 AWSDAs – Lessons Learned

Implementation of some demand reduction actions is becoming the norm for many California urban water suppliers through continuous water conservation efforts.

Implementation of locally appropriate actions could address projected shortages.



**BULLETIN 161-2025
ANNUAL WATER SUPPLY AND
DEMAND ASSESSMENT
SUMMARY REPORT**

2025 AWSDAs – Lessons Learned

Suppliers demonstrated that their WSCPs are working as intended showcasing the importance of drought planning and preparedness.

Extensive program outreach and targeted technical assistance achieved **100%** compliance rate.



**BULLETIN 161-2025
ANNUAL WATER SUPPLY AND
DEMAND ASSESSMENT
SUMMARY REPORT**



Annual Water Supply and Demand Assessment

- Email: AWSDA@water.ca.gov
- Website:
<https://water.ca.gov/Programs/Water-Use-And-Efficiency/Water-Supply-and-Demand-Assessment>



DRIP Collaborative Q&A and Discussion

Given current and forecasted conditions,

- What are you anticipating to be the important challenges?
- How do these conditions inform the work and focus of the DRIP Collaborative?

Public Comment

Hydrology Report

Summary of annual water supply and demand assessments

1. In-person participants

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 chat 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.

Julie Ekstrom, CA Department of Water Resources – Water Justice Office

DRIP COLLABORATIVE 2024 RECOMMENDATIONS FOLLOW UP

Tracking the 2024 DRIP Collaborative Recommendations

Focus Area	Recommendation	Progress
DROUGHT RELEVANT DATA	1. Drought Indicators and Metrics	 Urban supplier reporting data pilot; Vulnerable Communities Platform (VCP) launched
	2. Rapid Inventory of Drought-Related Tools and Resources	 ICARP Climate Services is documenting drought related tools and data; VCP guidance.
DROUGHT PREPAREDNESS FOR DOMESTIC WELLS	3. Empowering County Drought Resilience Planning for DW* and SSWS**	 UC ANR research project, assessing plans and county experiences; Continue county assistance program: monthly webinars (year 2);
	4. Voluntary Community-Based Well Monitoring Program	 DWR-supported pilot program launched .
	5. Roles and Responsibilities	 SAFER Fund Expenditure Plan final draft released.
DEFINITION & NARRATIVE	6. Drought Definitions and Case Studies	 LCI including case studies of community drought experiences, as part of State's Fifth Climate Change Assessment. Soliciting input.

Rec #1: Drought Indicators and Metrics



Workshop Background

Aligning Urban Water Data Reporting for Improved Drought Resilience

Climate change and increasing demands on California's water systems make timely, accessible data critical. Yet actionable data collected by urban agencies often remains difficult to access and underutilized.

The California Water Data Consortium and California Water Data Collaborative are co-hosting this workshop to advance urban water data alignment for improved drought resilience. This builds on findings from the [California Urban Water Data Reporting: A Roadmap for Improved Access and Use](#) report and [Recommendation 1](#) from the [Drought Risk Interagency and Partners \(DRIP\) Collaborative](#). Both emphasize the urgent need for consistent definitions, refined metrics, and clarified reporting goals to ensure locally provided data effectively support drought preparedness and response.

This workshop complements [state-level efforts to accelerate urban water data publication](#), serving as a first step toward harmonizing reporting requirements with agreed-upon drought resilience metrics. **Thank you for lending your expertise to this important conversation.**

Workshop Agenda Overview

Presentations

- **Overview of Urban Water Data Report and recent progress** - Hannah Ake, California Water Data Consortium, summarizing key recommendations and opportunities for data alignment
- **DRIP process update** - Glen Low, Earth Genome, providing status on [Recommendation 1](#) implementation
- **Regional drought indicators** - Armen Konialian, UCLA, presenting sector-specific drought risk indicators developed through National Integrated Drought Information System (NIDIS) funding

- 3+ hour workshop, hosted Aug 19 by CWDC and CaDC (at Water Data Summit)
- 70+ participants, including many from urban water agencies
- Brainstorm areas of greatest need for drought indicators and metrics
- Link that to current and future urban water data reporting
- Began conversation on specific indicators
- Explore interest in joining a voluntary workgroup to identify the top indicators



CWDC currently working on a white paper to summarize discussion

Rec #3: County Drought Resilience Planning Progress

- **56 counties enrolled** in program.
- **6 counties** completed program (more soon!).
- **10 counties** total have adopted plans.
- All counties have **some form of task forces**, range of formats and meeting times.
- Several with action **triggers and actions**

Task Force Arrangements



Structure

- Existing with add on for domestic wells
- Many led by OES

Meeting Frequency

- As needed, ad hoc
- Quarterly
- Annually or more as needed



California

DRIP Collaborative

Rec #3: Supporting County Drought Resilience Planning

- **56 counties enrolled** in program.
- **6 counties** completed program (more soon!).
- **10 counties** total have adopted plans.
- All counties have **some form of task forces**, range of formats and meeting times.
- Several with action **triggers and actions**

Key Issues

Drought Relevant Data

- Where are the wells?
- Water shortage/drought indicators

Roles & Responsibilities

- Who is responsible for what?
- How to fund implementation
- Staff capacity

DRIP Collaborative Discussion

What additional activities and initiatives are being implemented to advance the 2024 recommendations?

Public Comment

Tracking the 2024 DRIP Collaborative Recommendations

1. In-person participants

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 chat 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.

ADVANCING DRIP COLLABORATIVE 2025 RECOMMENDATIONS

2025 DRIP Collaborative Ideas

Ecosystem

- IDEA Eco1.** In-stream Flow Requirements: Prioritization and Incentives
[Redgie Collins](#)
- IDEA Eco2.** Streamlining Grant and Contract Processes for Habitat Restoration
[Redgie Collins](#) and [Samantha Arthur](#)

Land Use

- IDEA Land1.** Elevate regional approaches to proactively and inclusively plan for ag land transitions
[Anna Schiller](#)
- IDEA Land2.** Housing-Water Supply Nexus: Planning for housing needs and water supply
[Natalie Kuffel](#) and [Sierra Ryan](#)
- COM Land3.** Integrated Water Planning: Assess how plans interact and offer recommendations
[Natalie Kuffel](#) and [Sierra Ryan](#)

Water Infrastructure

- IDEA Infra1.** Enhance Support and Collaboration for Vulnerable and Small Water Systems Infrastructure Needs
[Carolina Hernandez](#)
- IDEA Infra2.** Improve System and Regulatory Flexibility for Water Infrastructure Resilience
[Katie Ruby](#) and [Laura Ramos](#)
- IDEA Infra3.** Establish Groundwater Recharge Infrastructure Program for Local Drought Resilience
[Emily Rooney](#)



California

DRIP Collaborative

2025 DRIP Collaborative Recommendations

Ecosystem

REC Eco1. Instream Flows: Best Practices for Landowner Cooperative Solutions
[Redgie Collins](#)

IDEA Eco2. Streamlining Grant and Contract Processes for Habitat Restoration
[Redgie Collins](#) and [Samantha Arthur](#)

Land Use

IDEA Land1. Elevate regional approaches to proactively and inclusively plan for ag land transitions
[Anna Schiller](#)

REC Land2a. Aligning Communication and Planning Timelines for Housing and Water
[Natalie Kuffel](#) and [Sierra Ryan](#)

REC Land2b. Assessing Water Supply and Wastewater Capacity with Housing Needs
[Natalie Kuffel](#) and [Sierra Ryan](#)

COM Land3. Integrated Water Planning: Assess how plans interact and offer recommendations
[Natalie Kuffel](#) and [Sierra Ryan](#)

Water Infrastructure

IDEA Infra1. Enhance Support and Collaboration for Vulnerable and Small Water Systems Infrastructure Needs
[Carolina Hernandez](#)

IDEA Infra2. Improve System and Regulatory Flexibility for Water Infrastructure Resilience
[Katie Ruby](#) and [Laura Ramos](#)

IDEA Infra3. Establish Groundwater Recharge Infrastructure Program for Local Drought Resilience
[Emily Rooney](#)

DRIP Collaborative Work to Finalize 2025 Recommendations

The DRIP Collaborative ideas were sorted into three possible pathways: **Inform, Complement or Lead** to help clarify the role of the DRIP Collaborative in responding to the focus area problem statements.

