



Clear Lake Blue Ribbon Committee

Continuation of Limnological Sampling Clear Lake, CA

January 2023

Project Title: Limnological Sampling Clear Lake, CA (*Continuation, part 2,...*)

Project Description:

Continuation of monthly ambient monitoring of Clear Lake in all three arms as part of the Clear Lake Ambient Monitoring Program (CLAMP). Since 1968, the California Department of Water Resources (DWR) has conducted ambient water quality monitoring and sampling of Clear Lake in 3 locations: the Upper, Lower and Oaks arms of the lake. Data derived from this sampling allows the State, County, Tribes, and other impacted local organizations to identify and track key nutrients and potential contaminants. This publicly available water quality information is essential for making water quality management decisions for Clear Lake and dependent downstream areas, including the Cache Creek Watershed and ultimately, the California Delta.

Due to funding shortages in 2020, DWR terminated their monthly ambient water quality monitoring program in Clear Lake. County of Lake Water Resources Department (i.e. Watershed Protection District, herein "Lake County")) has continued an abbreviated monitoring program in the lake, although this is a burden on a department located in a disadvantaged community that does not receive general funds.

A relatively small investment in a consistent water quality monitoring program has significant management and research implications. Without some assistance, the valuable information collected from this program, which is vital to the success of any actions produced by the Blue Ribbon Committee, will be lost and impossible to attain. This loss will likely impact not just Lake County water quality management efforts, but also the 17 Public Water Systems and an unknown number of small and private drinking water supply operations around Clear Lake, downstream water users, and the environment.

With general funds, this project will include three major tasks:

- 1) Project Coordination (Management, Reporting, and Accounting)
- 2) Water and Sediment Sample chemical Lab Analysis (through Alpha Labs in Ukiah and UC/Davis TERC Labs)
- 3) Sampling labor and field supplies, and funds to conduct data QAQC and upload into CEDEN/WQX. Field supplies include reagents, calibration materials, buffers, probes, probe replacements, tablet accessories, sample bottles, sampling gear like lifejackets and gloves.

These funds would provide 3 years of continued monitoring support for Lake County, and partners, to continue sampling and analyzing ambient lake conditions for a variety of physical, chemical, and biological parameters.

Project is always open for community involvement and participation, boat and field trips and education. We would gladly take anyone willing to participate in sampling and to see Clear Lake from the middle of the Lake!!

Data from this project is currently stored, and would continue to be stored in CEDEN under the projects:

“Clear Lake Limnological Ambient MP – LCWRD Sampled” and

“Clear Lake Sediment Nutrient Monitoring”

This data also gets transferred to WQX when CEDEN crosswalks are updated to perform this task.

Project Timeline:

Timeline for project. Ideally, break down the timeline by phases. Example below for a multi-year project (your proposal may be shorter term)

- **Year 1:** Grant coordination, Sampling, data consolidation, QAQC and data upload. Reporting.
- **Year 2:** Sampling, data consolidation, QAQC and data upload. Reporting.
- **Year 3:** Sampling, data consolidation QAQC and data upload. Reporting.

Projected Budget:

Funds would go to support sampling staff support, chemical analysis for both water and sediment nutrients, data analysis support for data management, needed equipment, reagents, and field tools, supplies. Funds would also support technical support to QA/ QC Data and upload into state and federal databases (CEDEN and WQX).

Overall Budget amount:

3 year project Estimated Total: \$512,718

Requested CNRA funds: \$452,718

Lake County WPD Match/ Contribution: \$68,200

Any overages needed to make this project successful will be sourced from Lake County Water Resources Lakebed Management funds as contribution.

CNRA COST ESTIMATE - PLANNING PROJECTS - Lake County Ambient Limnological Sampling					
Task #	PROJECT ELEMENTS	Estimated Costs	General Fund Grant	Internal Funds Match (Personnel, Overhead & Indirect Charges)	Funding Source (specify)
	Planning, Coordination, Outreach				
	<i>Deliverables: Task 1.0 Project Management (3 years)</i>				
1.1	Project Management	12,927	12,927		County Internal Match
1.2	Project Reporting	2,000	2,000		

1.3	Accounting	3,591	3,591		
	Task Sub Total	\$ 18,518	\$ 18,518		
	Assessments and Data Collection (SubContractors)				
	<i>Deliverables Task 2.0 Lab Analysis (sub-contractors)</i>				
2.1	Alpha labs Water nutrients analysis	189,000	189,000		
2.2	UC Davis/ TERC Sediment analysis	150,000	150,000		
	Task Sub Total	\$ 339,000	\$ 339,000		
	<i>Deliverables Task 3.0 Sampling labor & Supplies</i>				
3.1	District Labor to conduct Sampling (water & sediment)	135,000	75,000	60,000	County Internal Match
3.2	District Labor to QAQC & upload Data	8,200	8,200	8,200	
3.3	WQ instrument Accessories (reagents, buffers, probes, etc.)	12,000	12,000		
	Task Sub Total	\$ 155,200	\$ 95,200	\$ 68,200	
	Grand Total	\$ 512,718	\$ 452,718	\$ 68,200	

Contact Information:

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Additional Information:



