

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

July 24, 2024

Location: Moss Landing Marine Labs and Zoom Conference Call

RWMG Entity Attendees:

Jenny Balmagia – Central Coast Wetlands Group
Patrick Breen – Marina Coast Water District
Dash Dunkell – Elkhorn Slough Foundation
Emily Gardner – Salinas Valley Basin Groundwater Sustainability Agency
Sarah Hardgrave – Salinas Valley Basin Groundwater Sustainability Agency
Piret Harmon – Salinas Valley Basin Groundwater Sustainability Agency
Mike McCullough – Monterey One Water
John Olson – California State University Monterey Bay
Rebecca Roberts – California Marine Sanctuary Foundation
Paul Robins – Resource Conservation District of Monterey County
Eric Tynan – Castroville Community Services District
Ed Waggoner – City of Soledad
Don Wilcox – City of Soledad

Non-RWMG Attendees:

John Bramers – Merrill Farms
Doug Dowden – Consultant for the City of Marina
Elliott Grant – Sustainable Conservation
Maureen Hamilton – Monterey Peninsula Water Management District
John Hunt – UC Davis
Denise Mercado – Ecology Action
Abby Ostovar – Montgomery & Associates
Susan Robinson – Greater Monterey County IRWM Program Director

Meeting Minutes

1. Brief Introductions

2. Salinas Valley Basin Groundwater Sustainability Agency (SVBGSA) - Deep Aquifer Study: Abby Ostovar, with Montgomery & Associates, presented on the Deep Aquifer Study, which was recently released. The Deep Aquifers are a key municipal and agricultural source of water, particularly for seawater-intruded areas. Groundwater levels in many Deep Aquifer wells have declined dramatically. To provide a scientific basis for management, Montgomery & Associates conducted this study of the Deep Aquifers to better understand the conditions of the Deep Aquifers, the geographic extent, and hydrogeologic characteristics. SVBGSA, Monterey County Water Resources Agency, water districts, regulated utilities, and irrigated agriculture jointly funded the study.

Need for the study: With more wells drilled and increased pumping, groundwater levels have declined over the past couple of decades. The study: 1) developed the definition, extent, and hydrogeologic understanding of the Deep Aquifers; 2) made monitoring recommendations; 3) developed a water

budget for the Deep Aquifers; and 4) provided guidance for management based on the study's findings. The study focused on key questions for management:

- How should the Deep Aquifers be defined?
- What is the lateral extent?
- Does it receive recharge?
- What is the water budget?
- How should monitoring be focused?
- What principles should guide management?

The study collected key data (mapping important geologic features, data on groundwater movement and storage, groundwater chemistry, isotope analysis indicating age of the water) to define the extent and properties of the Deep Aquifers. Montgomery & Associates used airborne electromagnetic (AEM) data to understand the groundwater system in between individual well data points. The Deep Aquifers are generally defined by where the aquitard is; there is some uncertainty (e.g., not sure where the aquitard in the ocean ends). The Deep Aquifers do extend to near Soledad; more extensive than previously anticipated.

It is unlikely that the Deep Aquifers receive natural, surficial recharge. There is no evidence of modern recharge (post 1953). Though there could be some inflow and outflow across the aquitard (leakage) with adjacent aquifers.

M&A identified three regions of the Deep Aquifers. The regions are broken down for purposes of the water budget and guidance for management. These regions were delineated based on differences in water chemistry, geologic formations, a groundwater level divide, and amount of data; they do not follow subbasin lines. Pumping influences the groundwater level divide between the Seaside Region and Northern Region, and it probably *moves* slightly year to year due to pumping. The Deep Aquifer does exist in the Southeast Region, but there is no data from wells that are screened within the Deep Aquifer only, so there is a lot of uncertainty regarding groundwater conditions in that region.

Current conditions: Extraction from the Deep Aquifers = somewhere between 13,800 – 17,700 AFY. (This is small compared with extraction in the other aquifers, and compared with extraction across the Salinas Valley, which is about 500,000 AFY.) There have been numerous new wells drilled into the Deep Aquifer in the northern seawater-intruded area. There's also been a cumulative decline in groundwater elevations due to increased pumping, mainly in the Northern Region.