Today's presentations and discussions on 2025 focus areas

- **UPDATE ON WORKGROUP DISCUSSIONS:** Key learnings from SMEs presentations and progress on 2025 ideas
- **RECAP WORK TO DEVELOP THE RECOMMENDATION:** Focus on workgroup discussions to advance the recommendations
- **DRIP Collaborative DISCUSSION:** Informed by SME presentations and input provided by DRIP Collaborative members - discuss the THREE proposed recommendations and any remaining issues
- **READINESS AND VOTE:** Approve recommendations as applicable
 1. Readiness Vote (Super majority): Is the recommendation ready to be voted on? Yes/No
 2. Recommendation Final Vote (Simple majority)

Recommendation Template

Recommendations were developed using a template that covers four key areas:

1. General Description

- Recommendation title
- Description
- Focus area
- Desired outcomes

2. Alignment with Other Initiatives

3. Implementation Considerations

- Implementing parties and partners
- Time frame
- Necessary steps and measuring success
- Potential challenges
- Funding

4. Cross Cutting Themes

- Climate Change Adaptation
- Nature Based Solutions
- Equity and Outreach

Workgroup Members

- Redgie Collins, CalTrout – *Workgroup Lead*
- Anna Schiller, Environmental Defense Fund
- Sierra Ryan, Santa Cruz County
- Brent Hastey, Plumas Self Storage (Public Member)
- Laura Ramos, California Water Institute at Fresno State
- Alvar Escrive-Bou, UC Davis

Workgroup Lead: Redgie Collins, CalTrout

Point of Contact: Zoe Kanavas, CA Department of Water Resources

2025 IDEAS: REDUCING ECOSYSTEM IMPACTS

ECO Focus Area Ideas and Pathways

ECO1. Instream Flows: Best Practices for Landowner Cooperative Solutions

→ LEAD → Recommendation Development

- Originally framed as piloting landowner agreements in small coastal streams
- Currently the recommendation focuses on documenting & promoting best practices rather than launch of new pilot

ECO2. Streamline Grant & Contract Processes

→ INFORM or COMPLEMENT → Future SME presentations and discussions

- Expand *Cutting the Green Tape* and other efficiency practices across agencies
- Members supportive, but want the value-add clarified

ECO3. O&M for Habitat Restoration Projects

→ INFORM → Future discussion informed by CA Water Commission drought white paper

- Expand long-term stewardship, legal frameworks, and sustainable funding
- Distinct from streamlining; O&M terms often set in grants

ECO1. Instream Flows: Best Practices for Landowner Cooperative Solutions

What we heard in the September workgroup meeting...



Direction: Shifted from piloting projects to thinking through best practices guidance with statewide value.



Intent & Opportunity: The process can identify areas to simplify and align existing processes, improving efficiency and accessibility for landowners and agencies



Need: Clear instream flow targets with proactive opportunities for landowners to plan for and adapt to

Key considerations for the guidance:

- ✓ Clarify audience: landowners, Tribes, counties
- ✓ Include case studies: Scott/Shasta Rivers, Sonoma County, Santa Rosa, adjudicated basins, the San Mateo Resource Conservation District, and Soquel Creek
- ✓ Ensure credibility through multi-party drafting & review by SWB, CDFW, local partners.

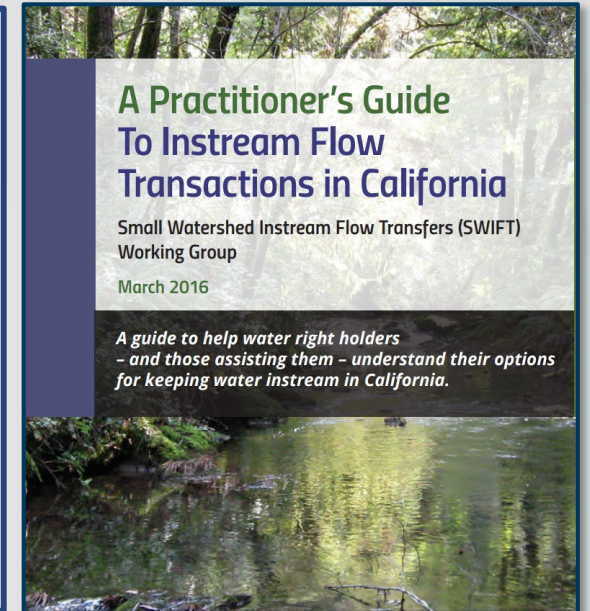


ECO1. Instream Flows: Best Practices for Landowner Cooperative Solutions

2016 Guide

Description

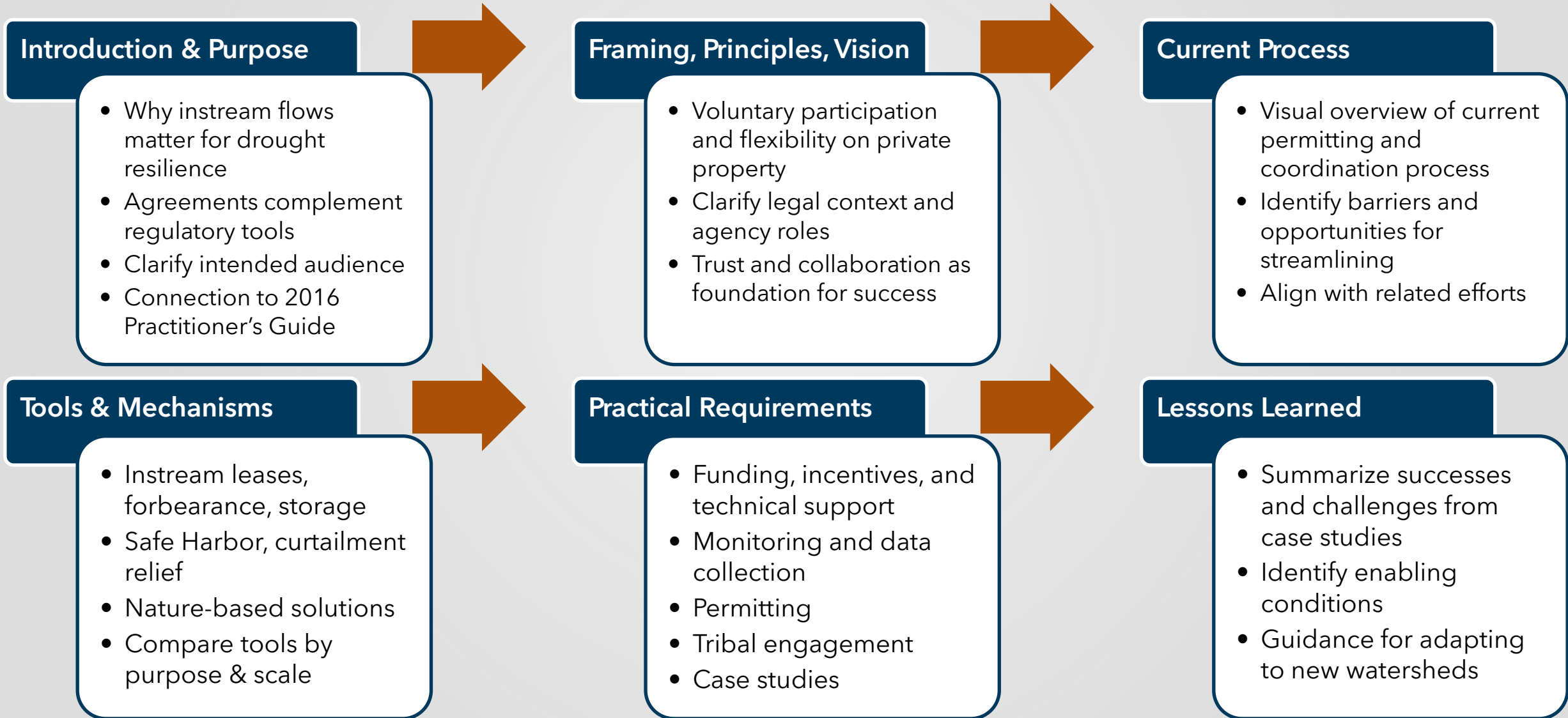
- Develop a **Best Practices Guidance Document** for voluntary, cooperative landowner approaches that enhance instream flows and drought resilience
- Builds on the *2016 Practitioner's Guide*, expanding to adaptive water-rights tools, nature-based strategies, and practical examples
- Focuses on **practical requirements for success**: funding, permitting, monitoring, and trust-building
- Drafted by NGOs and academic partners; reviewed by SWB, CDFW, and WCB to ensure alignment and credibility



Identified Impacts

- Improves ecological flow conditions and strengthens drought preparedness; reduces reliance on emergency curtailments through proactive cooperation
- Provides a trusted, user-friendly resource for landowners and partners
- Raises awareness of existing tools and funding programs

ECO1. Instream Flows: Best Practices for Landowner Cooperative Solutions



ECO1. Instream Flows: Best Practices for Landowner Cooperative Solutions

Implementing Parties & Partners

- **Leads:** nonprofits with expertise in cooperative flow agreements, partner with academics
- **Reviewers:** SWB, CDFW, and local governments
- **Partners:** Landowners, Tribes, RCDs, farm bureaus, watershed councils, WCB
- DWR Tribal Affairs Office should consult to ensure state efforts are consistent with Tribal engagement processes

Alignment with Other Initiatives

- Builds on *2016 Practitioner's Guide* and existing case studies
- Complements California Environmental Flows Framework
- Aligns with SWB & CDFW ongoing instream flow programs
- Connects to Prop 4 / WCB Stream Flow Enhancement Program
- Builds on NGO and academic restoration and engagement efforts

Implementation Time Frame

Short term (1-2 yrs.)

