California

DRIP Collaborative

Meeting #5

Drought Resilience Interagency & Partners (DRIP) Collaborative

Friday July 12th, 2024
California Natural Resources Agency
715 P Street, Sacramento, CA
Room 02-302A/B (Second Floor)

Meeting Information

1. This meeting is being live streamed and recorded.
2. Members of the public are welcome to listen. A public comment session is included later in 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!

Meeting Objectives

Objective #1: Review 2024 recommendations and engage in discussions to inform their further refinement.

Objective #2: Review opportunities to expand on additional focus areas that were previously identified by DRIP members.

Joaquin Esquivel, State Water Resources Control Board

WELCOMING REMARKS

Meeting Agenda

1. Welcoming Remarks and Setting Intentions
2. Informational Hydrology Update
3. Review of the Focus Areas Recommendations Process
4. Drought-Relevant Data Focus Area Recommendations
5. Drought Preparedness for Domestic Wells Focus Area Recommendations
6. *LUNCH [12:30pm – 1:30pm]*
7. Drought Definition and Narrative Focus Area Recommendations
8. Alignment Across Recommendations
9. *BREAK [2:45 – 3:00]*
10. DRIP 2025 Focus Areas Development
11. Public Comment
12. Closing Comments

DRIP Collaborative (Quorum is 14)

1. **Amber Garcia Rossow (Catherine Freeman),** California State Association of Counties
2. **Brent Hastey,** Plumas Lake Self Storage, Owner
3. **Carolina Hernandez**, Los Angeles County Public Works
4. **Carolyn Cook (Virginia Jameson),** California Department of Food and Agriculture
5. **Elea Becker Lowe**, Governor's Office of Planning and Research
6. **Joaquin Esquivel**, State Water Resources Control Board
7. **John Andrew (Karla Nemeth),** California Department of Water Resources
8. **Joshua Grover**, California Department of Fish and Wildlife
9. **Joshua Rahm (Jason Colombini)**, California Walnut Board & Commission
10. **Justine Massey**, Community Water Center
11. **Katie Ruby**, California Urban Water Agencies
12. **Laura Ramos**, California Water Institute at Fresno State
13. **Matessa Martin**, Buena Vista Rancheria of the Me-Wuk Indians
14. **Nancy Vogel**, California Natural Resources Agency
15. **Nate Ortiz (Christina Curry),** California Office of Emergency Services
16. **Redgie Collins**, California Trout, Inc.
17. **Robyn Grimm (Anna Schiller),** Environmental Defense Fund
18. **Sierra Ryan**, Santa Cruz County
19. **Suzanne Pecci**, Domestic Well Planning Group South American Subbasin
20. **Tami McVay**, Self Help Enterprises
21. **Tim Worley**, California Association of Mutual Water Companies

Additional Members:

22. **Alvar Escriva-Bou**, University of California Los Angeles
23. **Anna Naimark**, California Environmental Protection Agency
24. **Emily Rooney**, Agricultural Council of California
25. **Louisa McCovey**, Yurok Tribe
26. **Grace Person**, Civic Well (Vacant)

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

SETTING INTENTIONS

Building a foundation for impact

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 & Beyond – Implementation
High impact, more difficult work.
System change (as needed)

2025+

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DRIP Collaborative: Our process so far

2023 DRIP Meetings

Meeting #1: Build relationships, initial ideation, and shared goals

Meeting #2: Define process, achieve initial view on possible focus areas

Aug/Oct VM: Gather input on initial focus areas and prep for problem statement discussions

Meeting #3: Identify initial 3 focus areas and their working problem statements. Discuss approach to other focus areas. Create list of knowledge development topics

2024 DRIP Meetings

DRIP Meeting #4 (Apr)

- Ensure clarity on process for recommendations
- Discuss recs for the initial 3 focus areas
- Touch upon next focus areas for 2025

DRIP Meeting #5 (July)

- Refine recs for the initial 3 focus areas. Straw poll
- Begin the development of 2025 focus area problem statements

Jan/Feb/Mar 2024 Virtual Meetings (VM)

- Intro recommendation process
- Prep for April discussion

June 2024 Virtual Meetings (VM)

- Review Recommendations Template Part I
- Prep for July recommendations discussion

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DRIP Collaborative: April 26 recap

DRIP Meeting #4 (Apr)

- Ensure clarity on process for recommendations
- Discuss recs for the initial 3 focus areas
- Touch upon next focus areas for 2025

Meeting Overview

Members of the DRIP collaborative met during the first meeting of 2024 on April 26 in Sacramento. The following bullet points provide a brief overview of meeting outcomes; additional detail is provided in the summary below. Key takeaways and outcomes include:

- Began the process of forming recommendations to address the current three focus areas and their proble
- Formally est recommend
- Started the detailed dis developmer

Recommendation Discussion

Glen Low provided a recap of the recommendation development process, how members will provide feedback, and an overview of recommendations submitted for consideration. Recommendations were grouped by focus area, as categorized below:

- Drought-Relevant Data
  - Recor
  - Recor
- Drought Prep
  - Recor
  - Recor
  - Recor
- Drought Defi
  - Recor
  - Recor
  - Recor

DRIP Meeting #4
April 26, 2024

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We received written worksheet comments from 13 of the DRIP members
59 total comments, although some were brief

This is a breakdown of who submitted comments and for which recommendation.

		Recommendation #							
	(Alphabetical by first name)	1 Metrics	2 Evaluation	3 SB 552	4 WMP	5 Roles	6 Definition	7 Communic	8 Studies
1	Alvar Escriva-Bou		x	x	x	x		x	x
2	Elea Becker-Lowe	x	x	x	x	x	x	x	x
3	Emily Rooney			x	x				
4	Jason Colombini	x			x				
5	Katie Ruby	x	x	x				x	x
6	Katy Landau	x	x	x	x	x	x	x	x
7	Laura Ramos				x				
8	Matessa Martin	x					x		x
9	Ramy Gindi	x							
10	Sierra Ryan	x	x	x	x		x	x	x
11	Suzanne Pecci	x	x	x	x	x	x		
12	Tim Worley	x	x	x			x		x
13	Justine Massey				x	x	x	x	x

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DRIP: Upcoming process

Note: Actual timing may vary, based on pacing of DRIP Collaborative discussions

2025 DRIP Meetings

DRIP Meeting #5 (July)

- Refine recs for the initial 3 focus areas. Straw poll
- Begin the development of 2025 focus area problem statements

DRIP Meeting #6 (Oct)

- Review Part II for initial recommendations. Vote
- Review 2025 focus areas problem statements

DRIP Meeting #7 (Apr)

- (If needed) Finalize 2024 recommendations
- Initial discussion of 2025 recommendations

Aug/Oct 2024 Virtual Meetings (VM)

- Create draft problem statement in VM meeting for each new focus area
- Additional 101 info sessions (as needed)

Jan/Feb/Mar 2025 Virtual Meetings (VM)

- Approve problem statements
- Identify 2025 rec ideas in VM meetings
- Identify leads

2025 Focus Areas?

- Reducing Ecosystem Impacts of Drought
- Water Resources & Operations
- Infrastructure & Planning
- Land Use Planning

Cross cutting?

- Integrating Climate Change Adaptation
- Implementation of Nature-based Solutions

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Jeanine Jones, CA Department of Water Resources

INFORMATIONAL ITEM

HYDROLOGY & CONDITIONS UPDATE

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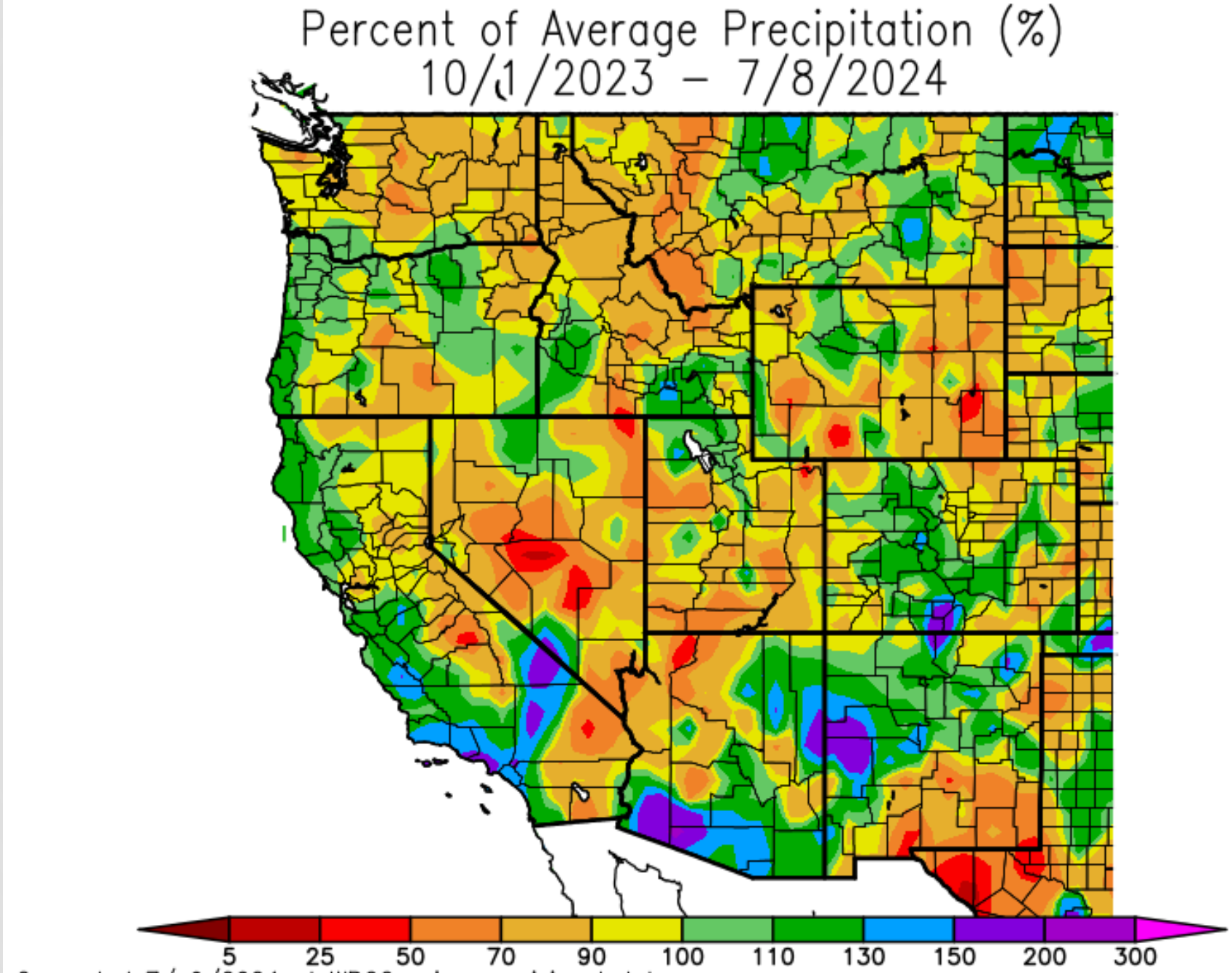
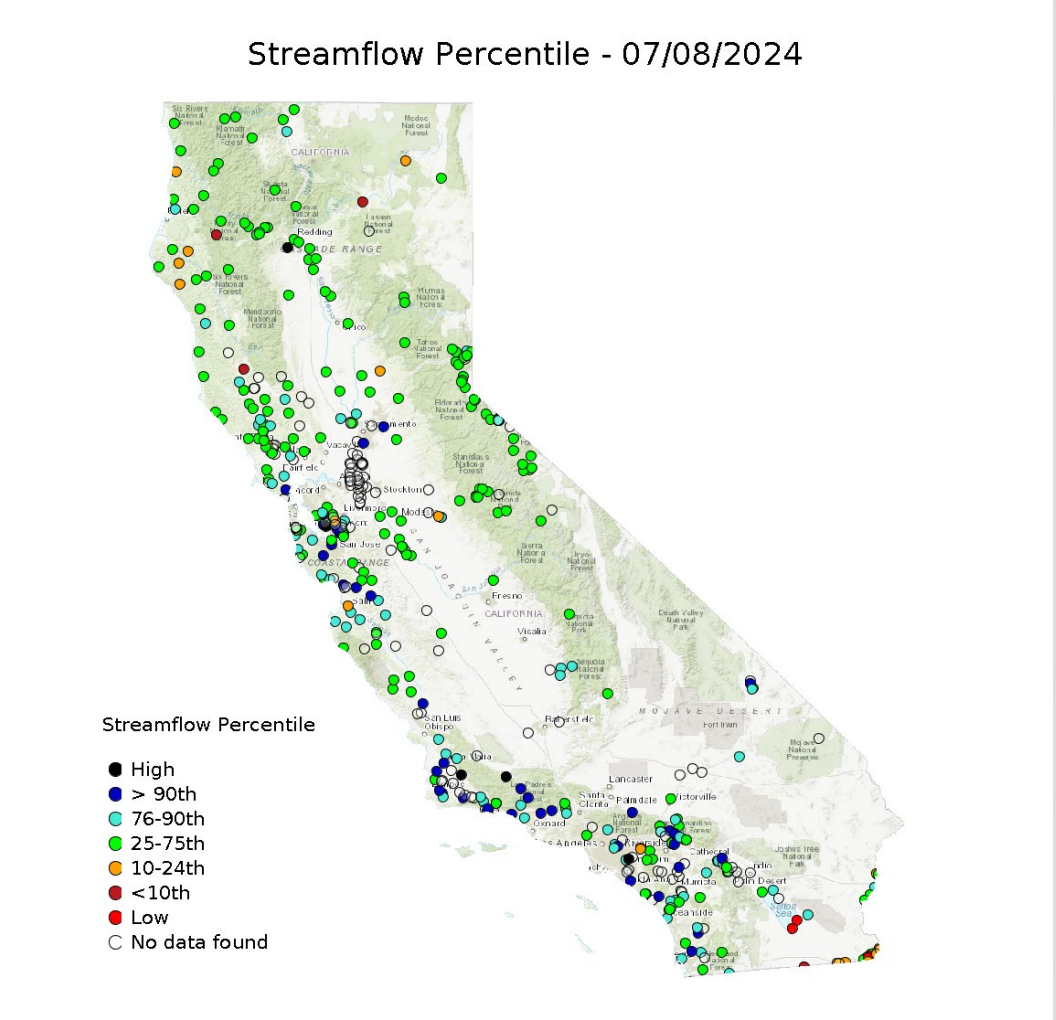
California Water Conditions

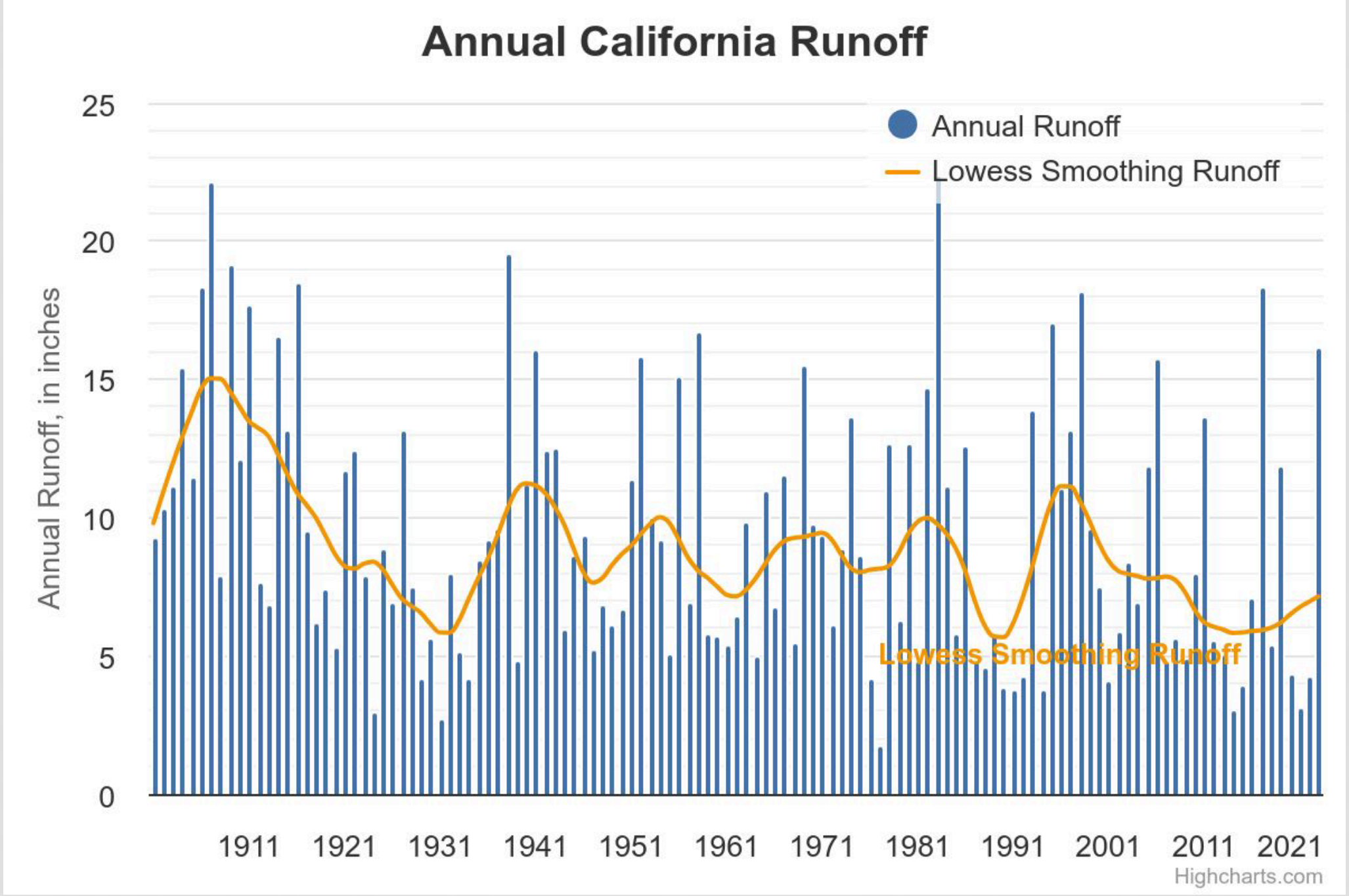
Jeanine Jones, California Department of Water Resources


Percent of Average Precipitation (%)
10/1/2023 – 7/8/2024
5
25
50
70
90
100
110
130
150
200
300
Generated 7/ 9/2024 at WRCC using provisional data.
NOAA Regional Climate Centers

