

June 10, 2025

**To:**

Aleta Allen  
Madera County GSA  
200 West Fourth Street Madera, CA 93637  
Aleta.Allen@maderacounty.com

**Subject:** RFP: Measurement Services for Madera County GSA – Groundwater Accounting Platform Collaboration Opportunity

Dear Ms. Allen and the Madera County GSA Committee,

Thank you for the opportunity to review the Request for Proposal (RFP) for Measurement Services dated May 15, 2025. We commend the Madera County Groundwater Sustainability Agencies (GSAs) for their proactive and thoughtful approach to water measurement and data transparency, and for their vision to support growers with timely, accessible information to manage groundwater sustainably.

Given the primary RFP deliverables for remote-sensed data products, the California Water Data Consortium (Consortium) and our Groundwater Accounting Platform (Platform) partners have elected not to lead a formal proposal in direct response to the current RFP. However, the Platform can integrate with several remote-sensed data providers, and you may see members of the Platform team responding to the RFP as sub-consultants or value-added additions to other proposals you will be reviewing. In addition to these collaborations, we want to share directly with you the relevance and compatibility of our existing open-source Platform with the goals and optional deliverables described in the RFP.

The Groundwater Accounting Platform is a collaborative, open-source software initiative developed to support SGMA compliance by empowering growers, water managers, and GSAs with robust, up-to-date data tools. Initially deployed in the Rosedale-Rio Bravo Water Storage District and now supporting multiple GSAs statewide, including deployments in Merced, Turlock, Kern, Yolo, and Colusa basins, the Platform offers the following:

- **Data Integration:** Seamlessly incorporates data from any satellite-based ET (e.g., Land IQ, OpenET, IrriWatch) or metered measurement provider to present farm-level usage data.

- **User Dashboards:** Provides growers with secure, personalized dashboards that display allocations, usage, and remaining balances—functioning like a “water bank account.”
- **Management Tools:** Offers water managers district-wide views, billing support, scenario modeling (via the optional Groundwater Evaluation Toolbox), and a trading module to facilitate local water markets.
- **Open Architecture:** As an open-source tool, it avoids vendor lock-in, allows local customization, and is sustained by a committed, collaborative user community with quarterly input on feature development.

More detailed information about the Platform, including typical expected costs for deployment to Madera GSAs, is included as part of this submittal.

For the past several years, we have maintained open and collaborative discussions with Madera County GSA staff and stakeholders regarding potential alignment of the Platform with your long-term data and stakeholder engagement goals. With this letter, we wish to reaffirm our interest in continuing those conversations and exploring how the Groundwater Accounting Platform might complement your selected measurement vendor(s) and overall groundwater sustainability strategy—either now or in the future.

Please do not hesitate to reach out if you would like a demonstration of the Platform, user case studies from other GSAs, or technical insights regarding system integration.

We appreciate your leadership and vision, and we look forward to continuing our partnership in support of sustainable groundwater management in Madera County.

Warm regards,

**Hannah Ake** Senior Program Manager, Groundwater Accounting Platform  
California Water Data Consortium  
[hake@cawaterdata.org](mailto:hake@cawaterdata.org)



**ALETA ALLEN**

Madera County GSA

**A:** 200 West Fourth Street

Madera, CA 93637

**E:** [aleta.allen@maderacounty.com](mailto:aleta.allen@maderacounty.com)

Date: June 12, 2025

Subject: OpenET Support for High-Quality, Transparent, Reproducible ET Data in support of Water Measurement for Madera County

Dear Ms. Allen and Selection Committee,

On behalf of OpenET Inc., we would like to express our commitment and support for providing high-quality, open-source, transparent, and reproducible field-scale evapotranspiration (ET) data in support of water measurement and groundwater sustainability goals in Madera County. Our ongoing mission is to produce and make these important datasets available in a way that allows Madera and any of its partners the ability to easily incorporate them into user-centered tools (e.g., dashboards, reporting) and other products. This data is publicly available at [ETData.org](http://ETData.org) and through an API, and would serve many of the existing needs articulated in the RFP. We currently provide ET and precipitation raster data on a monthly timestep.