Medium term (2-4 yrs.)

Long term (4-5+ yrs.)

ECO1. Instream Flows: Best Practices for Landowner Cooperative Solutions

Key Steps

1. Assemble drafting team (NGOs, academia, local partners)
2. Develop outline & case studies (Scott/Shasta, Sonoma, Soquel, etc.)
3. Agency review: SWB, CDFW, WCB
4. Public & local review for feasibility
5. Finalize and share through NGO and state networks

Measuring success: completion, adoption, feedback, ecological outcomes

Identified Challenges

- Legal complexity & overlapping authorities
- Confidence in cooperative flow agreements varies by audience
- Limited funding & staff capacity
- Data gaps for flow criteria

Mitigation: early engagement, clear messaging, multi-party drafting, audience-specific outreach, align with existing funding programs

ECO1. Instream Flows: Best Practices for Landowner Cooperative Solutions

Funding Needs & Considerations

- Primary funding needs: drafting, review, outreach, translation
- Existing SWB & CDFW instream flow programs
- Prop 4 / WCB Stream Flow Enhancement Program
- NGO partnerships
- Landowners participate via eligible partners (Tribes, RCDs, local governments)

Equity, NBS, and Climate Change Considerations (Cross-Cutting Themes)

- Expands access for small & underserved landowners (farmers)
- Partners with Tribes & CBOs for inclusive drafting & review
- Outreach via RCDs, farm bureaus, NGOs, Tribes
- Uses plain-language, accessible materials
- Highlights nature-based, multi-benefit strategies that build climate resilience

ECO1. Instream Flows – DRIP Collaborative Members Feedback

Vote Description	Responses (5)
(1) Cannot support at this time	0
(2) Need additional information	1
(3) Go forward!	4

- **Supportive of the concept**, noting that a Best Practices Guidance could improve consistency, transparency, and collaboration statewide
- Emphasized that **the guidebook should be part of a larger strategy**, using its development process to identify barriers and opportunities to simplify existing permitting and implementation pathways
- Encouraged **broad, early outreach**
- Noted the importance of **clarity, transparency, and trust** between agencies and local partners to increase adoption and impact

DISCUSSION

ECO1. Instream Flows: Best Practices for Landowner Cooperative Solutions



What additional information is needed to complete the recommendation?

Scope/Description – Coordination – Implementation/Resources

A DRIP Collaborative Recommendation: A thoughtful, formal suggestion that addresses the issue or challenge described in a Problem Statement, providing solutions that are specific and actionable related to the preparation of, responding to, and recovering from periods of extreme water shortages and drought.

→ Also consider the value added of the recommendation. Does it significantly improve upon current efforts or introduce a needed new effort?

Public Comment

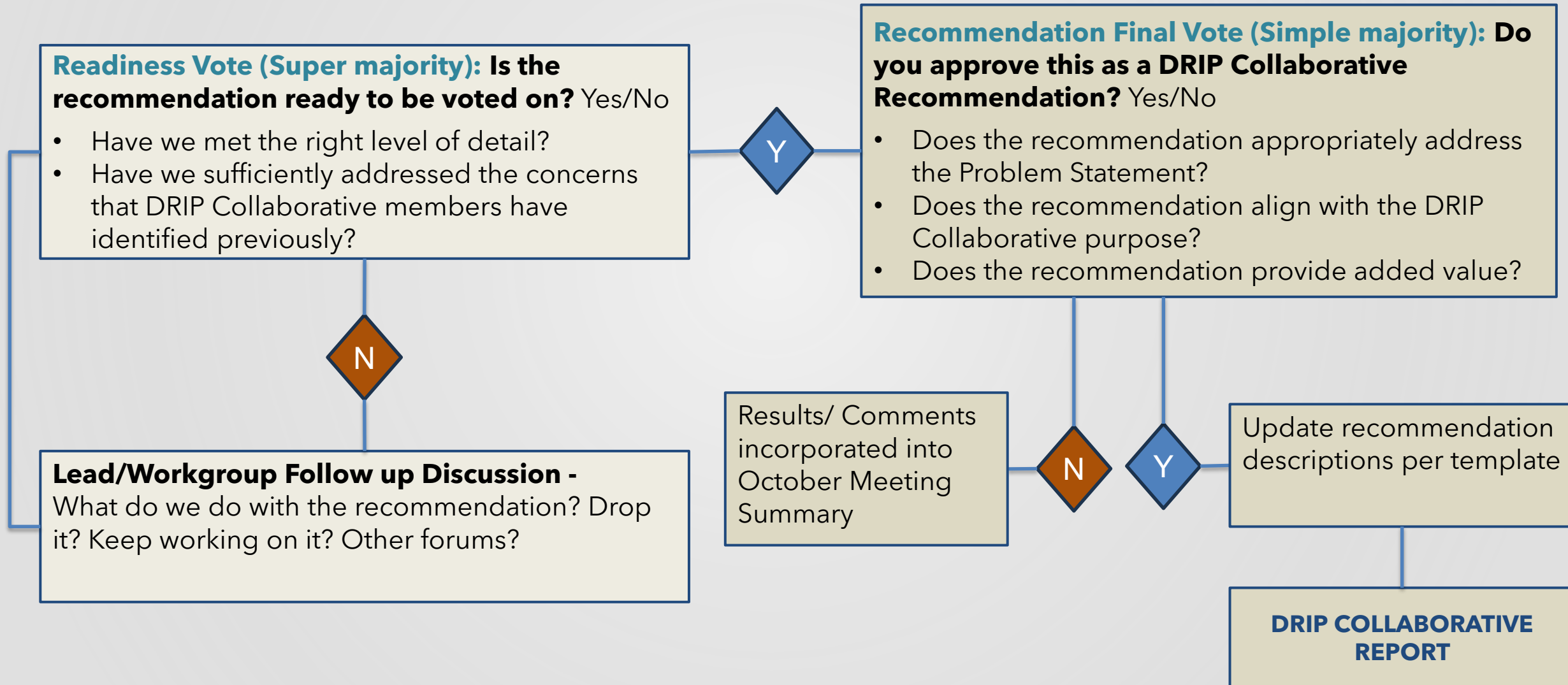
Reducing Ecosystem Impacts Focus Area

1. In-person participants

2. Virtual participants:

- a) Raise your hand with the “Raise Hand” feature in Zoom and you will be asked to unmute and speak.
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- 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.

Finalizing the DRIP Collaborative Recommendation – Voting and Discussion



LUNCH BREAK!

PLEASE RETURN AT:

1:35pm

(so we can start promptly at 1:40pm)

DRIP Collaborative (Quorum is 14)

1. **Alvar Escriva-Bou**, University of California, Davis
2. **Anna Schiller**, Environmental Defense Fund
3. **Caitlin Loventhal**, California State Association of Counties
4. **Carolina Hernandez**, Los Angeles County Public Works
5. **Emily Rooney**, Agricultural Council of California
6. **Joshua Cahill**, Yurok Tribe
7. **Karen Mogus (for Joaquin Esquivel)**, State Water Resources Control Board
8. **Laura Ramos**, California Water Institute at Fresno State
9. **Lorena Muñoz**, Community Water Center
10. **Maria Gallegos Herrera**, Rural Community Assistance Corporation (RCAC)
11. **Natalie Kuffel**, Governor's Office of Land use and Climate Innovation
12. **Paul Gosselin**, California Department of Water Resources
13. **Sierra Ryan**, Santa Cruz County

14. **Tiffany Tran (for Katie Ruby)**, California Urban Water Agencies (CUWA)
15. **Tim Worley**, California Association of Mutual Water Companies
16. **Virginia Jameson**, California Department of Food and Agriculture

Additional Members:

17. **[Vacant]**, Buena Vista Ranchera of the Me-Wuk Indians
18. **Anna Naimark**, California Environmental Protection Agency
19. **Brent Hastey**, Plumas Lake Self Storage, Owner
20. **Emiko Burchill**, California Department of Fish and Wildlife
21. **Jason Colombini**, Jay Colombini Ranch, Inc.
22. **Nate Ortiz (for Christina Curry)**, California Office of Emergency Services
23. **Redgie Collins**, California Trout Inc.
24. **Samantha Arthur**, California Natural Resources Agency
25. **Tami McVay**, Self Help Enterprises
26. **Suzanne Pecci**, Domestic Well Advisory Group, South American Subbasin

Workgroup Members:

