

Meeting Minutes

Drought Resilience Interagency & Partnership (DRIP) Collaborative

Meeting 1

California Natural Resources Headquarter Building
715 P Street, Auditorium, Sacramento, CA 95814
April 06, 2023 | 1:00 p.m. to 5:00 p.m.

The meeting was live streamed and recorded. The recording can be viewed at bit.ly/DRIPMeeting_040623.

A list of Drought Resilience Interagency & Partnership (DRIP) Collaborative members (members), public participants and project staff is included in **Appendix A**.

Participation Summary

- 24 of 26 DRIP Collaborative Members were present, including proxies.
- Zero in-person public participants.
- 146 participants watched via live stream.
- Two public comments were received via Zoom.
- Zero public comments were received in-person.

Call to Order

Amanda Ford, Kearns & West Facilitator, welcomed participants to the meeting. Amanda reviewed the meeting goals, agenda, and ground rules.

Opening Remarks

Kris Tjernell, Deputy Director of the Integrated Watershed Management Department at the California Department of Water Resources (DWR), provided welcoming remarks on behalf of member and Director of DWR Karla Nemeth. Kris welcomed participants and members to the inaugural DRIP Collaborative meeting, followed by recognition for the DWR staff who organized the meeting. Finally, Kris emphasized the importance of the DRIP Collaborative's role in tackling drought related issues in the face of climate change impacts.

Introduction of DRIP Collaborative & Members

[15:40] Dr. Julia Ekstrom, Supervisor in the Water Use Efficiency Branch at DWR, explained the purpose and reasoning behind the DRIP Collaborative, which was legislatively mandated under California Senate Bill 552. Under this law, DWR established a standing drought and water shortage Task Force – the DRIP Collaborative – in coordination with other state agencies to facilitate proactive state planning and coordination for the full spectrum of drought management across all types of water users. Julia explained that members represent state agencies and non-state groups. Julia provided a brief history of

SB 552 and posed key questions for members to consider during their tenure on the Collaborative. These questions include:

1. How to make this DRIP Collaborative have real traction?
2. How to design this DRIP Collaborative to add value?
3. What are the core functions of this DRIP Collaborative over the next year and longer?
4. What would success look like one year from now for this DRIP Collaborative?

Members were invited to introduce themselves by stating their name, affiliation, and top two visions for group collaboration and accomplishments for this task force. While members were introducing themselves, project staff recorded the key themes in a word cloud that would be shared later in the meeting to spur thinking around the Visioning Discussion.

A list of each members' statement in the order in which they introduced themselves is described below.

Member Tami McVay, Self Help Enterprises

Described role of Self Help Enterprise (SHE), which is a non-profit, affordable housing constructor, and was contacted to respond to the previous drought in 2012-2014. During this time, they created a temporary solution, which is now being used throughout the state as emergency access to water and bottled and hauled water, and then SHE went into permanent solutions and water quality.

What she'd like to see out of this DRIP is:

1. Capacity building throughout the state for drought management
2. A system put in place just like we have for flooding and fires.

Member Laura Ramos, California Water Institute at CSU Fresno

Two items she'd like to collaborate on are:

1. Research
2. Education

There is a lot of work going on at the universities, a lot of feasibility studies, recharge studies. She wants to help bring those to the group. And to educate the public about drought, to ensure that we don't stop talking about drought when it rains, and what can be done to take advantage of the wet years.

Member Grace Person, CivicWell

1. Really help empower communities to understand the tools and resources available to them;
2. Participating in the task force here to help make the connections.

Member Emily Rooney, AgCouncil of California

AgCouncil of California (representing 15K farmers); was on the Water Board's Safe and Affordable Funding for Equity and Resilience (SAFER) Advisory Committee.

In addition to SAFER priorities, she'd like to see the task force focus on:

1. What she's learned in her organization's experience is process improvements, drought data collection, and response in how it goes out to farmers and rural communities.
2. Would like to take a look at groundwater recharge projects to get them permitted in a timely fashion to maximize all weather events

Member Kris Tjernell, Deputy Director of the Department of Water Resources

He introduced himself previously in the introduction.

1. He would like to see trust building to support co-creating because so much value comes from those relationships. He is really looking forward to that aspect.

Member Alvar Escriva, Assistant Professor, UC Los Angeles

He introduced himself as having been a researcher at the Public Policy Institute of California (PPIC), now at UCLA with a background in civil engineering, economics, and policy.

He has been working on an economic analysis with the USDA for the impacts of the current drought. He is also leading a National Integrated Drought Information System (NIDIS) project to improve drought indicators given the highly managed and highly human system we have here in California. In terms of what he'd like to see here:

1. Implementation of tools that we have in academia that can be helpful
2. He expressed being here to learn from different people and different interested parties and agencies to try to look for potential research that can benefit the state.

Member Justine Massey, Policy Manager and Attorney, Community Water Center (CWC)

CWC works with impacted communities in the San Joaquin Valley and Central Coast in the pursuit of safe, clean, and affordable drinking water. Priorities through this:

1. Demand reduction strategies – Groundwater is our state's drought strategy and so it is critical to protect that source and make sure that it is available for us in the present and for the future. We have policies in place that are in the midst of implementation. But there is a lot more thinking that can be done and consensus of what can be done there.
2. The land transition from agriculture to habitat, recreational spaces, and other uses that require less water– that there are real benefits to disadvantaged communities within that effort.
3. She wants to get real about the County Drought Plans and make sure they are really building resiliency; planning ahead of time and how to make sure our system can withstand stressors ahead of time; and looking into the backup plan for the backup plan for counties when those perhaps fail.

Member Lori Nezhura, Alternate for Tina Curry, California Office of Emergency Services (CalOES),

Lori Nezhura was representing CalOES as an alternate for Tina Curry, who sends her regards. CalOES is the state agency that leads in statewide emergency response and trainings, homeland security, and

hazard mitigation. We are the State's driver in emergency planning and hazard mitigation planning. We would like:

1. Glean best practices, best science and data that can then in turn be shared and provide guidance to our counties, cities, tribal nations, and our special districts in their emergency planning and hazard mitigation planning
2. As the State Administrator for the Hazard Mitigation Grant Program (the federal program, monies that come to the state after a Presidential Disaster Declaration), learning what those innovative projects that would provide individual community and regionwide greatest impacts, so that we can be very creative in how we administer that grant program.