Notably, we have been working with the California Department of Water Resources over the past year to further develop and refine our data and API access for use broadly across the state of California. Through this partnership, we are able to offer these data freely to users statewide, including Madera County. We have also collaborated with partners such as the California Water Data Consortium and the Groundwater Accounting Platform initiative to implement projects similar to those described in your RFP, with successful outcomes in terms of greater transparency and trust in water measurement data amongst GSA stakeholders. We would be happy to discuss additional services related to the data's use and integration with Madera's programs. Please let us know if you have any questions or would like to discuss these collaborative opportunities further.

Sincerely,

A handwritten signature in black ink that reads "Sara Larsen".

CEO, OpenET Inc.

**OpenET Inc.**  
**304 S. Jones Blvd Suite 1332**  
**Las Vegas, NV 89107**  
**[www.etdata.org](http://www.etdata.org)**



June 11, 2025

Aleta Allen  
Madera County GSA  
200 West Fourth Street, Madera, CA 93637

**Subject:** Service Model and Pricing for the Groundwater Accounting Platform

Dear Aleta Allen and Madera County Committee Members:

Environmental Science Associates (ESA) is sending this Letter of Interest regarding deploying the Groundwater Accounting Platform as a potential solution for Madera County's user-facing groundwater tracking and allocation interface.

Over the past several years, ESA has led the development, configuration, and deployment of the Groundwater Accounting Platform for GSAs across California. This open-source software solution, developed in collaboration with the California Water Data Consortium, Environmental Defense Fund, and Olsson, has been successfully deployed or demonstrated in the Merced, Turlock, Yolo, Pajaro, and Kern subbasins.

ESA is available to provide the following professional services to support deployment of the Platform for Madera County GSAs:

### **1. Up-front Configuration**

This service includes the full setup of a dedicated instance of the Platform for Madera County, including:

- Initial configuration of the Merced sub-basin in the cloud hosted environment;
- Configuration of grower facing dashboards, including display of accounts, farm units, water accounting logic, and APN-level display features;
- Integration with Madera County's existing Data Management System, leveraging pre-existing schema;
- Import of historical and current water accounts, fields, allocation and usage data.

This phase has a typical cost range of \$25,000–\$100,000 depending on policy complexity and data readiness. For Madera County's scale and complexity, ESA recommends budgeting **\$75,000** for initial implementation.

### **2. Customization (Optional, Project-Based)**

The Platform is designed to meet most GSA needs out-of-the-box. However, should Madera County identify new functional needs (e.g., integration of unique billing workflows, automated data integrations, or enhanced scenario tools), ESA can scope and deliver additional development on a time-and-materials basis.

Customization efforts are **not required** for base deployment, and any additional feature development would be estimated separately based on detailed functional requirements.

### **3. Platform Subscription**

Once deployed, ESA offers a hosted, managed Platform environment for Madera County on a subscription basis. This includes:



- Secure cloud-based hosting;
- Regular software maintenance and feature upgrades;
- 6 hours/month of technical support and help desk access;
- Real-time monitoring, cloud infrastructure, and service level guarantees;
- Unlimited user accounts and data storage.

Per ESA's pricing tiers, Madera County qualifies as a High Tier Geography (over 120,000 acres and/or complex policy logic), with a standard Platform Management Fee of \$4,000 / month.

