

Meeting Summary

Drought Resilience Interagency & Partners (DRIP) Collaborative Fall 2024 Meeting

California Natural Resources Agency, Room 02-221A/B/C
715 P Street, Sacramento

October 18, 2024 | 10:00 am - 5:00 pm

The meeting was live streamed and recorded. The recording can be viewed at:

<https://www.youtube.com/watch?v=5ci1WjKlawA>

Meeting materials (including the presentation) are available online at:

<http://www.water.ca.gov/drip>

A list of Drought Resilience Interagency & Partnership (DRIP) Collaborative members (members) is included in [Appendix A](#). The DRIP development team includes:

- Anthony Navasero, Department of Water Resources (DWR), Drought Coordinator
- Julie Ekstrom, DWR, Supervisor in the Water Justice Office
- Zoe Kanavas, DWR
- Kira Haynes, DWR
- Heather Pruitt, DWR
- Jaden Torres, DWR
- Glen Low, Earth Genome
- Orit Kalman

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Meeting Objectives

Objective #1: Discuss, select, and adopt non-binding 2024 recommendations from the DRIP Collaborative.

Objective #2: Review and provide input on 2025 focus areas problem statements and cross-cutting areas purpose statements.

Objective #3: Align on next steps for remainder of 2024 and proposed process timeline for 2025.

Welcome Remarks and Setting Intentions

Kamyar Guivetchi, Manager in the Division of Planning at DWR, opened the meeting with welcoming remarks, expressing gratitude to the DRIP Collaborative for their dedication and emphasized the importance of their work in California water management. Kamyar highlighted the Collaborative's role in climate adaptation, equity in water access, and filling gaps in drought planning for small communities and domestic wells and noted its mandate to support small systems in meeting Human Right to Water standards and to advise on emergency and long-term strategies.

Orit Kalman established a quorum among the members with a roll call. The list of members present in the meeting is shown in [Appendix A](#). New member Kyle Jones of Community Water Center and new alternates Analise Rivero of CalTrout, Karina Cervantez of CalMutuals, and Tom Gibson of DWR introduced themselves to the group.

Glen Low reviewed the activities of the DRIP Collaborative in 2023 and 2024, emphasizing how well this group has collaborated. Key activities include the foundation building (building relationships, process design, focus narrowing) of 2023 and, in 2024, recommendation development and the establishment of workgroups to support refinement of those recommendations.

Informational Updates

Hydrology Update: 24:30-40:40, slides 12-28

Jeanine Jones, Interstate Resources Manager for DWR, provided an update on hydrology and current conditions. Jeanine opened with an image of the National Centers of Environmental Information (NCEI) of NOAA headquarters in Asheville, North Carolina, an area recently devastated by Hurricane Helene. Given that this data center only restored their internet the day before this meeting, some of the usual slides in this presentation are missing. Jeanine presented the available data for California's 2024 water year, stating California saw an "abnormally average" state-wide hydrology, although conditions varied: flooding impacted parts of the South Coast, while upper Sierra Nevada regions experienced drier conditions, affecting spring runoff expectations. The Colorado River Basin, essential to southern California's water, remained dry, impacting flow projections for Lake Powell. Reservoir storage was slightly above average due to the wet 2023, while groundwater storage showed slow recovery, illustrating the need for further replenishment after long-term overuse. Temperatures last year were unusually cool but returned to above-average norms, influencing wildfire risks and soil moisture. Despite perceptions, this wildfire season was average for the 21st century, though it followed a low-activity year due to 2023's wetness. The State

Water Project and the Colorado River system forecast a Tier 1 shortage in 2025, necessitating ongoing voluntary conservation efforts to bolster reservoir levels, especially in Lake Mead and Lake Powell. Contrary to early predictions, ENSO conditions shifted from a projected strong La Niña to a weak La Niña-neutral state, limiting predictability for California's climate. NOAA's forecast accuracy remains low, especially for California, emphasizing the state's need to prepare for highly variable and extreme climate conditions, regardless of seasonal forecasts. Jeanine closed with a few clips from the 1964 Christmas Flood that isolated communities across Northern California, demonstrating that, although California doesn't often experience hurricanes, major precipitation events and extreme flooding can occur.

Review of Recommendation Development and Voting Process

Glen Low reviewed the development process which led to the drafting of the updated list of recommendations. The recommendations endeavor to address three focus areas that were identified by the DRIP Collaborative in 2023. The development process relied heavily on DRIP Collaborative members' interests, collaboration, and input. The resulting recommendations are based on comments and suggestions provided by members and addressed by the recommendation leads and workgroups this past year. The initial list of eight recommendations has been updated based on input provided by members.

- The Communication Program Recommendation (REC 7) has been split and some of its original objectives to develop symbology and dashboard ideas have been incorporated into the Drought Indicators and Metrics Recommendation (REC 1). With this change, REC 7 will be updated and further developed in 2025 and will not be voted on during the 2024 list of recommendations.
- The Drought Definitions White Paper Recommendation (REC 6) and the Drought Case Studies Recommendation (REC 8) were combined per members' suggestion.
- The SB552 Language Update Recommendation's (REC 3) scope has been updated per members discussion and reframed as Empowering County Drought Resilience Planning for domestic wells (DW) and State Small Water Systems (SSWS).

Members were encouraged to consider the completeness of the recommendations and balance the need for breadth vs. detail in the recommendations' descriptions. It is important to consider if the recommendations, as presented, provide sufficient detail and clarity in describing the essential steps that are needed to achieve the desired outcomes as identified in the related problem statements. For the purpose of approving these recommendations, funding sources and availability are not criteria. Funding needs, when available, are provided as a general estimate of needed resources.