Current Conditions

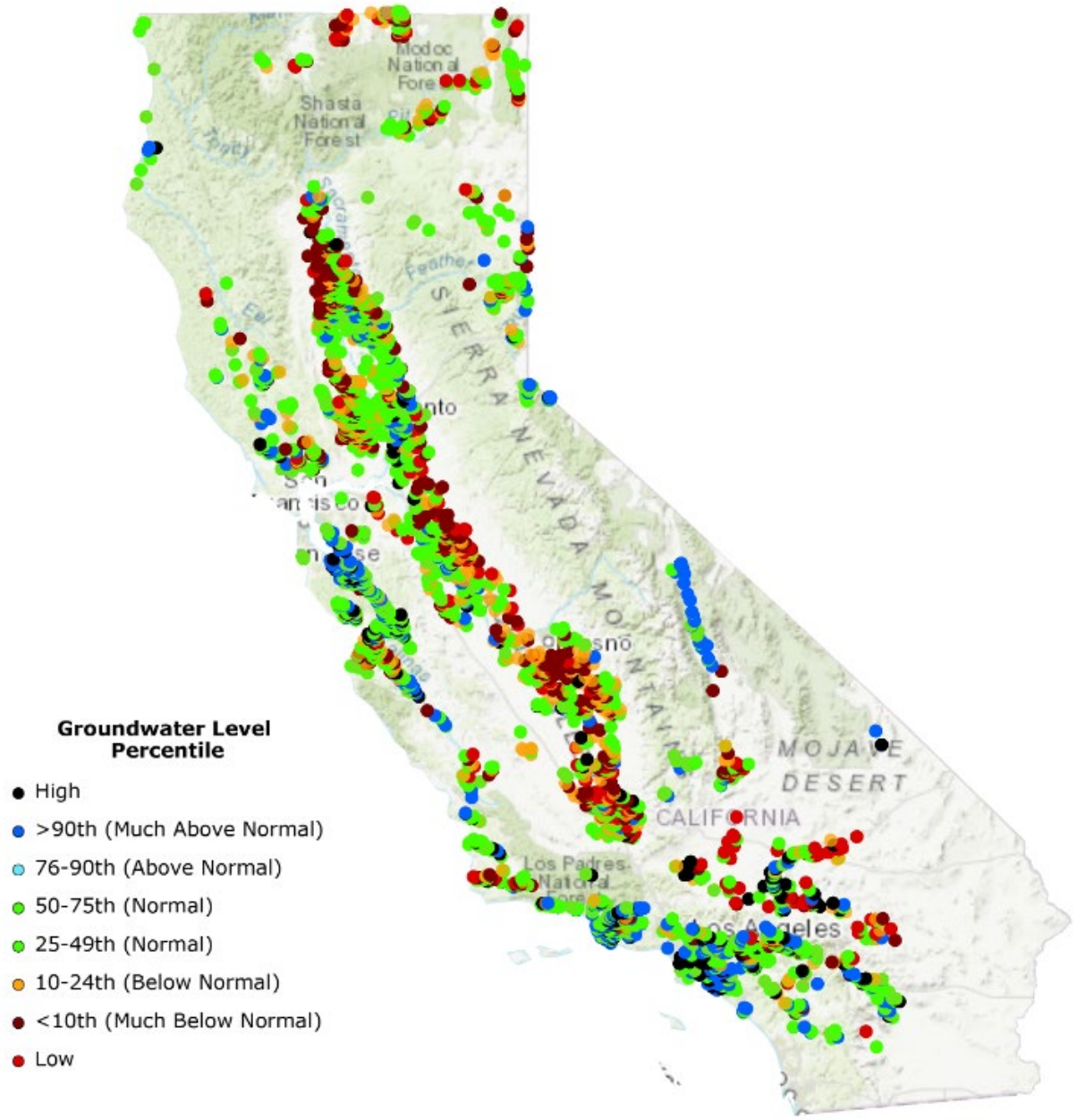
- Statewide precipitation: 102% of average for this date
- Statewide reservoir storage: 116% of average for this date



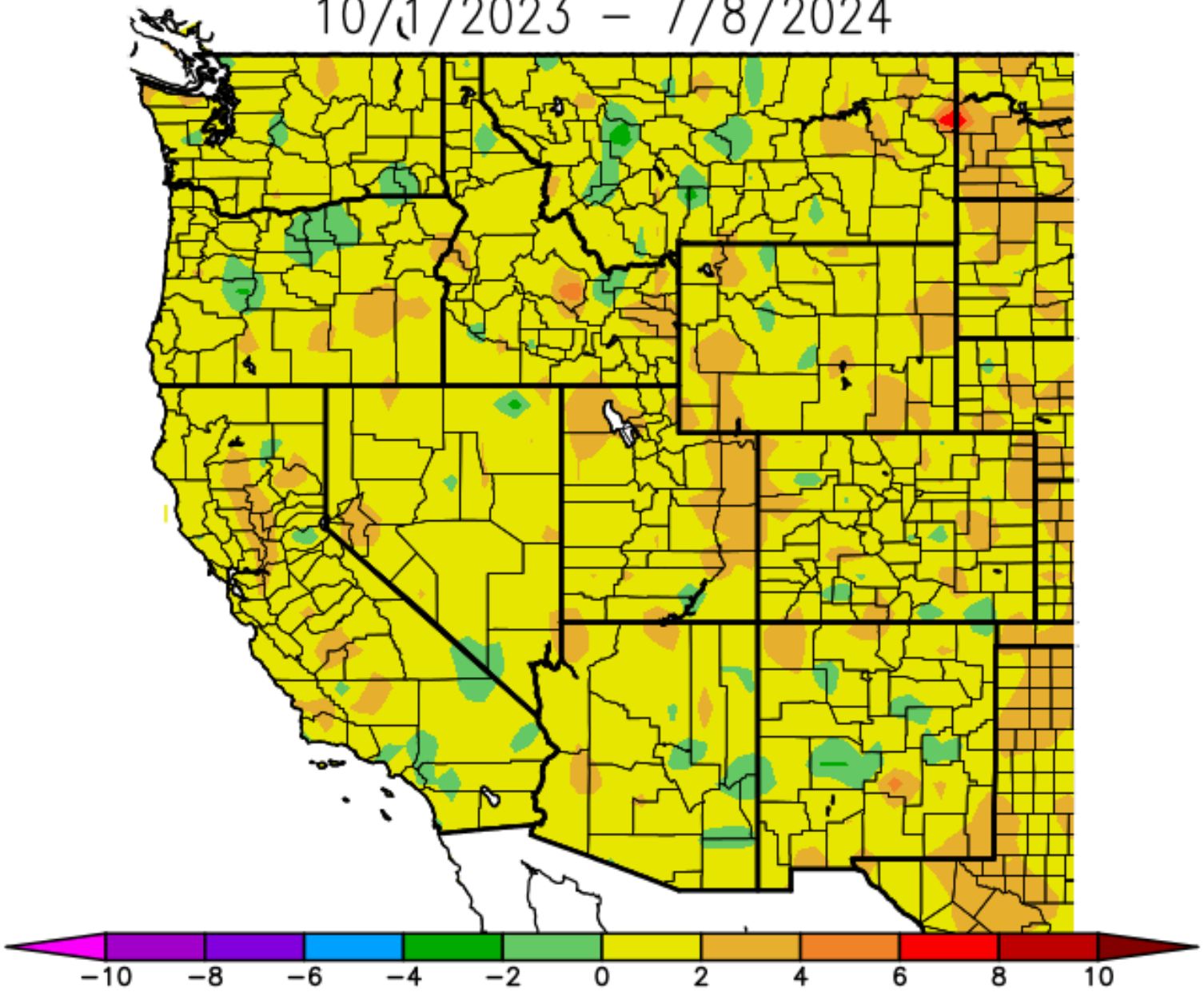


USGS through 2023

Groundwater Level Percentile - 07/07/2024



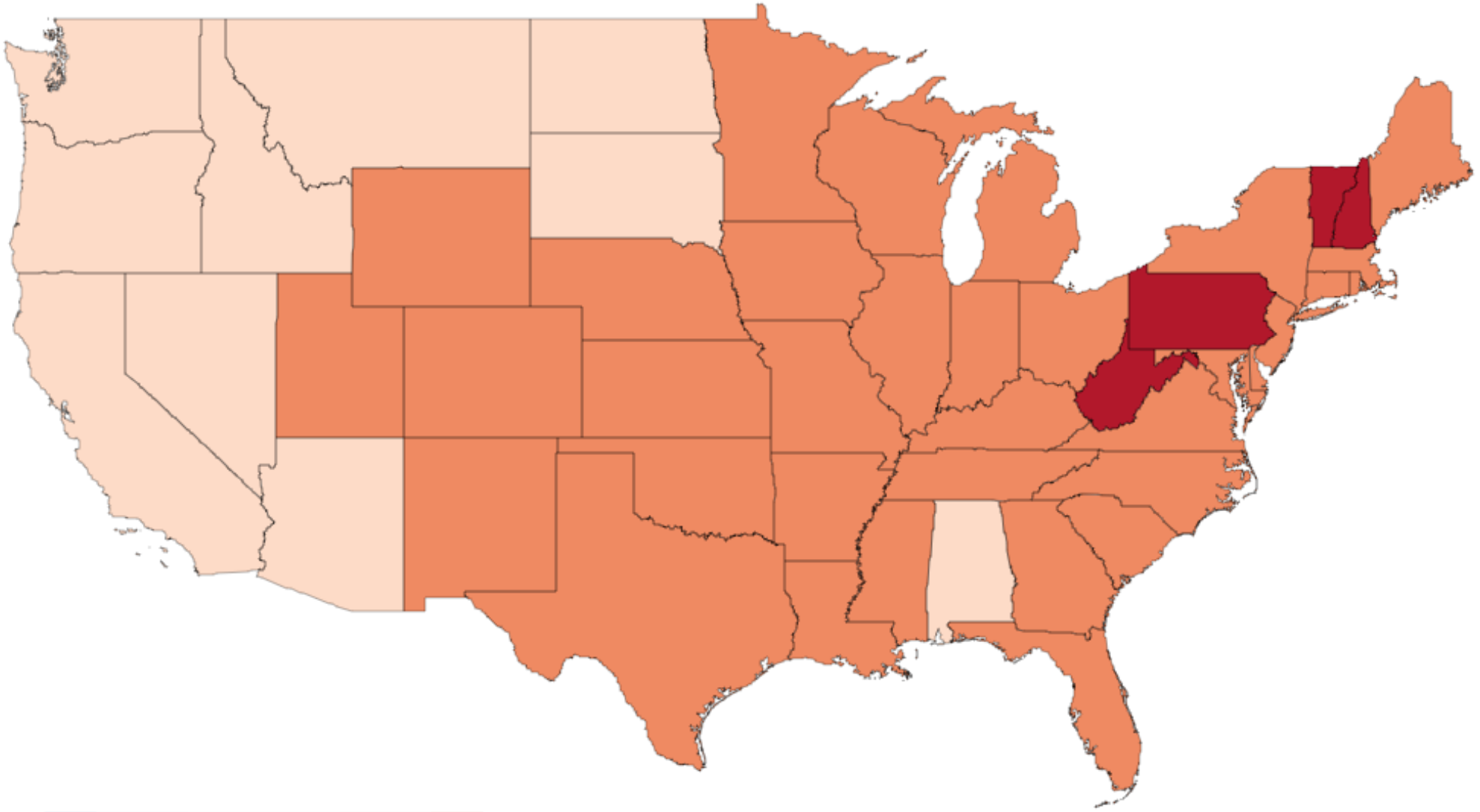
Ave. Temperature dep from Ave (deg F)
10/1/2023 – 7/8/2024



Generated 7/ 9/2024 at WRCC using provisional data.
NOAA Regional Climate Centers

Statewide Average Temperature Rank (130 years)

January - June 2024



Coldest | ↓1/10 | ↓ 1/3 | Near Normal | ↑ 1/3 | ↑1/10 | Warmest

Contiguous U.S. *(Hover over a State)*

Temp: 50.93°F **Anomaly:** 3.41°F **Rank:** 2nd Warmest **Mean:** 47.52°F

September 2022 Heatwave

- 134 Death Valley (disputed)
- 125 Needles
- 124 Blythe
- 123 Palm Springs
- 121 Chico, Red Bluff
- 120 El Centro, Lake Cachuma, Lake Henshaw, Whiskeytown
- 119 Ojai, Redding
- 118 Calistoga, Elsinore, Ontario, Palmdale, Riverside
- 117 Chico, Healdsburg, Paso Robles, San Luis Obispo, Ukiah
- 116 Fullerton, Gilroy, Merced, Oroville, Sacramento
- 115 Bakersfield, Escondido, Madera, Pasadena
- 114 Fairfield, Fresno
- 113 Los Angeles
- 111 Long Beach, San Diego
- 110 San Rafael, Santa Cruz

July 2024 Heatwave, Preliminary Data

- Death Valley 128
- Palm Springs 124
- Las Vegas 120
- Redding 119
- Barstow 118
- Fresno, Bakersfield 114

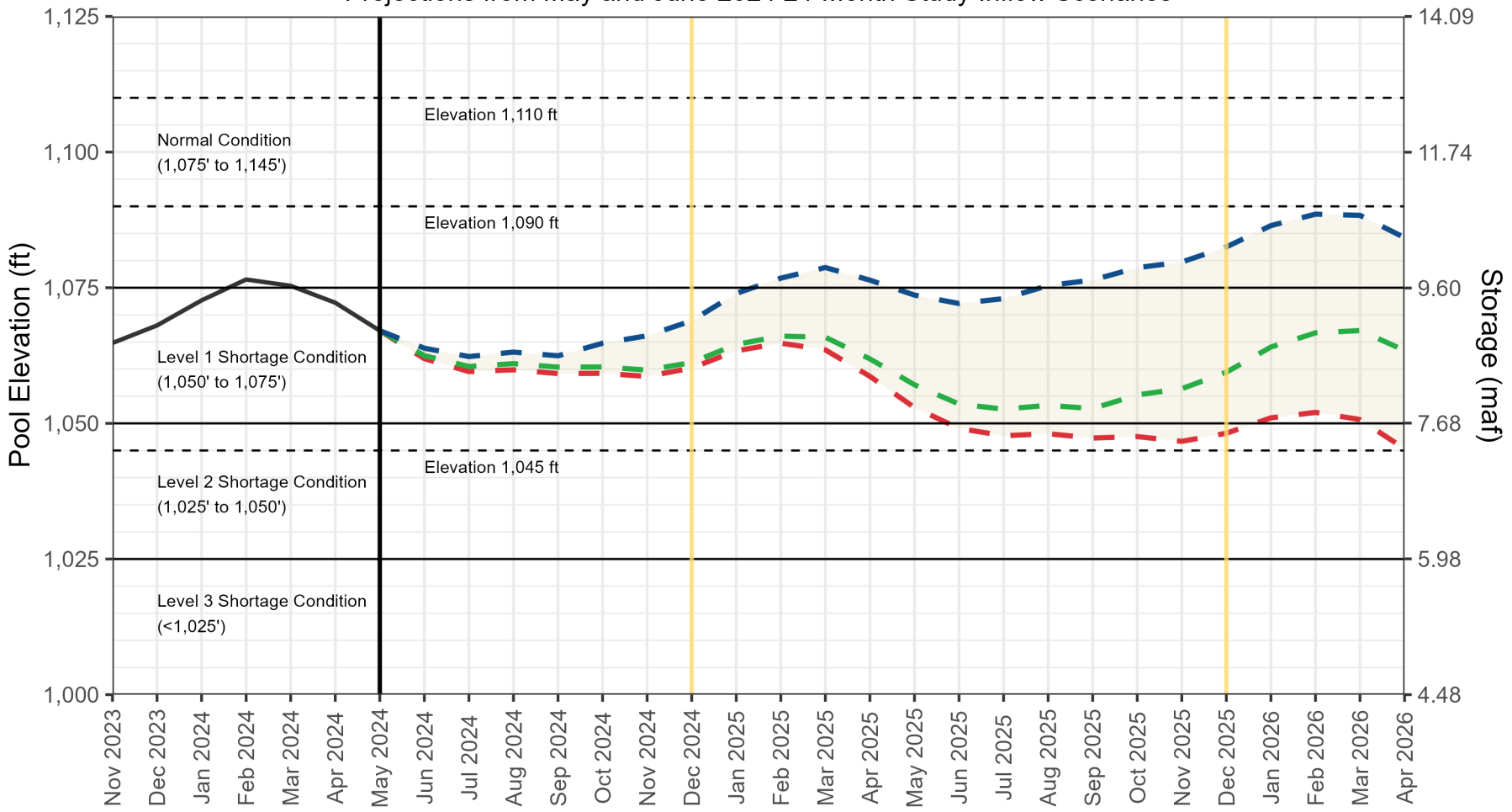
- Duration records expected to be broken in some areas

Water Project Allocations

- SWP: 40%
- CVP:
  - NOD: 100%
  - SOD: 50% Ag & M&I
    - 100% Friant Class 1

Lake Mead End-of-Month Elevations

Projections from May and June 2024 24-Month Study Inflow Scenarios



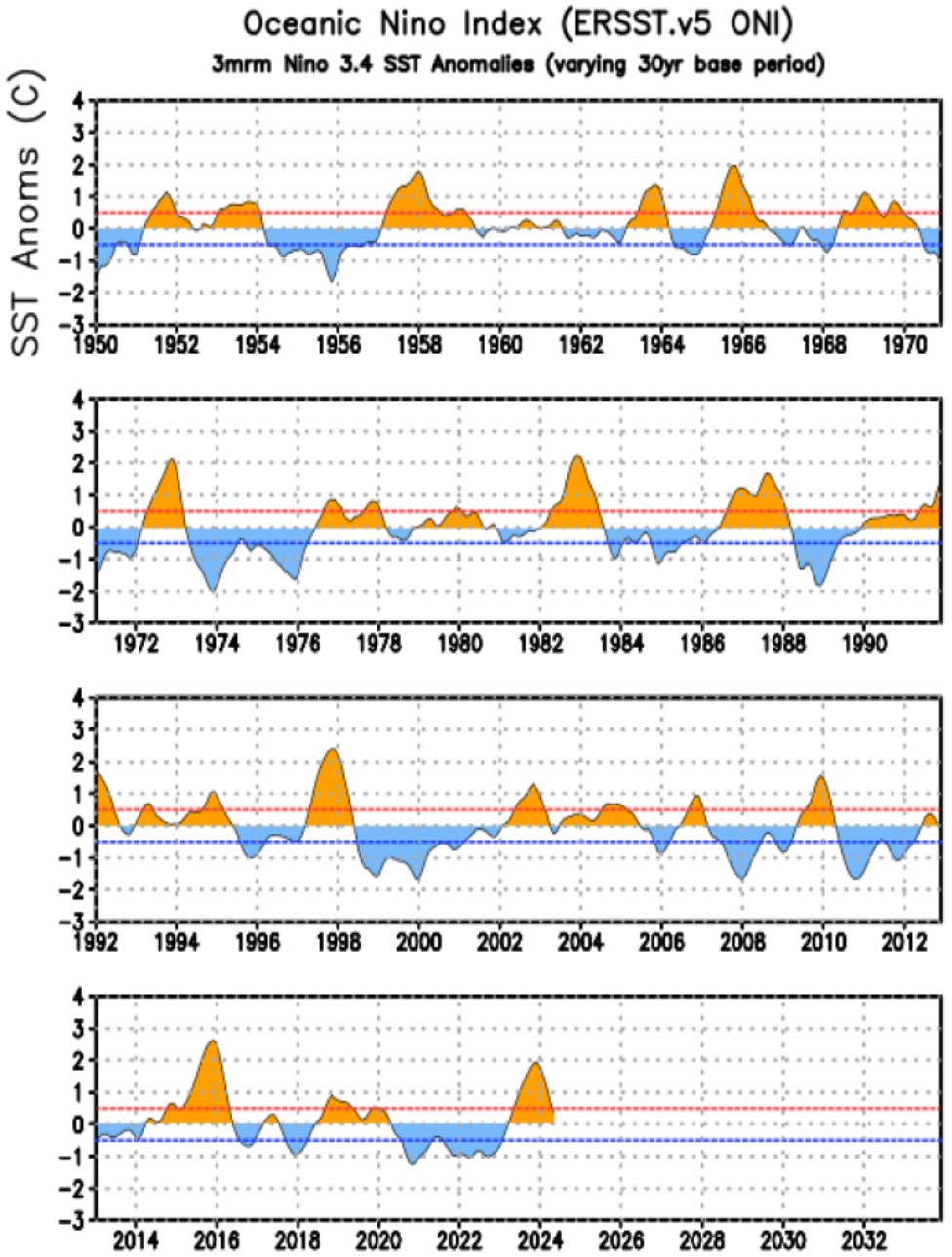
Historical Elevations

May 2024 Probable Maximum Inflow with a Lake Powell release of 7.48 maf in WY 2024 and 9.00 maf in WY 2025

June 2024 Most Probable Inflow with a Lake Powell release of 7.48 maf in WY 2024 and WY 2025

June 2024 DROA Probable Minimum Inflow with a Lake Powell release of 7.48 maf in WY 2024 and WY 2025