- Tim Worley, California Association of Mutual Water Companies
- Laura Ramos, California Water Institute at Fresno State
- Tiffany Tran (for Katie Ruby), California Urban Water Agencies
- Suzanne Pecci, Public Member
- Natalie Kuffel, Governor's Office of Land Use and Climate Innovation
- Nate Ortiz, California Office of Emergency Services

Workgroup Co-Lead: Tim Worley, California Association of Mutual Water Companies and Laura Ramos, California Water Institute at Fresno State

DWR Point of Contact: Anthony Navasero, CA Department of Water Resources – Drought Coordinator

COMMUNICATIONS FOR DROUGHT AND WATER SHORTAGE

Communication Recommendation

Potential Pathways: **Inform**

- Receive drought communication presentations
 - State agencies, counties, water agencies, and small water system representatives
- Collect and review existing drought communication plans
- Share a non-exhaustive list of drought communication information to receive feedback
- Hear from SME on triggers for drought emergency and messaging
 - State agencies, counties, water agencies, and small water system representatives

Communication Recommendation

Potential Pathways: **Complement**

- Learn about capabilities, methods, and cadence on communicating drought from existing plans/programs
 - Feedback on sharing capabilities with others
- Hear from practitioners developing communication plans
 - Feedback on previous experiences and best practices
- Presentation from water agencies' drought communication plans
 - Feedback and items to consider
- County drought contingency plans' communication plan
 - Feedback and items to consider

Public Comment

Recommendation Ideas Report Out

1. In-person participants:

- a) 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 chat 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.

Workgroup Members:

- Emily Rooney, Agricultural Council of California
- Jason Colombini, Jay Colombini Ranch, Inc.
- Tim Worley, California Association of Mutual Water Companies
- Lorena Munoz, Community Water Center
- Alvar Escriva-Bou, University of California Davis
- Laura Ramos, California Water Institute at Fresno State
- Suzanne Pecci, Public Member
- Katie Ruby, California Urban Water Agencies
- Carolina Hernandez, Los Angeles County Public Works

Workgroup Lead: Emily Rooney, Agricultural Council of California

DWR Point of Contact: Anthony Navasero, CA Department of Water Resources – Drought Coordinator

2025 IDEAS: WATER INFRASTRUCTURE AND PLANNING

Focus Area Ideas and Pathways

Infra 1: Supporting Vulnerable and Small Water Systems Infrastructure

(Carolina Hernandez/ Tim Worley)

→ INFORM → SME presentation and further idea development

Infra 2: Improve systems and regulatory flexibility for Water Infrastructure

Resilience (Laura Ramos / Katie Ruby)

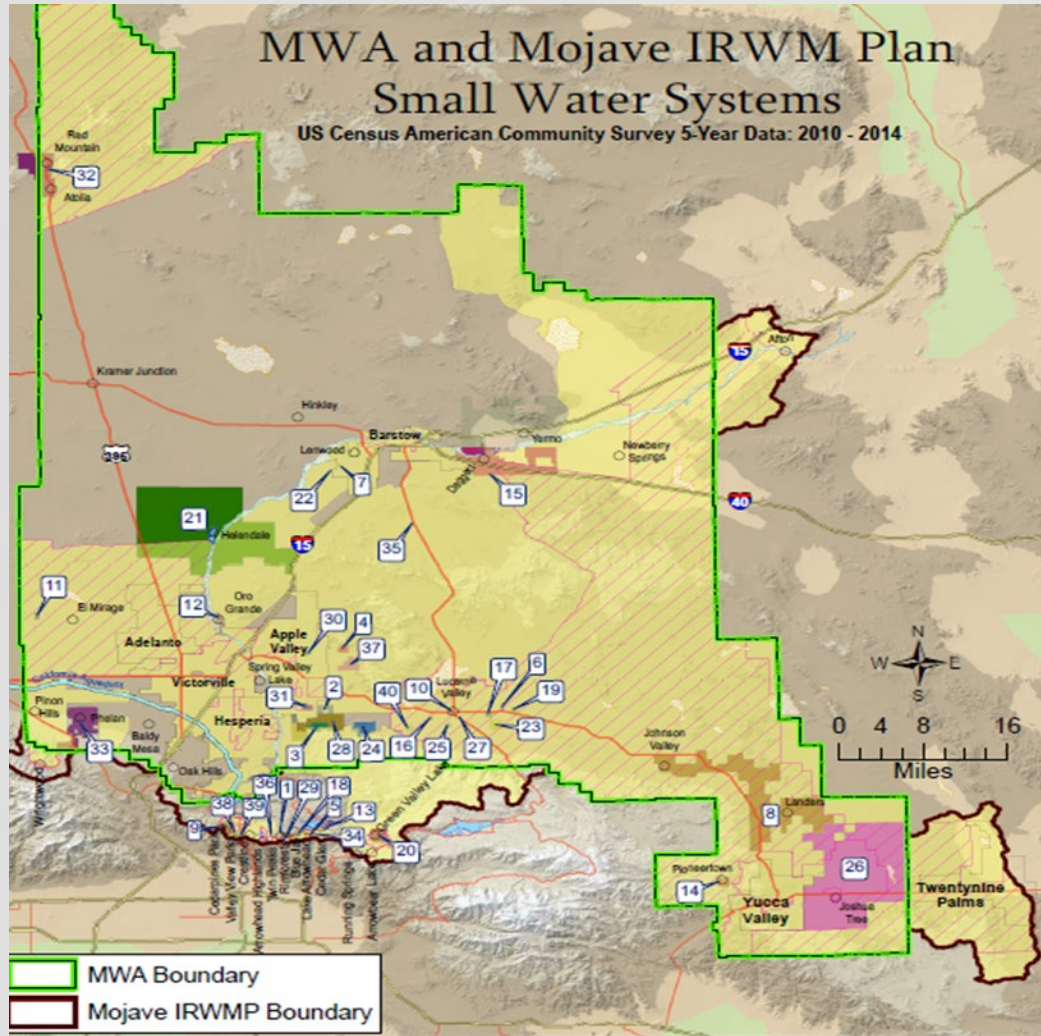
→ INFORM → Future SME presentations and discussions

Infra 3: Establish Groundwater Recharge Infrastructure Program for Local Drought

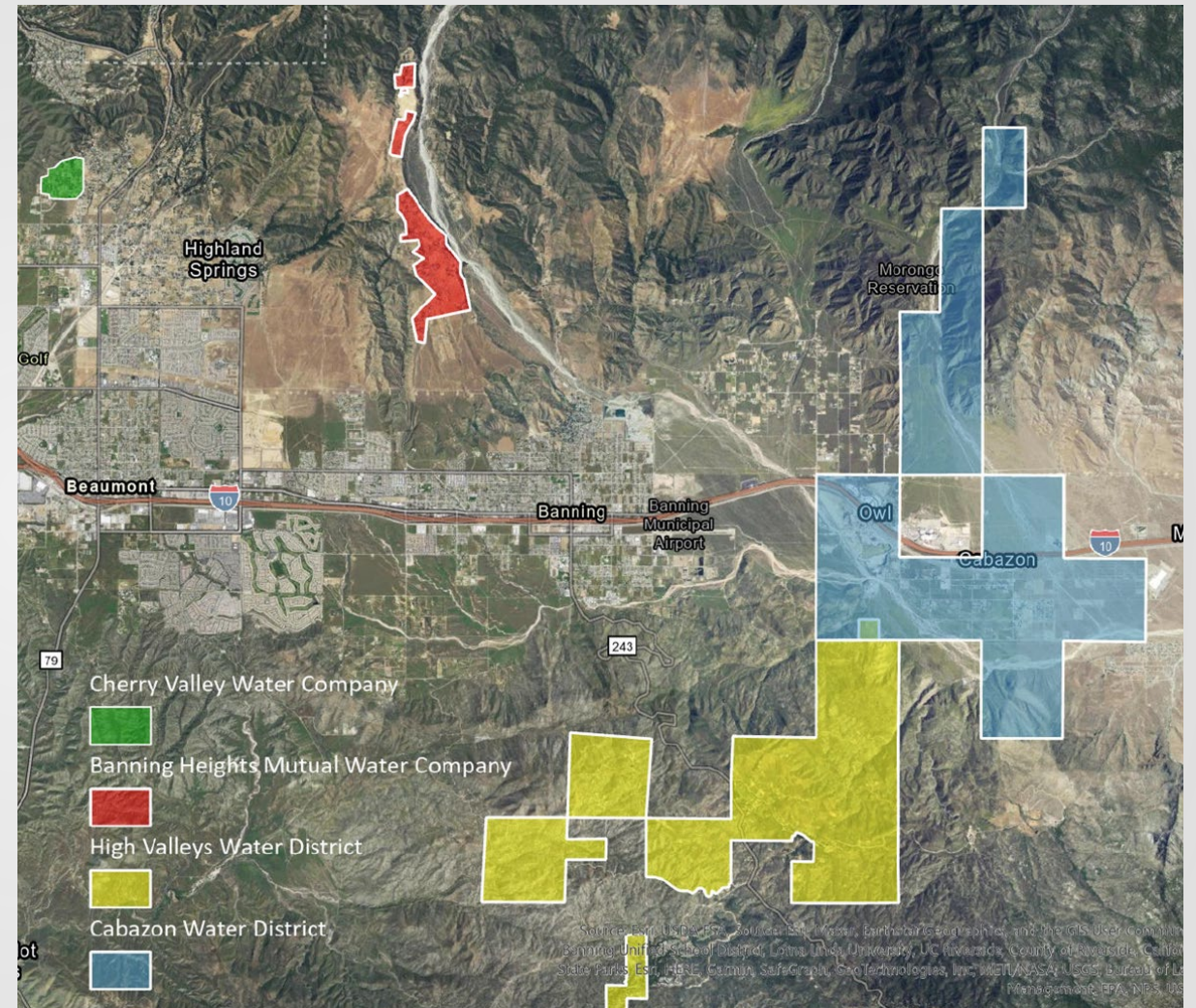
Resilience (Emily Rooney)