Recommendations Review and Voting Process

For each recommendation, the lead provided a short presentation to highlight the key components of the recommendations and how comments provided by the DRIP Collaborative were addressed. Pre-meeting feedback was reviewed to assess remaining issues for consideration. Following the presentation, DRIP Collaborative

members discussed the recommendation and members of the public were invited to comment. DRIP Collaborative members then conducted a two-step voting process to ensure that the recommendation was ready for a formal vote, and then voted to approve or disapprove the recommendation (which would be recorded in the 2024 DRIP Collaborative Report).

Drought-Relevant Data Focus Area Recommendations

REC 1: Drought Indicators and Metrics: 53:00-1:12:27, slides 43-48

Lead Presentation: Alvar Escriva Bou, UC Davis

This recommendation targets state and local decision-makers, aiming to enhance decision-making by leveraging California’s drought data to anticipate actions and mitigate costs. Building on an existing project, it fosters partnerships between state agencies and an academic research team. To align with local needs, a task force, advisory group, and multisector committees will guide tool development. Equity is prioritized, recognizing disproportionate impacts on vulnerable communities. The budget estimate, based on academic project costs, is a noted concern.

DRIP Collaborative Discussion

- Given the proposed 3-year timeframe, will there be milestones or interim deliverables to evaluate process before the tool is finalized?

Response: Interim progress was not described in the recommendation. UC Davis developed a proposal for a first mock-up, in 2025, of an online tool to be ready for review and feedback from multiple sectors. The proposed steering committee or working group should be defining the final product and related milestones.

- Pleased to see that the recommendation includes public engagement even though this is meant to be highly technical with a focus on agencies.

Response: Community Water Center has been working on a tool for domestic wells.

- I support this recommendation and would like to see how this recommendation will align with REC 2 - Rapid Inventory of Drought-Related Tools and Resources.

Response: I agree that it will be helpful to collaborate with other recommendations.

- Having this data available, especially for tribal nations, is very important.
- While this tool is intended as an early warning system, would you envision opportunities, after drought taken place, to assess where to allocate disaster relief funds and things along that line?

Response: This might be a follow-up phase and long-term opportunity once we have put together a system that identifies what is happening.

- I support this recommendation and looking forward we should consider if this tool aligns with or contradicts USDA.

Public Comment: None provided

Readiness Vote on Recommendation #1

Yes	No	Abstain
21	0	0

Final Approval Vote on Recommendation #1

Yes	No	Abstain
21	0	0

REC 2: Rapid Inventory of Drought Related Tools and Resources: 1:12:44-1:27:37, slides 49-54

Lead Presentation: Elea Becker Lowe, Governor’s Office of Land Use and Climate Innovation (LCI)

This recommendation lays a foundation for the DRIP Collaborative’s work, addressing the complex, cross-sector nature of drought. It focuses on using existing tools, resources, and literature to inform meaningful progress. Building on LCI initiatives and aligning with the Vulnerable Communities Platform, it aims to improve awareness, highlight resources, identify gaps, and guide next steps. This recommendation serves as a central reference to connect related efforts and assumes a broad definition of tools, covering data analysis, literature assessment, and shared understanding. The anticipated cost is low.

DRIP Collaborative Discussion

- Where will the final inventory product be housed?

Response: This is an LCI internal exercise and will provide an opportunity to inform broad initiatives. It will be helpful to hear from DRIP Collaborative about the inventory’s format. The recommendation description includes an example of a spreadsheet version of various resources being explored.

- This is an important first step for some other recommendations and the fact it is already largely happening through another initiative would be a miss not to bring that to this group and align it.
- I am very supportive of this recommendation. Given an interest in community monitoring, this inventory can be helpful regarding the information aspect and as an educational resource particularly related to dry wells.
- This will be a useful tool to improve our understanding of what tools are out there, how well we're doing, or what we can do as a next step to synthesize information that we are gathering in separate tools. This can be further used to identify what tools we're missing and to points made earlier, how well are we doing or not in appropriately communicating about available tools and analyses to the public. This recommendation is important because we currently don’t have a systematic review of tools. I think it is really useful to have a document or a web page with all the tools identified and include how they are used or how they can be improved.

Public Comment: None provided

Readiness Vote on Recommendation #2

Yes	No	Abstain
20	1	0

Final Approval Vote on Recommendation #2

Yes	No	Abstain
20	1	0

Drought Preparedness for Domestic Wells Focus Area Recommendations

REC 3: Empowering County Drought Resilience Planning for Domestic Wells and State Smalls (Previously SB552 Language Update): 1:27:45-1:43:02, slides 56-62

Lead Presentation: Kyle Jones, Community Water Center

This recommendation responds to SB 552 requirements for counties to prepare Drought Resilience Plans to help drought-proof California. Efforts focus on preparedness, resource identification, emergency relief, well mitigation, and consolidation opportunities.

It originally started with the idea of identifying possible legislative ideas to help address some of the challenging aspects of SB 552. In response to concerns raised by DRIP Collaborative members, especially related to local resource needs, and hesitation about advancing legislative ideas in this forum, the recommendation was revised to include strategies on how to best implement the county portion of SB 552 and make sure we're ground truthing best management practices.

Now, the recommendation emphasizes best practices, including those developed by DWR, to strengthen Drought Resilience Plans by refining approaches and supporting impacted communities. Although DWR is the lead agency providing guidance, this initiative guides counties and local governments in collaborative drought response.

DRIP Collaborative Discussion

- I like the focus on supporting counties and local government and the forward-looking aspect of the recommendation in promoting best practices at the local level.
- The updated recommendation aligns with the reason why we are here. It highlights the need to provide support at the local level and rely on local insight. The biggest challenge remains time and money.
- In a meeting between a subbasin advisory committee and the County regarding the implementation of SB552 we discussed ways for collaboration. And to reiterate, it is very positive to see the focus on working directly with the community. Funding is always on everyone's mind.
- I appreciate the work that has gone into refining this recommendation and the key strategies, as identified, are needed. The State Board has one staff person who can help, through coordination, to support this effort. Although there are not a lot of resources, there are some that should be coordinated and put forward in support of this effort.
- The updated recommendation is responsive to the comments we heard at the last meeting. As an implementer of SB 552, the vague language has been frustrating and difficult to figure out what needs to be done and this recommendation gets to the heart of those issues while leaving behind the concerns regarding legislative changes.
- The update has worked out well and DWR looks forward to the implementation phase and working closely together on that.