BUREAU OF RECLAMATION



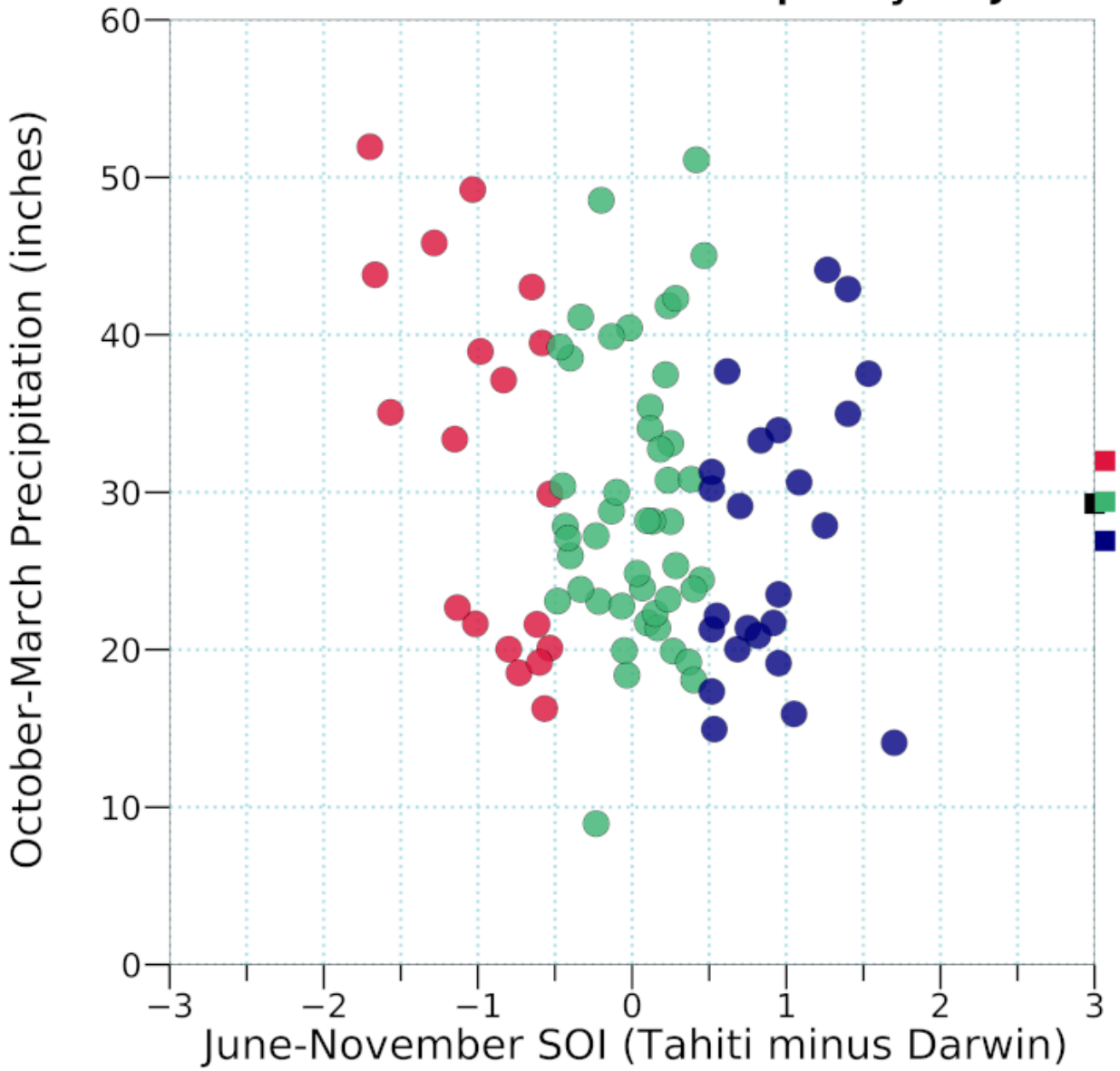
El Niño

Neutral

La Niña

CA Division 2 October-March Precipitation

(versus Southern Oscillation Index for prior year June-November)



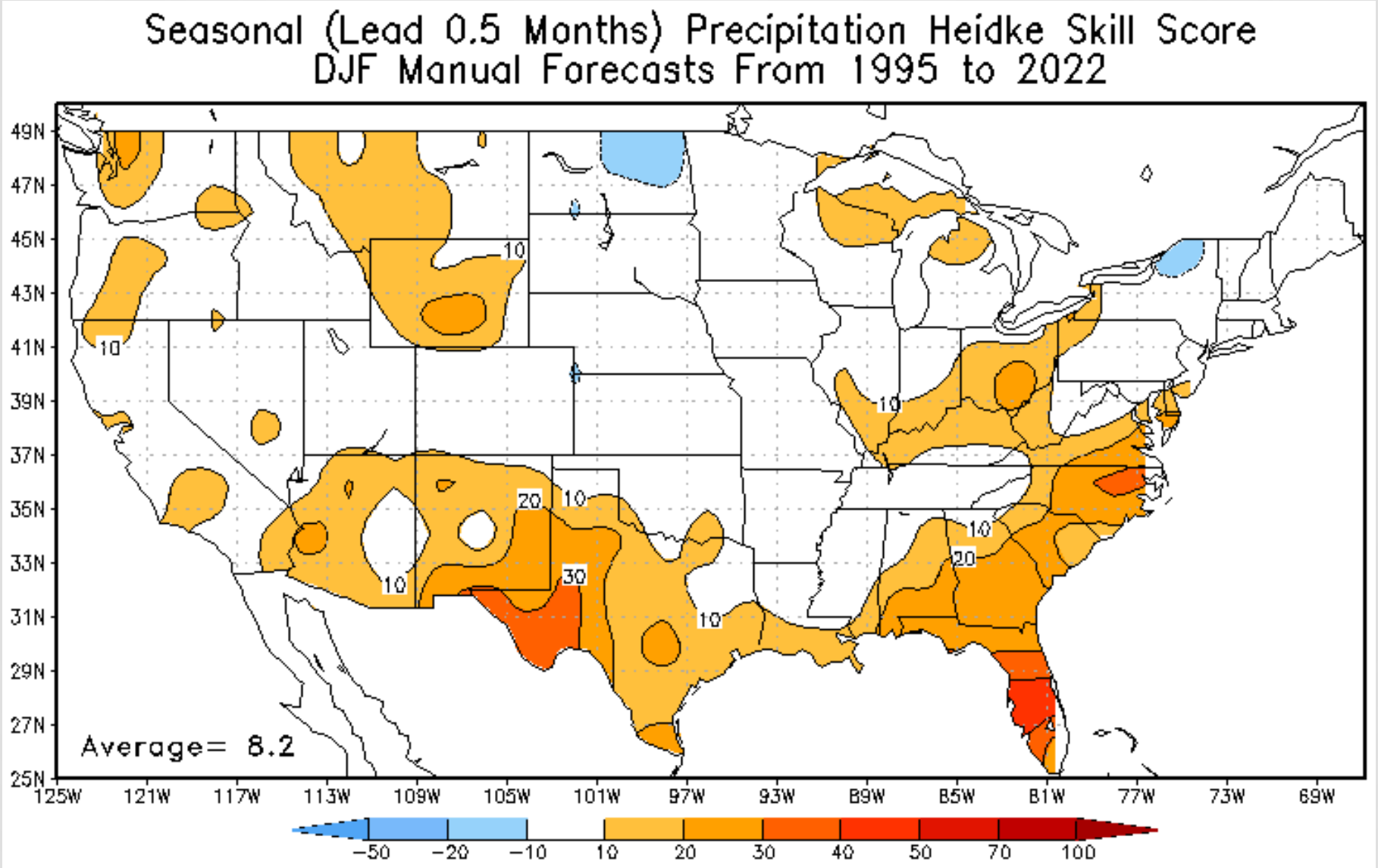
Years:
1933/1934 - 2021/2022

r^2 = 0.04
Correlation = -0.20

Mean = 31.99
Mean = 29.40
Mean All = 29.28
Mean = 26.91

WESTERN REGIONAL CLIMATE CENTER

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



CALFIRE Statistics YTD

INTERVAL	WILDLAND FIRES	ACRES
2024 Combined YTD (CALFIRE & US Forest Service)	3,499	197,288
2023 Combined YTD (CALFIRE & US Forest Service)	2,954	9,717
5-Year Average (same interval)	3,621	38,131

Top 20 Most Destructive California Wildfires

	FIRE NAME *(CAUSE)*	DATE	COUNTY	ACRES	*STRUCTURES*	DEATHS
1	**CAMP** *(Powerlines)*	November 2018	Butte	153,336	**18,804**	85
2	**TUBBS** *(Electrical)*	October 2017	Napa & Sonoma	36,807	**5,636**	22
3	**TUNNEL - Oakland Hills** *(Rekindle)*	October 1991	Alameda	1,600	**2,900**	25
4	**CEDAR** *(Human Related)*	October 2003	San Diego	273,246	**2,820**	15
5	**NORTH COMPLEX** *(Lightning)*	August, 2020	Butte, Plumas, & Yuba	318,935	**2,352**	15
6	**VALLEY** *(Electrical)*	September 2015	Lake, Napa & Sonoma	76,067	**1,955**	4
7	**WITCH** *(Powerlines)*	October 2007	San Diego	197,990	**1,650**	2
8	**WOOLSEY** *(Electrical)*	November 2018	Ventura	96,949	**1,643**	3
9	**CARR** *(Human Related)*	July 2018	Shasta County, Trinity	229,651	**1,614**	8
10	**GLASS** *(Undetermined)*	September 2020	Napa & Sonoma	67,484	**1,520**	0
11	**LNU LIGHTNING COMPLEX** *(Lightning/Arson)*	August 2020	Napa, Solano, Sonoma, Yolo, Lake, & Colusa	363,220	**1,491**	6
12	**CZU LIGHTNING COMPLEX** *(Lightning)*	August 2020	Santa Cruz, San Mateo	86,509	**1,490**	1
13	**NUNS** *(Powerline)*	October 2017	Sonoma	54,382	**1,355**	3
14	**DIXIE** *(Under Investigation)**	July 2021	Butte, Plumas, Lassen, & Tehama	963,309	**1,311**	1
15	**THOMAS** *(Powerline)*	December 2017	Ventura & Santa Barbara	281,893	**1,063**	2
16	**CALDOR***(Under Investigation)*	September 2021	Alpine, Amador, & El Dorado	221,774	**1,003**	1
17	**OLD** *(Human Related)*	October 2003	San Bernardino	91,281	**1,003**	6
18	**JONES** *(Undetermined)*	October 1999	Shasta	26,200	**954**	1
19	**AUGUST COMPLEX** *(Lightning)*	August 2020	Mendocino, Humboldt, Trinity, Tehama, Glenn, Lake, & Colusa	1,032,648	**935**	1
20	**BUTTE** *(Powerlines)*	September 2015	Amador & Calaveras	70,868	**921**	2

CALFIRE


110
100
90
80
70
60
50
40
30
BAKER
CA
GATEWAY
TO
DEATH
VALLEY
WORLD
FAMOUS
Market & Gift Shop
Now Open
Gift Shop

Glen Low and Orit Kalman

REVIEW OF THE FOCUS AREAS RECOMMENDATIONS PROCESS

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Focus Areas, Problem Statements, Recommendations

Focus Area	Problem Statement	Recommendation
Focus Areas are ideas, opportunities, and aspirations that DRIP Members have identified as important to improved California drought resiliency. These were captured on the Reference List and are sequenced and prioritized based on feedback during in-person and virtual meetings (VMs).	A Problem Statement is a concise description of the issue or challenge faced by a Focus Area. Developed by DRIP Members, Problem Statements seek to capture the essential problems within each Focus Area, including identification of key sub-topics within each focus area.	A DRIP Recommendation is 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.

Recommendation Process

Principles

Process Design: Collaborative, iterative and transparent. High visibility, light touch.

Member Driven: Recommendations are developed by DRIP Members with the goal of consensus but acknowledgement that support may vary by individual Members.

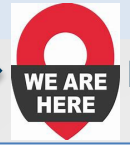
Flexible Timing: Each recommendation is unique. Some may be quick, others may take more time. The process ensures input from SMEs, public, and represented constituencies. Workgroups will be formed to aid efficient development.

Recommendation Process

Timeline

What is the Recommendation? → **How will it be Implemented?**

	Identification *In-person*	Development	Review *In-person*	Refinement	Determination *In-person*
Objective	Identify initial recommendation ideas and a DRIP member lead.	Build out the details of the recommendation using the provided template.	Facilitate member feedback and public input. Gauge the level of support and identify concerns.	Address concerns and build out implementation strategy.	Final review. Conduct a formal poll to determine collective support, assigning appropriate designations.
Lead	Confirm availability and identify support needed from DRIP members and other entities. Provide initial information and details.	Build out recommendation, ensuring it aligns with broad problem statements. Identify required SME input. Attend at least one VM.	Present recommendation and engage in discussions to gather feedback.	Address concerns and action items to develop a complete recommendation for member determination.	Present the final recommendation and answer clarifying questions.
Support	Lead and document discussion based on existing focus area problem statements and DRIP member's shared understanding.	Provide guidance, coordinate with SMEs, communicate with members, facilitate and document VMs.	Facilitate and document discussion, including action items to address. Initiate straw poll and summarize action items to address in refinement.	Provide guidance, coordinate with SMEs, communicate with members who voiced concerns, facilitate and document VMs.	Facilitate and document discussion. Initiate poll and determine designation.



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2024 Recommendations

One sentence summaries

Drought Relevant Data

1. **Drought Indicators and Metrics** | Alvar Escriva-Bou
   Indicators and metrics to improve drought decisions, actions and resilience.
2. **Rapid Inventory of Drought Related Tools and Resources** | Elea Becker Lowe/ Ben McMahan
   Rapid inventory of drought related tools & resources relevant to California.

Drought Preparedness for Domestic Wells

3. **SB 552 Language Update** | Justine Massey
   Minor amendments to SB 552 to enhance the law's feasibility and implementation.
4. **Community Well Monitoring Program** | Suzanne Pecci
   Technical support and funding for a community well monitoring program ("community network").
5. **Roles and Responsibilities** | Justine Massey, Sierra Ryan, Tami McVay, Andrew Altevogt
   Outline of roles and responsibilities of various authorities to provide short-term and long-term drinking water solutions for existing domestic wells, and comprehensive planning to limit new development in areas with failing domestic wells until solutions are reached.

Drought Definition and Narrative

6. **Drought Definitions White Paper** | Katie Ruby
   White paper that discusses drought definitions and their implications for various sectors in California.
7. **Communication Program** | Tim Worley
   A continuous communication program to elevate public awareness and activate appropriate responses according to near-term and longer-term water conditions.
8. **Drought Case Studies** | Elea Becker-Lowe/ Ben McMahan
   Specific examples that describe how drought affects CA communities and examples of successful outcomes.

Your comments: How they relate

"Rapid Inventory outcomes can clarify the needs for Indicators and Metrics"

"I don't think we are ready for Communication Program until we have agreement on Indicators and Metrics"

"White Paper could be combined with Case Studies and potentially Rapid Inventory"

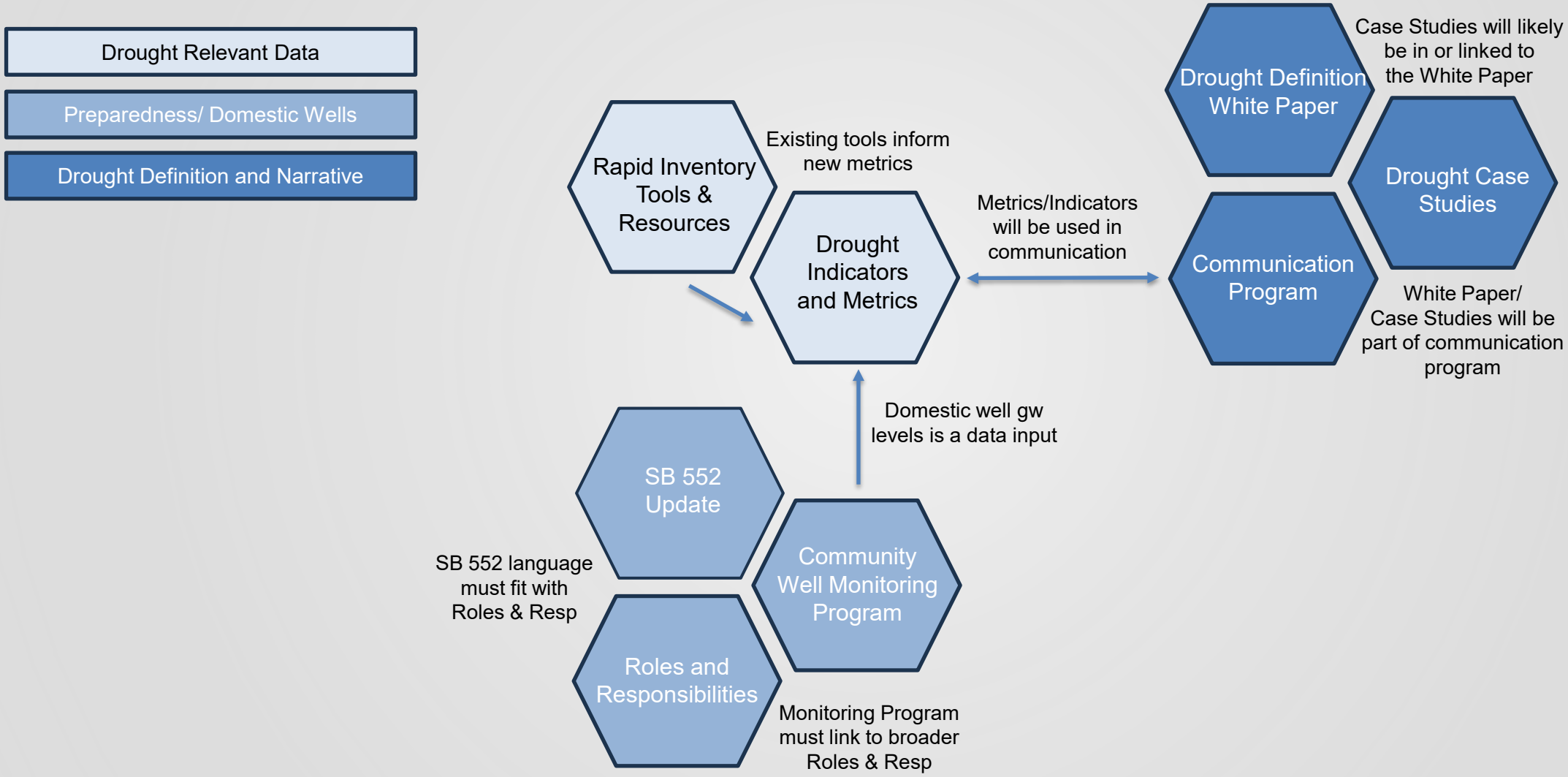
"Communication Program could be useful combined with Rec #6 White Paper"

"White Paper and Case Studies could be combined. Implementing parties could be the same."

"White Paper, Communication Program, Case Studies could be rolled together as an overall outreach strategy."

#2 Rapid Inventory → #1 Indicators and Metrics → #7 Communication Program
#6 Definition White Paper ← → #7 Communication Program ← → #8 Drought Case Studies
(2 then 1 then 7, which is done concurrent with 6 and 8)

Recommendations: How they relate



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Recommendation Process Template

What is the Recommendation? → **How will it be Implemented?**

Part I: Overview

- Title and Description
- Impacts
- Implementing Parties & Partners, timeline
- Alignment with Other Initiatives

Part II: Implementation

- Implementation Process & Measuring Success
- Implementation Challenges
- Funding
- Equity & Outreach

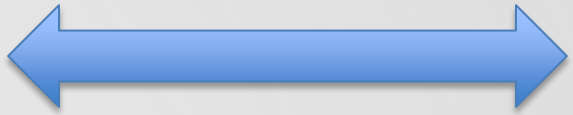
Today's meeting: Part I for each rec will be reviewed. We will also ask for member written input for Part II.

October meeting: Part II for each rec will be reviewed. Recommendations will be voted on.

Our advice on "depth" and "breadth"

Depth (Specifics): What level of detail should be in the recommendation?

(i.e. Beyond the Part I details, we would like to suggest more details)



Breadth (Scope): How do recommendations relate to each other?

(i.e. We are thinking of combining recs, given they are very related.)

Our advice: Add specifics only if it will raise the odds of successful implementation (post DRIP). DRIP can add unique perspective.

Our advice: Choose scope that facilitates recs being discussed efficiently. Goal is to get recs approved and implemented.

