



COLUSA AND GLENN GROUNDWATER AUTHORITIES

Colusa Subbasin

Well Monitoring Pilot Program

January 25, 2021

Well Monitoring Pilot Program

- Program Overview and Funding
- Program Objectives
- Program Activities and Timeline
- Eligibility Criteria and Selection Process
- Next Steps
- Questions and Discussion

Overview and Funding

- Overview
 - Collect Groundwater Extraction Volumes
 - Collect Water Levels
- Current Funding
 - Funded through DWR Proposition 68 Grant
 - Estimated Budget ~\$66k*



Program Objectives

- Encourage Stakeholder Engagement/Involvement in Groundwater Sustainability Plan (GSP) Development
- Test Program Design and Equipment
- Learn about Irrigation Management Technologies
- Incorporate Available Data into GSP Development
- Identify and Evaluate Options for Basin-Wide Implementation

Program Activities and Timeline

- Application and Selection: January – March
 - Application Deadline: February 26, 2021
- Participant Agreement: March – April
- Deployment: March – April
- Monitoring: Three years following deployment

Flow Meters

- McCrometer
 - Water Specialties
 - McPropeller
- SeaMetrics
 - Ag3000
- Others, As Approved



Telemetry

- Components
 - Datalogger
 - Solar power supply
 - Cellular modem
 - Online data platform
- Provider
 - Ranch Systems (www.ranchsystems.com)
 - Others, as approved

Ranch Systems (www.ranchsystems.com)

- RS130 Telemetry Node
- Two Input Sensors
 - Flow Meter
 - Pressure Transducer
 - Expandable to Add Others
- Optical Sensor for Existing Mechanical Meters
- Mobile, Tablet, and Computer Access



Incentives

- Eligible Costs
 - Data Logger and Telemetry
 - Pressure Transducers
 - Flow Meters (up to \$2,500)
- Grant Funds Cannot Be Paid to Participants Directly



Eligibility Requirements

- Potential Participants Agree to:
 - Allow Groundwater Sustainability Agencies (GSAs) to make information collected publicly available
 - Allow GSA representatives to make site visits
 - Participate for a period of three years

Eligibility Requirements (continued)



- Potential Participants Agree to:
 - Install approved flow meter and access tube for pressure transducer in well casing, if not already present
 - Maintain cellular service for monitoring equipment telemetry during three-year enrollment period (~\$15/month)
 - Manually report pumping data during three-year enrollment period, in the event of device failure

Selection Criteria

- Selection will Consider
 - Location within the subbasin (desire to enroll participants in both Glenn and Colusa counties)
 - Presence of an existing flow meter installed per manufacturer specifications
 - Water source (fields relying primarily on groundwater preferred)
- Other Considerations
 - Number of wells per participant
 - First come – first served

Other Considerations

- Number of Wells per Participant
 - Limit to one well per participant, unless funding remains after initial selection is complete
 - For participants submitting multiple applications, highest scoring well included in initial round of selection
- First Come – First Served
 - If more than one well has the same score, and only one can be funded, select first application submitted

Informational Flyer

- Background
- Program Description
 - Activities
 - Incentives
 - Equipment Providers
 - Timeline
- Contact Info. for Questions
- Funding Acknowledgement



The flyer is titled "Colusa Subbasin Well Monitoring Pilot Program Participant Information Form". It features the Colusa Subbasin logo at the top left. The content is organized into several sections: "BACKGROUND" explaining the program's goal, "PROGRAM DESCRIPTION" with sub-sections for "Activities" and "Incentives", a list of responsibilities for participants, a "Timeline" of key dates, and a "QUESTIONS?" section with contact information for both Colusa and Glenn Groundwater Authorities. A central collage of four photos shows agricultural fields, a wellhead, and construction equipment. A green box at the bottom right contains funding acknowledgements from the State Department of Water Resources.

Colusa Subbasin Well Monitoring Pilot Program
Participant Information Form

BACKGROUND

The Colusa Subbasin Groundwater Sustainability Agencies (GSAs) are implementing an incentive-based pilot program to work with interested growers and landowners to continuously monitor groundwater use and water levels at participating wells. This voluntary, non-regulatory program is intended to support the GSAs in gathering information regarding groundwater use in the subbasin while providing participants with near-real time access to information on well production and groundwater levels at their wells to support irrigation management.