→ INFORM/COMPLEMENT → Future SME presentations and further idea development

Infra 1 – SME Presentation, Lance Eckhart, SGPWA



**Mojave Water Agency Boundary
and Small Water Systems**



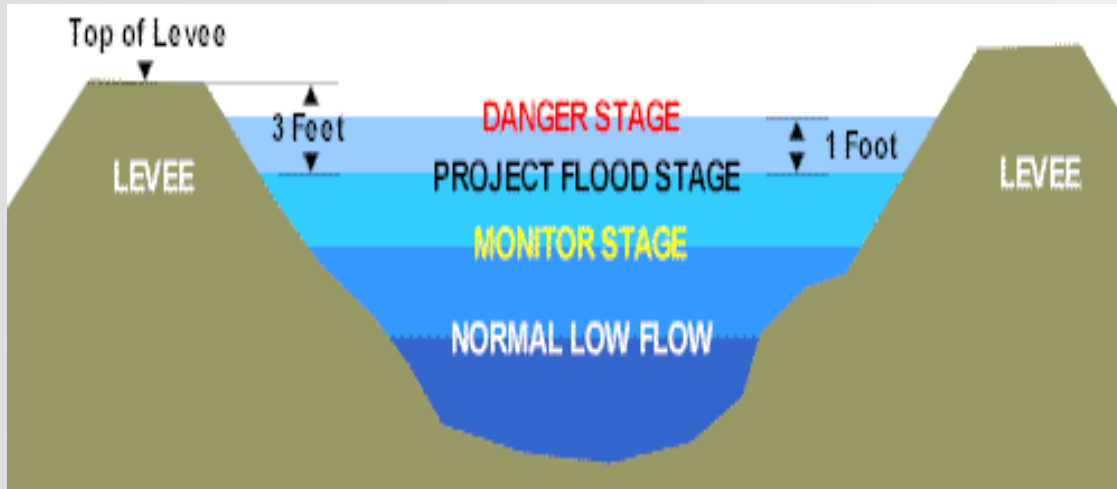
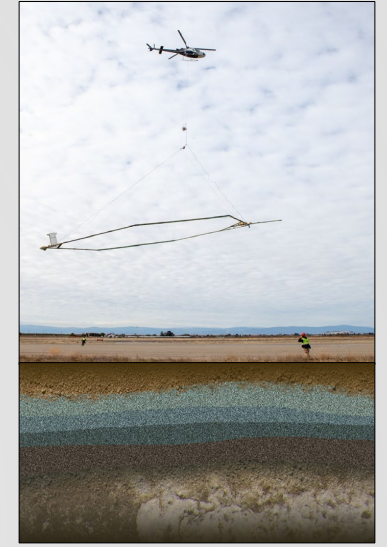
**Small Water Systems in San Geronio
Pass Water Agency Watershed**

Infra 1 – SME Presentation, Lance Eckhart, SGPWA

Key Takeaways

- With the help of non-profits, there are successes
- Successes, along with knowledge, need to be shared
- A repeatable formula exists
 - Large water agencies **take lead roles** in their watershed **with financial assistance** (state and federal) to **engage with small water systems** in their watershed
 - **Share institutional knowledge**, be a “big brother”, and **develop trust**
 - **Identify** small water **systems’ needs** (e.g., TMF)
 - **Partner with non-profits** to address specific needs
 - Take the time to help small water systems **manage the process over time**
 - **Use successes** to build upon with other small water systems
 - **Repeat, repeat, reapply**

Infra 3 – SME Presentation, Tim Godwin, DWR/SGMA



**Forecasting, Predicting, and Moving
Floodwater**



Groundwater Recharge

Infra 3 – SME Presentation, Tim Godwin, DWR/SGMA

Key Takeaways

- Pathways to groundwater recharge
 - Permitted (temporary and water rights)
 - Non-permitted (Water Code § 1242.1– flood diversion and Exec Orders)
- Challenges to implement both
 - Permitted (complex and time element)
 - Non-permitted (Flood plan in place or Delta conditions)
 - WQ and land use considerations
- Overcoming challenges – State support
 - Technical assistance and modeling tools
 - Financial support

Water Infrastructure and Planning Workgroup

Potential Pathways: **Continue to Inform**

Infra 1: Supporting Vulnerable and Small Water Systems Infra

- Presentation on efforts to use existing success
 - Partnerships between larger water agencies and small water systems
 - State support (e.g., watershed studies, funding, technical support)

Infra 3: Establish Groundwater Recharge Infrastructure Program for Local Drought Resilience

- Receive presentations from DWR/Water Board
 - Progress on improving permitting for GW recharge
- Presentation from DWR on informing and building capacity
 - Need for partnerships to develop, scale GW recharge
 - Partnerships tap into state support

Public Comment

Water Infrastructure and Planning

1. In-person participants

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 chat 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.

Workgroup Members:

- Sierra Ryan, Santa Cruz County
- Natalie Kuffel, Land Use & Climate Innovation
- Brent Hastey, Plumas Self Storage (Public Member)
- Anna Schiller, Environmental Defense Fund
- Jason Colombini, Jay Colombini Ranch, Inc.
- Katie Ruby, California Urban Water Agencies
- Carolina Hernandez, Los Angeles County Public Works
- Virginia Jameson, California Department of Food & Agriculture
- Andrew Altevogt, State Water Boards
- Suzanne Pecci, Public Member
- Emily Rooney, Agricultural Council of California
- Tami McVay, Self Help Enterprise

Workgroup Co-Leads: Sierra Ryan, Santa Cruz County and Virginia Jameson, CA Dept of Food and Agriculture

DWR Point of Contact: Julie Ekstrom, CA Department of Water Resources

2025 IDEAS: LAND USE PLANNING FOR DROUGHT RESILIENCY

Focus Area Ideas and Pathways – Workgroup Discussions

Land1. Land repurposing (Anna Schiller) → LEAD → Continued recommendation development (into 2026)

Workgroup feedback:

- Regional approach:
 - Building regional capacity is the way forward
 - Need to define the appropriate scale for “region” and reflect the primary drivers for land repurposing
 - Link to existing plans and programs, including coordination with LCI
- Increase direct technical and funding support:
 - Create an inventory of resources available for regional planners
 - Support funding for staff time and coordination capacity at the regional level

**** Land2a. Planning alignment for water and housing development** (Natalie Kuffel and Sierra Ryan)

→ LEAD → Review/vote on proposed recommendation

Workgroup feedback:

- Deliverables should be practical and grounded in real-world needs (advisory group and practitioner input)
- Consider the audience: state-level policymakers vs. regional and county-level collaboration
- Combine a timeline analysis and a case study approach
- Incorporate equity, affordability, and domestic well considerations

Focus Area Ideas and Pathways – Workgroup Discussions

****Land2b. Capacity study by region of water supplies and wastewater vs. housing demands** (Natalie Kuffel and Sierra Ryan) → LEAD → Review/vote on proposed recommendation

Workgroup Feedback:

- Scope
 - Define what “region” means (e.g., county, GSA, planning region)
 - Equity consideration related to small water systems and domestic well communities
- Deliverables
 - Pilot study to demonstrate feasibility before scaling statewide
 - Planning time horizon of 50-years instead of 20-years, longer, more frequent droughts
 - Consider ongoing transitions from agriculture to housing in rural regions.
- Create an advisory group to promote collaboration and input from diverse perspectives including researchers and practitioners

Land3. Integrated water planning → COMPLEMENT → Identify opportunities for members contributions

EFFORT: Support LCI’s General Plan Guidance update process by augmenting input on water and drought.