Public Comment:

- The North State Drinking Water Solutions Network brings together wide interests in the Sacramento valley to talk about things like this. DWR has some incredible

tools and in our July meeting, we heard from Tehama County about their work to identify the reasons for dry wells. How does this relate to nature-based solutions and groundwater recharging naturally? How do these recommendations, tools, and data integrate?

Response: This recommendation and SB 552 are about, in my view, protecting drinking water access. That being said, the SB 552 County Task Forces that are convened are supposed to help coordinate local governments with sustainable groundwater management agencies who are looking at actions to recharge groundwater in all ways possible. The more we can provide stronger gains to help support and integrate all these efforts, the better it will help understand this picture more holistically.

Readiness Vote on Recommendation #3

Yes	No	Abstain
20	0	1

Final Approval Vote on Recommendation #3

Yes	No	Abstain
20	0	1

REC 4: Voluntary Community-Based Well Monitoring Program (Network): 1:43:17-2:06:15, slides 63-68

Lead Presentation: Zoe Kanavas, DWR, and Suzanne Pecci, Domestic Well Planning Group South American Subbasin

Key issues discussed in the September workgroup included emphasizing the recommendation's regional focus, addressing data privacy, costs, potential unintended impacts, and coordinating with counties and SB 552 efforts.

The recommendation aims to empower domestic well owners with knowledge about groundwater levels, quality, well maintenance, and sustainability. Besides educational benefits, it may fill agency staffing gaps, foster community collaboration, support drought resilience, and facilitate data sharing on open platforms.

Successful implementation requires coordination with local agencies, including those implementing SB 552, as well as partners like DWR and the State Water Board.

Flexible implementation steps were proposed, as a universal method may not suit diverse organizations. The recommendation also supports water equity by potentially providing affordable monitoring equipment.

DRIP Collaborative Discussion

- I appreciate the call-out for water quality. One of our biggest issues with SGMA and implementation has been monitoring networks and how robust they are, particularly when it comes to capturing water quality. Pilots, like this recommendation, can serve as low-cost models and provide a good approach to identifying how to improve monitoring networks without increasing a whole lot of cost.

Response: During our advisory group meeting with the county and GSAs we discussed the existing community monitoring group (comprised of 34 wells) which does monitor for water quality for informational purposes and in its beginning stage.

- While there are benefits, I have concerns about vagueness of the pilot implementation. Santa Cruz County has had a similar domestic well monitoring program for the past 20 years. This recommendation improves on existing

efforts. Multiple pilot locations are suggested to reflect California's diversity, as a solution suited for the Santa Cruz mountains may not work in the Central Valley or Southern California. Many areas with water level issues lie outside groundwater basins, so this effort should extend beyond Groundwater Sustainability Agency boundaries.

- If there are already existing voluntary programs, what is the benefit of this recommendation?

Response: This recommendation aims to build on existing monitoring programs, many of which are advanced and community-driven. The goal is to establish adaptable guidelines for data collection and data use across California communities. In addition, while there are some voluntary programs that exist, there are many more domestic well owners that do not have access to one.

- The State Water Board is supportive of the recommendation. The idea of empowering communities with information is important.
- While very supportive of the concept, I'm concerned around the lack of clarity of the implementing parties. It is important to have a champion or a leader who is going to drive the next steps, otherwise we recommend it and then just leave it for someone to grab. Were you envisioning Suzanne's Community as the pilot, or if not, what are the next steps of identifying that pilot group?

Response: This was intentionally left blank in the recommendation but there might be opportunities in my subbasin. Maybe this recommendation will have to be picked up by a region that has the financial capacity to handle it.

- There are areas where well owners value their privacy and do not want government involvement until the well goes dry. The voluntary component is very important and getting data from around the state is helpful to understanding how we address drought impacts.

Response: Suzanne has been involved in SGMA since its inception 10 years ago, noting that initial engagement around GSA formation was highly successful, though participation has since waned as domestic well owners grew complacent. The proposed pilot program offers agencies, GSAs, and DWR a chance to re-engage well owners on a personal level. While respecting privacy, this program aims to promote monitoring and educate well owners on the importance of their participation.

- Empowering homeowners to monitor their wells is valuable, but widespread agreement isn't necessary for the program's success. Any additional groundwater data statewide is helpful, especially in data-scarce areas. Some homeowners, appreciating the support they've received, may now be more willing to share data, recognizing its benefits for the state and others.

Public comment:

- I live in Siskiyou County, in Mount Shasta, and I've been spearheading a community well monitoring program for the last 10 years and I support this recommendation. It is important to understand how many wells are going dry. There is a huge gap between the number of wells that are reported to actual number of wells going dry. Data provides us with trends which are important especially in our areas of volcanic and fractured rock which is outside of the SGMA basin boundaries. We need to understand how precipitation affects our wells.

Readiness Vote on Recommendation #4

Yes	No	Abstain
20	0	1

Final Approval Vote on Recommendation #4

Yes	No	Abstain
20	0	1

REC 5: Roles and Responsibilities: 2:06:15-2:38:49, slides 69-74

Lead Presentation: Sierra Ryan, Santa Cruz County

Historically domestic wells and the state small water systems have been left out of drought planning and this recommendation seeks to address this gap. This recommendation proposes a neutral third-party analysis to review roles, responsibilities, and gaps in resilience and protection, particularly for wells facing drying or water quality issues due to drought. The evaluation aims to guide future DRIP Collaborative efforts. While the initial evaluation is straightforward, the challenge will be in using the findings to develop recommendations that ensure timely support for domestic wells.

