Greater Monterey County Integrated Regional Water Management Program
Regional Water Management Group Meeting

April 15, 2026
Zoom Conference Call

RWMG Entity Attendees:
Rosa Carrillo – San Jerardo Cooperative, Inc.
Shandy Carroll – Monterey County Housing and Community Development
Dash Dunkell – Elkhorn Slough National Estuarine Research Reserve
Emily Gardner – Salinas Valley Basin Groundwater Sustainability Agency
Alison Imamura, Monterey One Water
Carla James – City of Soledad
John Olson – California State University Monterey Bay
Erica Parker – Monterey One Water
Paul Robins – Resource Conservation District of Monterey County
Katie Siegler – Monterey Bay National Marine Sanctuary/California Marine Sanctuary Foundation
Sarah Stevens – Monterey One Water

Non-RWMG Attendees:
Kiernan Brtalik – Rincon Consultants
Lauryn Cummins – California Marine Sanctuary Foundation
Doug Dowden – City of Marina (Stormwater Program Manager)
Emily Franc – California Marine Sanctuary Foundation
Elliot Grant – Sustainable Conservation
Maureen Hamilton – Monterey Peninsula Water Management District
John Hunt – UC Davis and California Marine Sanctuary Foundation
Kelley List – Rincon Consultants
Brian Lockwood – PV Water
Marcus Mendiola – PV Water
Susan Robinson – Greater Monterey County IRWM Program Coordinator
Allegra Roth – Rincon Consultants
Reema Shakra – Rincon Consultants
Karyn Steckling, Central Coast Regional Board (MS4s)

Meeting Minutes

1. Brief Introductions

2. Pajaro River Watershed Resilience Pilot: In 2022, the Department of Water Resources funded five pilot projects, $2M per project, to develop Watershed Resilience Plans over two years. The Pajaro River Watershed was selected as one of the five pilots. Brian Lockwood (General Manager, PV Water), Marcus Mendiola (PV Water), and Kiernan Brtalik (Rincon Consultants) shared PV Water's process and experience developing the *Pajaro River Watershed Resilience Plan* as part of this pilot process.

PV Water is a Groundwater Sustainability Agency and before SGMA, was established for the purpose of managing the groundwater basin. The Watershed Resilience Plan looks at watershed-based solutions, climate resilience, and equity, keeping the foundation of the IRWM model but taking it a step further

("IRWM 2.0"). Rincon Consultants led the planning process. With a short timeframe and limited budget, they needed to be efficient with time and money, so they leveraged existing models that had already been developed. The process is now near complete, though there are still some questions about governance once the grant runs out. The integrated approach for this planning process included outreach, engagement, and research; prioritization of vulnerabilities; development and prioritization of adaptation strategies; and development of implementation strategies.

Public engagement was robust, including four workshops (40-80 people showed up for in-person community workshops), with surveying before and after each workshop. They also worked closely with the Amah Mutsun Tribe, refining maps to depict Amah Mutsun ancestry in the region. This planning process helped deepen relationships.

Kiernan talked about the program focus areas: For Climate Hazards, they considered drought, extreme precipitation and flooding, extreme heat, wildfire, sea level rise and storm surge, noting the cascading effects of impacts. They looked at seven different systems, including water supply, flood management, groundwater management, ecosystems, Indigenous cultural resources, water quality, and recreation. There was a lot to cover: Wells, pipelines, recreation (trails, water-based rec)…! For future climate conditions, they accessed the latest climate data from the California Fifth Climate Change Assessment, with climate simulations for extreme precipitation and flooding, extreme heat, and sea level rise and storm surge. For sea level rise and storm surge, they used the Coastal Storm Modeling System (CoSMoS).

The climate vulnerability assessment identified assets across the seven different resource systems, assessed vulnerability (a function of exposure + sensitive + adaptive capacity), then scored the level of exposure of that asset group to the climate hazard; then considered sensitivity (how might that asset be impacted?). Then adaptive capacity: if impacted, to what extent is it able to respond and return to its function? They then ground-truthed the results with the asset managers, and prioritized risks. Finally, they identified key vulnerabilities, on which specific actions were then developed to address those vulnerabilities.