Member Tawny Mata, Alternate for Virginia Jameson, California Department of Food and Agriculture (CDFA)

Tawny Mata was representing CDFA as the alternate for Member Virginia Jameson who plans to participate on the next meeting. Tawny Mata is the Director of the Office of Environmental Farming and Innovation (OEFI) in CDFA.

Top collaboration priorities for this group are:

1. Thinking about how these large dollar investments made to small scale and individual farmers and ranchers can link up to the bigger picture, thinking about water management, conservation, and drought planning. CDFA has made over \$530 million of investments in agriculture programs over the last 7-10 years. She is looking forward to interacting with the task force on that.
2. Thinking how to communicate across federal, state, local, academic, boundary organizations, and different sectors about how to think about these investments strategically in terms of drought resiliency and coordination.

Member Emily Moloney, Water Program Coordinator, Buena Vista Rancheria of Me-Wuk Indians.

The Buena Vista Rancheria of Me-Wuk Indians is a federally recognized sovereign Indian nation located in southwestern Amador County.

She expressed it was good to be here. Her two topic priorities:

1. To remember to work with tribal governments; we have to make sure we are collaborating and hearing and supporting all tribes. There are over 100 tribes across California.
2. Increasing water storage in the landscape in terms of the environmental things we can do to, including groundwater recharge and floodplain restoration.

Member Nancy Vogel, Deputy Secretary of California Natural Resources Agency (CNRA)

She works closely with DWR, the State Water Resources Control Board, the Department of Fish and Wildlife and other state agencies on flood, drought, and all things water.

1. She would like to see DRIP focus on is helping the State find the right pace for this work so that we are not in a panic like 2014, but also we are not complacent either in a year like this.

2. Related to the first point, she would like to see institutionalizing drought planning so that our focus is dedicated and not sporadic; the task force (DRIP Collaborative) will help institutionalize the lessons we have to keep learning from the last drought and preparations we have to keep making for the one to come.

Member Katie Ruby, California Urban Water Agencies (CUWA)

Ideas for collaborating include:

1. The opportunity for more proactive communication and coordination around messaging. We have already seen the benefits of this in some forums, such as CUWA's Communication Committee which has been meeting regularly with the Save Our Water campaign, helping with alignment and working to identify strategies to achieve common goals. We share common goals around reliable water supply for communities, protecting the environment, sustaining the economy, and so what are some ways we can achieve win-win solutions. One example brought up earlier was groundwater permitting, streamlining to allow projects to be implemented faster while providing broader environmental benefits. She is looking forward to working together on ideas like that.

Member Catherine Freeman, California State Association of Counties (CSAC)

CSAC represents California's 58 counties. Counties are the emergency managers first, last, and, sometimes, always. Right now it is a rough time for counties with a lot of water, but also it was rough during the heart of the drought. What she would like to talk about with this group is:

1. How do we make a decision? Who can actually make that decision? And how do we control what happens next? Counties don't own water systems often, but they are the people who help folks and should help folks when a community is suffering.
2. There is a need to understand how the water systems work with local governments and why the local government is the right place to do drought planning, as well as at the state and at the water systems.

Member Freeman will bring her expertise to this group to try to figure out some answer to these questions.

Member Sierra Ryan, Santa Cruz County

Introduced herself as a water resources planning manager at the County. The County is considered water independent in that it is not connected to state or federal water projects. There are 140 small water systems, 8,000 private wells, and three groundwater agencies. She is tasked with managing all of them for the County. Her priorities for this group include:

1. Interconnections of ongoing legislation and requirements: SB 552 and Sustainable Groundwater Management Act (SGMA), recent Executive Order (on wells), drought response and emergency response has been really hard on the county this winter (LPA); all disaster assistance coming from county.

2. How we can find efficiencies and guidance so we can be working together and time is well spent.

Member Jason Colombini, Owner, Jay Colombini Farms

He is an agricultural representative, bringing his experience from farming walnuts in Calaveras and Stanislaus Counties, relying on groundwater and surface water. The two priorities he expressed being interested in for this group are:

1. Safety net for domestic and agricultural well users
2. Ways we can create statewide recharge project

Member Brent Hastey, Plumas Lake Storage

Introduced his vast experience in water policy and water resources management, including Drought Task Force Co-Chair for the Northern California Water Association, past president of the Association of California Water Agencies, and others over past 35 years.

1. We have to realize that we are one state, so Colorado River is going to have impacts on the majority of the State of California. We have to remember we are part of a very large state that is part of the bigger picture
2. Trust each other because there are going to be impacts on millions of citizens because of what's happening on the Colorado River, so collaborating together we cannot remember that we are here [Northern California]
3. Recharge and conjunctive use – a way to balance that out
4. Build Sites Reservoir

Member Anna Shiller, Environmental Defense Fund (EDF)

Introduced EDF's climate and water mission. The two main priorities that Environmental Defense Fund has related to drought resilience includes:

1. Improving the quantity, quality, and accessibility of water data. As we're facing more extreme climate conditions, regardless of the strategies that we are looking to implement, we are going to need better information to make smart decisions.
2. We are interested in considering how land can be strategically, thoughtfully, inclusively repurposed, as the state becomes hotter and drier. Experts have estimated, including one in the room, hundreds of thousands of acres of farmland will be removed from irrigated production in the coming decade. If we don't get ahead of the issue, we will be left with a haphazard patchwork of dusty barren fields that impact rural communities, regional economies, and ecosystems. Alternatively, we can come together to plan for how to manage transitions in a thoughtful way so we can improve habitat quality, community parks and recreational areas, restored flood plains, recharge areas, solar production. In order to have a landscape that is able to survive through the extreme conditions in California and able to create new benefits. Looking forward to work with you all in the coming years.

Member Redgie Collins, Policy Director, California Trout

Introduced CalTrout and his role as legal policy director. His priorities for this group include:

1. Trust – really important part of the equation; he has been part of negotiations for the Klamath. In those discussions, the system is not working for anyone at the tables. Drought exposes the lack of water infrastructure we have in California.
2. Objectively looking for areas of improvement... easy to get cynical. Hope we can use this platform to analyze ideas...

Member Joaquin Esquivel, Chair, State Water Resources Control Board (SWRCB)

Member Esquivel recognized flood emergency and expressed gratitude for the other members for taking the time to attend this important meeting.