DRIP Collaborative Discussion

- While the evaluation part as presented is straight forward, the document shared includes an outline that goes beyond evaluation.

Response: The outline, included as an appendix, was originally part of the original recommendation but it was removed with the acknowledgement that it is a suggested approach for implementation and is not directly part of the recommendation. The recommendation itself is just the evaluation of the roles and responsibilities.

- There is value in the evaluation of providing clarity regarding who jumps in when there's a drought emergency. It may be beneficial to have a bifurcated approach in terms of doing the evaluation. The recommendation, however, includes statements such as 'California currently lacks a comprehensive approach to address urgent drinking water needs of households served by failing domestic wells and lacks comprehensive policy for reducing the growth of dry domestic wells in the future' and other similar statements. There is policy that addresses this such as the Safe and Affordable Fund for Equity and Resilience for Drinking Water (SAFER), that provides drinking water for folks in need.

Response: The SAFER program is very limited in its reach and has requirements to meet income thresholds and a lot of the state does not qualify for the SAFER funds when it comes to helping domestic wells. During the 2021/22 drought, it was unclear who are the implementers, who are the applicants, and how funds gets to people with needs. As a result, we were not prepared, we did not have water hauling contracts, and it took two years to get the contracts with the State, and even then, it wasn't really clear what we were responsible for. There is a lot out there, which is what the analysis will take into account but there are very significant gaps became apparent during the last round of drought when wells were going dry and the help that was supposed to be out there wasn't accessible to them.

- For the two terms I spent on SAFER, there was a whole push about getting water out to communities in need, as soon as possible. I'm not comfortable with the way this recommendation language and there's more work that needs to be done which I will commit to work on with this group.

- In the State Water Board recent needs assessment for SAFER, it was estimated that over \$6 billion would be needed to address domestic wells that are at high risk. While looking at the different programs including SAFER, the regional board programs, SGMA it was impossible to get the \$6 billion. Identifying the gaps will be important. There are places where we have coverage, but there is not only not enough money in those programs to address everything; there's also, lack of authority. This year, the State Water Board is going to outline what their programs can do and cannot do and coordinate with other agencies. The SAFER Advisory Group is scheduled to meeting on December 5th and this topic will be discussed with the Regional Boards, with our SGMA group, and with DWR's SGMA group, to try to outline, what the State can do. This recommendation can build on this analysis and identify the roles of the local governments and domestic wells owners themselves. Regarding funding, all State agencies contracts are being cut drastically.
- The analysis is a great idea to identify any gaps, however, it is not the role of the DRIP Collaborative to identify the solution since we cannot tell State agencies such as the State Water Board or DWR how to fill those gaps.
 - Oversight for how the State is responding and addressing drought is exactly the role of the DRIP Collaborative, and if agencies aren't doing what they should then we should call it out. However, this recommendation is focusing on the evaluation which is necessary to understand gaps and overlaps.
 - Solutions to addressing identified gaps can evolve over time and will be dependent on where they are applied in different regions. Not a lot of attention has been paid to the middle group, middle class group of domestic wells owners. Although there are programs for domestic wells, they emphasize the economic group that they're in and there needs to be some protection for the middle that perhaps have enough money or have some money to put toward their well but will need support.
- Recommendation three is focused on how counties are going to be developing their drought plans. This recommendation can directly inform the DRP development process.

Public Comment: None provided

Vote for Recommendation #5

Note: Due to a misunderstanding about the scope of the recommendation, which is limited to the evaluation and not the identification of solutions to gaps, DRIP Collaborative members voted twice on this recommendation. During the first round, there were not enough votes to advance the recommendation (16 out of the required 17). The second round of voting was as follows:

Readiness Vote on Recommendation #5

Yes	No	Abstain
20	1	0

Final Approval Vote on Recommendation #5

Yes	No	Abstain
20	1	0

Drought Definition and Narrative Focus Area Recommendations

REC 6/8: Drought Definitions and Case Studies: 2:38:50-2:58:00, slides 78-84

Lead Presentation Elea Becker Lowe, LCI, and Katie Ruby, California Urban Water Agencies

This recommendation merges two proposals to clarify drought terminology and showcase resilience through case studies representing diverse drought users and regions in California. It suggests an academic or research partner lead the effort due to limited state resources. Updated categories for case studies include agricultural, urban, rural, tribal, commercial, industrial, environmental, and habitat-focused examples. These case studies will demonstrate state actions, successful drought mitigation practices, and areas needing more focus. The DRIP Collaborative can aid in scope setting and outreach, while the LCI's Adaptation Clearinghouse could host the information.

DRIP Collaborative Discussion

- Beyond the distinction between rural and urban areas, it is important to highlight the differences between small rural areas and those that are well prepared for drought. Talking about drought in terms of statistics and scenarios is not as effective in reaching the public as sharing stories about communities and people might be. This could be powerful.
- The California Department of Food and Agriculture (CDFA) can offer case studies about the work of the California Underserved Council.
- Support the recommendation especially with the inclusion of environmental case studies. Examples might highlight impact on terrestrial and aquatic habitats, people that are affected, and impacted ecosystems.
- Consider the initial budget to develop case studies as being a first phase and perhaps having a second phase that supports multimedia storytelling recognizing that having first person narrative is so powerful when it comes to discussing drought.
- Is the intent for case studies to reflect both the supply side and demand side of drought?

Response: The categories for case studies need to be further refined and should account for both challenges and solutions including success stories that can elicit some hope in that direction.

- As part of the definition component of the recommendation, it will be important to highlight the various factors that influence drought conditions or shortage and recognize it's not just supply.
- While considering the role of academic partners, it might be helpful to consider Journalism School and leverage students who are training to tell stories and therefore will have the tools that are for multimedia.

