

# **REQUEST FOR PROPOSALS**

FOR ENGINEERING SERVICES TO PREPARE WATER SYSTEM HYDRAULIC MODEL  
AND MASTER PLAN  
FOR THE  
EBBETTS PASS WATER SYSTEM

**Receipt of Proposals due before: 2:00 p.m. PST on February 20, 2025**



## **CALAVERAS COUNTY WATER DISTRICT**

120 Toma Court  
San Andreas, California 95249  
(209) 754-3543 • [ccwd.org](http://ccwd.org)

January 13, 2025

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## EXHIBITS

The **Exhibits** (proposal reference documents) have been assembled in separate Adobe pdf files. Reference documents listed in table below. Please request via email.

Proposal Reference Exhibits	
1.	Professional Service Agreement (PSA).
2.	System Maps/Vicinity Map
3.	Urban Water Management Plan
4.	Risk and Resilience Plan
5.	2005 Master Plan (2013 System Evaluation Update)

## **I. GENERAL INFORMATION AND BACKGROUND**

The Ebbetts Pass water System serves multiple communities along the Ebbetts Pass/Highway 4 corridor that range in elevation from approximately 3,000 feet to over 5,300 feet with a large percentage of second homes. The system consists of 65 pressure zones, 15 storage tanks, 9 pumping stations, one water treatment facility and over 130 miles of distribution mains. In 2005, a water master plan was developed during the housing boom with more optimistic projections, then in 2013 a system evaluation was completed which made small modifications to the 2005 Master Plan. Since 2005 the District has invested heavily in the Capital Improvement Program within the Ebbetts Pass Water System with Storage, Distribution and Treatment Improvements. The District has also completed the installation of Advance Metering Instructure that provides more accurate usage information for all customers over the last couple of years. The District maintains GIS-based Mobile MMS system that depicts most of the Distribution Assets.

## **II. PROJECT GOALS**

The purpose of this Request for Proposals is to facilitate the selection of a qualified Engineering Firm to build a new Hydraulic Water Model and Master Planning Document for the entire Ebbetts Pass Service Area. The existing water model has numerous flaws, is outdated and District is transitioning from ESRI-based modeling software to Water CAD. Additionally, the Master Plan will need to evaluate water supply and demand for an emergency interconnection(s) with neighboring water agencies.

## **III. PROPOSED PROJECT SCHEDULE**

The District anticipates the following project schedule by milestones.

### **PROPOSED PROJECT SCHEDULE MILESTONES**

<b>Milestone</b>	<b>Date</b>
<u>Consultant Selection</u>	
Project RFP	January 13, 2025
RFP Questions and Answers	January 14 – February 14
Proposal Deadline	February 20, 2025
District Review, Selection, and Staff Recommendation	February 26, 2025
Board Approval and Contract Award (FY 2024-25)	March 12, 2025
<u>Engineering Services</u>	
Compile Data and Begin Modeling Process	March 2025
Complete Draft Hydraulic Water Model	June 2025
District Review and Comment on Draft Hydraulic Water Model	July 2025
Finalize Hydraulic Water Model	July 2025
Master Plan Preliminary Document	June 2025
Complete Master Plan Document	August 2025

#### **IV. APPROACH AND SCOPE OF SERVICES**

This Section describes the nature and scope of the engineering services to be provided and tasks to accomplish those services. The District expects the Consultant to work closely with District staff throughout the project by correspondence and regular meetings to accomplish their scope of work. The Districts Water System Master Plan will require the selected consultant to perform all necessary analyses, modeling and documentation to evaluate the Districts existing water system facilities and infrastructure, water supply sources and demand projections, evaluate potential future emergency interconnections, provide recommendations for installation of new infrastructure, and rehabilitation and replacement of existing infrastructure for the next 20 years.

##### **A. OBJECTIVES**

Consultant will ensure continuous control of the project in terms of staffing, budget, schedule and scope; promote communication within the project team. Items covered under this task include:

1. Evaluate and summarize the existing water and planned system facilities
2. Develop a 20-year water demand projections consistent historical AMI Metering Information, and Urban Water Management Plan when practical.
3. Evaluate and Summarize the District Water Resources, Water Treatment Plant, and water Distribution System Infrastructure.
4. Evaluate the system for compliance with proposed and future regulations
5. Develop a calibrated Hydraulic Water Model
6. Develop Master Plan Key assumptions, including developing performance and operations criteria for evaluating water system capacity, summarizing criteria for a risk resiliency assessment, and establish criteria for identifying rehabilitation and replacement needs for next 20-years.
7. Comprehensive system evaluation that addresses treatment, distribution, storage, supply capacity, operational reliability, redundancy, rehabilitation, regulatory compliance and replacement needs for the next 20 years.
8. Develop a 20-year capital improvement program for recommended existing and future water system improvements based on existing and future needs.
9. Evaluate potential emergency intertie demands on the distribution and treatment plant system and point of supply.
10. Evaluate the system for Fire Flow Capacity.