Recommendations – Presentations and Discussion

[5 min] Recommendation Presentation

- Summary of workgroup discussion
- Key details of the recommendation (Template Part I)
- Questions and next steps in developing the recommendation

[10 min] DRIP Discussion

- Preliminary poll results based on members' input
- Feedback from DRIP members – Information needs
- Early input into Part II –implementation considerations

[5 min] Straw Poll vote and Next Steps

- Gauge level of support for the recommendations
- Final reflections

Use the recommendation worksheet to provide additional suggestions:

- Part I – anything we did not cover?
- Part II – Input on implementation considerations

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Proposed Polling Structure and Process

- The poll is based on a range rather than up or down votes to gauge members' level of support and to identify opportunities to strengthen the recommendations.
- For each recommendation, the facilitator will ask for a show of hands for each level of support. We will record the total votes for each level.
- Members voting 1 will be invited to provide additional clarification and reasoning to inform the work of the workgroup in further refining the recommendation.
- At the October meeting, a final vote will be taken to show the level of consensus. If needed, an April 2025 vote may occur for those recommendations that need further discussion.

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Recommendation 1: Drought Indicators and Metrics - Katie Ruby (California Urban Water Agencies)

Recommendation 2: Rapid Inventory of Tools and Resources - Elea Becker Lowe (OPR)

DROUGHT-RELEVANT DATA FOCUS AREA RECOMMENDATIONS

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Rec #1. Drought Indicators and Metrics

Key issues discussed during the June workgroup meeting

1. Define clearly the purpose and audience
2. Engagement with stakeholders (i.e. well owners or urban agencies) can increase usability and impact
3. Important to define alignment with other recommendations
4. Take advantage of synergies with other initiatives
5. Proposing the development vs developing the product
   - Ownership of the product?
6. Confirming the scope (e.g., including thresholds/triggers, or just indicators)

Rec #1. Drought Indicators and Metrics

Template, Part I: Description and Impacts

Description

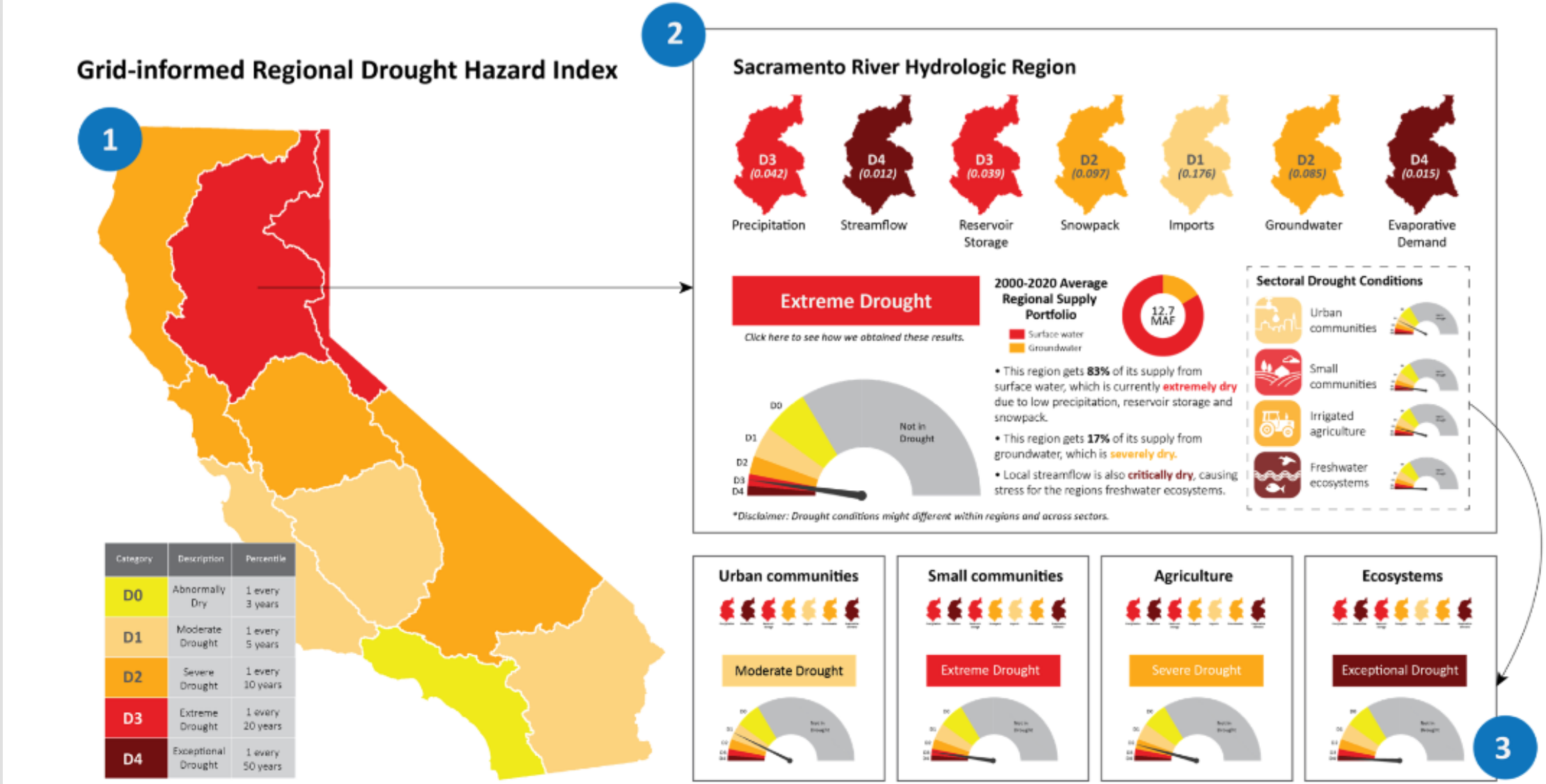
- Develop **a practical drought early warning** system to inform drought management actions to minimize drought impacts
- This would include indicators for drought status and expected impacts at a regional and sector-specific level to inform local and state actions

Identified Impacts

- The desired outcome of this would be a measurable improvement in our overall drought resilience, achieved via better management actions and improved decision-making
- Without these indicators there will be continued lack of focus, misunderstanding of drought severity and impacts, lack of coordination on essential actions, and likely continued serious impacts on vulnerable communities

Rec #1. Drought Indicators and Metrics

Sample visual mock-up



Rec #1. Drought Indicators and Metrics

Template, Part I: Partners and Alignment

Implementing Parties and Partners

- Implementations requires a mix of academic development, with state and local agencies
- Is there a lead agency and/or single home for this work? Ideally, open data (housed in each authoritative agency) will be maintained, and these new metrics and indicators would have a highly transparent link back to source data and calculations
- Existing entities or stakeholders that would need to be involved

Alignment with Other Initiatives

- DWR work to assess vulnerability per SB 552 (Water Shortage Vulnerability Scoring and Tool)
- SWB SAFER Drinking Water Needs Assessment, Clearinghouse, other drought tools and methods
- UCLA work with NIDIS to define drought hazard and indicators at section and sub-regional level
- CA Water Data Consortium work on urban water reporting and data streamlining
- Community Water Center Drinking Water Tool
- US Drought Monitor and other federal, tribal efforts

Implementation Time Frame (please highlight)

Short term (1-2 yrs.) **Medium term (2-4 yrs.)** Long term (4-5+ yrs.)

Rec #1. Drought Indicators and Metrics

Question for DRIP Collaborative Discussion

- How can all the different agencies help coordinate this initiative?
- How to engage with relevant stakeholders (besides state agencies) to help build a useful tool?
- How prescriptive should DRIP Collaborative be?
  - Would DRIP define/review the metrics/indicators?

Rec #1: Drought Indicators and Metrics

Summary of members pre-meeting input

Vote Description	Responses (14)	Comments/Information Needs

(1) Cannot support at this time	0	• Coordination: *Need to build upon existing indictors/metrics/ dashboards/data, rather than create yet another site.*
		• Resources: *How will this type of effort would be funded? This could require a significant investment of staff time and funding to be successful.*
		• *Need additional details for approval.*
		• Scope:
		  • *Clarify and add specifics regarding the types of metrics and how frequently they would be updated (and by whom).*
		  • *Will new indicators/metrics focus on conditions leading up to and during drought only, or also cover resilience factors and outcomes? Will the geographic scope be at a larger (statewide or regional) level, or will metrics also apply to localized areas?*
		• Linkage: *Tying this more to #2 as a next step and adding more specifics. connect better with recs 2, 6, 7, & 8.*

(2) Need additional information	7	
(3) Go forward!	7	

DISCUSSION
Drought Indicators and Metrics

Recommendation description:

- What additional information is needed for the recommendation development?

  Scope – Coordination – Resources

- How prescriptive should DRIP Collaborative be? Would DRIP define/review the metrics/indicators?

Implementation questions:

- How can all the different agencies help coordinate this initiative?
- How to engage with relevant stakeholders (besides state agencies) to help build a useful tool?

Please use the recommendation worksheet to provide additional suggestions:

- Part I – anything we did not cover?
- Part II – Input on implementation considerations

California
DRIP Collaborative

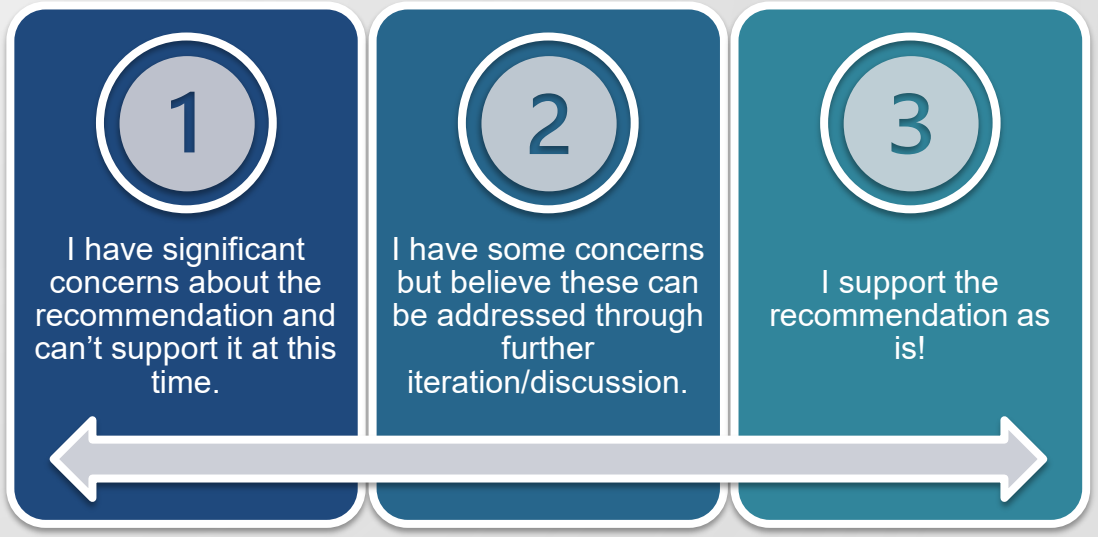
STRAWPOLL

Drought Indicators and Metrics

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?

How supportive are you of this recommendation? Members who are at a Level 1 will be invited to provide their reasoning.



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Rec #2. Rapid Inventory of Tools and Resources

Key issues discussed during the June workgroup meeting

1. Agreed on potential usefulness of landscape review but initial scope was too broad
2. Discussed a pivot to rapid inventory of drought related tools and information
3. An inventory of existing resources could help identify gaps or priorities for new tools/resources, and elevate knowledge of drought impacts
4. Given the range of tools and resources (and types of drought), recording attributes to categorize them (e.g. type of drought, geography, timescale, sector, etc.) would help clarify their purpose/intended application, and further highlight gaps in these resources
5. This could build/align by feeding into Rec #1 Indicators and Metrics and could also lend support to Rec #6 Definitions White Paper and Rec #8 Case Studies

Rec #2. Rapid Inventory of Tools and Resources

Template, Part I: Description and Impacts

Description

Pivot from formal evaluation to rapid inventory of existing tools/resources.

Organize drought resources using a simple schema (sector, geography, etc.).

Develop living resource that helps identify relevance and usefulness of tools/resources, along with any gaps, as it relates to drought/water resource decision making in CA.

Identified Impacts

Ensure awareness of existing drought resources to avoid redundancy.

Elevate existing tools and resources that are relevant or useful in California.

Identify gaps in the data/resources landscape.

Develop baseline that supports subsequent recommendations, and potentially a standalone resource summarizing drought relevant tools and resources in CA (quick reference guidebook).

Rec #2. Rapid Inventory of Tools and Resources

Template, Part I: Partners and Alignment

Implementing Parties and Partners

Lead: OPR could help coordinate (similar ICARP TAC effort summarized vulnerability tools, and VCP team is aggregating related data/resources)

Process: agree on a data schema, document known resources and investigate new resources, and (possibly) develop a system to solicit suggested resources (survey?)

Alignment with Other Initiatives

Rec #1 Indicators and Metrics could serve as a precursor to identify landscape of existing resources.

Rec #6 Definition White Paper and Rec #8 Case Studies, since many tools/resources are used in defining different types of drought or as examples that help illustrate drought impacts.

General: Any review of drought reports/literature could be a shared resource across the working groups.

Implementation Time Frame (please highlight)

Short term (1-2 yrs.) Medium term (2-4 yrs.) Long term (4-5+ yrs.)

California DRIP Collaborative

Rec #2. Rapid Inventory of Tools and Resources

Question for DRIP Collaborative Discussion

If this recommendation proceeds as described, we need a set of standard attributes to help categorize the different tools/resources.

The Jun 17th workgroup discussion included the following as an initial list of potentially important or useful characteristics to document.

- *Sector*
- *Geography*
- *Timescale*
- *Links to vulnerable populations/communities*

Any flags or concerns with these? What are we missing?

Rec #2: Rapid Inventory of Tools and Resources

Summary of members pre-meeting input

Vote Description	Responses (14)	Comments/Information Needs
(1) Cannot support at this time	0	• Support: *A "Drought Concierge" if you will; quite useful for other recs* • Coordination: *Clarification and more discussion on implementing parties and partners; broaden the impact by include discussion of sector in baseline attributes and linkage to geography and vulnerable populations* • Resources: *Neutral - this is being done by both DWR and SWRCB and will likely face cost-pressures at the state level* • Additional details: *Requests more detailed plans for stakeholder engagement, funding strategies, and criteria for evaluating tools, emphasizing the need for a clear and communicative approach.* • Scope: *Also important to highlight and include inventory cadence (i.e. annual?) to catch updates to tools and resources* • Linkage: *Consider how this could connect to or align with the California Open Data Portal.*
(2) Need additional information	6	
(3) Go forward!	8	

DISCUSSION

Rec #2: Rapid Inventory of Tools and Resources

Recommendation description:

- If this recommendation proceeds as described, we need a set of standard attributes to help categorize the different tools/resources. Initial list includes:
    - *Sector*
    - *Geography*
    - *Timescale*
    - *Links to vulnerable populations/communities*

Any flags or concerns with these? What are we missing?

Implementation questions:

- How can all the different agencies help coordinate this initiative?
- How to engage with relevant stakeholders (besides state agencies) to help building a useful tool?

Please use the recommendation worksheet to provide additional suggestions:

- Part I – anything we did not cover?
- Part II – Input on implementation considerations

California DRIP Collaborative

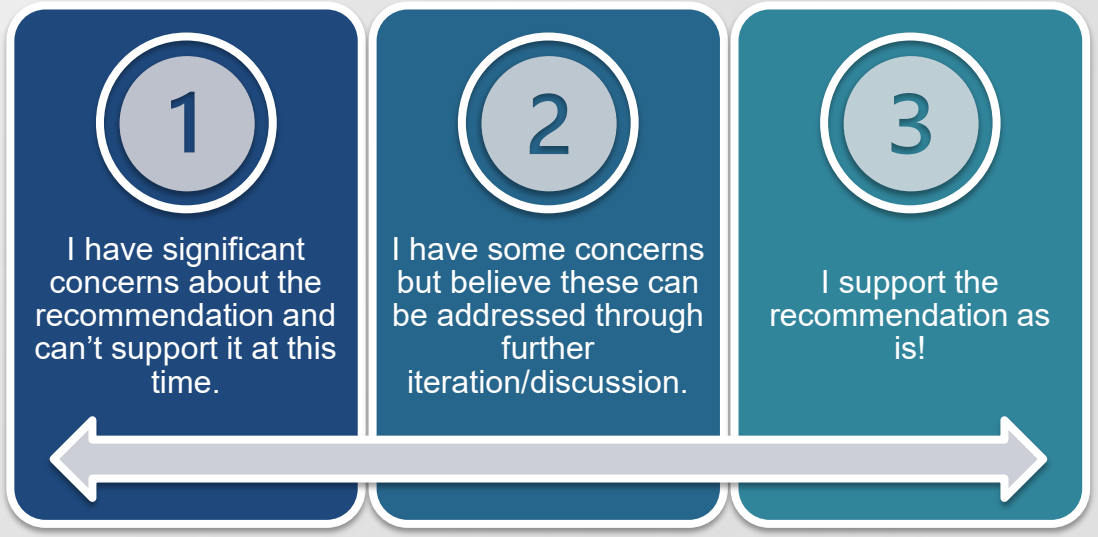
STRAW POLL

Rec #2: Rapid Inventory of Tools and 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?

How supportive are you of this recommendation? Members who are at a Level 1 will be invited to provide their reasoning.



California
DRIP Collaborative

Public Comment

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.

Recommendation 3: SB552 Language Update – Justine Massey (Community Water Center)

Recommendation 4: Community-Based Well Monitoring Program (Network) - Suzanne Pecci (Domestic Well Planning Group South American Subbasin)

Recommendation 5: Roles and Responsibilities - Justine Massey (Community Water Center)

DROUGHT PREPAREDNESS FOR DOMESTIC WELLS FOCUS AREA RECOMMENDATIONS

California
DRIP Collaborative

Rec #3. SB 552 Language Update

Key issues discussed during the June workgroup meeting

1. **Funding availability**. Possibly contingent on funding or an appropriation (avoid unfunded mandates). Be careful to not penalize those with limited funding

2. **Mandatory versus guiding language**. Some of the bulleted recommendations came up in the original drafting of the SB 552 language

3. Would need to define "**water-challenged areas**" (per bullet point on possible well ordinances updates and limits)

Rec #3. SB 552 Language Update

Template, Part I: Description and Impacts

Description

Senate Bill 552, passed in 2021, outlines the new requirements for small water suppliers, county governments, DWR, and the State Water Board to implement more proactive drought planning and be better prepared for future water shortage events or dry years. The DRIP Collaborative proposes minor adjustments to enhance the law's feasibility and implementation. The recommended amendments aim to streamline the legislation, promoting effective execution by state and local governments in line with the law's original purpose.

Identified Impacts

- Add clarity in expectations for county drought planning
- Enable county drought plans to benefit from meaningful feedback from DWR as part of review process
- Standardize the baseline of county drought preparedness
- Standardized plans can lead to greater equity if grant programs become available to help fund the implementation of aspects of the plans.

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Rec #3. SB 552 Language Update

Template, Part I: Partners and Alignment

Implementing Parties and Partners

- California Legislature is needed to make identified revisions and specifications in the SB 552 statute
- Department of Water Resources; DWR already provides financial and technical assistance support to counties when implementing SB 552. In the past, DWR has held workshops to assist counties to better understand their responsibilities in meeting SB 552 requirements.

Alignment with Other Initiatives

- This recommendation aligns with the potential state actions needed to promote drought preparedness and response for communities which are identified within the Water Commission's "Potential State Strategies for Protecting Communities and Fish and Wildlife in the Event of Drought" (p. 19). Available at: https://cwc.ca.gov/-/media/CWC-Website/Files/Documents/2024/01_January/Drought-Strategies-White-Paper_Final.pdf.

California DRIP Collaborative

Implementation Time Frame

Short term (1-2 yrs.) Medium term (2-4 yrs.) Long term (4-5+ yrs.)

Rec #3: SB 552 Language Update

Summary of members pre-meeting input

Vote Description	Responses (13)	Comments/Information Needs
(1) Cannot support at this time	3.5	• *In general, DWR doesn't support legislation with additional duties without additional resources. Would also like to explore/discuss alternatives to legislation (e.g. EO, policy, SWRCB resolution) or some combination thereof* • *Counties were not supportive of the proposed county mandates during SB 552 negotiations. Counties do not want to renegotiate the original legislation through DRIP.* • *Taken as a whole, these are not "minor" amendments, and the legislative process will invariably make more changes. Some listed changes may be based on invalid or incomplete assumptions. Several recommendations would need much more vetting before obtaining DRIP Collaborative approval.* • *Implementation may overwhelm existing County structures, requiring significant resources and coordination, which might not be feasible given the pushback from departments already strained by existing mandates.*
(2) Need additional information	4.5	• *I like the idea of DRIP recommending adjustments to SB 552, based on experience* • *Streamline for state and local execution is central for success in amending SB 552* • *Well developed, agree with new language to implement SB 552*
(3) Go forward!	5	

DISCUSSION

Rec #3: SB 552 Language Update

Recommendation description:

- What additional information is needed to advance and further develop this recommendation?