### **Looking Ahead**

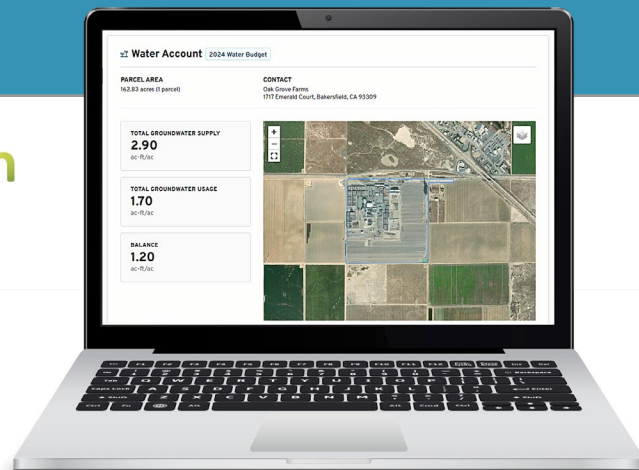
ESA invites Madera County to join the growing Groundwater Accounting Platform user community. Please review the attached datasheet for more details about the benefits of this full-featured platform. We look forward to the possibility of supporting implementation efforts and exploring alignment with your selected measurement services and data management teams.

Should the County wish to review a live demonstration of the Platform, request a draft scope of work, or receive references from peer GSAs using the system today, please do not hesitate to reach out.

Sincerely,

A handwritten signature in black ink, reading "John Burns", written in a cursive style.

John Henry Burns, Technology Services Manager  
Environmental Science Associates  
[jburns@esassoc.com](mailto:jburns@esassoc.com) | 503-805-1245



# Groundwater Accounting Platform

## Leverage Data to Better Understand and Manage Water Supply, Usage, and Trading

Climate change and population growth are driving many communities to make tough decisions about water use. It is more important than ever that water managers and agricultural water users have access to the best possible data to balance supply and demand. ESA is deeply involved in the challenge to chart a sustainable future for water resources. The Groundwater Accounting Platform is the result of a partnership with Environmental Defense Fund, California Water Data Consortium, Olsson, and ESA. The platform was initially created for the Rosedale-Rio Bravo Water Storage District in California and is now being deployed to other markets.

The Groundwater Accounting Platform enables water managers, landowners, and water users to track water budgets and usage in near real-time. The platform includes modules for supply and demand modeling and water trading, providing a complete set of tools for local water districts to better manage allocations over time. Because it is open-source software, this platform provides a springboard for water districts everywhere to launch and customize their own solutions.

## Benefits

### → Measure

Enable water managers and agricultural users to understand their water use and available supply in near real-time

### → Manage

Empower well-informed decision making with advanced modeling

### → Plan

Create and manage Allocation Plans and evaluate management scenarios

### → Support Sustainability

Meet regulatory objectives for your region

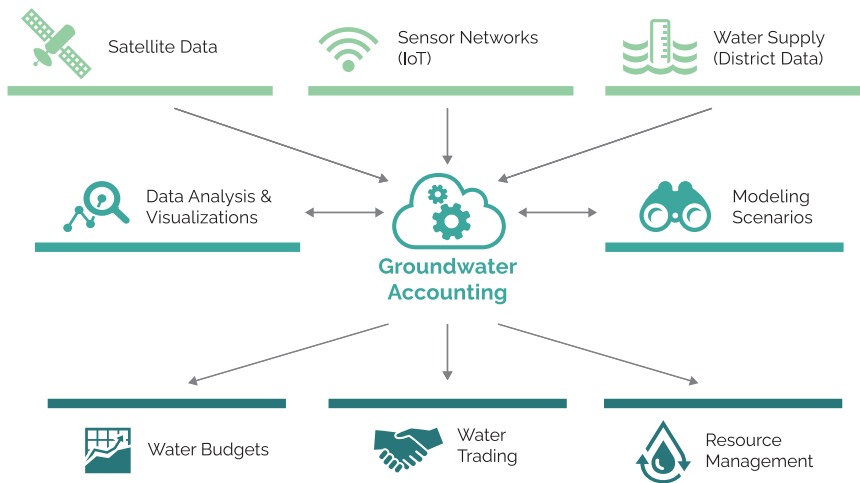
*"We developed this accounting and trading platform because we want to provide landowners and growers with as many tools as possible to manage their water more sustainably and balance their water budget."*

— Eric Averett | Former General Manager, Rosedale-Rio Bravo Water Storage District

# Data Driven Decisions

## Manage Water Supply and Demand

The Groundwater Accounting Platform accepts water supply data from a variety of sources including satellite, flow meters, and sensor networks. This software combines water supply and use data to help track water budgets at the field scale for water users. The platform also features a water manager dashboard to track and account for water across a district or region, which informs management decisions such as billing and allocation planning.