Twelve key vulnerability statements were developed to reflect the findings, with drought accounting for 42% of vulnerability ratings, followed by sea level rise/storm surge (19%), wildfire (19%), extreme heat (13%), and extreme precipitation and flooding (7%). Based on an understanding of the highest vulnerable assets, they developed resilience portfolios to align with five goals, including 23 adaptation strategies, and 70+ implementation actions. They narrowed the implementation actions into 13 Implementation Roadmaps to advance keystone actions, falling under the five goals:

1) Coordinated governance and funding
2) Water supply diversification and reliability
3) Climate-resilient infrastructure
4) Healthy ecosystems and working lands
5) Connected and empowered communities

Keys to implementation success: Noted among the listed keys to success is the opportunity to coordinate and consolidate planning activities across the watershed, and the need to shift to implementation in order to address fatigue… people need to see the *value* of all that planning, see end goals. Workforce development will be critical for driving this forward! Also, there is a major need to modernize and streamline permitting pathways.

They are now considering future leadership and post-planning implementation, including routine watershed coordination meetings, annual workshops to track progress, and creation of tracking tools. They've decided against establishing a formal governance structure, and more toward strategic coordination. Next steps: coordinating and bundling projects, and developing coalitions to secure funding. They intend to continue engagement for coordination.

John Hunt noted that with climate resilience projects, the economic benefits tend to be the avoidance of future costs; he asked if the PV Water team has projects that not only avoid future costs but deliver immediate economic gains (making them more palatable to rate/tax payers to pay for). Marcus offered, for example, broad public support behind the construction of levees in the lower watershed being built now to withstand 100-year floods. Paul Robins wondered if there was any nexus between this planning effort and the Integrated Watershed Restoration Program (IWRP) that was created by the Santa Cruz County RCD. Brian responded that the IWRP is separate.

For more information:

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3. Irrigated Lands Regulatory Program (ILRP) Agricultural Expert Panel: Elliot Grant, Senior Project Manager at Sustainable Conservation, provided a presentation on the State Water Board's Expert Panel process. This expert panel has been focused on nitrogen discharge limits, accounting framework of applied and removed nitrogen, incentives/credits for good management practices, and modeling vs. mass balance approaches. All of these topics have been geared towards supporting the Regional Water Quality Control Boards and their ILRP permits with regulating discharge of nitrogen to groundwater.

Regulation seeks to account for the extent of impacts from irrigated agriculture. Ag Order 4.0 regulates both surface water and groundwater; regarding the latter, specifically nitrate leaching to groundwater. Elliot's presentation focused on the Ag Order 4.0 process related to groundwater.

The mass balance of applied (A) nitrogen (N) minus removed (R) nitrogen (A-R) is assumed to be the amount discharged to groundwater (though it's admittedly not a perfect model). All farmers are required to report all applied and removed N. This reporting requirement has a disproportional impact to small growers, non-English-speaking growers, and those without access to technology.

Ag Order 4.0 was the first policy to regulate the *application* of N, in addition to discharge. The policy set strict limits/targets ratcheting down to 50 lbs/acre in 2051 and penalties for those who couldn't meet that target. But it also incentivized good management practices: e.g., cover crops and compost/organic amendments counted on the R side of the equation.

So what happened with Ag Order 4.0? In 2023, the order was remanded by the State Water Board back to the Regional Board, following an Ag Petition to: 1) continue but expand the surface water order, and 2) stop the groundwater enforcement. The ag petitioners questioned the science and authority of the

regional boards, as well as the limits and targets, and incentivization of cover crops and other management practices. The State Water Board committed to convene a panel of experts to provide recommendations (ordered in 2023 and convened fall 2025). A remand occurred once before, in 2017 in East San Joaquin. The outcome of that process led to a new precedent adopted by the State Water Board in 2018, creating a new framework, which was the Ag Order in 2020. Will we see a new precedent this time? Don't know!