Main concerns:

- 1) Due to lowered groundwater levels in the Deep Aquifers there is now a downward gradient; if the Deep Aquifers are underlying an area of seawater intrusion, the aquifer could become intruded. There is also a risk of saltwater contamination laterally in the ocean, but not as great a risk.
- 2) Land subsidence is also a concern, due to dewatering of the clay.

The analysis of historical and current conditions does not change the conceptual understanding of the Deep Aquifers, and confirms the Monterey County Water Resources Agency's conclusion: The Deep Aquifers are in overdraft and are not being recharged; continued overdraft will put the Deep Aquifers at risk for irreversible damage from seawater intrusion. The study confirms that sufficient data exists to manage the Deep Aquifers, and provides scientific guidance for management and monitoring.

Guidance for management:

- 1) Agencies should work cooperatively to manage across the extent of the Deep Aquifers and adjacent aquifers;
- 2) Management actions: Decrease pumping, or increase recharge (e.g., injection like Seaside Basin is doing);
- 3) Differentiate management actions by the three different regions;
- 4) In the Southeastern Region, monitoring first, then manage if needed;
- 5) Take precautionary approach in areas of uncertainty;
- 6) Current levels of extraction are not sustainable – so don't exacerbate with additional net extraction from new wells;
- 7) *Reduce* existing net extraction; manage with adjacent and overlying aquifers;
- 8) Adaptively manage the Deep Aquifers, review the quantity of extraction and injection, and revise periodically based on groundwater elevations.

Managing the Deep Aquifers will require a lot of collaboration and cooperation moving forward.

Piret Harmon commented that the SVBGSA is convening a staff-level task force to take this guidance.

Eric Tynan asked how effective an extraction barrier might be for management? Abby responded that a feasibility study is currently underway for the shallower two aquifers (180-Foot and 400-Foot), but not for the Deep Aquifers; recommends putting a plan in place in case lateral seawater intrusion is found.

John Hunt wondered how feasible is recharge in terms of management actions, and how much can recharge contribute to the solution? Abby noted that a water supply *source* would need to be found to inject water; also, would need to store the water, treat it, ensure enough pressure to inject it. And then there's the question of the injection site: M&A hasn't found evidence of a cohesive aquitard ("It's more like a high prevalence of clay"). This would need to be studied further. And then – there's uncertainty as to what extent recharge would contribute to the solution.

3. Ecology Action - Climate Victory Garden Project: Ecology Action is launching the [Climate Victory Garden project in Salinas Valley](#). The project is being funded in part with IRWM Implementation Grant funds. Denise Mercado, Senior Program Specialist in Landscape Installation at Ecology Action, described the program and Ecology Action's plan of action for the Salinas Valley.

The Climate Victory Garden project helps homeowners and public institutions conserve water by offering free design and project management for turf replacement and other water conservation projects (e.g., rain gardens, rain capture, laundry to landscape, conversion to Smart Controller irrigation). This project is largely focused in disadvantaged community areas of Salinas, Marina, and King City. Rebates will be offered by Cal Water and Marina Coast Water District (though King City rebates are currently pending due to closed Cal Water budgets). The goal is to convert 60,000 square feet of non-functional turf grass to less water-intensive uses. Ecology Action will be working with homeowners and also with larger public agency sites for more water-conservation impact. The Garden locations will be visible to the public to increase public awareness.

The project is "DIY," with Ecology Action staff providing four hours of free technical assistance for landscape design (funded through the IRWM Implementation Grant). Customers will have the option to contract with Ecology Action landscape contractors at a low price (set at \$7/sq ft). Ecology Action is collaborating with Green Gardeners and the California Conservation Corps, who will install Monterey

Bay Friendly Landscaping. Rebates will be provided by Cal Water (\$3/sq ft for residences and \$1/sq ft for commercial/public agencies) and Marina Coast Water District (\$1.50/sq ft) for laundry-to-landscape (to water fruit trees or perennials), to create rain gardens from gutters, and installations for rain harvesting. Denise provided some examples of previous projects (including one at Yerba Buena High School, which achieved a water savings of 38,000 gallons/year = 0.73 AF/year = 14.6 AF over 20 years).