## Key Platform Functionality

- Track water usage from any remote sensed and metered data source
- Account for available water supply, including allocations, recharge, and other credits
- Visualize water usage at the field, parcel, and account scales with grower-facing dashboards
- Generate mail-ready Usage Statements and bills
- Well inventory and grower-facing Well Registration workflow
- API for flexible integration with existing tools
- Configurable Zones for flexible analysis and reporting
- Integrate with remotely-sensed raster data files from any provider
- Integrate with meter data via CSV, allow growers to manually upload or telemetrically upload meter data
- Model the hydrological impacts of various allocation, usage, trade, and recharge scenarios with the optional Groundwater Evaluation Toolbox (GET) from Olsson
- Facilitate pooling, transfers, and recharge credits according to local policies

## Key Clients and Partners



Rosedale-Rio Bravo  
Water Storage District



Merced Irrigation-Urban  
Groundwater Sustainability Agency



Pajaro Valley Water  
Management Agency



Yolo County Flood Control and  
Water Conservation District



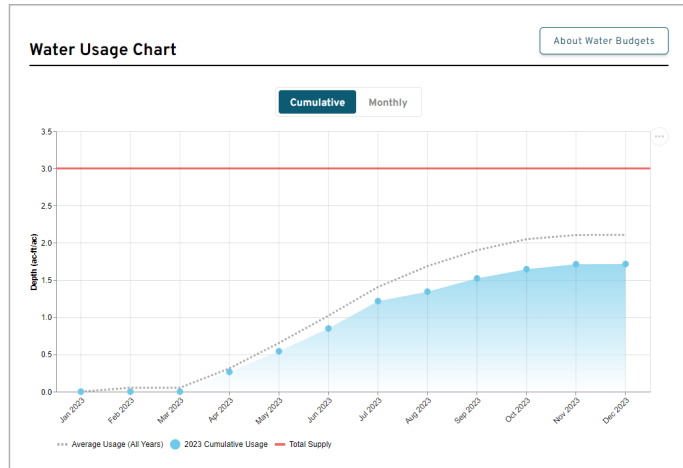
Merced Subbasin  
Groundwater Sustainability Agency



East Turlock Subbasin  
Groundwater Sustainability Agency



# Groundwater Accounting Features



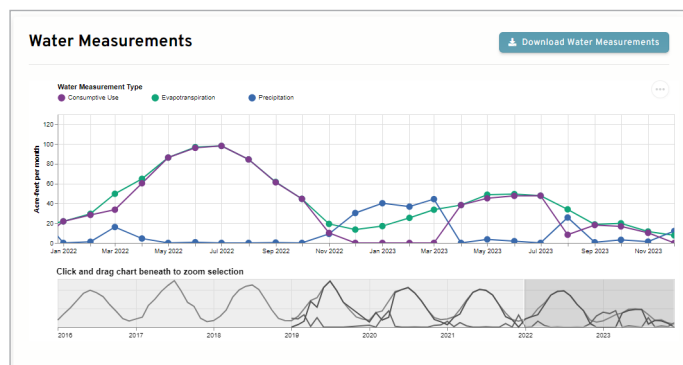
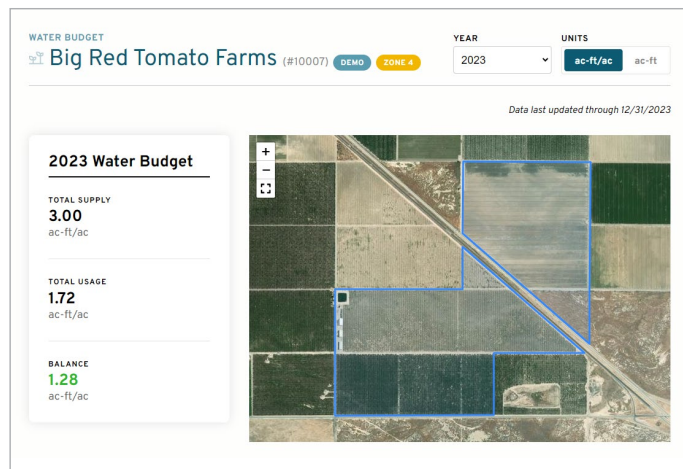
## Landowner Dashboard

