

****DRAFT IDEA****

Sierra Valley Groundwater Cross Sectional Analysis

Background: The Upper Feather River Watershed Coalition is planning to sample 5 drinking water wells for only nitrate-nitrite in Sierra Valley in early 2021. The farmers and ranchers involved in both the Coalition and Sierra Valley Ground Water Management District saw potential value in the water testing for the development of the Sierra Valley Groundwater Management Plan, thus UC Cooperative Extension has developed this proposal for additional information. Publicly available groundwater data from within Sierra Valley is current absent, and this information will help guide decisions around the development of the Sierra Valley Groundwater Management Groundwater Plan, specifically the section on Groundwater Conditions and Sustainable Management Criteria.

Overview: Conduct a cross-sectional case study of groundwater irrigation wells and domestic drinking water wells in Sierra Valley (15 wells total). This unbiased assessment of the quality of untreated groundwater from both personal domestic drinking wells and irrigation wells will be used to inform decision makers on the development of the Sierra Valley Groundwater Management Plan and Irrigated Lands Regulatory Program.

Principle Investigator:

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Collaborators:

Private Well Users and Agricultural Ground Water Pumpers in Sierra Valley
Upper Feather River Watershed Coalition
Sierra Valley Groundwater Management District – *pending funding approval*

Laboratory: Basic Laboratory Chico - 3860 Morrow Lane, Suite F - Chico, CA 95928, approved by Water Board under Environmental Laboratory Accreditation Program.

Form(s): Landowners will need to complete the Central Valley Regional Water Quality Control Board Irrigated Lands Regulatory Program Drinking Water Well Member Information form.

https://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/drinking_water/dw_member_info.pdf

SPECIFIC FORM FOR GROUNDWATER DISTRICT?

Landowners who participate in the irrigation well and domestic drinking well testing acknowledge that the results of the study will be public information.

Timeline Estimate:

	February		March				April				May				June			
<i>Week</i>	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Identify Funding	█																	
Well Owner Outreach					█													
Data Collection							█											
Data Analysis & Report											█							
Provide Landowners Individual Data												█						
Draft Report for Funder Review														█				
Finalize Report															█			

Budget: The proposal is to collect samples on a total of 15 wells, representing both irrigation wells and private domestic drinking wells.

Constituent	Sample Cost	UFRWC	SVGWD
Nitrate + Nitrite	\$42	\$210	5
TDS	\$41		15
Arsenic	\$24		15
Boron	\$24		15
Mileage		\$200	\$500
Supplies (ice, copies, printing, bottles and mailing)		\$100	\$245
TOTAL		\$510	\$2,500