Scope – Coordination – Resources

Implementation questions:

- What are the key steps to implementing this recommendation?
- What criteria and reporting can be used to measure progress?
- What resources and funding opportunities should be considered?

Please use the recommendation worksheet to provide additional suggestions:

- Part I – anything we did not cover?
- Part II – Input on implementation considerations

California DRIP Collaborative

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Rec #3: SB 552 Language Update

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.

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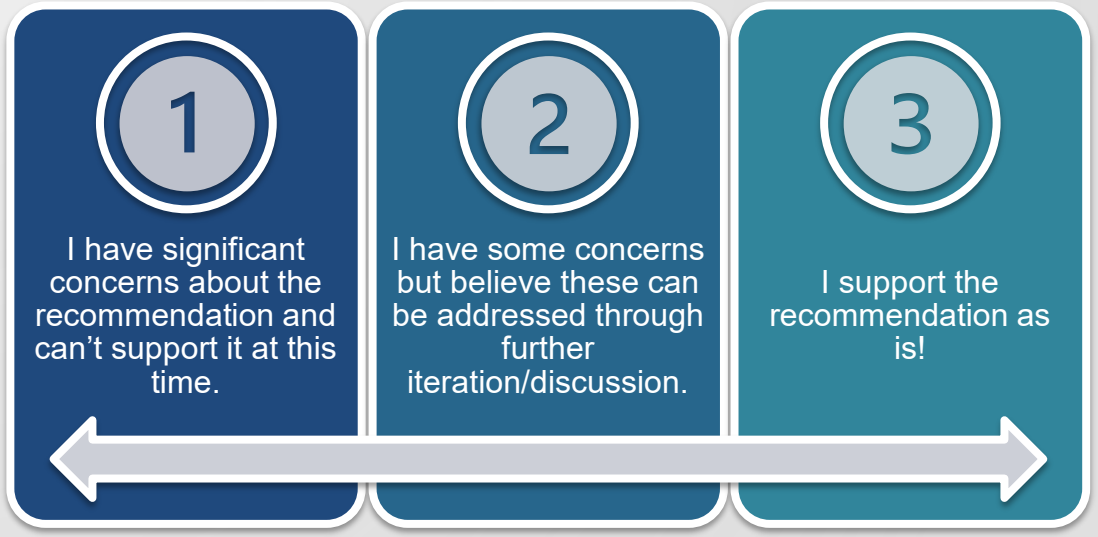

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Rec #4. Community-Based Well Monitoring Program (Network)

Key issues discussed during the June workgroup meeting

1. The Community-Based Well Monitoring Program (Network) is a proactive response to implementing SB 552 Drought Resiliency and Recovery for domestic wells and small water systems.
2. The Network is described as a group of private well owners, usually pumping from the same aquifer with the mutual interest of working together to monitor water levels and/or water quality for sustainable groundwater management. The Network provides an opportunity to collect real-time data to fill domestic well data gaps and to share representational data with collaborating agencies in open data platforms.
3. Network coordination with local agencies to include: GSAs; land use agencies, LAFCo, counties, and environmental groups within the Community. That is key to the success of implementing a proactive Network to achieve drought resiliency and recovery for vulnerable domestic wells and small water systems.
4. The idea of a Community Well Monitoring Kit ("Kit") could be comprised of: guidelines developed by DWR/CWC; technical guidance and support from GSAs, water experts, citizen scientists, members of the Groundwater Collaborative (cagroundwater.org); public education assistance by the GSAs; monitoring equipment that is owned, shared or loaned; and potential Local, State or Federal Funding.
5. Development of Guidelines by DWR/CWC for the Network was suggested in the Working Group meeting

Rec #4. Community Well Monitoring Program

Template, Part I: Description and Impacts

Description

- Establishes a community Network for creating better understanding of climate change, hydrogeology and competing demands of a shared resource as a basis for drought resiliency.
- Supports domestic well owners' active participation in planning and management of groundwater as a shared resource and shared responsibility.
- Ongoing public outreach and engagement to Stakeholders, GSAs and land use agencies prescribed by DWR implementing SGMA and achieving groundwater sustainability by 2040.

Identified Impacts

The Network is an additional tool for achieving groundwater sustainability and provides:

- A public opportunity to further engage Stakeholders in SGMA;
- An educational opportunity to emphasize a well owner's personal responsibility to service and maintain their private wells. Will increase understanding of the importance of monitoring water level/ water quality in their wells to be proactive in maintaining their well water supply.

Rec #4. Community Well Monitoring Program

Template, Part I: Partners and Alignment

Implementing Parties and Partners

- Individual domestic well owners
- Land use agencies, LAFCo
- County (with regulatory authority over policy, well installations, and oversight of local enforcement)
- Non-governmental agencies and environmental orgs with an interest in natural resources of the Community. Possibly public-private partnerships

Alignment with Other Initiatives

- DWR Watershed Resilience Program
- DFW Landscape Conservation Planning Program
- DOC Working Lands Riparian Corridor
- CA Water Commission Water Storage Investment Program

Implementation Time Frame (please highlight)

Short term (1-2 yrs.) Medium term (2-4 yrs.) Long term (4-5+ yrs.)

California DRIP Collaborative

Rec #4: Community-Based Well Monitoring Program (Network)

Summary of members pre-meeting input

Vote Description	Responses (12)	Comments/Information Needs
(1) Cannot support at this time	0	• Coordination: *Check for synergy/overlap with related action in the new DWR Strategic Plan; please explore alignment with volunteer observer networks* • Resources: *I have concerns about potential costs and need more info* • Additional details: *I would like to know how success of this would be measured, in what timeframe.* • DRIP Role: *The benefit of community based monitoring is clear, but what exactly this proposal is asking DRIP to do is unclear. How do we support these programs? Is the data freely available? If used for reporting purposes, is it validated?* • *Unique way for us to get local engagement.*
(2) Need additional information	7	
(3) Go forward!	5	

DISCUSSION

Rec #4. Community-Based Well Monitoring Program (Network)

Recommendation description:

- What additional information is needed for the recommendation development?

Scope – Coordination – Resources

Implementation questions:

- What are the key steps to implementing this recommendation?
- What criteria and reporting can be used to measure progress?
- What resources and funding opportunities should be considered?

Please use the recommendation worksheet to provide additional suggestions:

- Part I – anything we did not cover?
- Part II – Input on implementation considerations

California DRIP Collaborative

STRAW POLL

Rec #4. Community-Based Well Monitoring Program (Network)

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.

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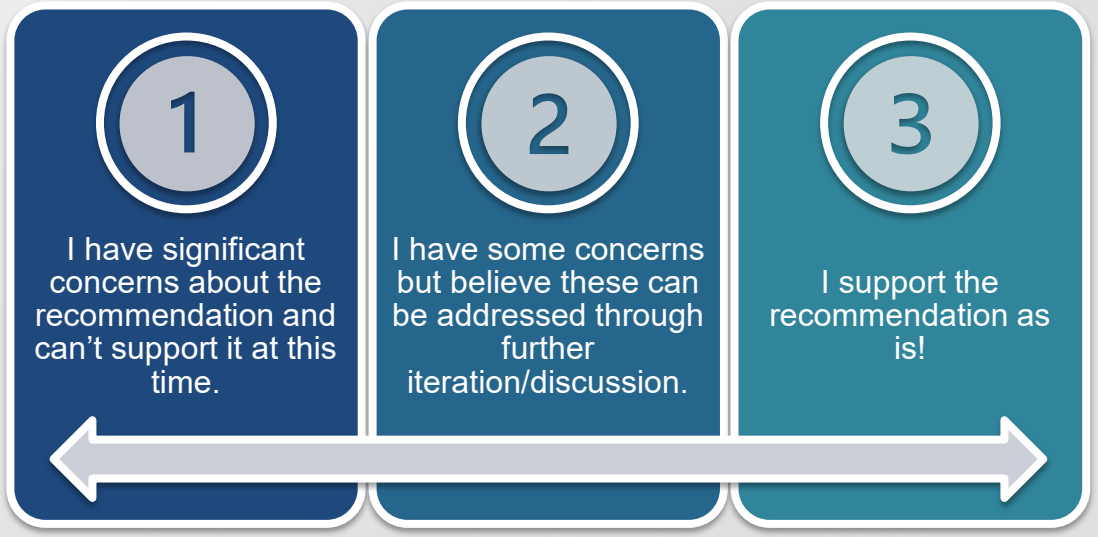

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Rec #5. Roles & Responsibilities

Key issues discussed during the June workgroup meeting

1. Need clear analysis of **existing roles** (before suggesting updates)
2. Possibly **outsource** review of current roles and responsibilities
3. Should **local entities** be in the lead instead of a state agency?
4. Roles/responses should vary based on **causes and responsible parties**

Rec #5. Roles & Responsibilities

Template, Part I: Description and Impacts

Description

California currently lacks a comprehensive approach to address the urgent drinking water needs of households served by failing domestic wells, and lacks a comprehensive policy for reducing the growth of dry domestic wells in the future. We recommend an outside, non-DRIP Collaborative entity, such as the Legislative Analyst Office or academic researcher, provide clarity on the existing roles and responsibilities of the state and local governments and any other responsible parties on how domestic wells are managed, maintained, and responded to when an outage or other problem occurs. The purpose of this is to manage expectations, support coordination, and document the existing gaps in law or implementation for domestic wells related to preparedness and response for water shortage. This should include who has the responsibility, what the role is, and through what mechanism (legal or otherwise) to provide short-term and long-term drinking water solutions for existing domestic wells, and comprehensive planning to limit new development in areas with failing domestic wells until solutions are reached.

Identified Impacts

- Improved coordination for domestic well drought response and long-term solutions will result in fewer delays and more coherent implementation of California's laws and policies to preserve drinking water access.
- Without this coordination, efforts to resolve dry domestic wells can be hampered by unresolved questions of jurisdiction and responsibility. Delays while residents are awaiting solutions for their drinking water needs are distressing and at odds with California's Human Right to Water law. Further, emergency response and interim supplies can cost the state millions. By clarifying these roles now, relevant agencies and responsible parties can get prepared, execute any necessary Memoranda of Understanding, and arrange for reliable funding mechanisms to go into effect when the need arises.

Rec #5. Roles & Responsibilities

Template, Part I: Partners and Alignment

Implementing Parties and Partners

- Legislative Analyst's Office (LAO) or academics
- State agencies, Counties / LAFCO / Special Districts, Responsible Parties, TA Providers, Private Domestic Well Owners

Alignment with Other Initiatives

- This recommendation links existing responsibilities and clarifies how entities should coordinate to avoid delays in responding to domestic well drought emergencies.

California DRIP Collaborative

Implementation Time Frame

Short term (1-2 yrs.) Medium term (2-4 yrs.) Long term (4-5+ yrs.)

Rec #5: Roles and Responsibilities

Summary of members pre-meeting input

Vote Description	Responses (10)	Comments/Information Needs

(1) Cannot support at this time	0	• Scope:
		  • *Continue to vet this. I think it is important to get a broad, more holistic picture of the various reasons before we are able to identify roles and responsibilities. There are too many regulatory programs that cause conflicting or duplicative efforts.*
		  • *Advocates for detailed planning and criteria for selecting responsible entities, enhanced communication channels, and stable funding resources to support actionable solutions. Where does this responsibility rest?*
		• Linkage: *More discussion on alignment with other initiatives to increase positive benefit*

(2) Need additional information	8	
(3) Go forward!	5	

DISCUSSION

Rec #5: Roles and Responsibilities

Recommendation description:

- What additional information is needed for the recommendation development?

Scope – Coordination – Resources

Implementation questions:

- What are the key steps to implementing this recommendation?
- What criteria and reporting can be used to measure progress?
- What resources and funding opportunities should be considered?

Please use the recommendation worksheet to provide additional suggestions:

- Part I – anything we did not cover?
- Part II – Input on implementation considerations

California DRIP Collaborative

STRAW POLL

Rec #5: Roles and Responsibilities

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.

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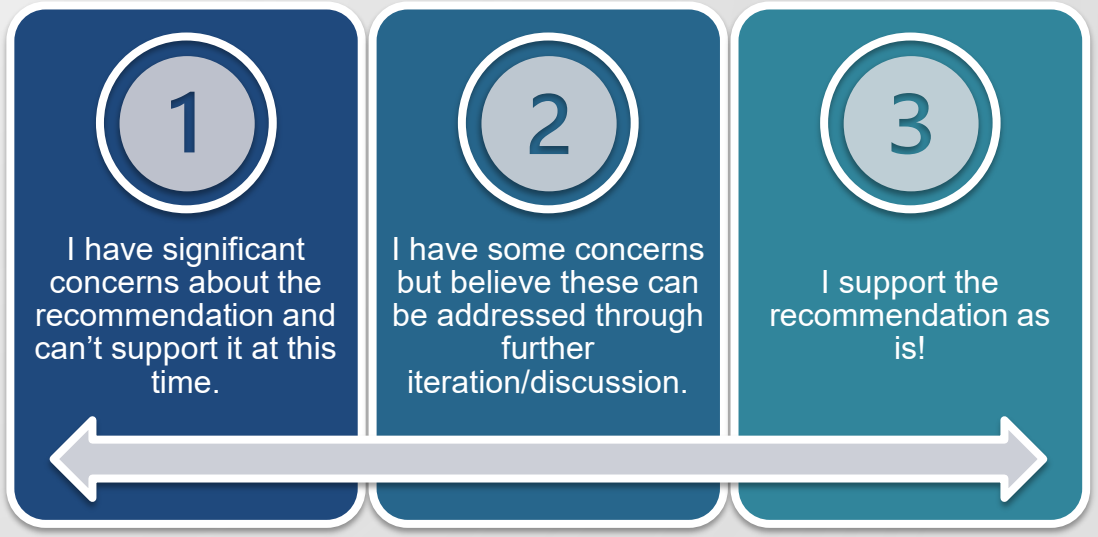

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Public Comment

1. In-person participants
2. Virtual participants:
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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.

LUNCH BREAK!

PLEASE RETURN AT:
1:25pm
(so we can start promptly at 1:30pm)

DRIP Collaborative (Quorum is 14)

1. **Amber Garcia Rossow (Catherine Freeman),** California State Association of Counties
2. **Brent Hastey,** Plumas Lake Self Storage, Owner
3. **Carolina Hernandez**, Los Angeles County Public Works
4. **Carolyn Cook (Virginia Jameson),** California Department of Food and Agriculture
5. **Elea Becker Lowe**, Governor's Office of Planning and Research
6. **Joaquin Esquivel**, State Water Resources Control Board
7. **John Andrew (Karla Nemeth),** California Department of Water Resources
8. **Joshua Grover**, California Department of Fish and Wildlife
9. **Joshua Rahm (Jason Colombini)**, California Walnut Board & Commission
10. **Justine Massey**, Community Water Center
11. **Katie Ruby**, California Urban Water Agencies
12. **Laura Ramos**, California Water Institute at Fresno State
13. **Matessa Martin**, Buena Vista Ranchera of the Me-Wuk Indians
14. **Nancy Vogel**, California Natural Resources Agency
15. **Nate Ortiz (Christina Curry),** California Office of Emergency Services
16. **Redgie Collins**, California Trout, Inc.
17. **Robyn Grimm (Anna Schiller),** Environmental Defense Fund
18. **Sierra Ryan**, Santa Cruz County
19. **Suzanne Pecci**, Domestic Well Planning Group South American Subbasin
20. **Tami McVay**, Self Help Enterprises
21. **Tim Worley**, California Association of Mutual Water Companies
22. **Tricia Geringer**, Agricultural Council of California

<u>Additional Members:</u>

22. **Alvar Escriva-Bou**, University of California Los Angeles
23. **Anna Naimark**, California Environmental Protection Agency
24. **Emily Rooney**, Agricultural Council of California
25. **Louisa McCovey**, Yurok Tribe
26. **Grace Person**, Civic Well (Vacant)

California
DRIP Collaborative

Recommendation 6: Drought Definition White Paper - Katie Ruby (CUWA)

Recommendation 7: Communication Program - Tim Worley (CalMutuals)

Recommendation 8: Drought Case Studies - Elea Becker Lowe (OPR)

DROUGHT DEFINITION AND NARRATIVE FOCUS AREA RECOMMENDATIONS

California
DRIP Collaborative

Rec #6. Drought Definitions White Paper

Key issues discussed during the June workgroup meeting

1. Define range of terms (beyond just “drought”)—e.g., water availability, water access, drought resilience.
2. Capture full range of water users, including the environment.
3. Highlight local and regional variation.
4. Make terminology realistic and actionable for the public, driving proactive behavior and response.
5. Consider in conjunction with Rec #8 Drought Case Studies for a complete picture.

Rec #6. Drought Definitions White Paper

Template, Part I: Description and Impacts

Description

Purpose: Clarify terminology and create a common understanding of what "drought" means in terms of water availability and access for different types of water users (e.g., urban, rural, ag) and the environment.

- Include lit review of drought definitions, use cases (e.g., response triggers) and impacts.
- Identify potential shortcomings and opportunities to improve resilience.

Identified Impacts

- Clarify existing terminology related to drought (e.g., water availability, water access).
- Provide comprehensive overview of factors that influence water supply and demand.
- Highlight geographic variation and opportunity to enhance local/regional resilience.
- Discuss triggers for action and potential gaps/opportunities for improvements.
- Improve public understanding to promote more proactive preparation and response.

Rec #6. Drought Definitions White Paper

Template, Part I: Parties, Partners, and Other Initiatives

Implementing Parties and Partners

- Recommend that the Department of Water Resources (DWR) take the lead on documenting definitions, with input from the State Water Resources Control Board, California Department of Fish and Wildlife, Office of Emergency Services, and Department of Public Health.
- Note: Governor's Office of Planning and Research could take the lead on Case Studies
- Others?

Alignment with Other Initiatives

- Suggest implementing this recommendation after Rec #2 **Rapid Inventory of Drought Tools and Resources,** in conjunction with Rec #8 **Drought Case Studies.**
- White paper should reference and build upon the California Water Commission White Paper.
- Others?

Implementation Time Frame (please highlight)

Short term (1-2 yrs.) Medium term (2-4 yrs.) Long term (4-5+ yrs.)

California DRIP Collaborative

Rec #6. Drought Definition White Paper

Questions for DRIP Collaborative Discussion

1. Does the list of implementing parties and partners seem correct? Who are we missing?
2. Are there other related initiatives that the implementing parties/partners should be cognizant of and/or coordinating with?
3. Would you recommend a particular structure or way to categorize impacted groups? Some examples:
    - Sector-based: urban, rural, agriculture, environment
    - People, built environment, natural environment
    - Other?
4. How do you envision DRIP's ongoing role in supporting implementation of this recommendation?

Rec #6: Drought Definitions White Paper

Summary of members pre-meeting input

Vote Description	Responses (14)	Comments/Information Needs
(1) Cannot support at this time	3	• *Given academic focus on drought over the past decade, this may already exist; lit search will confirm. Unsure of value added* • *I think recommendation #1 on metrics will be more useful than a white paper*
(2) Need additional information	3	• Coordination: *Supports the initiative and suggests forming a multidisciplinary committee to ensure the definitions are comprehensive and reflective of diverse geographic and climatic conditions here in California.* • Linkage: *Seems this could be combined with case studies and potentially with the rapid inventory.* • *Commonplace terminology / one stop shop for "drought" is essential*
(3) Go forward!	8	

DISCUSSION

Rec #6: Drought Definitions White Paper

Recommendation description:

- Would you recommend a particular structure or way to categorize impacted groups? Some examples:
  - Sector-based: urban, rural, agriculture, environment
  - People, built environment, natural environment
  - Other?
- What additional information is needed for the recommendation development?