Response: In scoping the recommendation, the outcome of the recommendation was assumed to be in a written format but there is definitely an opportunity and an advantage to enhancing the messaging with additional funding.

- There is an opportunity to receive additional funding through the Monterey region which just received a NOAA grant for studies and fellowships for work that is focused on climate.
- Interest in submitting stories about a sub-basin during flooding where the farmers opened their levees.

Response: There is an opportunity to provide examples of case studies and templates that we can use.

- There might be an opportunity to connect with citizen science and their reporting formatting.

Public Comment: None provided

Readiness Vote on Recommendation #6/8

Yes	No	Abstain
21	0	0

Final Approval Vote on Recommendation #6/8

Yes	No	Abstain
21	0	0

REC 7: Communication Program: 2:59:08-3:00:00, slides 85-87

Lead Presentation: Laura Ramos, California Water Institute at Fresno State

This recommendation proposes a communications program to enhance public understanding of drought and related extremes, linking with REC 1 and REC 6/8 for improved outreach. It suggests tailoring messages for diverse audiences, leveraging existing platforms like Save Our Water and California Water Watch before creating a new hub, and developing a central website to deliver targeted information. Audience feedback will be sought for ongoing improvement, and the program will align with other DRIP Collaborative efforts to maximize impact.

DRIP Collaborative Discussion

The DRIP Collaborative members discussed the following questions and provided additional input to advance the recommendation.

QUESTION 1: Do Collaborative members agree with our new recommendation to begin with research on existing efforts and formulating a gap analysis to inform future development of a communication proposal?

- Thank you for the work to reframe the recommendation. The shift and focus on the language and messaging is an important piece. It will be important to research existing efforts and any existing surveys or polls that can shed light on how people best receive information, what language resonates with them, and media to inform what the recommendations' outcome ultimately looks like.
- An action item related to this recommendation may be to prepare a gap analysis to understand what the available data resources and communications about drought are. This will help identify which groups aren't being reached, where are we missing things, and how are we falling short in our communications.
- A survey could be really valuable to understand who is using some of the tools available and when the tools are not applicable. At the county level, we have not taken advantage of any of the state tools because the state tools were really more targeted to water agencies and therefore not very useful for domestic well owners, for example. Translation services are important to consider since in

some cases we miss the intent and appropriate terminology when the translation to other languages is inaccurate. This is particularly critical in smaller communities with non-English speaking people.

- Multicultural communities go beyond Spanish-speaking people. We have a large population of Asians and Sikhs Indians. More broadly, consider the importance of tailoring communications to the needs of the communities.
- Adding to the suggestion of surveying about drought related communications, it would be interesting to know where people get their information about drought.
- It might be helpful to consider if at any stage there is an opportunity for a public private partnership and NGOs participation.

QUESTION 2: Do members agree that the Collaborative should ask that the projects (whether undertaken by a Collaborative member or another party) should include a plan or recommendation for communication of the results?

- At this point, adding a communication component to the approved recommendation retroactively can be considered but may not be necessary for all recommendations.
- The Annual Report can provide the needed communication about the recommendations. This recommendation should be about actionable and useful information to the public rather than about the work of the DRIP Collaborative.

QUESTION 3: Do DRIP Collaborative members think this role is already fulfilled in whole or in part, by an existing communication platform? Does one existing site stand out as the most likely candidate for serving this purpose?

- While there is no one specific platform that comes to mind, this is an opportunity to learn what's out there and to see what we can leverage and build. It makes sense to reframe the recommendation to perform a gap analysis and consider what can be done to address the gaps and how existing communication efforts can be leveraged and built upon.

Public comment: None provided

Reflections on the 2024 Recommendation Development Process

Reflections on the Recommendation Development Process: 3:18:40-3:43:39, slides 89-92

Orit Kalman facilitated the discussion to (1) acknowledge the DRIP Collaborative work accomplished to date and (2) solicit input on the recommendation development process. In acknowledging the work of the initial three workgroups over 2024, the Drought Definition and Narrative workgroup was reestablished as the Communications workgroup to continue refining the Communication Program recommendation. The membership for the Communications workgroup is detailed below.

Workgroup members*: Alvar Escriva Bou, Elea Becker Lowe, Katie Ruby, Laura Ramos, Matessa Martin, Nate Ortiz, Redgie Collins, Tim Worley

*more members may be added to this workgroup, please see the up-to-date workgroup membership here: <http://www.water.ca.gov/drip>

After reviewing the initial list of Desired Outcomes described by the DRIP Collaborative membership (slide 92), the members stated their reflections on the work they've accomplished over the past year:

Reaching Consensus:

- As a newcomer to the DRIP Collaborative, I'm impressed by the group's dynamic, openness to feedback, and adaptability. Compared to other California water groups, this feels especially positive and productive. I encourage everyone to keep building on this strong foundation for next steps.
- Reaching consensus on recommendations and adapting them based on feedback shows the process worked well. The prework and feedback allowed recommendation leads to make necessary adjustments, and I appreciate the team's flexibility throughout.
- I'm impressed by how quickly this group achieved results—two years is remarkable in California's water world.
- When I joined, I wasn't sure how I'd fit or what was expected, but the Development Team and workgroup offered great support, turning my ideas into workable plans. My initial local idea expanded through research, meetings, and learning about other regions' programs. This project has been an inclusive and enriching experience.

Voting

- Need clearer guidelines on the voting process, including a clearer definition of what "readiness" means.
- During voting, am I representing myself, my organization (e.g., Santa Cruz County), or all public agencies?