- Survey related to the optional Water Element (N=35 water planners/managers)
- Session where non-state agency workgroup members share feedback on the guidance update (October 2)

Land2a. Aligning Communication and Planning Timelines for Housing and Water - Description

Part I. Landscape analysis and mapping of processes and related timelines

Timeline of housing and water planning processes (GP, RHNA cycles, UWMP, GSP, private development activities).

Identify interested parties and their roles.

Identify misalignments and clarify opportunities for earlier engagement.

Highlight strategies and incentives to promote proactive and effective coordination.

Part II. Case studies of planning misalignment

Local cases across varying geographies where poor coordination led to significant challenges and adverse impacts.

Document misalignment consequences.

Recommend critical points in the planning process for improved coordination among interested parties.

Part III. Case studies of successful coordination

Regions where collaboration produced strong outcomes.

Document coordination mechanism, benefits, and lessons learned that can be scaled or adapted statewide.

Develop a best practices flow chart based on examples of success.

Land2a. Aligning Communication and Planning Timelines for Housing and Water – Desired outcomes

Desired Outcomes:

Improved local coordination: The final deliverables could be targeted toward regional, county, and city-level decision-makers where coordination can be most immediately actionable

State-level guidance: Offer insights to inform state-level guidance and updates to planning requirements.

Improve Housing/water nexus decision making:

- Provide a launchpad from which further informed decisions and guidance may be developed to improve coordination between housing and water.
- Improved coordination between housing and water planning, leading to more sustainable development.
- Earlier identification or more coordinated planning of water supply issues, allowing for timely solutions.

Enhanced drought resiliency: Ensure water availability is considered in housing plans to avoid new housing built with risk of water shortages.

Equity and Affordability Lens: The study would emphasize equity considerations by specifically analyzing the implications of misalignment for small water systems, domestic well communities, and disadvantaged communities to avoid perpetuating inequities.

Land2a. Aligning Communication and Planning Timelines for Housing and water – Implementation and Alignment with Other Initiatives

Proposed Implementers:

- **Academic partners** such as UCLA's Luskin Center (analytical support)
- **A steering or advisory group** with state, local, and practitioner perspective (guide study design, case study selection, and review of findings)
- **Community-based organizations and private developers** (consulted to ensure alignment with real-world needs and conditions)

Alignment with Other Initiatives:

- ✓ Contribute to addressing the long-needed alignment of housing and water planning.
- ✓ Align with related legislation to support the integration water and land use planning (SB 610, SB 221 (2001), and SB 1262 (2016)).
- ✓ Support initiatives aimed at improving housing affordability and supply while ensuring sustainable water use.
- ✓ Inform the LCI's Planning Guidelines Update (State's General Plan Guidelines).

Time frame: Short Term, 1-2 years

Land2a. Aligning Communication and Planning Timelines for Housing and water – Implementation Steps and Potential Challenges

Implementation Steps

- Identify a group to conduct the study and then implement it. If a non-state agency conducts this work, it would be beneficial if the **recommendation co-leads provide an advisory role** to support the research entity's study.

Outputs of a successful study would include:

- A **process flow chart** for engagement points to clarify roles and opportunities for coordination across agencies and timelines.
- Proposed **incentives and best practices** for early involvement of LAFCOs and GSAs.
- **Training and guidance** to relevant agencies, developers, and land use authorities including best management practices, planning considerations, and a template for improved collaboration that can be adapted regionally or locally.

Key challenge: Insufficient research capacity to conduct the study.

Funding Opportunities:

Research grants on climate adaptation, water, housing, and land use planning for research component

Monitoring Progress and Success:

- **Process and engagement metrics:** Representation from each key group; Evidence of meaningful input
- Publicly available study methods, data sources, and draft results; Public review with feedback
- **Technical quality metrics:** Number of representative case studies; reflect real-world community impacts
- **Outcomes and impact metrics:** Recommendations are - actionable and specific, demonstrating equity

Land2a. Aligning Communication and Planning Timelines for Housing and water- DRIP Collaborative Members Feedback

Vote Description	Responses (3)
(1) Cannot support at this time	0
(2) Need additional information	0
(3) Go forward!	3

Comments and Information Needs:

- An interesting proposal (could *potentially be integrated with Land 2B*)
- This *looks great*. Would be interested if there is an organization in mind that may be well-suited to complete the study.
- *Most easily actionable* of the three recommendations and *addresses two key issues in California: housing and water supply*.
- The *inclusion of technical quality metrics is very smart*, particularly, requiring at least 3-5 cases of misalignment will hopefully provide a wide enough array of data to make transferable analyses.
- The *most critical aspect for success*, which is in the recommendation, is including *a wide array of interest groups*. This is especially needed to reassure housing interest groups that this effort is not trying to deter development, but rather to ensure that development is feasible given current water infrastructure.

DISCUSSION

Land2a. Aligning Communication and Planning Timelines for Housing and water



What additional information is needed to complete the recommendation?

Scope/Description – Coordination – Implementation/Resources

A DRIP Collaborative Recommendation: A thoughtful, formal suggestion that addresses the issue or challenge described in a Problem Statement, providing solutions that are specific and actionable related to the preparation of, responding to, and recovering from periods of extreme water shortages and drought.

→ Also consider the value added of the recommendation. Does it significantly improve upon current efforts or introduce a needed new effort?

Public Comment

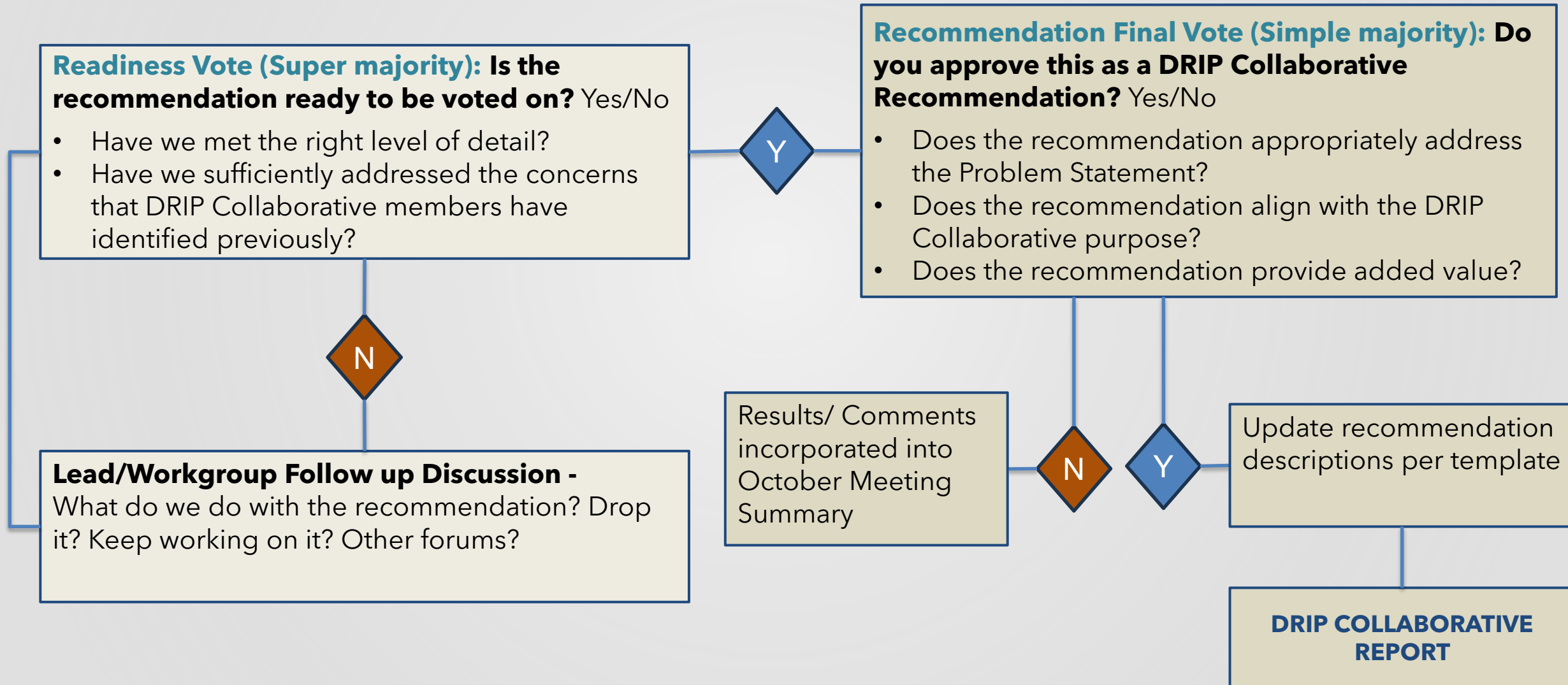
Land2a. Planning alignment for water and housing

1. In-person participants

2. Virtual participants:

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Finalizing the DRIP Collaborative Recommendation – Voting and Discussion



Land2b. Assessing Water Supply and Wastewater Capacity with Housing Needs - Description

Assess current and projected water supply and wastewater treatment capacity by region, comparing findings to regional housing growth plans and allocations, along with demands from existing housing.