Implementation questions:

- Does the list of implementing parties and partners seem correct? Who are we missing? What are other related initiatives for coordination?
- How do you envision DRIP's ongoing role in supporting implementation of this recommendation?
- What are the key steps to implementing this recommendation?
- What criteria and reporting can be used to measure progress?
- What resources and funding opportunities should be considered?

Please use the recommendation worksheet to provide additional suggestions:

- Part I – anything we did not cover?
- Part II – Input on implementation considerations

California DRIP Collaborative

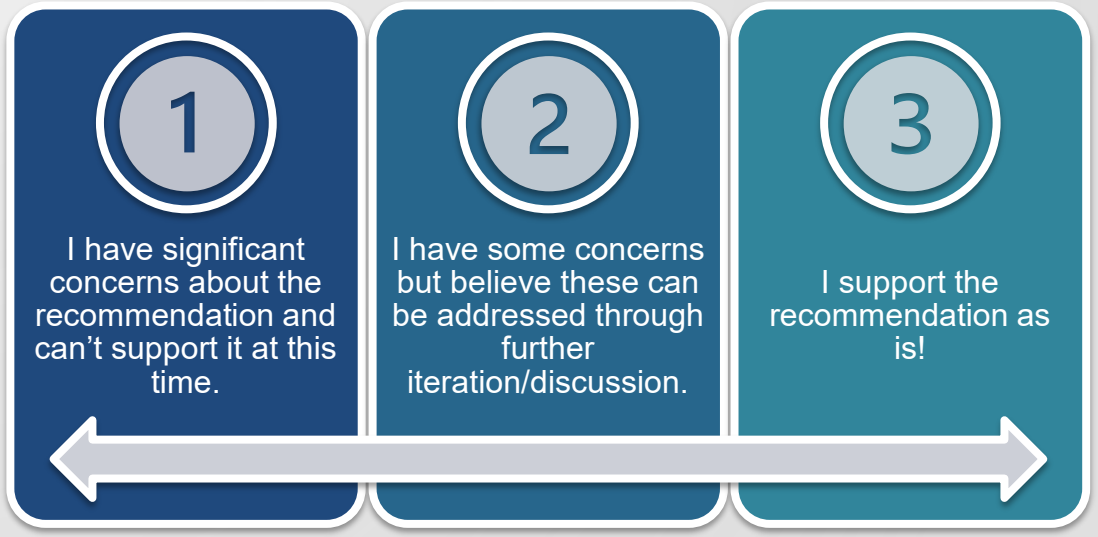
STRAW POLL

Rec #6: Drought Definitions White Paper

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?

How supportive are you of this recommendation? Members who are at a Level 1 will be invited to provide their reasoning.



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Rec #7. Communication Program

Key issues discussed during the June workgroup meeting

1. Disparate effects at a local level complicate communication; yet simplicity will be key.
2. Success will require extensive outreach for adoption, and sustained, frequent use to achieve public awareness and understanding of all water conditions.
   - Avoid "drought fatigue" but maintain vigilance.
3. Communication needs to be *direct* to elicit behavior change but requires *sensitivity* to different impacts. Color coding may be too soft in some circumstances.
4. Sources of data to underpin communication effort must be determined.
   - Conceived as top-down, but what would be needed for it to work at a local level?
   - Multiple metrics exist (e.g., reservoir and river levels), more coming with new stream gages.
   - Would this be duplicative and/or add to a confusion of existing drought communication?
   - Clear link to DRIP Rec #1 Drought Indicators and Metrics

Rec #7. Communication Program

Template, Part I: Description and Impacts

Description

Simple, consistent, and frequent top-down public messaging on water conditions.

State-led, supported by data and communication partners; flexible to use at a local level.

Using symbolism, such as color coding, with definitions for each color/level. For local suppliers, some colors could tie to water shortage levels. Elements to develop include:

- Symbology and "color coding" (an intuitive system based on definitions)
- Adaptable communication "tool" or "platform" (web page + listserv with the color coding)
- Marketing "campaign" or "program" (dedicated communication outreach to drive adoption)

Identified Impacts

Better public awareness will improve community resilience through individual actions:

- Long-term water use efficiency (California-friendly landscapes, high-efficiency washers, etc.)
- Short-term drought emergency response

Rec #7. Communication Program

Template, Part I: Partners and Alignment

Implementing Parties and Partners

Lead role: DWR (Public Affairs), supported by California Data Exchange Center (CDEC), which includes federal and regional partners already

Partners: Other state agencies, water associations, environmental organizations, news organizations, counties and local water suppliers (including tribes), GSAs(?)

Alignment with Other Initiatives

- DRIP Collaborative – Rec #1 Drought Metrics and Indicators, Rec #6 Definition Whitepaper, Rec #8 Case Studies
- California Water Commission White Paper on Potential Drought Strategies
- Making Conservation a California Way of Life regulation

Implementation Time Frame (please highlight)

Short term (1-2 yrs.) Medium term (2-4 yrs.) Long term (4-5+ yrs.)

California DRIP Collaborative

Rec #7. Communication Program

Question for DRIP Collaborative Discussion

Questions that your input would be helpful on:

- In addition to color coding (or other symbolic tool) on a dashboard/website or listserv, should messaging throughout the year be broadened to include topics on heat, climate, and related issues?
  - In addition to DWR Public Affairs, who else should be responsible to create the messages?

- This recommendation was developed primarily from a perspective of drinking water supply. Does the idea serve other audiences, such as agriculture and environmental stewards, or could it be adapted to meet other needs better?

- What is the best geographic frame of reference for the symbolic communication tool?
  - Statewide loses accuracy. Should this be done by the state's hydrologic regions?
  - Should the tool attempt to incorporate water conveyance (e.g. Colorado River, SWP) or leave it to regional and local water suppliers to disseminate accurate messaging in their areas?

Rec #7: **Communication Program**

Summary of members pre-meeting input

Vote Description	Responses (14)	Comments/Information Needs
(1) Cannot support at this time	2	• *I think there are plenty of other organizations who are communicating about water conditions* • *I don't think we're ready for this until we have agreement on indicators and metrics*
(2) Need additional information	4.5	• Additional details: *Requests specifics on the types of information to be communicated, the platforms used, and strategies to engage the public effectively, emphasizing the need for clear and actionable messaging. How is this implemented?* • Linkage: *I see the Drought Indicators and Metrics recommendation as a prerequisite for this, as the communication will only be as meaningful as the data/metrics behind it. Other comments: 1) suggest calling this "ongoing" instead of "continuous", 2) this could align well with Save Our Water (and could leverage their existing platforms), 3) for urban areas, this could be used to communicate the current water shortage contingency plan level (0 through 6).* • *Important to further develop this focus area. Public communication pieces need to be in plain language*
(3) Go forward!	7.5	

DISCUSSION

Rec #7: Communication Program

Recommendation description:

- In addition to color coding (or other symbolic tool) on a dashboard/website or listserv, should messaging throughout the year be broadened to include topics on heat, climate, and related issues? In addition to DWR Public Affairs, who else should be responsible to create the messages?

- This recommendation was developed primarily from a perspective of drinking water supply. Does the idea serve other audiences, such as agriculture and environmental stewards, or could it be adapted to meet other needs better?

- What is the best geographic frame of reference for the symbolic communication tool? Statewide loses accuracy. Should this be done by the state's hydrologic regions? Should the tool attempt to incorporate water conveyance (e.g. Colorado River, SWP) or leave it to regional and local water suppliers to disseminate accurate messaging in their areas?

Implementation questions:

- What are the key steps to implementing this recommendation?
- What criteria and reporting can be used to measure progress?
- What resources and funding opportunities should be considered?

Please use the recommendation worksheet to provide additional suggestions:
- Part I – anything we did not cover?
- Part II – Input on implementation considerations

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DRIP Collaborative

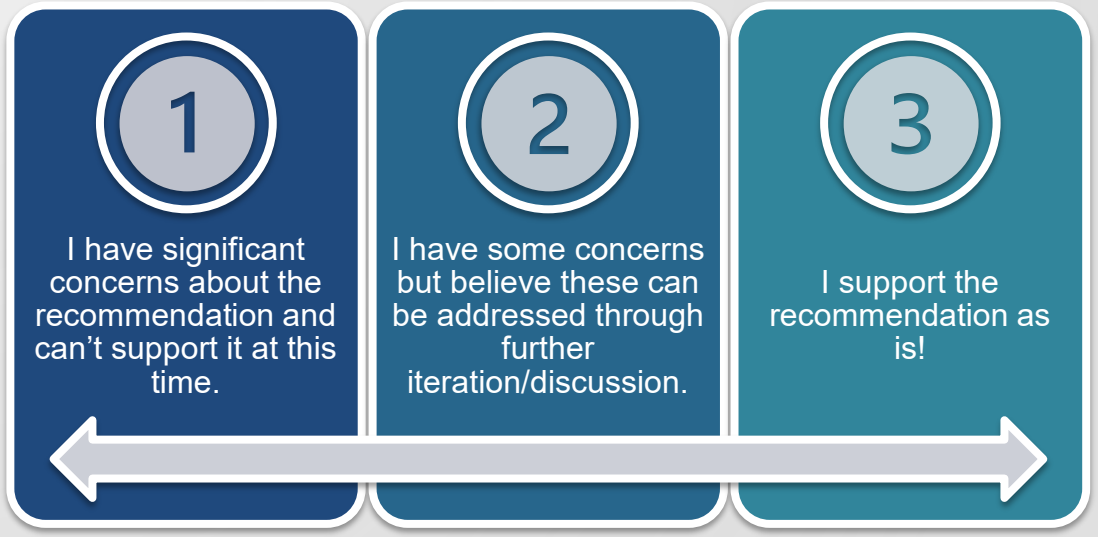
STRAW POLL

Rec #7: Communication Program

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?

How supportive are you of this recommendation? Members who are at a Level 1 will be invited to provide their reasoning.



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Rec #8. Drought Case Studies

Key issues discussed during the June workgroup meeting

1. General support to combine the Case Studies recommendation with the Drought Definitions White Paper
2. Emphasize the diverse and variable climate experiences throughout California – including unique landscapes, changing precipitation patterns, and seasonal variability
3. Uplift examples of not only the challenges but highlight models of successful drought resilience action!
4. Consider connections and leverage points with the Rapid Inventory of Tools & Resources (Rec #2), plus the Drought Indicators and Metrics (Rec #1)

Rec #8. Drought Case Studies

Template, Part I: Description and Impacts

Description

- Uplift and acknowledge the diverse experiences of drought through an assembly of narrative case studies developed with diverse contributors representing community, practitioner, tribal, and government perspectives.
- Leverage existing resources, information sharing platforms, and networks to communicate these examples publicly.

Identified Impacts

- Demonstrate the range of diverse drought and water scarcity impacts throughout the state.
- Highlight solutions of success as models for future planning, investment and policy.
- Improve clarity and enhance the Drought Definitions White Paper (Rec #6)

Rec #8. Drought Case Studies

Template, Part I: Partners and Alignment

Implementing Parties and Partners

- Members of DRIP Collaborative and associated networks
- Governor's Office of Planning and Research ICARP Adaptation Clearinghouse
- Diverse partner contributors: local agencies, non-government organizations, tribes, academics, community representatives, etc.

Alignment with Other Initiatives (in order of suggested sequence)

1. Rec #2 Rapid Inventory of Drought Tools and Resources (direct connection – should implement first)
2. Rec #1 Drought Indicators & Metrics
3. Rec #6 Drought Definitions White Paper (direct connection – should implement in parallel)
4. Rec #7 Communication Program

Implementation Time Frame (please highlight)

Short term (1-2 yrs.) Medium term (2-4 yrs.) Long term (4-5+ yrs.)

California DRIP Collaborative

Rec #8. Drought Case Studies

Questions for DRIP Collaborative Discussion

- Which entities, individuals, communities or groups should be included in developing case studies and how should we engage them?
- How do we ensure these examples reflect the experiences and priorities of communities across the state?
- How should the scopes of these case studies be organized? By sector (e.g., housing, agriculture, forestry)? By geography (e.g., by region, watershed)?
- Where (and how) could these case studies be featured to be most informative and accessible?

Rec #8: Drought Case Studies

Summary of members pre-meeting input

Vote Description	Responses (13)	Comments/Information Needs
(1) Cannot support at this time		• Scope: *Recommends establishing criteria for selecting case studies that ensure geographic and sectoral representation, and a detailed plan for stakeholder engagement and resource support. How is this implemented?* • Linkage: *Consider potentially combining with other recommendations (Rapid Inventory and Drought Definition Whitepaper)* • *I think telling the story is very important. How we tell the story will define how we react to drought*
(2) Need additional information	7.5	
(3) Go forward!	8.5	

DISCUSSION

Rec #8. Drought Case Studies

Recommendation description:

- Which entities, individuals, communities or groups should be included in developing case studies and how should we engage them?
- How do we ensure these examples reflect the experiences and priorities of communities across the state?
- How should the scopes of these case studies be organized? By sector (e.g., housing, agriculture, forestry)? By geography (e.g., by region, watershed)?
- Where (and how) could these case studies be featured to be most informative and accessible?

Implementation questions:

- What are the key steps to implementing this recommendation?
- What criteria and reporting can be used to measure progress?
- What resources and funding opportunities should be considered?

Please use the recommendation worksheet to provide additional suggestions:

- Part I – anything we did not cover?
- Part II – Input on implementation considerations

STRAW POLL

Rec #8. Drought Case Studies

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.

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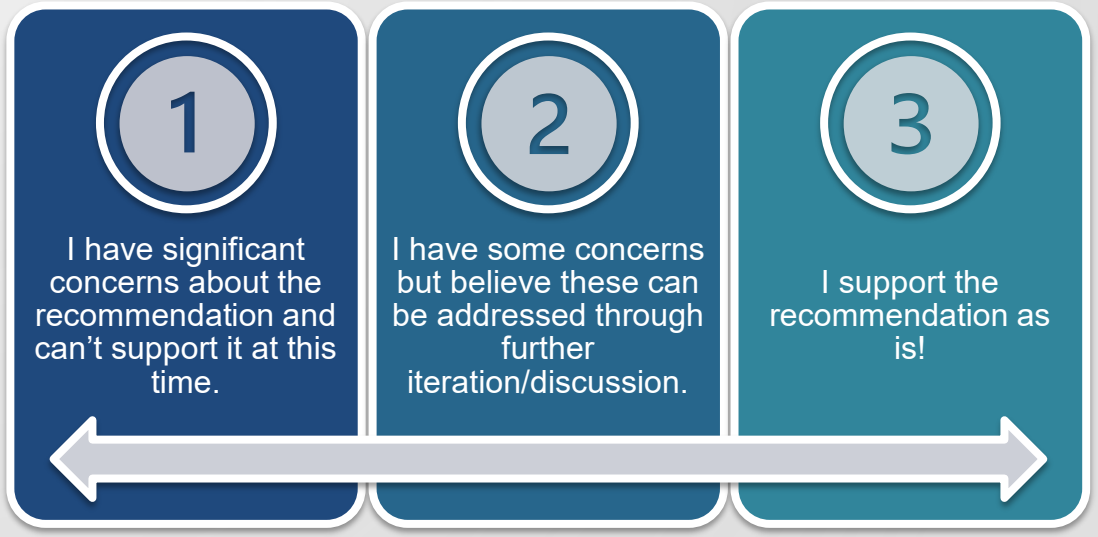

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Public Comment

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.

Glen Low

ALIGNMENT ACROSS RECOMMENDATIONS DISCUSSION

California
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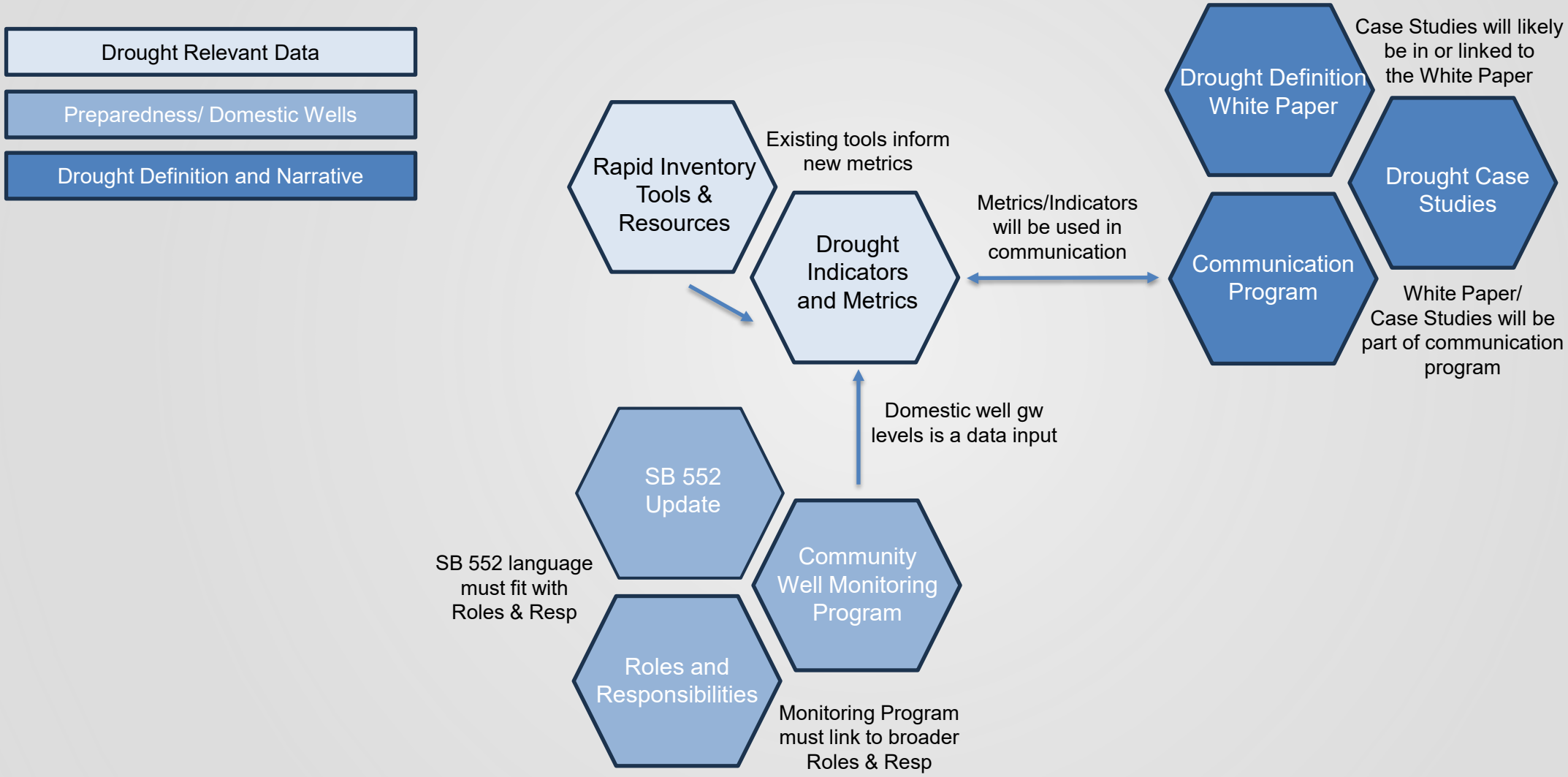
Recommendations: How they relate



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Your comments: How they relate

"Rapid Inventory outcomes can clarify the needs for Indicators and Metrics"

"I don't think we are ready for Communication Program until we have agreement on Indicators and Metrics"

"White Paper could be combined with Case Studies and potentially Rapid Inventory"

"Communication Program could be useful combined with Rec #6 White Paper"

"White Paper and Case Studies could be combined. Implementing parties could be the same."

"White Paper, Communication Program, Case Studies could be rolled together as an overall outreach strategy."