Recommendations

- Address how we can elevate the recommendations we approved and how to pass them off to implementing bodies as appropriate.
- Need to figure out how the work is going to get done now that we have approved the recommendations.
- Who exactly are we making these recommendations for?
 - [Response] The approved recommendations are going in our report, the report goes to the Governor's Office, the heads of the agencies, water agencies and water departments to inform them, but the recommendation is out there for the public and for you all to use as well as tools to engage with others.
- How do we ensure the recommendations move forward and are implemented?
 - [Response] Developing these recommendations is a first step, strengthened by the diverse support from group members. Once shared, the report will contribute to ongoing efforts, with the involved agencies already collaborating on roles and responsibilities to advance the work.
- What is appropriate for DRIP to recommend or do, and where does that responsibility end?
 - [Response] DRIP's role does not include proposing legislative changes, as that responsibility falls outside its scope and isn't specified in DRIP's mandate. There are other ways to pursue legislative work independently, either through state agency processes involving the Governor's office or individual members using their own legislative channels.

Focus Areas

- Water infrastructure and nature-based solutions were top priorities early on, with broad support. Infrastructure should appear in the report as a major priority. Nature-based solutions typically risks being sidelined due to immediate needs; so, this group should make it a point to prioritize it.

Recommendation Implementation Follow-up: 3:43:40-3:53:28, slide 93

Orit Kalman facilitated the discussion to identify opportunities to follow-up on recommendations implementation. Orit reviewed each recommendation's stated role for the DRIP Collaborative in its implementation and solicited feedback from the Collaborative on how to maintain linkage to the recommendations:

Realistic Expectations

- With the recommendations approved, we need to consider future commitments. Since this is a voluntary group, we must realistically assess our role in implementing recommendations and clarify expectations for the next phases.
- I want to highlight state budget challenges, which may require adapting our collaborative approach, such as considering virtual meetings or other adjustments. As we plan for 2025 and 2026, please keep budget limitations in mind to set realistic expectations.

Updates during Future Meetings

- It would be valuable to hear updates at each meeting from one or two members on their current drought work. Hearing from a mix of state, private, and public entities, would broaden our understanding of diverse drought actions and connect them back to our recommendations.
- Supporting and implementing recommendations will vary; some may need contractors, others a detailed workplan. It could help if leads prepare workplans for review by the next meeting. We could then assess which recommendations need ongoing feedback and potentially form workgroups for implementation, with regular updates at future meetings.

Developing 2025 Problem Statements

Zoe Kanavas, DWR, facilitated this discussion which featured brief presentations of the problem statements for the potential 2025 focus areas. The definition of a DRIP Collaborative focus area and problem statement were reviewed. The presentation highlights and key comments from members are noted for each focus area.

Reducing Ecosystem Impacts of Drought: 3:57:30-4:06:20, slide 99

Zoe presented a brief overview of this topic's problem statement. After the presentation, the following questions and comments were received from members:

Scope:

- Make sure that, in addition to the motivations listed, we also link to the importance of healthy ecosystems for humans (i.e., safe drinking water supply).
- In the context of repurposing formerly agricultural lands into habitat, we should consider its water quality impacts and think of how to roll out these kinds of projects in a unified manner.

- Interested in credit for domestic well users for groundwater recharge efforts. We should also consider conservation easements.

Expertise:

- Further development of this focus area would benefit from outside expertise. This especially applies to the legal interplay between water supply and environmental needs. For example, modifying the "place of use" for a surface water diversion, often requires compliance with Habitat Conservation Plans (HCPs) and other regulatory approvals.
- The CalTrout and the California Department of Fish and Wildlife members will bring great expertise to this focus area.

Support:

- River flow improvements and the wetlands and repairing zone restoration are critical for everybody, and so I think this one's great.
- I'm very happy to see this as a focus area and I'm excited to see where this goes.

Vote to Form Workgroup on Reducing Ecosystem Impacts of Drought

Yes	No	Abstain
21	0	0

Workgroup members*: Anna Schiller, Analise Rivero (Redgie Collins), Matessa Martin, Sierra Ryan, Alvar Escriva Bou, Laura Ramos, Brent Hastey.

*more members may be added to this workgroup, please see the up-to-date workgroup membership here: <http://www.water.ca.gov/drip>

Land Use Planning for Drought Resilience: 4:06:25-4:18:11, slide 100

Zoe presented a brief overview of this topic's problem statement. After the presentation, the following comments were received from members:

Scope:

- In favor of including both urban and agricultural land use, particularly agriculture given it's a major water user and the projected changes in agricultural land use.
- This focus area needs to include urban, agricultural, natural open space. There is going to be significant overlap between this and the Reducing Ecosystems Impacts of Drought discussion.
- There are many questions from my community, about converting agricultural land to high density housing. What's the water impact?
- Would like to particularly focus on long-term solutions, how we get there, and identify opportunities to help streamline. For example, we're working on drinking water consolidations and we have a special district that does drinking water and wastewater. Even though we have the Water Board order to consolidate, we need to go through LAFCO to get the system dissolved. These and other governance issues should be discussed.
- I'm concerned about development of the agricultural land around the area I live. There are plans for dense housing development despite no public infrastructure for water and sewer.
- We need housing and we need that housing to be sustainable, and part of that is making sure that it's planned in such a way that it's resilient for climate change and drought.

Setting Expectations:

- Joining the working group for this topic means navigating intense challenges and opposition; expect tough negotiations and conflict.
- Land use planning definitely falls into the category of harder challenges; it's a charged and complicated topic.
- I could see how it would be really contentious, however, thinking back to the opening remarks, resilience work has to be place-based and that's what this is.
- This work could be a very contentious topic, and I think that we need to be very mindful of all of the great things that were already mentioned here about what can be done, but also a serious recognition about what cannot be dictated to local government.

Support:

- I am ready to dive into this. This is like what I live and breathe all the time.
- This is where the rubber meets the road, this is how you ultimately decide what to do on what land with what water.
- As a former land use attorney, I'm really excited about this and ready to dive in, although with the more collaborative hat.
- As a public member, land use planning is really what brought me to water.