Scope & Approach

Regional Focus: Conduct an analysis on a regional basis ("region" to be defined). Test approach with a pilot before scaling statewide.

Time Horizons: Use a 50-year planning horizon to align with infrastructure lifespans and long-term water availability planning.

Equity & Small Systems: Special attention would be given to small water systems and domestic well communities, which may face shortages even when regional supply appears adequate. Incorporate lessons from historic subdivision and well-approval records to avoid repeating past vulnerabilities.

Multiple Data Sources: Creatively integrate multiple datasets, including UWMPs, Water Supply Assessments, GSA groundwater modeling (from GSPs), groundwater quality data (e.g., CV-SALTS), and other regional modeling efforts.

Analysis Considerations:

- Longer, more frequent droughts as projected by climate change models, rather than relying on the six-year drought as the "worst case."
- Land use transitions from agriculture to housing in rural areas.
- The potential to enhance regional water capacity through sustainable practices and water-efficient housing design while balancing water supply needs for healthy ecosystems.

Land2b. Assessing Water Supply and Wastewater Capacity with Housing Needs – Desired Outcomes

✓ Identify needs

- Identify where there may be insufficient existing water infrastructure to support projected housing development.
- Potentially this study could support early identification of water supply issues and needs for wastewater infrastructure, allowing for timely solutions.

✓ Enhance resiliency

- Inform future discussions about how to ensure growing housing development is water secure under future dry periods
- Enhanced drought resiliency by ensuring water availability is considered in housing plans to avoid new housing from increased risk of water shortages.

✓ Improve coordination

- Develop repeatable analytical methods for assessing water supply capacity at a regional level and within a region.
- Improved coordination between housing and water planning, leading to more sustainable development.

Equity and Affordability Lens:

- Ensuring that all communities, including and especially those relying on low income, have access to sustainable, secure water supplies.
- Engaging with community-based organizations to ensure inclusive planning processes.

Land2b. Assessing Water Supply and Wastewater Capacity with Housing Needs – Implementation and Alignment with Other Initiatives

Proposed Implementers:

- A research university or other neutral, non-partisan organization (Lead the assessment)
- An advisory group made up of state, regional, and local agencies (Provide data access, policy context, and equity perspectives to guide the study)
- Collaborators will include:
 - State agencies - statewide water and housing policy guidance, data, and alignment with existing state initiatives.
 - Local housing authorities and regional councils of governments - RHNA allocations, land use plans, and local growth projections.
 - Water suppliers/agencies and wastewater agencies - provide infrastructure capacity data, groundwater modeling, and information on recycling, recharge, and expansion opportunities.
 - Community-based organizations and Tribes - promote equity, community priorities, and on-the-ground knowledge are incorporated.

Alignment with Other Initiatives:

- State policy to support drought resilience and water shortage prevention, sufficient, safe, and affordable water as part of the human right to water; to integrate water and land use planning.
- Supports initiatives aimed at improving housing affordability and supply while ensuring sustainable water use.

Time frame: Short Term, 1-2 years

Land2b. Assessing Water Supply and Wastewater Capacity with Housing Needs – Implementation Steps and Potential Challenges

Implementation Steps

- Assess actual and projected water supply and wastewater treatment capacity by region across the state.
- Compare findings with regional housing allocations.
- Document best practices where housing and water planning are well coordinated.

To help monitor progress and success:

- The formation of an advisory group with representation from DWR, State Water Board, and other state and regional interested parties to guide the study, shape recommendations, and ensure outputs are useful for policy and planning.

Challenges:

Validity and Salience: The main challenge to implement this recommendation is making sure that it can inform future policy discussions.

→ Requires methods that are valid and acceptable by different interested parties, making the advisory group a critical part of the study.

Funding considerations:

- ✓ Compensation for research staff, hosting workshops to discuss methods, and communications about the findings
- ✓ Variety of funding sources that support policy-relevant research, especially on the topic of climate change, water security, and/or housing security.

Land2b. Capacity study of water vs. housing demands– DRIP Collaborative Members Feedback

Vote Description	Responses (3)
(1) Cannot support at this time	0
(2) Need additional information	1
(3) Go forward!	2

Comments and Information Needs: to be added

- This is a *necessary proposal to ensure the alignment of housing needs and water availability*.
- This recommendation is *critical for current and future drought preparedness*. This would set California up to have a much better understanding of our water supply and needs and *create a precedence for collecting more thorough data*.
- As mentioned in the recommendation, a *critical part of implementation will be coordinating with current state and federal initiatives*. On 10/1, Governor Newsom signed SB 72 (Caballero), which also seeks to create more long-term plans for California's water supply. The data from this study would be great to inform long-term supply targets in SB 72.
- *Coordination* would ensure that there is *no redundancy in implementing this recommendation and SB 72*.

DISCUSSION

Land2b. Capacity study of water vs. housing demands



What additional information is needed to complete the recommendation?

Scope/Description – Coordination – Implementation/Resources

A DRIP Collaborative Recommendation: A thoughtful, formal suggestion that addresses the issue or challenge described in a Problem Statement, providing solutions that are specific and actionable related to the preparation of, responding to, and recovering from periods of extreme water shortages and drought.

→ Also consider the value added of the recommendation. Does it significantly improve upon current efforts or introduce a needed new effort?

Public Comment

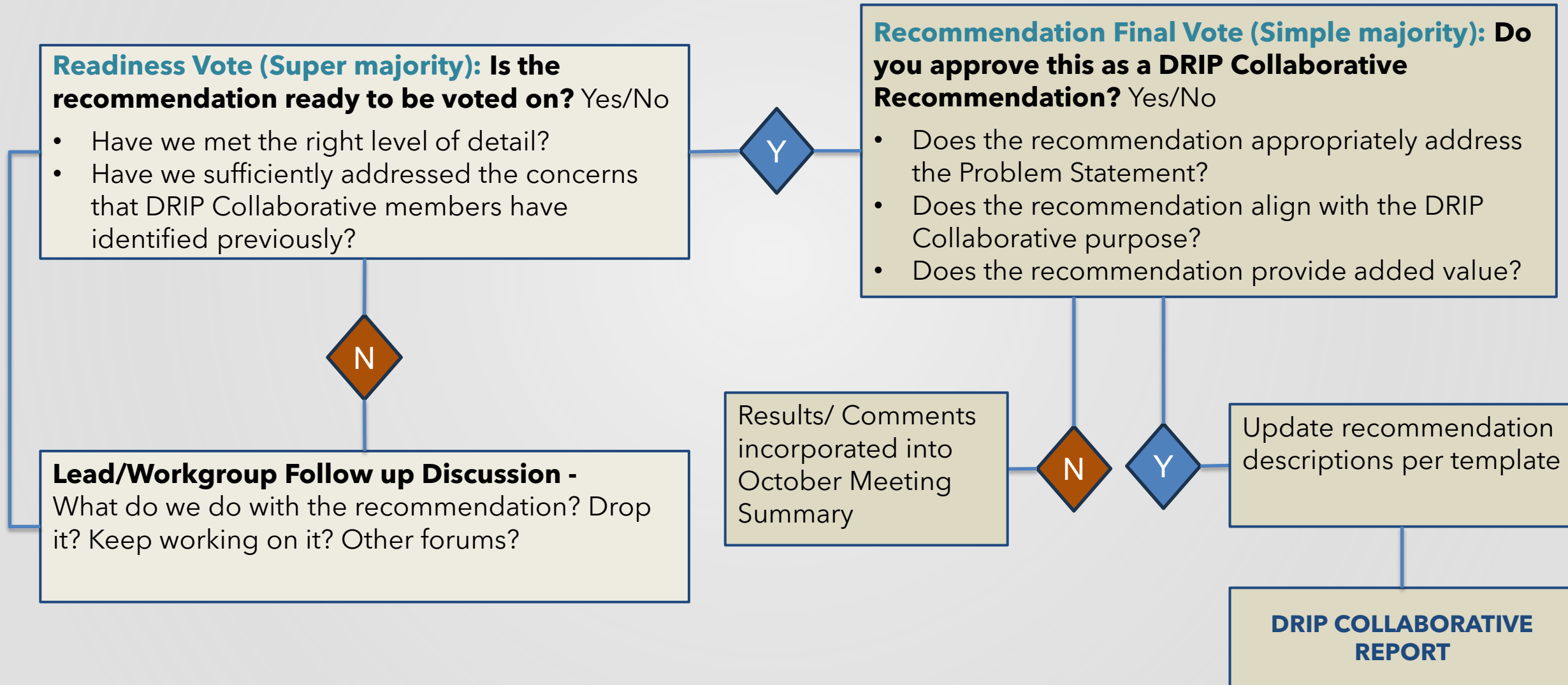
Land2b. Capacity study of water vs. housing demands

1. In-person participants

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 chat 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.