### Key Benefits

- Landowners can understand usage and supply in real time to make better informed decisions
- Users can manage allocations month over month and create data-driven water budgets
- Growers can analyze water usage by parcel

### Features

- Review water allocation
- Review water usage to date and current available supply, just like a bank account
- Track cumulative water usage over time, and monitor monthly usage trends
- Review water use data specific to each parcel
- Review buying and selling activity for your account (with the optional Trading Module)
- Review water usage via interactive map tool
- Secure login to individual landowner accounts



## 2023 Water Budget

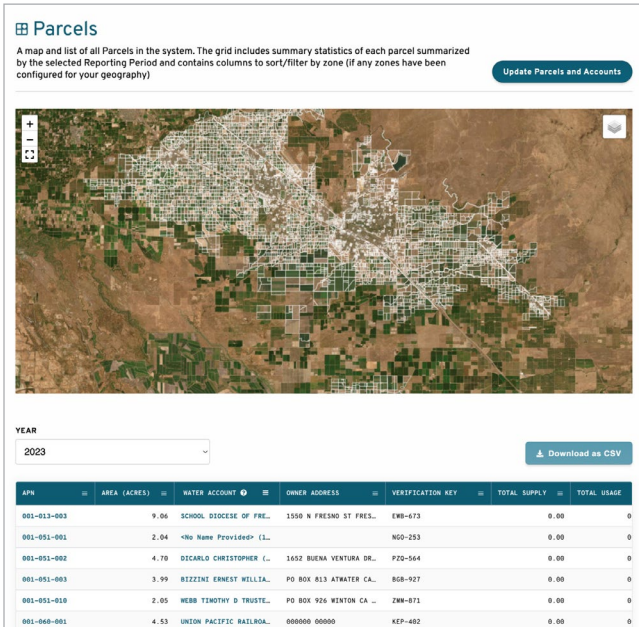
**TOTAL SUPPLY**  
**3.65**  
ac-ft/ac

**TOTAL USAGE**  
**1.86**  
ac-ft/ac

**BALANCE**  
**1.79**  
ac-ft/ac



# Groundwater Accounting Features



## Water Manager Dashboard

### Key Benefits

- Water managers can monitor groundwater use and account for customers' water usage
- Real time data empowers adaptive management to achieve compliance with water supply regulations

### Features

- Review water allocations and usage for every parcel and water account managed on the platform
- Review cumulative supply and usage data across your region/jurisdiction
- Track usage over time, by account and district-wide
- Review district trading activity (with the optional Trading Module)

## Scenario Planning

This feature leverages the [Groundwater Evaluation Toolbox](#) (GET) designed by Olsson

### Key Benefits

- Scenario modeling helps users evaluate the hydrological impacts of groundwater pumping
- Potential management decisions can be evaluated in advance for long-term benefits and impacts
- Automated groundwater model integration with water accounting framework allows evaluation of actual and hypothetical allocation and trading scenarios

### Features

- Leverage fully integrated geospatial data to model a wide variety of scenarios including trading, recharge, drawdown, etc.