This is formalizing what has been a decade of successive drought. Recognize Tami McVay and Self Help... This breathing space is so important to develop collaboration and solutions for building resilience to drought.

Member Anna Naimark, California Environmental Protection Agency (CalEPA)

1. Identifying gaps in resources, services data, and who is best to fill those gaps; this is a forum to put that puzzle together.
2. The state, tribes, local government, they are all doing a lot of work, but we need a collaborative forum, central place to find connection synergies between the work.

Member Russ Bryden, Los Angeles County Public Works

Functionally he is the county's water utility manager. The county manages 70,000 service connections of all income levels

1. Small systems – he is a public water supplier representative, which is often looked to aid the small mutual systems, especially those needing technical, managerial, and financial assistance, and there are a lot of them. This is an emerging problem for how to help these small systems.
2. Collaborative planning and communication – like the Integrated Regional Water Management Plan (IRWMP). LA County has adopted the integrated approach for water, following the IRWM model. He wants to see how we can mimic this model at the state level.

Member Dave Michalko, CalMutuals

CalMutuals represents the voice of small water systems. He manages a small mutual water system and also is on the board of the San Gabriel Basin. The public is worn out about drought. Drought definition and how to communicate about it has been in discussions for past five years, but no easy solution but needs to be addressed. Two priorities areas to address:

1. Change the narrative. Come up with a new term, include incorporation of extremes and climate change; get away from “are we in a drought? Or out of a drought?” Include the recovery period after the event. Groundwater takes many years to recover.

2. Challenge of small systems – consolidation is not always the solution and there is a lack of funding and the lack of capability to help small systems.

Member Suzanne Pecci, Domestic Well Planning Group South American Subbasin

Represents and focuses on perspective, needs, and experiences of rural communities

1. Data gaps for shallow wells
2. Interested in monitoring the shallow wells so we understand water levels

Member Sam Assefa (alternate for Member Saharnaz Mirzazad), Office for Planning and Research (OPR)

OPR is the state's land use, climate change, and planning

1. Intersection between land use planning: ag land and urban areas, in terms of the intersection between water, drought, and decisions about land management are handled. Specifically housing related to the intersection with housing, water, and drought. How we deal with those seemingly conflicting needs. Seeking to discuss multi-benefit solutions.
2. Research – Gaps in knowledge have been identified, which include the intersection between land use and drought.

[The word cloud generated as a result of this introductory exercise is included in **Appendix C.**]

Hydrology Conditions Updates

[1:01:25] Jeanine Jones, Interstate Resources Manager at DWR, provided an update on current hydrology conditions in California, including precipitation, groundwater levels, snowpack, statewide water supply, and forecasting capabilities.

Jeanine stated that California is experiencing weather whiplash noting that both drought and flood emergency proclamations are currently in place in the State of California right now.

California really stands out in terms of its variability in precipitation, particularly in Southern California. A map of California shows the percent of average precipitation for the water 2022-2023 displays a wide variation, from significantly greater than average to significantly lower than average. Statewide, California is at 149% of average precipitation for this date. Statewide snowpack is 239% of the historical April 1 average.

Another map representing groundwater levels in the past six months shows many basins below normal. 133 dry wells have been reported this year to date, though this only reports those that are voluntarily reported and is most likely an undercount. Groundwater is much slower to recover than surface water.

Water supply allocations for the State Water Project went up from 5% last year to 75% this year. Colorado River allocations are yet to be determined. Central Valley Project allocations for urban uses are 100% and agricultural uses are 80%.

Our ability to predict these wild swings in weather is very limited, especially for the long term, which is critical for water management. Climate change is causing a transition to a warmer and drier climate state, not simply drought.

Drought Perspectives Panel

Amanda then introduced the panel of speakers, asking them to answer the following questions:

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

Member Tami McVay, Self-Help Enterprises [1:13:00]

What does drought mean from your perspective?

Drought means quite a few things. As technical assistance providers, boots on the ground. We see a lot of different aspects.

- **Inequities.** Not just locally with our disadvantaged communities or domestic well owners or ag, but also state and local governments, local governments just don't have the capacity or the funding to be able to respond to drought the way they should and the way it's needed. Everybody is affected by this.
- **Responsibility.** Whose response is it, all of ours.
- **Fear.** We do need to name it something different. It drives fear into people because they don't know what to expect because you can't see what's happening. It's underground.
- **Action.** It's time to take action, to stop having the conversations.
- **Shame** Seeing families not having access to water, kids going to school and being bullied because they had dirty clothes, they had to take baths at the a & p bathroom, that gets me choked up, close to home, we see it all the time. Parents are ashamed. Us, respected trusted folks, professionals, I'm ashamed we haven't done this earlier, haven't been reacting sooner.
- **Uncertainty.** What will it look like? Climate change is real and happening, what does tomorrow look like? We don't know. We didn't know in December, or didn't think it was going to be as bad in the San Joaquin Valley with the flooding and here we are today with uncertainty.

What challenges do you/your organization face and what solutions do you suggest?

- **Lack of licensed professional well drillers throughout our state.** It has caused this backlog of folks living off emergency services which they shouldn't be.
- **One size does not fit all.** Every single property is different. We have to stop making programs or creating programs that are one-size-fits-all when we cannot say that honestly. We need to broaden language and programs to allow alternative solutions.
- **Funding.** We need to remove drought response and put in disaster -- remove disaster-specific silos, put in climate-related disasters. It broadens the impact of funding. Instead of saying if

someone were to come because their well was impacted by the flood we have to say we're sorry, that's the wrong disaster, our funds are specific to drought.

- **Systematic and legislative deficiencies.** There's a lot of legislative deficiencies where they are contradicting each other or so siloed we can't respond to a disaster. We need to look at how we name things. We need to look at climate-related disasters instead of drought, fire, floods, earthquakes, and climate-related disasters to bring it back to the fact that climate change is real. We need folks to start paying attention to climate change. We need to make the legislation and way our system works work together and stop working against each other
- **Trust.** Trust is the biggest part of all of this. We can't do anything until we have the trust among all of the water users, all of the interests. Provide adequate funding for outreach and trust building in communities. We want the communities to be the decision maker, to empower communities, to take them out of the mindset and mentality they don't get to choose for themselves and let them know they do but also educate them why we should go in a way that's going to be more sustainable. To make that service happen, you have to be able to talk to them first. But there's nothing there that addresses that. And that's what we think is important for us as far as the solution goes.

