

American River Watershed Resilience Pilot Study Advisory Committee Meeting

Date: March 27, 2025
Project name: American River Watershed Resilience Pilot Study
Project no: W8Y34200

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Attendees

Project Team

Name	Organization/Role
Ryan Ojakian	RWA
Jim Peifer	RWA
Ashley Flores	RWA
Raiyna Villasenor	RWA/SGA
Grace Kaufman	Valley Vision
Gretchen James	Valley Vision
Ibrahim Khadam	Khadam Consulting
Jerry Azevedo	Integrated Communications Strategies
Devyani Kar	Jacobs
Sirisha Nemani	Jacobs
Armin Munevar	Jacobs
Vijay Kesavan	Jacobs
Tapash Das	Jacobs
CJ Porter	Jacobs
Shannon Litchfield	Jacobs

Advisory Committee

Name	Organization/Role
Ashlee Casey	Sacramento Water Forum
Austin Miller	Sacramento County DWR
Brett E	
Brian Sanders	City of Sacramento
Chris Brown	Sac Climate Coalition/ECOS

Name	Organization/Role
Christine Kohn	Sacramento Water Forum
Clyde Macdonald	SARA
Gary Bardini	SAFCA
Greg Jones	Nevada Irrigation District
Michelle Banonis	RWA
Rebecca Guo	El Dorado Water Agency
Sean Bigley	City of Roseville
Ted Rauh	ECOS

Meeting Notes

Introductions

Speaker: Devyani Kar

Introduces Jacobs team (Tapash Das, Armin Munevar, Vijay Kesavan, Sirisha Nemani, CJ Porter, and Shannon Litchfield) who each gave a brief introduction. Valley Vision team (Grace Kaufman and Gretchen James) also introduce themselves.

Ryan Ojakian

Introduces agenda and the Regional Water Authority (RWA) team.

Project schedule

Devyani Kar

This project is on an aggressive schedule. Today is the second advisory committee meeting. We will be working towards vulnerability and risk analysis by end of summer 2025. The project team is also starting with adaptation strategies and will ask for your input as we progress. We plan to have all technical tasks completed by Q1 2026, with final deliverables in April 2026.

Ryan Ojakian

Advisory committee will get an update on about nine of the project deliverables. This meeting will be technical forward with the intent of getting input on the adaptation strategies.

Pilot Project Area

Devyani Kar

Study area based on project boundary is shown, which includes American, Bear, and Cosumnes Rivers watersheds.

Vision Statement

Ryan Ojakian

Shares the following vision statement with the group.:

Sustainably manage the American, Bear, and Cosumnes River watersheds using a science-based, collaborative, and inclusive approach that incorporates traditional knowledge and balances both human and ecological needs to sustain economic vitality for the long-term resilience of our local communities and ecosystems.

We have received feedback from some of you and have been responsive to feedback. We do have time to discuss this statement and will have time on each item in this meeting for questions and comments.

Jim Peifer

The vision statement went through a working session with the watershed network and includes feedback from the Tribal Nation. We want to run the result of all this feedback by this committee. Has this included the edits that others have requested?

Ted Rau

I agree that this has met my feedback.

Rebecca Guo

This also meets my feedback.

Chris Brown

Humans are part of the ecosystem. Might be best to incorporate "us" into the ecology to streamline the text of the statement.

Ryan Ojakian

We appreciate that feedback and that it streamlines the statement.

Greg Jones

I was curious and I know a lot of time went into this statement. Would it make sense to reduce the number of words "vitality for the long-term resilience of the region" rather than "of our local communities and ecosystems"?

Ryan Ojakian

We did have a specific discussion surrounding local communities, but I appreciate your input. Do others who participated in other discussions have opinions?

Jim Peifer

We have spent approximately \$30,000 in the statement and were concerned about the length. This is a balancing act. Decider of edits will be the watershed network.

Minutes

Ryan Ojakian

How does the group feel about removing the last few words on “local communities and ecosystems”?

Ted Rauh

Having been in the other meetings, I don't know what that last statement means to the watershed network, and I would be hesitant to remove it for this reason.

Clyde Macdonald

You define the region in the first part, so you don't need it in the second, but I agree its fine either way. No need to continue to spend time on discussing.

Greg Jones

I'm fine withdrawing my comment.

Ryan Ojakian

This discussion is core to what we are doing here in collaboration, so the dollar/time amount may seem like a lot, but it is a value add.

Jim Peifer

I appreciate the feedback. What we could do is test these options on the watershed network. Thank you all for your feedback.

Tribal & Frontline Communities Meeting – 11/13

Ryan Ojakian

This meeting was a foundational meeting to bring the group up to speed with challenges and to understand challenges experienced by this group.