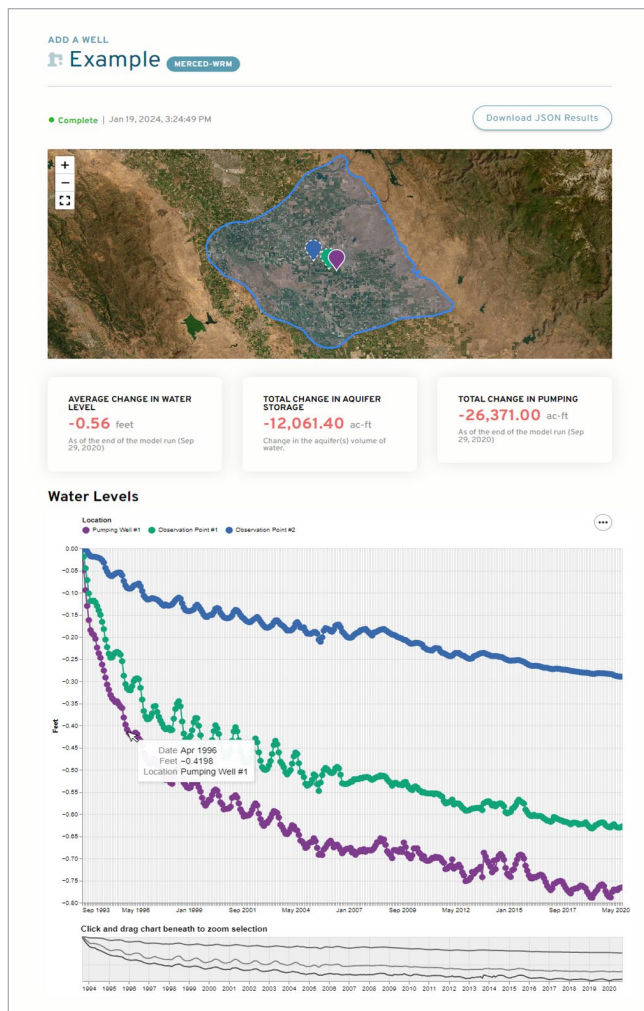
## Trading Module

### Key Benefits

- A managed local marketplace gives water users a viable economic alternative to "use it or lose it" model

### Features

- View posting details from water buyers and sellers
- Create postings with offers to buy or sell water
- Post counter-offers and negotiate online
- Register completed trades
- Track market metrics



# Join the Groundwater Accounting Platform Community

## Designed to Help California Water Users Meet SGMA Goals

In 2019, Environmental Defense Fund (EDF) joined forces with California Water Data Consortium (Consortium) to commission a software solution to help California water users meet their goals for sustainable groundwater usage under the State's SGMA legislation. Environmental Science Associates (ESA) and Olsson worked together to build the Platform and manage the first deployment to Rosedale-Rio Bravo Water Storage District in California's Central Valley. The success of that deployment has cultivated a robust network of new users and supporting resources. Platform development has been supported by the California Department of Water Resources and the Platform user community.

## Licensed as Open-Source Software to Facilitate Adoption and Collaboration

Open source software avoids vendor lock-in and is available for anyone to modify, enhance, and update over time. Because the Groundwater Accounting Platform is open source, upgrades and new features added by one organization will benefit all organizations. Open-source software additionally encourages users to participate in an open user-community. The Groundwater Accounting Platform User Community meets quarterly to prioritize new feature development, guide the product roadmap, and share best practices.

## Supported by a Collaborative Product Team

Four organizations work together to support and fund ongoing development and deployments for the Platform. EDF, the Consortium, ESA, and Olsson share a commitment to help new users adopt this software and join the user group community. Users benefit from the collective knowledge and resources of these four organizations serving as product advocates.



## Learn More:

*Visit the Platform*



<https://www.groundwateraccounting.org>

*See the Introductory Video*



[https://www.youtube.com/watch?app=desktop&v=Wwwf\\_R28EPk](https://www.youtube.com/watch?app=desktop&v=Wwwf_R28EPk)

## Contact the Product Team:

- Platform Demos and Pricing Information
- Coordination and Community Outreach
- Technical Information and Specifications

► [info@groundwateraccounting.org](mailto:info@groundwateraccounting.org)