Vote to Form Workgroup on Land Use Planning for Drought Resiliency

Yes	No	Abstain
19	0	2

Workgroup members*: Brent Hastey, Anna Schiller, Jason Colombini, Katie Ruby, Elea Becker Lowe, Carolina Hernandez, Virginia Jameson, Andrew Altevogt, Sierra Ryan, Kyle Jones, Catherine Freeman, Suzanne Pecci, Emily Rooney

*more members may be added to this workgroup, please see the up-to-date workgroup membership here: <http://www.water.ca.gov/drip>

Water Infrastructure and Planning: 4:18:55-4:49:12, no supporting slide

While there was a presentation on this topic in the July 2024 meeting, based on the limited feedback from that presentation, a problem statement was not developed for this topic ahead of the October 2024 meeting. A member proposed adding Water Infrastructure and Planning as a focus area and workgroup. The subsequent discussion and support for this topic resulted in adding Water Infrastructure and Planning to the 2025 focus area list. After the topic was purposed, the following comments were received from members:

Scope:

- What do we mean when we say infrastructure?
 - [Response] The workgroup for this focus area could determine that scope.
- The lack of a clear problem statement for infrastructure makes it hard to define. If people are interested, I support forming a workgroup to develop this statement, explore recommendations, and reassess if redundancy becomes an issue.
- Could this still blend into a cross-cutting theme? There's an important value in these cross-cutting themes in being a lens that we look through in every conversation. I think defining the difference between focus area and cross-cutting theme is needed

and highlighting those cross-cutting elements as major priorities, like our foundational values could be really important to kind of clarify the next steps.

- [Response] The working group would be able to determine whether this be a focus area or cross-cutting theme.
- Why isn't infrastructure included in land use planning? Would it not make sense to include that discussion if we're talking about where water needs to be and how much and for whom? It seems like how you convey it and store it is all related.
 - [Response] Many of these focus areas are interconnected. It's up to the Collaborative to choose what and how we talk about them.
 - [Response] I agree that infrastructure could fit within Reducing Ecosystem Impacts of Drought and Land Use Planning for Drought Resiliency, as wetlands and riparian habitats serve as infrastructure by reducing the need for additional construction. Protecting these ecosystems supports ongoing efforts.

Support:

- I understand that there's a lot of work being done in this space, I also feel like we're still playing catch-up in aging and failing infrastructure. While the funding and projects we have right now are extraordinarily important, we're also way behind in terms of where the state needs to be in this space.
- Agree that infrastructure should be added as a focus area. This fits well with the other focus areas we've discussed today - you can't really do land use planning without thinking of the infrastructure, and then we should consider the ecosystem impacts by the current infrastructure or the lack of infrastructure.
 - [Response] There is the opportunity to add sub-topics to the other focus areas. For example, in the Reducing Ecosystem Impacts of Drought problem statement, there could be a callout to water infrastructure and its role in potential solutions.
- While infrastructure hasn't been fully defined for our purposes today, it's crucial to consider—either as a focus area or cross-cutting issue—since our aging infrastructure directly impacts clean, reliable water delivery. Nature-based solutions and new infrastructure ideas also need to be factored into all areas, as practical application is key. I'm open to discussing later how to categorize it, but it's an important point to address.

Bandwidth/Resources: Please note that this portion of the discussion is relevant to all potential 2025 topics, not just Water Infrastructure and Planning.

- I'm not opposed to any of these potential focus areas, however, there are ongoing recommendations and other focus areas that could limit the bandwidth of the group. Maybe we shouldn't pursue all potential focus areas at this time.
- Building off of the bandwidth comment, could you please clarify what the expectations are of this group in terms of implementation of the recommendations?
 - [Response] Today's recommendation vote wraps up a chapter for the DRIP Collaborative report. While others may implement these recommendations, it's not the Collaborative's responsibility. We'll continue working on Recommendation 7 next year.
- I want to reiterate that we may be dealing with limited budget and resources next year. They may require the focus area workgroups to pivot based on available resources.

- [Response] Currently, we're uncertain about budget impacts, so the level of engagement might shift. Just be mindful that forming workgroups and developing recommendations could take longer than a year, especially if we're restricted to in-person meetings under Bagley-Keene rules. This could extend timelines, though it doesn't limit your interest or involvement.
- [Response] I think that message has been received and I would also expect all of the workgroups to be flexible in our understanding of that approach and we may shift our priorities within the scope of work, we may consider alternative approaches to deal with the budget situation.
- [Response] I'd caution us against letting resource limitations—time, funding, or otherwise—diminish the importance of any issues. I support the idea of combining items rather than cutting topics we care about. The report's intended use highlights how vital our work is and reflects broad statewide interest, which drives our commitment here. I'm impressed with everyone's dedication, and I hope budget concerns won't prevent us from agreeing on what's truly essential.
- Infrastructure is a broad, critical issue that includes complex projects like Delta tunnels, which have been debated for decades and involve substantial costs. Infrastructure needs in California are immense and contentious, and while I'm open to including it, doing so would significantly expand our workload. If we have the time and resources, I'm on board.

Vote to Form Workgroup on Water Infrastructure and Planning

Yes	No	Abstain
15	0	3

Workgroup members*: Jason Colombini, Emily Rooney, Suzanne Pecci, Kyle Jones, Alvar Escriva Bou, Laura Ramos, Katie Ruby

*more members may be added to this workgroup, please see the up-to-date workgroup membership here: <http://www.water.ca.gov/drip>

Developing 2025 Purpose Statements

Zoe facilitated this discussion which featured brief presentations of the purpose statements for the potential 2025 cross-cutting topics. The definition of a DRIP Collaborative cross-cutting topic and purpose statement were reviewed; noting that the key difference between a focus area and cross-cutting topic is that a cross-cutting topic is a broad concept that affects multiple focus areas and may influence the overall approach of proposed recommendations. In turn, purpose statements articulate the key concepts behind the topic, demonstrate the need for incorporation, and highlights relevant, ongoing State initiatives. The presentation highlights and key comments from members are noted for each cross-cutting topic.