What actions/preparations are currently underway for the upcoming drier summer months?

Mentioned [Listos](#). Self help is ready. We talk about disaster preparedness and education, and help people be prepared for any kind of disaster. We have a full team which is in education, we also have our recovery team, response team, resiliency team, and data analyst team so we're looking at data, we love data.

Member Redgie Collins, California Trout, Inc. [1:24:30]

What does drought mean from your perspective?

Drought is a little bit of a misnomer. It's a description that doesn't categorize what we're going through, the severity, the consistent basis of that. We can call it drought weirding, I've heard it called a weirdification, too wonky, and if we are going to change it maybe we can make that one of our first tasks on our panel. It would be great to have a better term. Prolonged period of dryness, we should be prepared for it.

What challenges do you/your organization face and what solutions do you suggest?

- **Remove barriers to implementing large scale nature-based solutions.** We're cutting the green tape. Kris T has been instrumental, allowing for positive changes for green infrastructure. We're looking at a number of drought responses, within our organization. As I said that targeted restoration is important, floodplain work I think is equally important.
- **Enormous dearth of data.** We haven't met requirements of SB88
- **Flooding rights in the Central Valley** is important for fish species, Pacific Flyway, and other examples that I think are equally important, working on farm efficiencies throughout the state and then providing those water savings to direct long-term placement in our actual streams protected by meaningful changes
- **Timing.** The sense of urgency really needs to be there. We don't have a timeline that works for Californians and future generations to enjoy the natural resources we have today. We're on the clock.

- **Partnering with diverse interests** in all of our spaces I think is a really important step we can take. There's a lot of voices that have not been heard throughout California. I have a specific expectation, I think on our collective shoulders, working with tribal nations, environmental justice, clean water, and those voices are important; that collective knowledge base and also collective ability to advocate for change will have vast improvements for our water structure moving forward.

Emily Rooney, Agricultural Council of California *[1:33:50]*

What does drought mean from your perspective?

Drought creates a problem in terms of creating sustainable rural communities, and because of this effort I'll talk in a minute about an effort we're trying to get through the legislature in terms of helping create relief for rural communities.

What challenges do you/your organization face and what solutions do you suggest?

- **Planning, planning, planning.** Just in terms of trying to manage the climate crisis as a whole.
- **Big picture view.** We recognize in agriculture that when there's an issue in rural communities, it's not just about us. We have wildlife issues, local communities, too, that we're worried about.
- **Process improvements on disaster-related programs.**
- **Local data.** We know from a local perspective and state and federal perspective in order to get adequate disaster programs off the ground, data has to be collected at the local level, submitted to state, to the feds, there's just a prolonged time frame that happens there.
- Potential of **drone footage** from SGMA to do the estimates else in to try to at least get the ball going on the data estimation process while we create programs and get them underway.
- **Upgrading water infrastructure is imperative**

Member Katie Ruby, California Urban Water Agencies *[1:41:28]*

What does drought mean from your perspective?

Drought is a recurring feature of California's climate, a fundamental part of water management. It's not even drought anymore as much as it is this dry hydrology punctuated by wet periods. Adapting to this new reality requires additional investments, in storage, supply diversification, water use efficiency, all of the above are needed.

What challenges do you/your organization face and what solutions do you suggest?

- **No one size fits all responses.** All public water systems must plan for drought and resiliency looks different for each.
- **Messaging and communication.** Conditions can vary drastically at the local level, how do we communicate to the public without causing confusion? Alignment between agencies at the state, local, regional level is key here. Things like state messaging in general, drought and climate awareness, importance of continued investments, safety and quality of alternative supplies can help foster support for those things at the local level.
- **Alternative water supplies.** Perceived inequity especially if there's different sources of water supply serving different parts of the service area even if all water is of high quality. This is an example where state messaging on the importance of supply diversification and safety of

alternative supplies partnered with local outreach efforts can help with increased and continued acceptance of those diverse water sources.

- **Cost and affordability.** There really is no more low-hanging fruit when it comes to water supplies in California. Future supplies are more complex and expensive, even achieving the next tier of water use savings will require considerable resources and investments. As the cost of water rises, so do affordability challenges keeping up with increasing rates. We need to address both sides of the equation, reducing cost for the utilities, as well as addressing customers' ability to pay.
- **Securing funding.** Simplifying grant application requirements, expanding eligibility can make sure that funding is available to a broader range of recipients. Streamlined administration is going to be key to the success of that program. With the temporary low income household water systems program, participation has been lower than anticipated, which underscores it's not just having funding available but getting it to people who need it most.
- **Regulations and permitting.** Several obstacles such as lack of understanding, clarity in requirements that can cause delays in the permitting process. CUWA is working to identify best practices and opportunities to improve permitting efficiencies. Early coordination and data collection is a critical success factor, bringing together various permitting agencies and project proponents, working together to develop shared understanding of what's required and site-specific data. Also working to identify further improvements such as opportunities for reviews to be conducted in parallel rather than sequentially, and applying lessons learned from other sectors like transportation.
- **Workforce development and maintaining affordability.** As we build and maintain infrastructure, we will need a workforce to design, construct, operate and maintain that system and we see this as a huge opportunity and one that's ripe for collaboration.

We don't want to take our foot off the pedal since it's still important for Californians to understand the hotter, dryer future we're living in and to continue to use water wisely.

Member Emily Moloney, Buena Vista Rancheria of Me-Wuk Indians [1:49:36]

[What does drought mean from your perspective?](#)

There's a cultural side to drought when you're working in tribal government and for tribal members and indigenous perspectives. Water is a relation, less than a commodity, it's something to be respected, to be learned from, to be cared for. So when we get into drought situations it's an indicator something's out of balance but also recognizing that in California looking back at our history drought is part of life, part of this place. Drought is part of our way that we relate to a landscape. It also is an emergency, right? It's a public health issue. There's a supply and demand issue. It's an environmental issue. Also, it's a water operations/water supply issue because there's supply and demand.