Watershed Network Meeting – 2/10

Outreach and attendance improved, with 25 to 30 in attendance. Advisory committee should attend the next meeting. We spent time discussing the vision statement. The California Department of Water Resources (DWR) had a Tribal stakeholder webinar to build relationships with Tribal communities, and we are building momentum in growing these relationships.

Gap Analysis

Vijay Kesavan

Examined over 60 reports and studies on a variety of topics for the American, Bear, and Cosumnes Rivers. We have a strong baseline of understanding and have created a matrix and prepared a memo to outline available information. There have not been many cross-sectoral studies or planning efforts.

Clyde Macdonald

What are you thinking in terms of gaps?

Jim Peifer

When the gap analysis was done, this was an examination of the available literature with respect to climate change. The American River Basin Study (ARBS) and other studies allow us to identify what info we have to date

Devyani Kar

The gap analysis leads to a technical approach that identifies where we can fill in the identified gaps.

Armin Munevar

This was the "what do we already know". The gap was where we can utilize existing information. We are short in areas like hydropower and recreation compared to more robust areas like water supply.

Ted Rauh

What have you found with respect to the Bear and Cosumnes Rivers?

Vijay Kesavan

Multi-benefit analysis has not been researched as much, especially for the Bear and Cosumnes Rivers. Sectors such as flood mitigation and water supply are more widely covered.

Jim Peifer

We will circulate gap analysis TM to this group when it is completed.

Technical Approach

Tapash Das

We can minimize the gaps with technical analysis. The 60 reports mentioned can be used as base, and we want to incorporate more cutting-edge technologies to expand on these.

Recent work includes CoSANA, DWR Delivery Capability Report, DWR State Water Project Climate Adaption Study, and U.S. Bureau of Reclamation's Sacramento-San Joaquin Rivers Basin Study.

Based upon this information, we have a workflow diagram that outlines how we intend to use various data sources. This includes using shared socioeconomic pathways, climate simulations, spatial downscaling, and weather generator to develop future climate scenarios, hydrologic models, input models, and operations models. These will all support the development of the vulnerability and risk assessment.

Ted Rauh

I'm interested in the weather generator to assess how weather changes in the future.

Tapash Das

This is a statistical tool that we can use to put into input model and eventually operations models like CalSim 3.

Ted Rauh

We are making adjustments due to climate changes; is this a sensitivity run?

Tapash Das

There are five scenarios in ARBS. DWR has developed six scenarios and are working on an additional three to represent a range of future conditions.

Historical Hazards Analysis

Vijay Kesavan

Assessment of the most historically impactful events that are publicly available.

Overview of Climate Hazards

This graphic shows the most significant events of precipitation, wildfires, extreme heat, and drought. We are experiencing both wetter and drier extremes. Over 500,000 acres have been burned since 2000. We have developed a matrix to compile these as well as documenting them in a memo.

Upper watershed has experienced decreased snowpack and increased wildfires.

This graphic shows the most significant climate disasters, which have all happened in the last 10 years.

Armin Munevar

This assessment aims to ground future events with historical events. We will share this TM in the future and would like this group's input.

Ted Rauh

I have seen information from the State on future economic damages, which I hope will be included in the future.

Clyde Macdonald

In the Water Forum, we did the Ad Hoc report (climate change plus increase in demand) that looks at pressure on Folsom Reservoir. This report shares info on future impacts of climate change.

Folsom south canal should not be extended if we want to have a reliable water supply.

Rebecca Guo

I suggest also adding: 2014 King Fire was 97,717 acres in El Dorado County ([fseprd566026.pdf](#)).

Water Budget

CJ Porter

Intent is to understand and characterize effects on water supply in the planning area. We are developing an interactive excel spreadsheet tool as a high-level visualization dashboard.

Water Budget Parameters

This list shows most of the parameters included in the water budget as well as a figure from DWR's Water Budget Handbook.

Water Budget Spatial Representation

Breaking up into surface water and land systems and groundwater systems that are generally aligned with HUC boundaries

Focusing on valley floor due to groundwater supply and demand needs

Ted Rauh

What is the relevance of this effort in terms of using historical data for looking into the future?

CJ Porter

We are using the historical data with the intention of looking at historical trends.

Armin Munevar

This was a late scope addition by DWR, but it does help provide a foundational set of knowledge for across the watershed to evaluate if there are shifts geographically or over time.

Next Steps

Ryan Ojakian

We are very close to finalizing the resilience vision. We will be sending out technical memos as they are completed to get feedback from the advisory committee. The team will continue progress on technical tasks and working towards development of adaptation strategies. Does anyone have feedback on the agenda for the next watershed network meeting? (No feedback)