PROGRAM DESCRIPTION

Activities

Interested parties are invited to submit a brief application describing contact information, location, cropping, and other information related to the proposed groundwater well. Following the receipt of applications, participants will be selected considering certain criteria. Participants agree that the well location and information collected may be made publicly available. Participants also agree that GSA representatives may make site visits to inspect wells, verify installation, and collect manual measurements as needed.

Incentives

The program will cover the purchase cost of a flowmeter or upgrades to an existing flow meter (up to \$2,500), if needed, purchase and installation of a pressure transducer (to monitor groundwater levels), datalogger, solar panel, cellular modem, and a 3-year subscription for web and mobile access to data gathered. Program participation may be extended beyond 3 years, as mutually agreed.

Participants will be responsible for:

- Installation of flow meter per manufacturer specifications
- Installation of access tube for pressure transducer in well casing
- Monthly cellular modem costs (approx. \$15 per month)
- Manual reporting of pumping data, in the event of device failure

Timeline

- **January 2021:** Applications Accepted
- **February – March 2021:** Participants Selected, Agreements Executed, Wells Inspected, and Equipment Installed
- **April 2021 – October 2023:** Wells Monitored

QUESTIONS?

For more information, please contact:

Colusa Groundwater Authority
Mary Fahy, CGA Program Manager
530-458-0719 • mifahy@countyofcolusa.com

Glenn Groundwater Authority
Lisa Hunter, GGA Program Manager
530-984-6540 • lhunter@countyofglenn.net

Funding for this project has been provided in full or in part from the Water Quality, Supply, and Infrastructure Improvement Act of 2014 and the California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access for All Act of 2018 (Proposition 68), and through an agreement with the State Department of Water Resources.

Participant Application

- Simple, 1-Page
- Information Requested
 - Applicant Contact
 - Location
 - Acreage, Crop(s) Served, Irrigation Method
 - Presence of Flow Meter
 - Estimate of Relative Reliance on Groundwater vs. Surface Water
 - Willingness to Share Information Collected
- Participant Agreement under Development

A sample of the "COLUSA SUBBASIN WELL MONITORING PILOT PROGRAM APPLICATION" form. The form includes the following sections:

COLUSA SUBBASIN
COLUSA SUBBASIN WELL MONITORING PILOT PROGRAM APPLICATION
Application Deadline: February 26, 2021

Thank you for your interest in the Colusa Subbasin Well Monitoring Pilot Program. Please provide the following information. Note that landowner must be up to date with their GSA operations fee.

Participant: _____
Address: _____

Contact Name: _____
Contact Phone: _____
Contact Email: _____

Location Description, including parcel number (please also provide a map showing well location and field(s) served): _____

Acreage Served by the Well: _____
Crop(s) Grown: _____
Irrigation Method (drip, microspray, sprinkler, etc.): _____
Is the well currently equipped with a flow meter (circle one)? Yes / No.
If so, is it installed per manufacturer specifications (circle one)? Yes / No.
(Please provide photographs of meter, upstream conditions, and downstream conditions.)
Is surface water available for the area served by the well (circle one)? Yes / No
If surface water is available, on average, what is the estimated percent of crop irrigation needs met by groundwater? _____
Additional Information: _____

Do you agree to allow information collected to be shared by the GSAs (circle one)? Yes / No
Do you agree to allow GSA representatives to visit your well site (circle one)? Yes / No

January 19, 2021

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Next Steps and Contact Information

- Application, Selection, and Enrollment
- Equipment Deployment
- Initiate Monitoring Activities

- GSA Contacts
 - Colusa Groundwater Authority: Mary Fahey, Program Manager
 - (530) 383-4625 ; Mfahey@countyofcolusa.com
 - Glenn Groundwater Authority: Lisa Hunter, Program Manager
 - (530) 934-6540; Lhunter@countyofglenn.net

Questions and Discussion