[What challenges do you/your organization face and what solutions do you suggest?](#)

- Water operators struggle to **treat that water and to provide adequate water** with low GW levels

- **Lack of contractors, well operators and well contractors.** As emergency operations mode having pumps fail, pipes fail, needed to get folks out and they are booked up.
- **Funding opportunities.** We need retrofits. We need funding for redundancy, building redundancy because that's another challenge. Creating redundancy helps us alleviate drinking water vulnerability.
- **Increase storage in the landscape to increase our groundwater storage supplies.**
- **Urbanization.** Increasing surface runoff decreases water's ability to infiltrate into the landscape.
- **Integrating low impact development and green stormwater infrastructure** into all tribal developments as an opportunity to make sure that water gets stored back in the landscape. **Slow it, slow it, spread it, sink it.**
- **Data & monitoring.** None of this can be done without monitoring, and we wouldn't know what some problems are if we weren't monitoring our groundwater wells for depth to water and water quality. There's so many different types of collecting data, on the tribal side. We also collect qualitative data because stories are part of, you know, tribal culture. We recommend integrating remote sensing data or depth to water measurement with stories and observations from people on the ground and really folding that into your decision-making processes.

Member Question & Answer

- **Question (Q):** What are the systemic and legislative deficiencies seen by Self-Help Enterprises?
 - **Response (R) from Member Tami McVay, Self-Help Enterprises:** Regarding legislative deficiencies, sometimes legislation makes it hard to accomplish State-instituted programs. For example, sometimes meeting water supply needs requires crossing water basin boundaries, but the Sustainable Groundwater Management Act (SGMA) doesn't allow crossing of Groundwater Sustainability Agency (GSA) boundaries. There are not many potable water sources to use, so this is a challenge for SHE to continue their water supply services. What we have observed is that programs are rolled out based on a need, but some local governments aren't set up – either through staffing or funding or other needs – to comply with the program. These are the systemic deficiencies mentioned before. There needs to be a paradigm shift in the way we think about drought and emergency response programs; they should not be treated the same as housing rehabilitation programs or other types of long-term programs.
- **Comment (C):** Drought has a huge impact on hydro facilities, and I haven't heard discussion about how we are going to manage these long hot summers when there is no water in our hydro systems that allow us to keep up with the peaking demands of electrical needs.

Break

DRIP Collaborative Visioning Exercise

Amanda welcomed members back from the break and then provided instructions on the interactive Visioning Exercise and Discussion. Around the room were chart papers titled with the main themes

heard from the members' introductions, in which members were invited to freely wander the room with pen in hand to contribute their ideas. After members spent a few minutes writing ideas on the chart papers under each theme, they were invited to "upvote" ideas using stickers to indicate their DRIP Collaboration priorities. The word cloud was also shared during this exercise (**Appendix C**).

Below are the results of the Visioning Exercise, divided by main theme:

Groundwater Recharge

- Multiple upvotes for:
 - Remove barriers for groundwater recharge where appropriate.
 - Support strategic multi-benefit recharge projects that can create habitat and buffer vulnerable drinking wells.
- Two upvotes for:
 - Recharge not only from flood water but from re-operating reservoirs.
 - Revamp permitting to provide scale (size of recharge).
 - Water quantity monitoring and conjunctive use with surface water.
- One upvote for:
 - Water quality monitoring and mapping.
 - Utilizing vacant state/county land for projects.
 - Injection "recharge" wells.
- Other ideas:
 - Development of infiltration/recharge basins.
 - Water quality considerations.
 - Time (capture high water years/dry).
 - Water rights.
 - Recharge projects on agricultural residential parcels in watersheds.
 - Strategically selected sites that could benefit well dependent communities.

Communications and Messaging

- Multiple upvotes for:
 - "Ready for Recharge" campaign to get all sectors ready for the next big/small recharge event.
 - "Drought" narrative.
 - Clear consistent messaging – relatable – in multiple languages.
 - Focus on Long-term resiliency - avoiding drought "whiplash".
- Two upvotes for:
 - Vocabulary development + delivery – diverse and fresh.
- One upvote for:
 - Dashboards and visualizations.
 - Education of domestic well owners on role of SGMA/water management.
- Other ideas:
 - No "wrong door" approach.
 - Success stories about groundwater recharge; messaging that it can be successful.

- Description of new label.
- Coordinated guidance and messaging from State organizations with input from locals.
- Community reasons for large reservoir water releases.
- Nuanced spatially and sector-specific drought communication tools.
- The system of water policy and power is inequitable.

Land Use

- Multiple upvotes for:
 - Invest in Rural Communities capacity to absorb flood/recharge to benefit wells and recreation/quality of life.
 - Fund + support long-term multi-benefit land repurposing to voluntarily transition landscapes to drought resilient uses that create benefits for rural communities and ecosystems while providing incentive payments to ease the transition for growers.
 - General Plan guidance for water supply.
- Two upvotes for:
 - Target state grants for land repurposing to places where it benefits community drinking water supply (more land flex) and include ag/res properties along floodplains for repurposing for habitat.
 - For longer term agreements
 - Prioritize land back proposals.
 - Incentivize communities to integrate green stormwater infrastructure in development to promote permeable landscapes.
 - To absorb flood/recharge to benefit wells and recreation/quality of life.
- One upvote for:
 - Reconnecting waterways to floodplains through restoration actions including levee setbacks and breaches in current levees.
 - Regenerative ag practices to reduce emissions and contamination.
 - New water-wise development standards.
 - Maximize use of demand management options.
- Other ideas:
 - Use of dormant perennial agricultural crops for groundwater recharge.
 - Legal mechanisms to deny well permits for ag/housing etc. in areas with known water supply challenges.
 - Bring groups together that wouldn't normally talk.
 - Coordinate OPR, DWR, and other state funding programs.
 - Rethink floodplain management.
 - Reduce agriculture footprint; incentive for alternative income for farmers and land owners.
 - Nonfunctional turf ban.