But we do know the current recommendations from the Expert Panel, which include support for Ag Order 4.0's approach to A (applied) and R (removed), and justification for enforceable limits to A-R. They also include exceptions and exemptions for small farmers, and recognize importance of management measures for meeting water quality objectives, allowing for an expansion of incentive structures and other cover cropping strategies. Cover cropping increases the "R" in the A-R equation, equaling less discharge (i.e., leaching to groundwater). And if cover cropping is not a feasible option, a grower can use amendments and microbial community to "tie up N."

Sustainable Conservation is optimistic about the Expert Panel's recommendations, which include strong support for regional design. Comment letters to the State Water Board are due April 30th. For questions, reach out to Elliot: Egrant@suscon.org.

Kiernan asked Elliot where he thought the challenges and opportunities lay. Elliot responded that one challenge is that the water boards move slowly; there is tons of public input/opinion (which is good). But an exciting part is the great team of scientists providing progressive recommendations, such as legume cover cropping.

Kelley List wondered about a shift toward promoting cover crops, and the potential increased water use. Elliot noted the complexity in understanding potential impacts, citing decreased flooding resulting from cover cropping and increased infiltration into groundwater basins, etc.

4. Monterey Bay Climate Adaptation Action Network: Emily Franc, California Marine Sanctuary Foundation (CMSF), and Coordinator for the Monterey Bay Climate Adaptation Action Network (MBCAAN), provided an overview of MBCAAN.

MBCAAN was launched in October 2024 as part of a $71.1M grant awarded to CMSF through NOAA's Climate Resilience Regional Challenge (CRRC). This transformational grant, with funding from the Inflation Reduction Act, has brought critical funding to the Monterey Bay area. The grant is providing climate resilience adaptation funds for dozens of projects led by CMSF and a coalition of about 30 partners, including local governments, academic institutions, and other nonprofits. NOAA conducted an economic assessment and determined that the CRRC grant for the Monterey Bay area will generate 705 jobs, and $126.3M in total economic output. For every $1 of spending, $1.88 in economic activity will be generated. "This is just a downpayment on the work that needs to be done…"

The grant – referred to locally as "Climate Resilient Monterey Bay," or CRMB – focuses around four adaptation strategies: 1) fire risk reduction, 2) flood risk reduction, 3) workforce development, 4) capacity building and regional coordination. The role of MBCAAN:

- Emphasizes inclusive and equitable participation in the development of climate resilient policies and adaptation actions. MBCAAN includes broad and inclusive engagement and participation of marginalized communities and Tribal groups. Tribal outreach helps build relationships with Indigenous people through a program called, "Walking the Path of Right Relations," and has

created an Indigenous Youth Council. MBCAAN also includes a Community Advisory Group of community-based organizations for community input/education regarding climate decision-making.

- Provides funds to build capacity for three other climate networks: the Monterey Bay Area Climate Justice Collaborative, Monterey Bay Regional Climate Project Working Group, and Central Coast Climate Collaborative.
- Works with Hartnell, UCSC, CSUMB, Watsonville Wetlands Watch to identify regional workforce needs and to promote workforce development training to develop the knowledge base and skillsets needed for addressing regional climate risks.
- Includes a $1.6M revolving loan fund to support additional on-the-ground climate adaptation activities.
- Regional Monitoring Hub: Central Coast Wetlands Group is working to build a regional monitoring program to monitor progress across the region.
- Regional Resiliency Planning: MBCAAN will also pursue additional grant funding. How do we build that next $71M grant to bring funding into the region?

MBCAAN convenes quarterly meetings, aiming to provide one voice for the Monterey Bay region that will elevate the work everyone is doing. The meetings highlight NOAA technical assistance being offered, workforce development, coordinating permitting.

There are lots of other climate networks doing lots of great work. “We are a region awash in regional resiliency planning!” Sea level rise planning, Climate Action Plans, Watershed Resilience planning, Monterey Bay Area Regional Climate Project Working Group project prioritization work. MBCAAN will aim to uplift these other efforts, and coordinate/consolidate planning efforts where possible.

For more information: Emily Franc at Emily@californiamsf.org

5. Other News and Updates: There was no other news or updates.

The next Regional Water Management Group meeting will take place on June 17, 2026.