#2 Rapid Inventory → #1 Indicators and Metrics → #7 Communication Program
#6 Definition White Paper ← → #7 Communication Program ← → #8 Drought Case Studies
(2 then 1 then 7, which is done concurrent with 6 and 8)

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Summary that links the 8 recommendations

Simple narrative that explains how recs may build on each other

1. We create a holistic evaluation of the disparate drought programs/initiatives today (Rapid Inventory)
2. From that, we identify drought indicators (process and outcome metrics) that best quantify risk and impacts so we can help define the best proactive actions available at a local level (Drought Indicator and Metrics)
3. We apply that to the specific case of domestic wells, given the significant drought related impacts, clarifying the roles of disparate stakeholders to improve coordination across the entire drought lifecycle (Roles and Responsibilities)
4. Where needed, we update SB 552 language to ensure easier feasibility and implementation (SB 552 Language Update)
5. We help specify a potential community-based well monitoring program, that gets at the critical data gap and builds local awareness and education (Community Based Well Monitoring Program)
6. The indicators/metrics and improved data can be cited and used to help clarify drought definitions so people can better understand when actions are triggered (Drought Definition White Paper)
7. This is supplemented by documenting and crafting nuanced drought narratives (Drought Case Studies)
8. Which informs us how to communicate, using a standardized approach, but with local flexibility (Communication Program)

BREAK!

PLEASE RETURN AT:
[INSERT TIME]

Zoe Kanavas, California Department of Water Resources

DRIP 2025 FOCUS AREAS DEVELOPMENT

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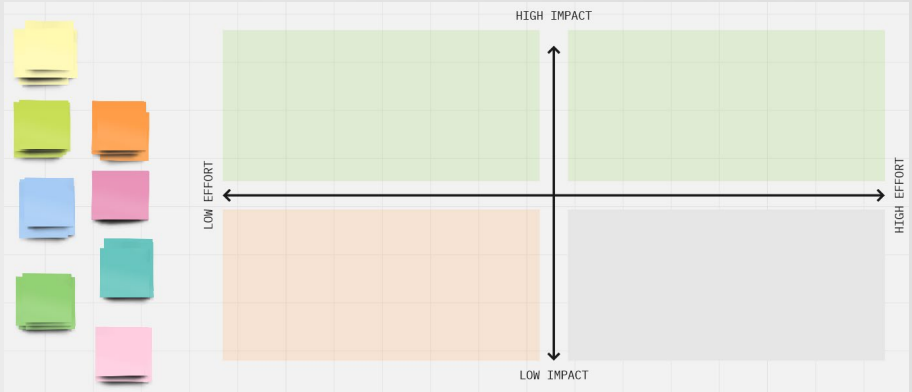
Potential 2025 Focus Areas (for next round of recs)

In the Oct 2023 DRIP meeting, we briefly discussed these possible Focus Areas:

- Reducing Ecosystem Impacts of Drought
- Water Resources & Operations
- Infrastructure & Planning
- Land Use Planning
- Integrating Climate Change Adaptation
- Implementation of Nature-based Solutions



In the Apr 2024 DRIP meeting, we heard:

"I would suggest we consider what potential focus areas are already a part of everything that we're doing. For example, climate adaptation can be considered in each of the current focus areas and could be enveloped similar with the nature-based solutions."

"We should become more integrated with the work that the Water Commission has put together."

"I advocate for a conversation around land use planning, especially when it comes to housing."

- Support for the noted focus areas
- Desire to shift Climate Change Adaptation and Nature-based Solutions into cross-cutting themes

Potential 2025 Focus Areas

Given the DRIP interest in these topics since 2023, primers on each potential focus area or cross-cutting theme were sent out to members.

These primers…

- Coalesce and summarize ideas given and comments made on these topics by members
- Detail potential discussion questions
- Highlight related State bodies and ongoing actions, programs, and initiatives that the DRIP Collaborative may add value to

Need to define Problem Statements: Akin to the process we did for the initial three Focus Areas, we will go from these broad topics to define targeted Problem Statements. **Today's conversation** will inform the first draft of these Problem Statements to be next discussed in Oct 2024.

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Today's Discussion on 2025 Focus Areas

We will hear from Subject Matter Experts on each potential focus area and cross-cutting theme.

Focus Areas Presentations:

Water Resources & Operations | **Molly White, DWR**

Infrastructure & Planning | **Molly White, DWR**

Reducing Ecosystem Impacts of Drought | **Sandi Matsumoto, TNC**

Land Use Planning | **Eric Chu, OPR**

Cross-Cutting Themes Presentations:

Climate Change Adaptation | **Lindsay Correa, DWR**

Nature-Based Solutions | **Clesi Bennett, CNRA**

Each brief (~5min) presentation will be followed by a 5-10min discussion period.
We will conclude with a 10 min discussion across all six topics.

DRIP Collaborative Discussion related to these focus areas:

- **Value Add:** What is the DRIP Collaborative role in addressing challenges and promoting opportunities related to each focus area?
- **Intention:** Are these the focus areas you want to prioritize next?
- **Level of Ambition:** How many should we address in 2025 or 2026?

Molly White, SWP Water Management, CA Department of Water Resources

2025 FOCUS AREA INFORMATIONAL ITEM

STATE WATER PROJECT (SWP)
WATER RESOURCES, OPERATIONS, INFRASTRUCTURE AND PLANNING

California
DRIP Collaborative

SWP Water Resources and Operations

Drought Water Supply Planning

- 2024 SWP Long-Term Drought Plan
  - SWP water supply planning objectives, water supply allocation planning, and operations
  - SWP drought planning actions
  - Lessons learned from previous droughts
  - SWP actions to improve long-term drought resilience and enhance the physical capabilities and flexibility of the system
  - State Water Project Long-Term Drought Plan (ca.gov)

SWP Water Resources and Operations

Yuba-Feather Forecast Informed Reservoir Operations (FIRO)

- Federal, state and local partnership and effort – 2019 kickoff
  - Scripps, USACE, DWR, YWA, NOAA
  - FIRO_Yuba_Feather – Center for Western Weather and Water Extremes (ucsd.edu)
- Key aspects:
  - Improved forecasting
  - Using the improved forecasts to make pre-releases to carve out space for large events or using forecasts to store more water (spring refill)
  - Dual goals of flood risk reduction and potential water supply reliability
- Status:
  - Parallel effort with Lake Oroville Water Control Manual Update
  - FIRO alternatives have been passed on to the USACE to inform the Water Control Manual updates – anticipated completion 9/30/2026

SWP Infrastructure

- Delta Conveyance Project
  - Modernized infrastructure to ensure the ability to move and store water for water supply reliability and drought relief
- California Aqueduct Subsidence Project
  - Overdraft of groundwater basins, especially during droughts has caused subsidence of the CA AQ resulting in capacity reductions
- Storage capacity update for Lake Oroville – went ‘live’ on 7/1/2024

SWP Planning

2023 Delivery Capability Report and SWP Climate Action Plan

2023 SWP Delivery Capability Report (DCR) (July 2024)

- Bi-annual report of existing and future SWP delivery capability
- Future delivery capability looking 20-years into the future (business as usual+ climate change)
- Serves as the default climate change scenario for SWP planning

SWP Climate Action Plan (Winter 2024/2025)

- Builds on top of DCR work—alternative futures where we have improvements in place by 2045
- Looks further into the future (2085) to the end of the current water supply contracts with and without adaptation
- Shows how combinations of projects are more than the sum of their parts –
    - *How can Delta Conveyance, FIRO, and storage work together to improve the future*?

Other SWP Activities and Partnerships

- Drought tool-kit development – multi-agency effort
- Water Storage Investment Program
- Improved seasonal water supply forecasting
- West False River drought salinity barrier planning
- SWP storage investigation initiative

Thank you!
Questions

Value Add: What is the DRIP Collaborative role in addressing challenges and promoting opportunities related to this focus area?

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Sandi Matsumoto, The Nature Conservancy

2025 FOCUS AREA INFORMATIONAL ITEM

REDUCING ECOSYSTEM IMPACTS OF DROUGHT, TAKING ACTION

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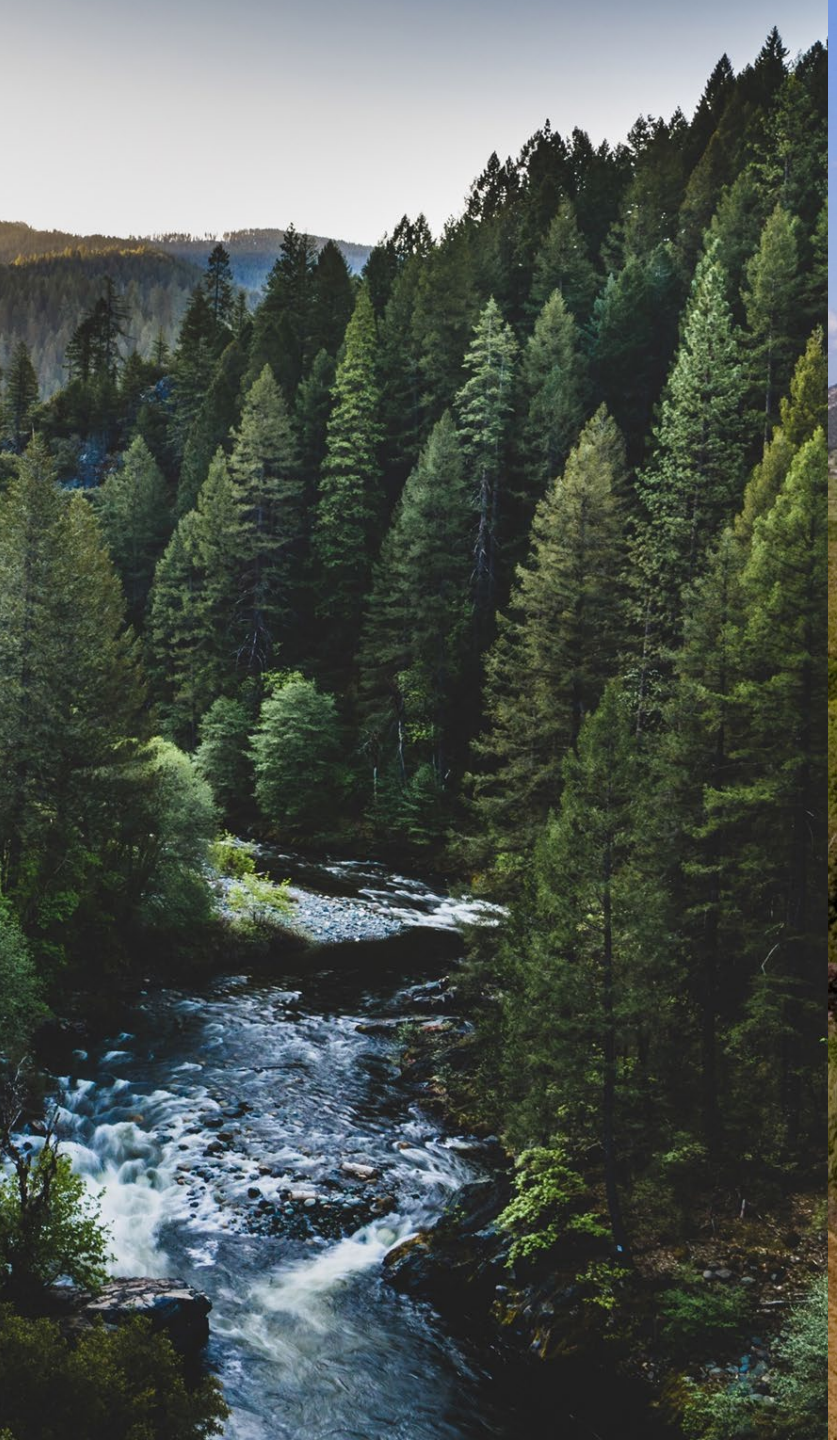
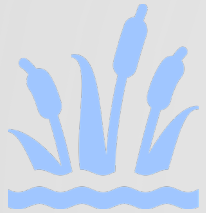
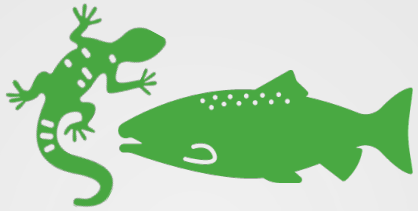


California's Freshwater Biodiversity Crisis



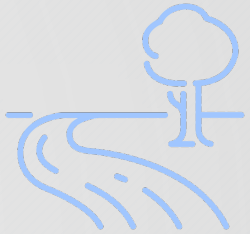
>90%

wetland and riparian habitat lost



50%

freshwater plants and animals vulnerable to extinction

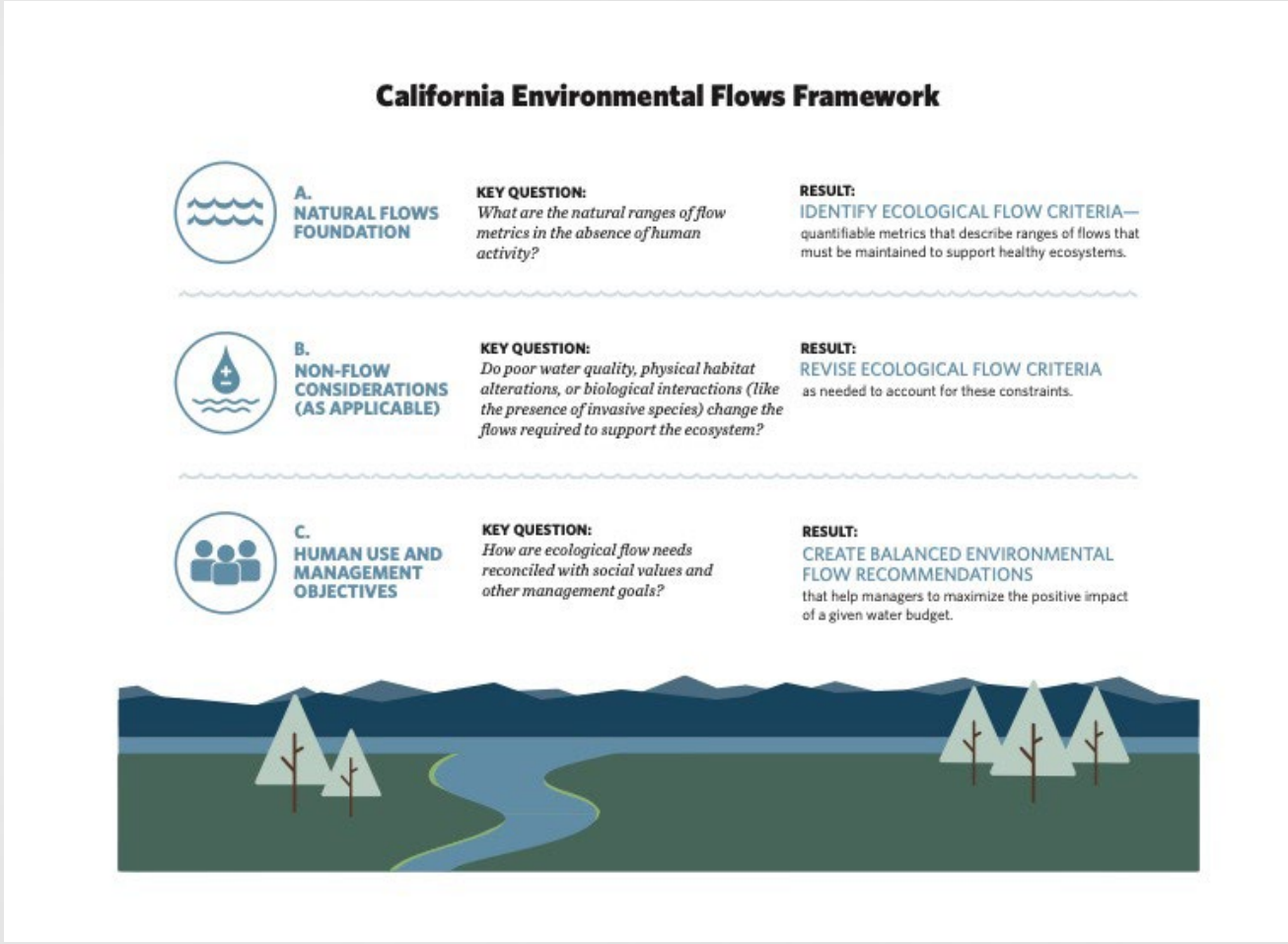


96%

rivers lacking environmental flow protections

Ongoing: Restore Ecosystem Resilience

- Restore and connect habitat and refugia
- Deliver water for wetlands
- Ensure rivers flow



Drought: Take Emergency Action

- Fallow strategically
- Fill wetland habitat deficits
- Incentivize instream flows

Summary

- California is facing a freshwater biodiversity crisis
- Reducing impacts to freshwater ecosystem requires:
  - Ongoing action and planning to recover ecosystems and build resilience; and
  - Emergency action during drought to reduce harm

DISCUSSION

REDUCING ECOSYSTEM IMPACTS OF DROUGHT, TAKING ACTION

Value Add: What is the DRIP Collaborative role in addressing challenges and promoting opportunities related to this focus area?

California
DRIP Collaborative

Eric Chu, Governor's Office of Planning and Research

2025 FOCUS AREA INFORMATIONAL ITEM

LAND USE PLANNING

California
DRIP Collaborative

DRIP Collaborative Meeting

Friday, July 12, 2024

The Governor’s Office of Planning and Research (OPR) is designated in statute as the state’s comprehensive planning agency. One of its main responsibilities is to work with state agencies, regional planning organizations, and local jurisdictions on **land use planning**.

Relevant responsibilities include, among others:

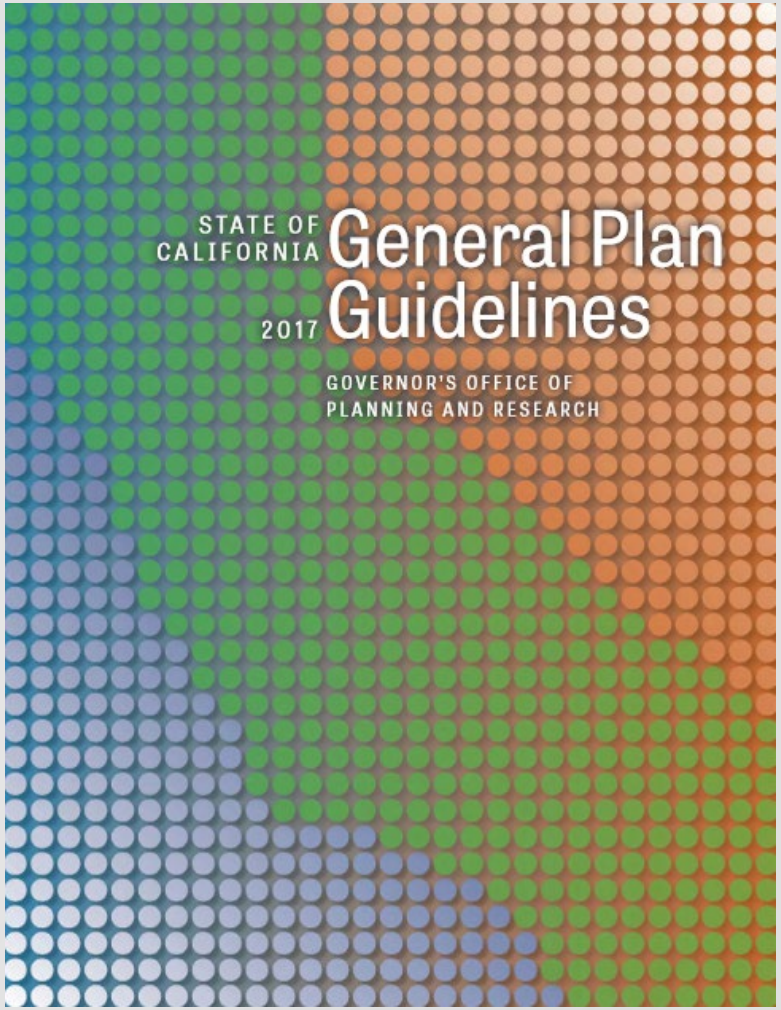
- Formulating long-range goals and policies for **land use**, **population growth and distribution**, **urban expansion**, **land development, resource preservation**, and other factors affecting **statewide development** patterns.
- Assisting in the preparation of functional plans by state agencies and departments which relate to **protection and enhancement of the state's environment**.
- Ensuring that all state policies and programs conform to the state's adopted **land use planning goals and programs**.
- Developing and adopting guidelines for the preparation of city and county **general plans**.
- Providing general **planning assistance** to local governments.

OPR is required by Government Code Section 65040.2 to adopt and periodically revise the **State General Plan Guidelines (GPG)** for the preparation and content of general plans for all cities and counties in California. The GPG serves as the “how to” resource for drafting a general plan.

The GPG was last updated comprehensively in 2017, and OPR continues to monitor relevant legislation and new general plan requirements that have become effective since that time.