Planning: Gaps & Opportunities

- Multiple upvotes for:

- Better coordination of state financial assistance
- How to get households on hauled water to long term solution?
- Outreach and engagement to underrepresented communities before core decisions are made (i.e. for projects) so feedback is meaningful.
- Direct funding and support for farmworkers to transition as land use transitions, including wage guarantees during extreme events (similar to crop insurance for landowners).
- Two upvotes for:
 - Support “smaller” water utilities / irrigation districts/counties on planning tools for climate change.
 - Identify connections between different hazards to develop holistic solutions (not solutions with unintended consequences for other hazards/non-hazards).
 - Instream flow requirements for public trust resources, esp. drinking water & ecological min.
- One upvote for:
 - Planning ahead for future workforce needs – education on water industry career options.
 - Urgently address the root cause of climate change because it will not be possible to adapt our way out of catastrophic conditions we are currently headed toward.
- Other ideas:
 - Permitting education for increase groundwater recharge during floods.
 - Consistency and coordination with Groundwater Sustainability Plans.
 - Improving timelines for emergency response programs.
 - Interagency coordination of incentive and grant programs for water conservation/efficiency/recharge.
 - Link short term (emergency” with long term (land use, etc.) planning.

Data and Research

- Multiple upvotes for:
 - Adjusting reservoir operations/rule curves.
 - Universal well I.D.
 - Stream gauging.
 - Ground water monitoring wells for ground water level mapping tool (to intersect with the well data).
 - Funding to allow counties to offer free water quality testing for domestic wells and a way to collect data anonymously (PRA request protections).
- Two upvotes for:
 - Ground water recharge effects on water quality research.
- One upvote for:
 - Better data on domestic wells.
 - Utilize modern tools to estimate losses due to extreme weather to improve response timeliness (i.e. drone footage).

- Funding for water monitoring/data collection for domestic well communities
- Other ideas:
 - Groundwater recharge data/accounting.
 - Consolidation/integration of variety of well maps (like CalEnviroScreen for water).
 - California Monitoring Plan Funding (fish).
 - Improving QA/QC of water data.

Other

- Multiple upvotes for:
 - New surface water storage.
 - Hydro and power grid.
 - Public trust analysis and balancing.
 - Nature-/process-based restoration.
 - Clarity about which agency (County, GSA, State) is responsible for drought impacts to wells.
- One upvote for:
 - Permitting.
- Other ideas:
 - Help others in government understand the complexity of extreme weather solutions (especially agencies that control funding).
 - Training for communities around supply and demand management mechanisms
 - Water Rights.

DRIP Collaborative Visioning Discussion

After the interactive Visioning Exercise, Amanda asked members to take their seats. After providing a recap of the ideas written on the chart paper, members engaged in a conversation to further discuss and brainstorm DRIP Collaborative themes and priorities.

Summary of themes and priorities

- Problem diagnosis & statement (Kris Tjernell, Alvar Escriva, Emily Rooney, Anna Schiller, Emily Moloney)
- Defining drought (Katie Ruby, Brent Hastey)
- Capacity building (Kris Tjernell)
- Groundwater (Catherine Freeman)
- Clear and identifiable access to funding opportunities (Grace Person)
- Data gaps in well monitoring (Suzanne Pecci, Justine Massey)
- Public trust (Redgie Collins)
- Conjunctive use (Redgie Collins, Brent Hastey, Justine Massey)
- Review of where funding has been allocated (Alvar Escriva)
- Governance, how do we organize ourselves so things get done (Russ Bryden and Grace Person)
- Infrastructure (Russ Bryden and Katie Ruby)
- Maintaining existing storage capacity (Katie Ruby)
- Recycled water (Emily Moloney)

Transcript of discussion

Alvar Escriva [3:06]: I think that because this year is so wet we're overthinking recharge. I think that's our best and cheapest option, but it's not going to solve all of our problems. And I think that, you know, it's what we have in mind right now.

Kris Tjernell: Maybe in part piggybacking off that a little bit, maybe from just a slightly different perspective. These are fantastic ideas. It almost feels like given where we're at, the inaugural meeting, we've got a long row to hoe and should take advantage of that. Part of the value of this, again, stepping back is that we can work on these topics. It almost feels like maybe this is work we can do internally before the next discussion and do a lot of brainstorming and communicating with you all about this but how do we maybe not necessarily jump right to the solution set which can get granular quickly but make sure we're staying at least a bit at what does this group want to tackle from a big picture issue perspective and level and do we have that right? So there was another category, which is fantastic, but, you know, are we all good in these basic areas in general? What's the next layer of granularity? What's the next layer? so just a "yes and" to everything here, just thinking about long term work of this group.

Catherine Freeman [3:10]: I would like to address groundwater recharge at the next meeting, not because it's a reactive moment but the fact it's been building for the last ten years and we're trying to get the message working, and because of the fact that what we have been dealing with, self help enterprises is one of the organizations that's been dealing with this, that's where the crisis is happening with dry wells in our rural communities. So I would like to talk about that. But from the perspective what is this long-term vision for drought, in communities that can't support, you know, don't have enough water, so **I'd love to pair with somebody and present that, especially if we're coming from a very different perspective, including at loggerheads with each other at county board meetings.** That would be fun, just for the heck of it.

Kris Tjernell [3:11]: I miss having you in the legislature. That was great when we used to work over there.

One big picture topic I'd love to keep on the books for consideration by this group is that -- it seems to be a theme that might touch on several, maybe not all but did come up in earlier conversations when folks were sharing local capacity building. There's a lot of work being done there through the statewide resources control board or other state entities and certainly others beyond those. But it does seem like it's a pretty important and pervasively unsolved challenge, just understanding that you can do what you can do at the state level for example, but without the local capacity to be fully supported and be engaged whether through direct financial assistance, technical assistance, we're limit limiting our ability to get real good work done that needs to be done, so just a pitch for another high level cross-cutting theme.

Justine Massey [3:12]: Building off of counting more on recharge, I'm interested in the conversation, but we should also get some more information about how far we are from having any kind of balance

within groundwater basins and how we fill that gap. I said it verbally at the beginning but didn't put it here. We still need demand reduction, like recharge is not possibly going to match the rate that we've been using groundwater and surface water, so, yeah, I think we need more discussion on what strategies are, obviously intersecting with SGMA.

Suzanne Pecci [3:13]: So, I do know that in my community, we are really pretty active. We have a couple community groups that have been engaged with their neighbors for many years, and the interest is really in getting a really good snapshot of shallow well levels in the area. I mean, it's just been the battle cry in our area. And they are working on -- as I said before, we're working on monitoring individual wells, getting people willing to have us come on their property. We have really good volunteers in our group that are spending their time and their money going out to individual homes, people that have signed up at our meeting, talking to them about the importance of their being involved, the importance of their understanding their well, and our advisory group is really working toward that. People becoming more responsible for their own wells, understanding they have to maintain their wells, and also filling in all of the data gaps that people have looked online to see that there are a lot of data gaps on the DWR website, and they are very intent on knowing the wells, knowing who owns them, knowing the levels, the level of the pump, and so I really have to second that idea of data gaps, monitoring, and getting people involved in it, not having agencies do it, but actually getting citizens involved in understanding and wanting to be a part of it because I think it's important to the success of SGMA and the collaborative effort that we are going to have to make.