Customers can apply through [Ecology Action's website](#). Denise asked RWMG members to please distribute the digital flier. Areas outside of King City, Marina, and Salinas are also eligible. Participants in these areas would receive rebates from Ecology Action, but would be ineligible for the rebates from King City or Cal Water.

Eric Tynan expressed potential interest for the community of Castroville.

4. Resource Conservation District of Monterey County (RCDMC) SALC Capacity Building Grant: In collaboration with local partners, the RCD of Monterey County is embarking on a Sustainable Agricultural Land Conservation (SALC) Program-funded project to undertake the organizational development and fund-raising needed to acquire, own and manage an agricultural parcel large enough to host multiple long-term leases with small/growing, socially-disadvantaged farmers, and provide long-term conservation practice demonstration and space for traditional ecological land management. SALC is funded by the California Strategic Growth Council in collaboration with the California Department of Conservation. The RCD is partnering with ALBA, Kitchen Table Advisors, and California FarmLink on this project. Paul Robins described the project.

Several factors have led up to this pilot project, including:

- The RCD has had a long-standing interest in acquiring farmland to support development and demonstration of conservation practices, and the RCD has programs to support new and small/growing farm operations;
- Many small, Spanish-speaking farmers cite land tenure and access as a persistent barrier for them;
- There's the potential for disproportionate impacts of SGMA-associated land repurposing on small, under-resourced farmers (if land is repurposed, it's likely the small growers that'll get squeezed);
- The SALC program has included a recent emphasis on equitable benefits;
- The SALC program has initiated "Capacity Building" grants for organizations that aspire to engage in easement and/or fee-title acquisition for ag land conservation;
- The timing is ripe, as there are many willing partners already organized in the Monterey Bay region.

DOC reached out to the RCD about the Capacity Building grant. RCD has never owned land; they can, but they haven't. With this pilot, the RCD would hold farm land to give small farmers fair, long-term leases that would enable operational development and investment in longer-term conservation practices. The land could also be used to demonstrate a variety of field-edge practices such as stream management, water quality treatment, or other management practices. Paul showed a conceptual diagram, and provided some examples of similar programs in other regions (e.g., Sonoma Land Trust, Rancho Corralitos in Santa Cruz County).

The process: Develop a project that's viable economically, meets the needs of farmers, develop policies to hold easements and/or fee-title, do outreach, build partnerships with real estate agents, appraisers, etc. Once this "pipeline" is established, the RCD can apply for DOC acquisition funding to implement (including land search and project development). This would need to be augmented or matched with other grants or philanthropic sources.

Susan Robinson noted the great potential for partnering with the Salinas Valley Multi-benefit Land Repurposing Program (MLRP) – let's keep that conversation going!

Dash Dunkell noted that ESF leases out five organic small farms. He cautioned that there are no good funding sources for policing an easement... small growers are typically under-resourced and don't necessarily have the tools or money to deal with things the way the RCD might hope. Also, access to equipment is very important. As conceived currently, the RCD would hold the land and lease it to small farmers, but they could also buy the land, protect it through easement, and sell it to small farmers.

5. Grants Databases: Susan Robinson shared three resources for grant and loan opportunities:

- [Potential Funding Opportunities for Water and Natural Resource Management](#) (database compiled by Susan)
- [Potential Public Funding Sources for Multibenefit Land Repurposing](#) (compiled by the State Support Entity for the Department of Conservation-funded Multibenefit Land Repurposing Program)
- [Funding Summary Table for Multibenefit Land Repurposing](#) (compiled by the State Support Entity for MLRP)

6. Updates and News:

Paul Robins noted that the Salinas River stream maintenance work (Arundo eradication) is ramping up. This work is partly funded by the Prop 1 Round 2 IRWM Implementation Grant and US Bureau of Reclamation, and Monterey County Ag Commissioner.

Susan Robinson asked the group to let her know if they'd like to receive notices of grant opportunities, and/or if they're interested in learning about specific grant opportunities.

Dash Dunkell commented that ESF/ESNERR is never able to attend these IRWM meetings because their all-staff meeting also falls on the third Wednesday of the month...