Finalizing the DRIP Collaborative Recommendation – Voting and Discussion



15 MIN BREAK

DRIP Collaborative Discussion

CLOSING OUT THE YEAR AND LOOKING AHEAD TO 2026

DRIP Collaborative Diverse Participation

The DRIP Collaborative incorporates diverse perspectives with the goal of strengthening collaboration among state agencies, county representatives, and local interest groups to accomplish new responsibilities and requirements mandated by Senate Bill (SB) 552.

- **Community based organization and technical assistance providers:** California Mutual, Community Water Center, Self Help Enterprises, Rural Community Assistance Corporation
- **Tribes:** BuenaVista, tribe-Yurok, DWR tribal liaison
- **Public members**
- **Environmental:** Environmental Defense Fund, CalTrout
- **Agriculture:** Agricultural Council of California, Jay Colombini Ranch, Inc.
- **Local government:** County of Santa Cruz, California State Association of Counties
- **Water Suppliers:** California Urban Water Agencies, Los Angeles County Public Works
- **Academia:** UC Merced, UC Davis, California Water Institute at Fresno State
- **State Agencies:** CDFW, CDFA, CalEPA, DWR, CalOES, SWB, OPR, CNRA

DRIP Collaborative Accomplishments to Date

2023

(Year 1)

PROCESS DEVELOPMENT

Convened a **Task Force** of diverse perspectives, expertise and experiences.

DELIVERABLES

From more than 100 suggestions of topics to work on, emerged **three key focus areas and related problem statement** for 2024 recommendation development.

2024

(Year 2)

Used a **workgroup process to promote discussion and development** of specific recommendations to address the previously identified problem statement.

Developed and **approved six actionable recommendations**

Initiated discussions on **next set of focus areas to develop in 2025**.

Identified **cross cutting themes** - Climate Change Adaptation, Nature Based Solutions, and Equity and Outreach.

2025

(Year 3)

Considered **complex issues and engaged SMEs** to broaden understanding and discussion on key questions related to ecosystem impacts, land use, and infrastructure need to address drought resilience

Expanded the process to consider the role of the DRIP Collaborative to advance proposed ideas through the **Inform/Complement/Lead framework**

Developed **three recommendations** (maybe voted on)

Engaged through a **COMPLEMENT approach** to support the General Plan Guidance development process

DRIP Collaborative is member led.
"High Impact, Efficient Effort"

Year 4: Impact on Urgent Items

Year 1
Foundation Building
Shared process, initial ideation (needs, solutions), engagement

2023

Year 2
Building Muscle
Content work, focused on early wins and demonstrating success

2024

Year 3
Scaling Impacts
High impact, more difficult work.
System change (as needed)

2025

Year 4
Moving to Action
Work to address issues with near term impacts

2026



2026: Revising the DRIP Collaborative Engagement

Statement of Purpose:

Given the list of recommendations and ideas developed in 2024 and 2025, the coming year offers an opportunity for the DRIP Collaborative to revisit and dive deeper into identified challenges to **facilitate proactive state planning and coordinate pre-drought preparedness, emergency response, and post-drought management.**

This is particularly important as the state faces the **possibility of a second consecutive year of drought conditions** and related impacts.

- **Virtual Workgroup Meetings:** Shift away from workgroup meetings, to instead run informal collaborative planning meetings (no decision making) that fosters greater discussion for the in-person meetings (which will remain public meetings with BKA compliance).
- **2026 Work:** In-depth focus on two - three topics (beyond ideation and recommendations)
- **Expand Participation:** Encourage participation from non-DRIP members and subject matter experts (SMEs) to enhance shared learning and strengthen discussions and findings on key topics.
- **Deliverables:** Develop issue papers or white papers to document discussions and findings, which can be incorporated into the DRIP Annual Report.
- **Member led:** DRIP Collaborative members may continue advancing 2025 ideas based on members interests and participation in follow up meetings.



Principles to Guide and Inform the 2026 DRIP Collaborative Work

Regional Perspective: Focus on strengthening local and regional capacity and response to improve drought preparedness and management.

Capacity: Leverage the expertise of DRIP Collaborative members while being mindful of capacity limitations when selecting topics for 2026.

Scope: Balance the need for short-term actions in anticipation of continued drought conditions with the importance of sustained long-term planning.

Value Add: Assess whether proposed topics are already being addressed by other efforts—positioning DRIP’s work as a complement—or if they represent an urgent gap that the DRIP Collaborative should prioritize next year. Consider how to leverage the DRIP Collaborative to maximize impact!

Flexibility: Maintain flexibility to adapt as conditions evolve. Continue tracking progress on 2024 recommendations and 2025 ideas and adjust priorities in response to emerging needs and opportunities.

Coordination Opportunities: Continue to promote coordination across -

- Agencies, organizations and sectors
 - Different beneficiaries
- Old, current and upcoming efforts and programs
 - Temporal scales (hydrologic cycle)
 - Spatial scales (local, regional, and state)

2026: Where should DRIP spend time?



Topics to Advance in 2026

Prepare & Resilience Building



Crisis Management

LOCAL AND REGIONAL RESPONSE (NEAR-TERM)

Ensure we're addressing domestic wells/ vulnerable population

- Roles & Responsibilities, including SB 552 progress
- Drought Indicator and Metrics

Possible Multi-Year Efforts (member led, continuing from 2025)

- ? Eco: In-stream flow target setting
- ? Eco: drought impacts, forthcoming guidance/recs from SGMO
- ? Water Infra: Long-term infrastructure, regulatory flexibility
- ? Water Infra: Vulnerable communities and infrastructure
- ? Land Use: Land repurposing (long-term, regional capacity)

2026: LOCAL AND REGIONAL RESPONSE (NEAR-TERM)



Roles & Responsibilities, including SB 552 progress

For Discussion

Possible next steps

1. Clarify existing roles and responsibilities, including executing on the gap analysis. DRIP would work with an external entity, such as an academic researcher (per 2024 Rec #5 implementation)
2. Host a convening, possibly led by DWR and SWB, with the relevant subject matter experts to ensure sufficient input
3. Help suggest potential new roles, such as related to:
 - County roles in permitting and limiting domestic wells in existing impacted areas
 - County land use planning informed by domestic well impacts areas
4. Debate and discuss options in a future DRIP in-person meeting
5. Summarize guidance via a DRIP authored report, white paper, or issue paper

Potential DRIP input: Ensure appropriate groups are involved in Gap Analysis; Review findings and options

2026: LOCAL AND REGIONAL RESPONSE (NEAR-TERM)



Drought Indicator and Metrics

Possible next steps

For Discussion

- 1. Coordination.** Form a drought indicator workgroup, in coordination with the CA Water Data Consortium, NIDIS, State Agencies, and others (per 2024 Rec #1 implementation)
- 2. Prioritized list.** Create an initial list of current and potential drought indicators for tracking going forward. Confirm these indicators would be locally/regionally actionable (potentially impact-focused) if dryness/drought continue in 2026
- 3. Assess feasibility.** Using the prioritized list, identify access and sources of needed data and availability. Develop a proposal for funding if sufficient interest/momentum from partners
- 4. Use/communication.** Clarify how, where and when (how often) possible drought indicators would be provided and used. Define options for what organizations would help curate, produce, and house the indicators

Potential DRIP input: Ensure appropriate views are in workgroup, provide map of current related efforts, review recommended drought indicators, help collect/compile data input data, ensure effective communication. Example: Can DRIP help inform drought indicators for LCI Vulnerable Communities Platform?

2026: Continue with additional Multi-Year Planning topics



Possible Multi-Year Efforts (member led, continuing from 2025)

- ? Eco: In-stream flow target setting
- ? Eco: drought impacts, forthcoming guidance/recs from SGMO
- ? Water Infra: Long-term infrastructure, regulatory flexibility
- ? Water Infra: Vulnerable communities and infrastructure
- ? Land Use: Land repurposing (long-term, regional capacity)

DRIP Collaborative discussion: What are Urgent/Important Topics to continue to develop in 2026?

2026 Proposed DRIP Collaborative Engagement Timeline



Closing the Year – Next Steps

- Prepare 2025 DRIP Collaborative Annual Report
- Schedule a virtual meeting (likely January) to define the process and scope of the DRIP Collaborative 2026 work

DRIP Collaborative discussion: Reflections from our 2025 work?
What are you looking forward to discussing and advancing in 2026?

Public Comment

1. In-person participants:

- a) 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.
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Paul Gosselin, CA Department of Water Resources – Deputy Director of Sustainable Water Management

CLOSING COMMENTS



California
DRIP Collaborative

Adjourn

Thank you!