Brent Hastey [3:15]: Yeah, two things. One, I think that the groundwater recharge, you have to put that with conjunctive use and surface water because there are places where they are really well managed where they move lots of surface water, in drought years they still move it but it goes down south, and we're monitoring and know what it is. That's important because the reality is groundwater is a very large storage facility. If we can use that and know what's in it and we know we have surface water to put it back, we're going to be able to use that. I think you have to match your recharge discussion with conjunctive use and what that means with surface water, especially in the north state.

I think it's important we work on communications not calling it a drought. I think it's really critical long term, and the faster we get that done and can communicate that and sell that to the people of California, which won't be easy, but if we can change the term so they understand this is literally always -- this is just California. Get used to it. Things are bigger in Texas. We're dryer now in California. And we're going to be that way forever. And so let's make this really work on changing that term, so I really think that it needs to be on the agenda so we'll be able to communicate better. The faster we can communicate better the better we'll be able to do this.

Redgie Collins [3:16]: Yeah, I agree with everything said here. I mean, this is an impossibly large topic. We can draft agendas for the next several years and be pretty good, solving a lot of these issues. I want to emphasize what Justine said, looking at the multiple use of water and importance of the fact that California has an obligation to meet the public trust interests, which I think all of us represent nicely

around the table, include surface water, groundwater, but the public trust is protected with all of our water resources and having a conversation holistically about impacts to the people, drinking water, groundwater, we're not meeting the obligation. So I think a larger discussion about really understanding what that means, the public trust, that we need to protect that, is really important.

Alvar Escriva [3:18]: Given the responses that we all have, you know, we respond that it looks like we're -- we jumped into the solutions, and we -- every one of us, each of us, had an implicit problem in their minds that, well, you know, we were trying to address. I was thinking it could have been helpful, you know, to start by thinking about the diagnosis of the problem. What's the problem here? what are we doing? we have just a drought between 2020 and 2022, we have 2012, 16. We all know dry wells but I mean we could get into what happened. For example, I don't know all of this -- given the state sponsored meeting, what the state has been doing, you know, all the actions, where the money has gone. You know, I think that trying to think about identifying, you know, a diagnosis of the problem and then we could think about what are the solutions for these problems.

Emily Rooney [3:19]: I would put a finer point on that, the previous comment about silos, we're coming from a variety of silos. And I'm a little concerned that there are blatant things we're missing. I'd be interested in the Department of Water Resources doing a high-level view of drought, the challenges they see, opportunities they see, are there low-hanging fruit, things we've totally missed. I feel like we've missed that and that puts a finer point on that.

Russ Bryden [3:20]: I have a partially formed thought that I'm going to throw out there [laughter] and hope someone is going to grab and make sense of it for me. In my world, we don't need more government. We've got lots of layers. Yet I find that coordination between the agencies and the different lay he was -- layers of government to be confusing. I'd like to have a conversation around -- does that mean good? I'd like to have a conversation around governance, about how we organize ourselves. Tons of great ideas here, but I don't know, the state can't just say go do it. We can't dump it on the locals. There's too many of us. How do we do this?

Grace Person [3:20]: I just want to second that. I'm noticing that there's a fair bit of, in my place at CivicWell, where I'm seeing across different agencies and departments, and the communities that, you know, we serve and we connect with, I'm sure self help is seeing this too, there's a lot of questions like where do I go to get help, what are my funding opportunities? and my funding opportunities only have - have certain restrictions, I can't use this for this program. I'm in this location. So that coordination piece across the agencies, just having it more clear and identifiable and available for access I think is going to go a long way to meeting community needs and advocacy needs around being able to do a better job of serving and meeting our drought resilience goals.

Russ Bryden [3:21]: Here I go again. The public systems, right, we're talking a lot about wells, talking about a lot about individual producers. I can tell you from an agency perspective, many, most of us, have very old infrastructure, old, old, infrastructure. Most of the grants are for sexy stuff right now, all about

resilience, getting off of imported water. It's all well and good, but I have systems, especially the county. County waterworks districts, the safety net, if you will, are falling apart, that there's no grant funding, that people we run those systems on behalf of have no ability to pay for the repairs necessary not to upgrade their system but keep their system running, completely different than the direction we're heading here. Individual producers, I don't know what to do about that either. No amount of grant funds can get us out of that problem. So, aging infrastructure.

Katie Ruby [3:22]: I will second that. We talk about, you know, like the need for new storage and new conveyance. But we also need to maintain our existing storage capacity, right? I mean, there's a huge dam safety issue. Conveyance, you know, is just losing its capacity, so there's a need to rehab in addition to building new infrastructure.

Anna Schiller [3:23]: I just want to add a comment, building on some comments of Alvar and Kris, where to start, how the group can work most effectively. This room represents an incredibly diverse and deep set of knowledge. I think that's such an amazing value. And I know I certainly have a lot to learn about the different systems and the different processes and how they interact. So I'd like to suggest maybe taking a systems thinking style approach where we really spend the time and the energy to map out the different structures, the behaviors, the thinking that's brought us to the state where we're at now so we can be really strategic and thinking about where those leverage points might be, where this group can make meaningful impact in long-term drought planning.

Suzanne Pecci [3:24]: Just an observation. We have lived in the rural area of east Elk Grove for almost 40 years. I've lived in Elk Grove when it had 10,000 people in it so things have really changed. I see the changes throughout the neighborhoods. They are becoming multicultural, multi-family. And so the nature of the use of agriculture wells is really changing. There are homes that have put -- have put a mobile home on their parcel, and then you see maybe 10, 15 cars. You know the usage of that well has changed. It's no longer two people in a house, which it has been, maybe three, kids go, and then people stay. So there's an aging -- aging wells, aging population, new population coming in that's going to have to be addressed, those changes.