Climate Change Adaptation in Drought Preparedness: 4:55:33-5:00:50, slide 107

Zoe presented a brief overview of this topic's purpose statement. After the presentation, the following questions and comments were received from members (with responses noted):

Additional Strategies:

- I think if we have expanding supplies, we should also talk about reducing demand.

On Workgroup Formation:

- I do think the workgroup should be formed and begin a discussion about the purpose statement. So we have some time to read through the materials and decide what pieces of this are necessary or not for this group.
- I'm torn, as climate adaptation is my focus, but given capacity limits, I wonder if a workgroup is best. We could instead gather guidance from existing resources and groups. I suggest a different way to submit comments so all perspectives shape the final language.
- I see climate adaptation as a cross-cutting theme, unlike nature-based solutions, which has ag-specific elements needing their own workgroup. Climate adaptation should inform all our decisions.
- I feel strongly this is a cross-cutting theme, but I do believe the nature-based solution needs a little more emphasis because of the nuance that's included in that.
 - [Response] Note that the title of cross-cutting theme is certainly not to be deemphasizing it any way, just the acknowledgement of how many different areas it touches. I just wanted to clarify that a cross-cutting theme is not less than a focus area.

Nature-Based Solutions in Drought Preparedness: 5:00:53-5:13:03, slide 108

Zoe presented a brief overview of this topic's purpose statement. After the presentation, the following questions and comments were received from members (with responses noted):

Additional Strategies/Elements:

- When discussing soil health in the context of NBS, we should look into opportunities for reduction of nitrate loading (particularly in the Central Valley) to increase water supply.
- Broaden scope to include wetlands restoration where we have aquatic habitat.
- Groundwater recharge could be called out individually.
- Problem to address in Nature-Based Solution is that it isn't prioritized enough.

Combining with Infrastructure:

- This topic reminds me of the infrastructure group discussion, as both involve questions about building projects like groundwater recharge—how to do it, who funds it. Infrastructure is a big issue, and we need to consider how to make our contributions impactful with limited meeting time. Combining this with infrastructure might make sense, as similar funding challenges apply to projects like flood-MAR and headwaters initiatives.
- I agree that nature-based solutions are one aspect of infrastructure. I'm comfortable with it being going along with infrastructure or it being cross-cutting.
- I think this could be combined with the infrastructure focus group for now to elevate rather than multiply groups.

The final comment of this discussion was a proposal to create one workgroup for cross-cutting themes. The workgroup's purpose is to define what cross-cutting themes mean for this group and discuss the current set of cross-cutting themes (Nature-Based

Solutions and Climate Change Adaptation in Drought Preparedness) to (1) further refine their purpose statements and (2) consider whether they should continue to be labeled as a cross-cutting theme.

Vote to Form Workgroup on Cross-Cutting Themes of Drought

Yes	No	Abstain
14	0	3

Workgroup members*: Virginia Jameson, Elea Becker Lowe, Kyle Jones, Catherinereeman

*more members may be added to this workgroup, please see the up-to-date workgroup membership here: <http://www.water.ca.gov/drip>

Following the vote, there was a request to clarify what will happen with NBS. The facilitator clarified that the NBS is not being combined with infrastructure, yet. The workgroup will discuss that moving forward.

Public Comment

None

Closing

DRIP Collaborative Membership and Next Steps

Anthony Navasero, DWR, reported which members have agreed to extend their membership on the Collaborative and informed on the ongoing solicitation for a new Non-Profit Technical Assistance Provider member. Anthony also announced the dates for next year's meetings: Friday, April 18th, Friday, July 18th, and Friday, October 17th, which fall on the 3rd Friday of April, July, and October.

Orit Kalman gave an overview of the DRIP Collaborative activities, meeting dates, milestones, membership, and timeline for 2025.

Appendix A. Meeting Participation

Drought Resilience Interagency Partnership & Collaborative Members

Present

- Alvar Escriva Bou, University of California, Davis
- Analise Rivero, CalTrout – Alternate for Redgie Collins
- Andrew Altevogt, State Water Resources Control Board – Alternate for Joaquin Esquivel
- Anna Naimark (member) & Kate Landau (alternate), California Environmental Protection Agency
- Anna Schiller, Environmental Defense Fund
- Brent Hastey, Plumas Lake Self Storage
- Carolina Hernandez, Los Angeles County Public Works
- Catherine Freeman, California State Association of Counties
- Elea Becker Lowe, Governor’s Office of Land Use and Climate Innovation
- Emily Rooney, Agricultural Council of California
- Jason Colombini, Jay Colombini Ranch, Inc.
- Karina Cervantez, CalMutuals – Alternate for Tim Worley
- Katie Ruby, California Urban Water Agencies
- Kyle Jones, Community Water Center
- Laura Ramos, California Water Institute at Fresno State
- Matessa Martin, Buena Vista Rancheria of Me-Wuk Indians
- Nancy Vogel, California Natural Resources Agency
- Sierra Ryan, Santa Cruz County
- Suzanne Pecci, Domestic Well Planning Group South American Subbasin
- Tom Gibson, California Department of Water Resources – Alternate for Karla Nemeth
- Virginia Jameson, California Department of Food and Agriculture

Absent

- Joshua Grover, California Department of Fish and Wildlife
- Louisa McCovey, Yurok Tribe
- Nate Ortiz, Governor’s Office of Emergency Services
- Tami McVay, Self Help Enterprises
- Technical Assistance Provider – vacant seat