OPR will continue to issue **technical advisories** that supplement the GPG to reflect new information or requirements.

The next iteration of GPG update will be released during 2024-2027. It will include extensive **public engagement** opportunities.



Forthcoming **General Plan Guidelines (GPG) Update** will include revised Safety element, which is where drought resilience planning guidance is located.

GPG (2017) already notes the need for increased water conservation, groundwater recharge, and use of drought-tolerant landscaping.

- There is potential for alignment with SB 552 and draw on relevant examples and best practice.

Update will include revisions of Land Use, Conservation, Open Space, Environmental Justice, and other elements. It will tackle **climate, resilience, and equity as cross-cutting priorities**.

- It will include reference to Natural and Working Lands and Nature-Based Solutions / Green Infrastructure as strategies to mitigate drought impacts.
- Upcoming SB 1425 Open Space Element Update Technical Advisory

Update will include guidance on **optional Water Element**.

Update will provide an extensive resource list that cross-references tools, initiatives, and funding programs to support drought resilience.

Relevant OPR Resources

OPR homepage: https://opr.ca.gov/

OPR Land Use Resources:
https://opr.ca.gov/planning/land-use/

OPR General Plan Guidance Documents:
https://opr.ca.gov/planning/general-plan/

General Plan Guidelines (2017 update):
https://opr.ca.gov/planning/general-plan/guidelines.html

THANK YOU!

Contact Information:
Eric Chu, Ph.D.
Senior Planner
eric.chu@opr.ca.gov

DISCUSSION

LAND USE PLANNING

Value Add: What is the DRIP Collaborative role in addressing challenges and promoting opportunities related to this focus area?

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Lindsay Correa, CA Department of Water Resources

2025 FOCUS AREA INFORMATIONAL ITEM

CLIMATE CHANGE ADAPTATION OVERVIEW

California
DRIP Collaborative

California Climate Change Policies

EO B-55-18, SB 100 (2018) & SB 1203 (2022)

State agency emissions reduction targets to net carbon neutrality by 2035

EO B-30-15 (2015) & AB 1482 (2016)

Requires State agencies to consider climate change in planning and investments

AB 2800 (2016 & 2020)

Incorporate climate change in planning, designing, building, operating, maintaining, and investing in State infrastructure

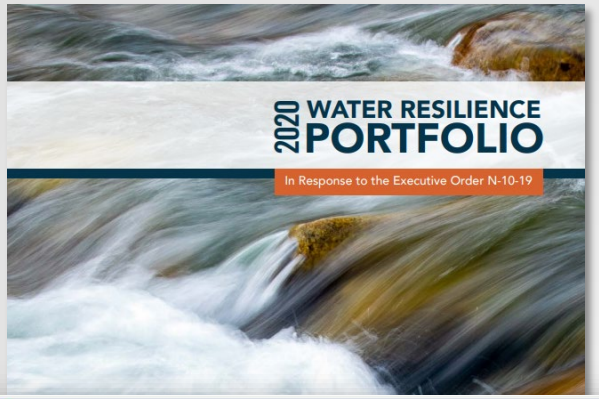
EO N-82-20 (2020), SB 27 (2021), and AB 1757 (2022)

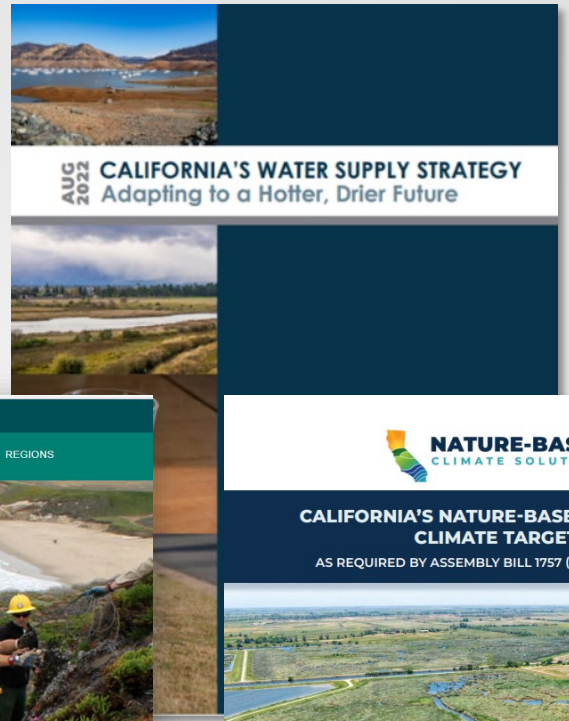
Expand nature-based solutions to achieve California's climate change and biodiversity goals

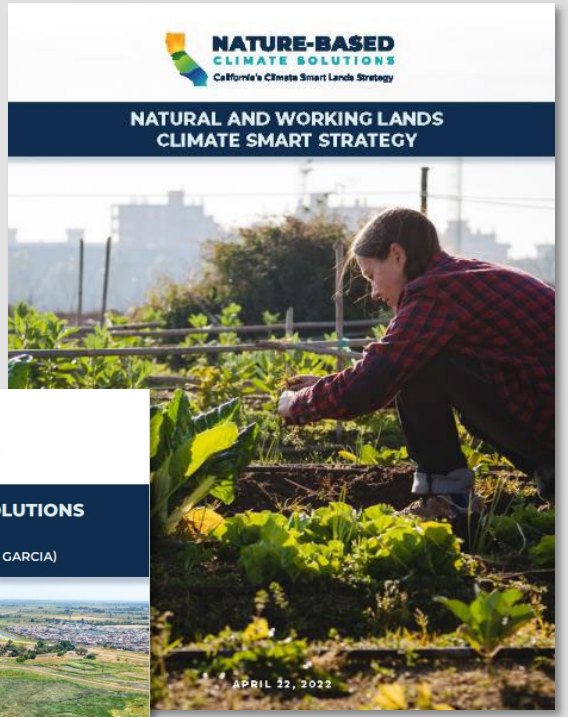
EO N-16-22 (2022) and AB 1384 (2022)

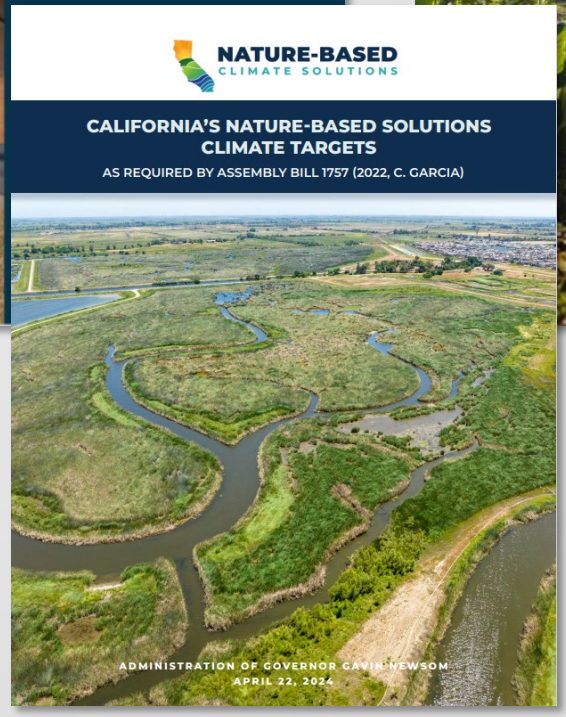
Prioritizes equity and climate change adaptation for vulnerable communities

California Climate Change Guidance and Strategies









CALIFORNIA DEPARTMENT OF
WATER RESOURCES

CLIMATE LEADERSHIP AWARDS 2020
Organizational Leadership Award Winner

CLIMATE CHANGE PROGRAM

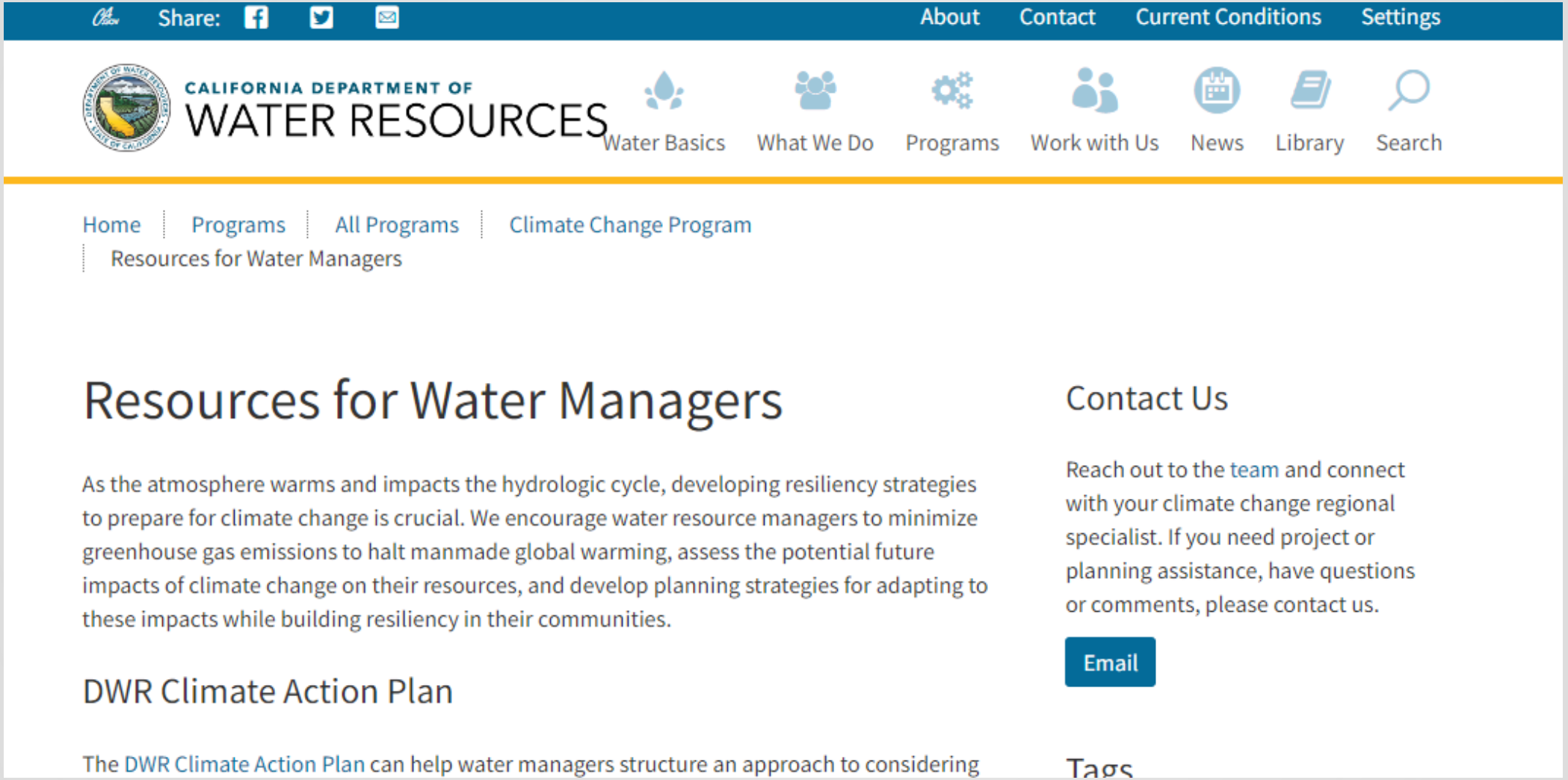
The DWR Climate Change Program is committed to building resiliency in water management by preventing, preparing for, and adapting to climate change. We perform a wide range of science-based services for water managers and provide technical assistance to improve research, monitoring, and strategies to address the challenges posed by climate change.

Guiding Principles

1. We ask, *"what else can we do?"* on a continual basis, to facilitate ongoing improvements in carrying out our objectives.
2. We conduct business in an ethical, fiscally sound, and employee-focused manner.
3. Most of all, we lead by example.

DWR supports numerous partnership initiatives that improve science-practitioner collaboration, foster the use of the best available science in water management, and create unique public outreach on the impacts of climate change on the State of California.

Resources for Water Managers



https://water.ca.gov/Programs/All-Programs/Climate-Change-Program/Resources-for-Water-Managers

Thank you

Lindsay Correa
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California Department of Water Resources
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Clesi Bennett, California Natural Resources Agency

2025 FOCUS AREA INFORMATIONAL ITEM

NATURE-BASED SOLUTIONS

California
DRIP Collaborative

NATURE-BASED CLIMATE SOLUTIONS

California's NBS Climate Targets pursuant to AB 1757 (2022)

CALIFORNIA NATURAL RESOURCES AGENCY

CALIFORNIA AIR RESOURCES BOARD

cdfa CALIFORNIA DEPARTMENT OF Food and Agriculture

River Partners' 2,100-acre Dos Rios Ranch Preserve before and after restoration.

What Are Nature-Based Solutions?

Nature-based solutions that deliver on California's climate change goals are land management practices that increase the health and resilience of natural systems, which supports their ability to serve as a durable carbon sink

Why Are We Setting New Targets?
AB 1757 Requirements

- Determine an ambitious range of NBS climate targets for the lands sector – 2030, 2038, and 2045 – to support carbon neutrality and foster climate adaptation and resilience.
- Integrate these targets into the Scoping Plan and other relevant state policies.
- Report on progress toward meeting the NBS climate targets every two years starting in 2025.

Target-Setting Approach

- Established quantitative goals for the most effective NBS actions that **increase the health and resilience** of our lands, thus supporting their ability to serve as a **durable carbon sink.**

- Based on **best-available science;** reflect the total amount of collective climate action on California's lands that is needed, regardless of ownership.

- Designed to meet or exceed the carbon target for lands in the **Scoping Plan** and drive on the State's **Climate Adaptation**

Cumulative Totals

By 2045, the acreage-based targets will deliver:

- **33.5 million acres** managed to reduce wildfire risk, mostly through beneficial fire.
- **11.9 million acres** of forest managed for carbon storage as well as protection of California's water supply and biodiversity.
- **1.6 million acres** of grasslands managed to restore native grasses and protect biodiversity.
- **1.2 million acres** of increased greening and protection from wildfire across California's diverse communities.
- **4.2 million trees** planted to protect California communities from the climate crisis, remove carbon and increase access to nature where it's needed most.

Cumulative Totals

- **7.6 million acres** conserved with protections to avoid conversion.
- **3.4 million acres** of croplands managed to boost healthy soils, drought resilience, and below-ground biodiversity.
- **2.7 million acres** of shrubland and chapparal managed for carbon storage, resilience, and habitat connectivity.
- **1.5 million acres** to protect fragile ecosystems and biodiversity across California's sparsely vegetated lands.
- **233,600 acres** of wetlands and seagrasses managed to protect water supply, deliver carbon benefits, and buffer communities from flooding.

Thank you!

https://resources.ca.gov/Initiatives/Expanding-Nature-Based-Solutions

naturebasedsolutions@resources.ca.gov

Focus Area Discussion

Approach: What are your thoughts about the crosscutting topics approach? How can we incorporate these topics into the recommendation development process?

Intention: Are these the right focus areas for the DRIP Collaborative to focus on next?

Level of Ambition: How many Focus Areas should we address in 2025 or 2026?

PUBLIC COMMENT

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.
    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.

Anthony Navasero, California Department of Water Resources

CLOSING COMMENTS

California
DRIP Collaborative

California
DRIP Collaborative

Adjourn

Thank you!

Drought Relevant Data: Problem Statement

As California faces a hotter, drier future, the absence of clearly defined, actionable drought metrics and indicators poses a significant challenge to prioritize drought actions effectively and understand their full impacts. To ensure adaptive and localized strategies through all phases of the water lifecycle, it is crucial to bridge data gaps, ensure data accessibility and interoperability, and support modeling for climate-ready decision making across the state.

These challenges are interconnected and comprise four key subtopics, each building upon the other:

- Drought indicators and metrics: There is a need to define indicators for risk and outcome metrics to prioritize drought management actions and to identify which actions are most critical, assess their effectiveness, and understand impacts at a regional and sector-specific level
- Coordination and data sharing: It is essential to improve coordination and data sharing and provide the opportunity to align with existing metrics tracked by various agencies and organizations (local, state, tribal and federal) and address disjointed efforts and data silos
- Data gaps and data quality: Prioritizing specific data gaps and quality issues will allow us to efficiently enhance the reliability and completeness of data for informed decision-making at an integrated watershed level
- Incorporating data analytics and forecasting techniques: Adding predictive elements to drought indicators is required to enable a shift from reactive to proactive drought management, allowing more pre-emptive actions to mitigate the impacts of drought in a changing climate

Domestic Well Preparedness: Problem Statement

As California faces a hotter, drier future marked by intensified water shortages, the resilience of domestic wells and state small water systems is of paramount importance. These systems, heavily reliant on groundwater, face declines in water levels due to both human activity and climate trends, leading to significant reductions in water quality and availability. The SB 552 framework mandates proactive planning and specific actions to safeguard these critical water sources throughout the state. Fragile water supply systems can lead to a cascade of public health crises and economic instability, exacerbating inequities.

Three critical subtopics capture the challenges faced in enhancing drought preparedness for domestic wells and state smalls:

- **Responsibility and Accountability:** The preparedness and resilience of domestic wells and small systems depend on clearly defined responsibilities and authority across jurisdictions that includes local groundwater sustainability agencies, private property owners, county governments, and the State.
- **Funding and Financing:** The current mechanisms for funding and technical assistance are insufficient, with long lead times for emergency funding and disparities in the capacity of counties to address the needs of domestic wells. Equity issues infuse drought vulnerability, with differences between high-income and low-income residents and between tenants and landowners.
- **Coordination and Information Flow:** There is an urgent need for enhanced coordination and information sharing among federal, state, local, Tribal, non-state, and community organization players. This coordination and flow are crucial for enhancing education around resilience of existing wells and for preventing the drilling of new, unsustainable wells.

Drought Definition and Narrative: Problem Statement

Drought has many different definitions. The lack of a unified understanding of drought and water shortage impacts across sectors hinders the State's ability to respond to and prepare for drought effectively. A multitude of drought definitions and the way drought impacts vary by sector and geography leads to fragmented responses and impedes the development of true drought resilience. A comprehensive, shared understanding of drought and water shortage conditions—including physical indicators and environmental, economic, and social impacts at the regional and local level—is essential for enabling cohesive, strategic management of water shortages.

Additional context

This shared understanding relies on a clear definition of the legal and institutional aspects and knowledge of the narratives and interpretations of these definitions across sectors. The DRIP Collaborative's goal is not to redefine drought but to articulate the State's vulnerabilities and opportunities for resilience in the face of water shortages, thereby clarifying the rationale for specific state responses and fostering a common purpose among various sectors.

Reframing drought as a water shortage issue based on conditions can shift the narrative to prompt the most effective action, focusing on strategic needs for drought resilience. This collective understanding is crucial in improving coordination and decision-making, leading to effective actions that bolster drought resilience. With aligned perspectives, California can adopt a more unified and informed approach to managing its water resources during prolonged dry periods.

State Agency Members

State Agency	Delegate
CA Natural Resources Agency	Nancy Vogel
Department of Water Resources	Karla Nemeth (John Andrew)
CA Dept. of Fish and Wildlife	Josh Grover
California Environmental Protection Agency	Anna Naimark (Katy Landau)
State Water Board	Joaquin Esquivel (Andrew Altevogt)
CA Dept of Food and Agriculture	Virginia Jameson (Tawny Mata)
California Office of Emergency Services	Tina Curry (Nate Ortiz)
Governor's Office for Planning and Research	Elea Becker-Lowe (Ben McMahan)

State Agency Members: 1 representative each, alternate in parenthesis

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

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

Name	Organization
Louisa McCovey	Yurok Tribe
Matessa Martin	Buena Vista Rancheria of Me-Wuk Indians
Justine Massey	Community Water Center
Tim Worley	California Association of Mutual Water Companies
Tami McVay	Self Help Enterprises
Grace Person (Vacant)	CivicWell
Suzanne Pecci	Dom. Well Planning Grp South American Subbasin
Brent Hastey	Plumas Lake Self Storage, Owner
Anna Schiller (Robyn G)	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
Carolina Hernandez	Los Angeles County Public Works
Katie Ruby	California Urban Water Agencies (CUWA)