Emily Moloney [3:25]: Well, I have a few disjointed thoughts. I think I really want to hit on a number of things that people said. I agree about the need for good diagnosis of the problem because then we can develop messaging around that. And I think all of these different parts that we need to address could use some conceptual models. Like visual aids to really show what is the problem that we're talking about. And this final report is produced, we have these visual aids to kind of help with that. So maybe we can develop those conceptual models. And I think that could tie into the frameworks, right? government frameworks, what are the structures that we already have available to us that we can utilize and tap into and maybe identify some of the barriers that we need to start breaking down. And then the last thing I wanted to say is it seems like when we get to solutions, one of the overarching concepts is resiliency, at the end of the day we need to find ways to adapt, mitigate, build resiliency into our current systems, that would utilize conceptual models and solutions we started coming up with our

sheets toward building that resiliency. In terms of solutions, I know that is kind of jumping the gun, but recycled water, we haven't talked about that yet. But really talking about our recycled water infrastructure and how that can move forward.

Next Steps

Amanda thanked members for their discussion which will help build future agendas for the Collaborative. She then reviewed next steps for the facilitation team and reminded members what they can expect in the coming weeks.

Public Comment

Amanda welcomed the audience, both those online and in-person, to participate in the public comment period of the meeting.

Public Comment 1

Great meeting. One thing I didn't hear, what are we doing about all the precipitation up in the hills that is going into the ocean right now? Are there places in California that we can put it in the ground and take this water? The California aqueduct is one large drip line, soaker hose. I live in Palmdale, in Antelope Valley in north LA County – high desert. All along the southern side of our valley the aqueduct runs through and there's all these washes, the aqueduct goes and then it hits a siphon underneath the wash, the tunnel goes underneath the wash and it comes up on the other side. And the aqueduct continues. There're about 8 washes in the Antelope Valley, 4 major ones. All these washes, there's a siphon valve. And if we look in[to opening] the siphon valves and let the water run freely, naturally like it's been doing for thousands of years, we could build Antelope Valley's groundwater table with all this excess water, because we know it's going to flood and all this water will go in the ocean and be wasted. There's plenty of water in California. It's mismanagement of water that's the problem and we need ideas and solutions when we have emergency – not just emergency – but opportunity situations like this where we can take this water that's going to melt and put it in the ground like in Antelope Valley. Why dump precious water in the ocean when we can dump it in Antelope Valley? You fill Antelope Valley up, then we're good for the next 10 years. Other places in California can use the water in dry years. I think there needs to be more of a balance, I hope this idea helps you guys think about ways and ideas, to take opportunities, you know when Lake Michigan is sitting up on the hill, where can we dump this water so it doesn't dump into the ocean? Thank you.

Public Comment 2:

Perhaps DRIP could consider recommending drought metrics to better track if our drought resilience is improving. Maybe a metric such as the number of Californians affected by drought split out by severity and place and time. We could trend this across the entire drought lifecycle – pre, during, post – and focus on DACs, vulnerable populations, and ideally ecosystems. Sort of akin to the metric that identified

how 1,000,000 Californians don't have safe drinking water. Would ideally use [data] already being collected by SGMA, SAFER, and other efforts, hence locally relevant metrics that might focus actions and investments. All of this might help us stop using the generic term "drought."

Adjournment

Appendix A. Meeting Participation

Drought Resilience Interagency Partnership & Collaborative Members

State Agency Members:

Present	Name (or alternate)	State Agency
Yes	Nancy Vogel	California Natural Resources Agency
Alternate	Karla Nemeth (Kris Tjernell)	California Department of Water Resources
No	Joshua Grover	California Department of Fish and Wildlife
Yes	Anna Naimark	California Environmental Protection Agency
Yes	Joaquin Esquivel	State Water Resources Control Board
Alternate	Christina Curry (Lori Nezhura)	California Office of Emergency Services
Alternate	Saharnaz Mirazad (Sam Assefa)	Governor's Office of Planning and Research
Alternate	Virginia Jameson (Tawny Mata)	California Department of Food and Agriculture

Non-State Agency Members:

Present	Member (or alternate)	Organization/ Employer	General Region	Representative
No	Michael Gerace	Yurok Tribe	Northern California	Tribal
Yes	Emily Moloney	Buena Vista Rancheria of Me-Wuk Indians	North Central California	Tribal
Yes	Justine Massey	Community Water Center	San Joaquin Valley & Central Coast	Community-based organization

Yes	P. David Michalko	California Association of Mutual Water Companies	Southern California	Community-based organization
Yes	Tami McVay	Self Help Enterprises	San Joaquin Valley	Technical Assistance Provider
Yes	Grace Person	CivicWell	Statewide	Technical Assistance Provider
Yes	Suzanne Pecci	Domestic Well Planning Group South American Subbasin	Statewide	The Public
Yes	Brent Haste	Plumas Lake Self Storage, Owner	Northern California	The Public
Yes	Anna Schiller	Environmental Defense Fund	Statewide, San Joaquin Valley	Environment
Yes	Redgie Collins	California Trout, Inc.	Statewide	Environment
Yes	Emily Rooney	Agricultural Council of California	Statewide	Agriculture
Yes	Jason Colombini	Jay Colombini Ranch, Inc.	San Joaquin Valley, Sierras	Agriculture
Yes	Catherine Freeman	California State Association of Counties	Statewide	Local Government
Yes	Sierra Ryan	Santa Cruz County	Central Coast	Local Government
Yes	Alvar Escrivá-Bou	University of California Los Angeles	Statewide	Experts in Land Use/Water
Yes	Laura Ramos	California Water Institute at Fresno State	San Joaquin Valley	Experts in Land Use/Water
Yes	Russ Bryden, PE	Los Angeles County Public Works	Southern California	Public Water Systems
Yes	Katie Ruby	California Urban Water Agencies (CUWA)	SF Bay Area, Southern CA	Public Water Systems

Public Commenters

Name	Affiliation
Jason Zink	<i>No affiliation</i>
Glen Low	The Earth Genome

Staff

Name	Affiliation
Julia Ekstrom	CA Department of Water Resources
Melissa Sparks-Kranz	CA Department of Water Resources
Amanda Ford	Kearns & West, Inc.
Vidya Bhamidi	Kearns & West, Inc.
Marlys Jeane	Kearns & West, Inc.

Appendix C. Word cloud generated based on early note-taking during meeting, then presented in Visioning Session.

