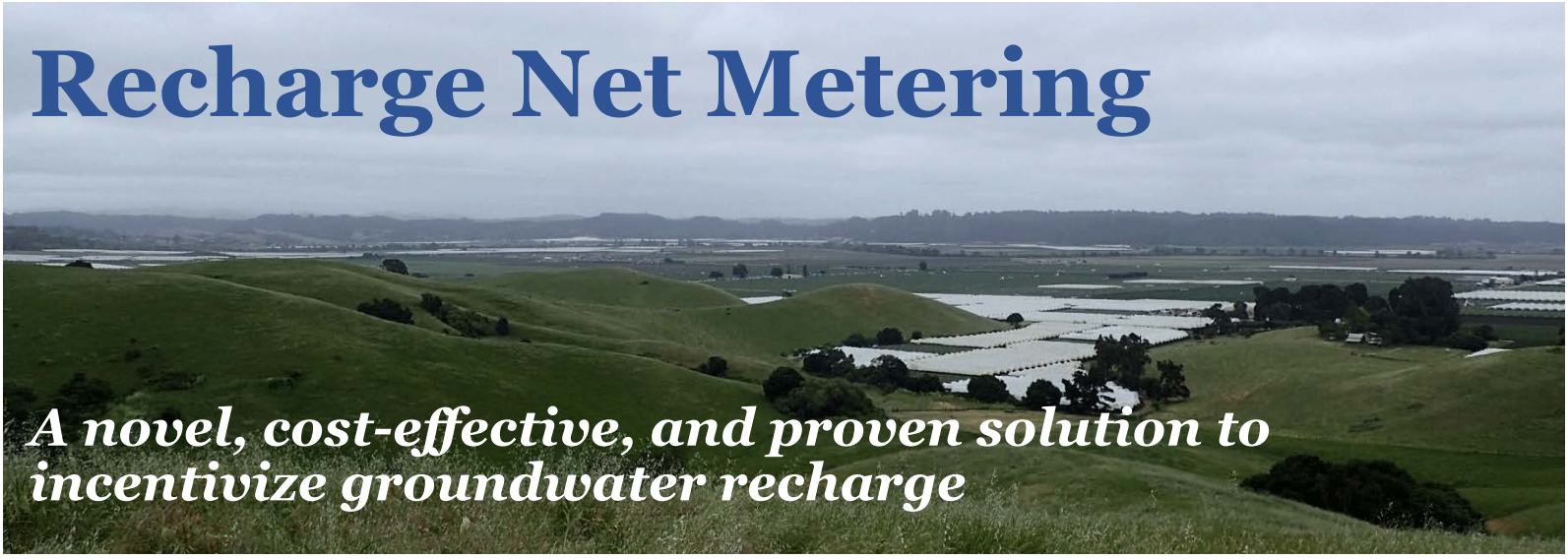
Recharge Net Metering



A novel, cost-effective, and proven solution to incentivize groundwater recharge

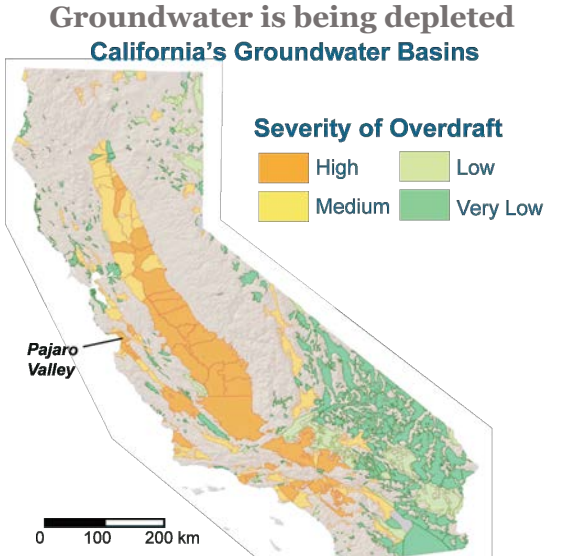
California faces a profound groundwater crisis

Decades of *excess pumping*, changes in *land use*, *extreme rainfall* events, and *weather whiplash* have pushed water resources to their limits. ***California needs solutions.***

Statewide: Groundwater meets 40% of fresh-water demand
Some basins: Groundwater is 90%+ of fresh-water supply
85% of California's residents rely on groundwater

Groundwater depletion causes many problems:

- **Decreased resilience during dry periods**
- **Environmental degradation**
- **Saltwater intrusion in coastal basins**
- **Land subsidence/loss of storage**
- **Impaired water quality**
- **Loss of local control/state intervention**



Many of California's groundwater basins are "critically overdrafted," meaning that continued practices will cause overdraft-related environmental, social, and/or economic problems (SGMA).

The Sustainable Groundwater Management Act (SGMA, 2014) requires that local Groundwater Sustainability Agencies (GSAs) develop and implement holistic groundwater management plans. Basins and agencies have until ~2040 to show results – *many GSAs plan to increase groundwater recharge, but progress has been limited*.

Groundwater agencies, communities, and resource stewards are searching for solutions that balance local realities with the need for long-term sustainability of groundwater supply and quality.

The Pajaro Valley and the promise of "Recharge Net Metering" (ReNeM)

Located on California's central coast, the Pajaro Valley relies on groundwater to support diverse and high-value agriculture, including: berries, vegetables, tree fruits, and flowers. The region's isolated coastal aquifers, limited storage, and lack of snowpack and major rivers required that Pajaro Valley adapt and innovate to meet groundwater challenges. ***Recharge Net Metering (ReNeM) was invented here***.

> ***"ReNeM empowers landowners and tenants to collect excess stormwater runoff during wet periods. This water is infiltrated into the ground, restoring lost hydrologic services and replenishing aquifers. ReNeM participants receive a rebate on water fees based on the amount of water they infiltrate. Performance is assessed by an objective team."***

Recharge Net Metering: How it Works

How does ReNeM work?

1 Managed aquifer recharge systems are designed and installed on selected properties

Projects use basins and other features to route and infiltrate excess surface water.

2 Water is infiltrated, benefits are measured

The ReNeM team measures and account for flows.

3 Participants receive credits / rebates on their water bills

Payments are performance based, offsetting costs for land use, maintenance/operation

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Bokariza Ranch project

Drainage area ~180 acres
Infiltration basin ~4 acres
Infiltrated ~100 af/yr since WY15

Kelly Thompson project

Drainage area ~1,300 acres
Infiltration basin ~4 acres
Infiltrated ~160 af/yr since WY20

What makes ReNeM a novel solution to groundwater overdraft?

- **Cost-effective compared to alternatives, complementary to other management.**
- **Adaptable and scalable, can be modified, expanded to fit local need.**
- **Encourages community participation and engagement with broad benefits.**
- **Alignment interests among stakeholders, partners, aquatic systems.**
- **Extensive demand and need: locally, regionally, statewide.**

RESOURCE CONSERVATION DISTRICT OF SANTA CRUZ COUNTY

UCSC Hydrogeology — THE UNIVERSITY OF CALIFORNIA — 1868 — "Endeavor to persevere..."

Might ReNeM be part of your basin's solution for groundwater management? Our team is glad to provide more information: llurie@rcdsantacruz.org, afisher@ucsc.edu