##### **B. SCOPE OF WORK**

The Consultant will define the approach and the specific scope of work. The Proposal shall include a detailed description of all project tasks, including those suggested in the scope of work and any proposed changes, additions or recommendations.

Scope of work should include the following:

1. Kick-off Meeting with Consultants staff to allow for introduction of the project team and review the scope and discuss the schedule.
2. Inventory and evaluate the existing District Facilities. The District can provide available records and improvements that have been made. Review PRV pressure information the District has available.
3. Review Calaveras County land use projections for the service area to be incorporated into the report.
4. Develop recommended system performance criteria.
5. Construct a new hydraulic model of the distributions system in Water CAD.
6. Field verification of key model attributes.
7. Perform distribution system modeling evaluation to identify hydraulic deficiencies and plan for distribution improvements.
8. Evaluate the Water Treatment Plant for proposed upgrades to filtration, treatment and disinfection.
9. Perform water age analysis as it relates to disinfection byproduct formation (DBP) and provide recommendations to reduce DBP formation.
10. Analyze existing rates and review potential funding.
11. Develop capital improvement program alternatives and schedule.
12. Meet with District staff to present initial findings.
13. Monthly progress meetings to provide status updates.
14. Prepare draft and final Master Plan Report.

The Master Plan shall include sections that address the following:

1. Executive Summary
2. Existing System
3. Growth Projections
4. Demand Characterization
5. Existing and Future Regulations
6. Water Storage and Supply Capacity
7. Fire Flow Capacities.
8. Water Pumping Station Evaluations
9. Distribution/Treatment System Evaluation
10. Water Supply and Reliability Evaluation
11. Water Distribution Modeling Evaluation of Existing Demand, Future Demand, Fire Flow and Emergency Interconnections Evaluation.
12. Recommended 20-year Capital Improvement Program
13. Analysis of Rate as it relates to Capital Improvement Program.

**Deliverables:** Draft and final design report, hydraulic model, and attendance of a draft design report review meeting. The final design report shall address District comments, questions, changes, or decisions regarding draft report.

**V. ORGANIZATION AND CONTENT OF PROPOSAL**

**A. SUBMITTAL INSTRUCTIONS**

Proposals shall be submitted electronically to Calaveras County Water District **no later than 2:00 p.m., February 20, 2025.** The Proposal shall assemble as a single Adobe® pdf file. Paginate proposal for two-sided printing at the District office. Paper size limited to 8-1/2”x11” (ANSI B) with figures, drawing, etc. no greater than 11”x17” (ANSI C).

Proposals attached to email are limited to 50 megabytes in size. Proposal delivery using a file “cloud” sharing site, or similar, is acceptable provided the District receives a HTTP or FTP link and download instructions. The District will notify the Consultant upon receipt and successful download. No hard “printed” copy of the proposal is required.

Email proposal, or link for file download to the attention of:

Kevin Williams, P.E.  
 Senior Civil Engineer  
 kevinw@ccwd.org  
 office: (209) 754-3184  
 cell: (209) 419-3979

**B. ORGANIZATION AND CONTENT**

Contents of proposal shall be organized in the sections listed in the table below.

PROPOSAL ORGANIZATION

Section	Content	Page Length
Cover Letter	Statement of interest and qualifications including agreement to PSA requirements.	1 to 2
A	Project Overview	1 to 3
B	Understanding and Approach	1 to 4
C	Team Organization	1 to 2
D	Project Schedule	1 to 2
E	Representative Project Experience	1 to 5
F	Labor Estimate	1 to 2
G	Project Team Resumes	as required

**Cover Letter.** The cover letter shall include both a state of interest and a statement of qualification. Acknowledgement and acceptance of the terms and requirements of the District Professional Service Agreement shall be included.

**Project Overview.** Provide a narrative description of the project based on the scope of services and proposed schedule presented in this Request for Proposal (RFP). The District will assess your understanding of all aspects of the project based on the overview.

**Understanding and Approach.** The description shall include details to implement the tasks described in the scope of service and any recommended revisions to the list of tasks. The approach should recognize, address, and provide for resolution of all aspects of the project.

**Team Organization.** The proposed consultant team shall be identified including project manager, and project engineer. Key tasks and the associated personnel shall be identified. The percentage of time devoted to this project for these key personnel shall be stated and guaranteed. A consultant team organization diagram shall be included.

Any proposed subcontractors shall be identified; tasks assigned, and experience included similarly to the firm's own project personnel. The successful Consultant should be comfortable working in a structured team setting with District Staff.

**Project Schedule.** A project schedule for the project shall be submitted with the proposal. All major outputs and meetings shall be included in the schedule. Time shall be allocated for District review, typically three weeks for each deliverable.

**Representative Project Experience.** Provide a summary of experience of similar projects that the firm and the proposed team have completed. The description of each project should include the year(s) during which the work was performed. The firm's role in the project should also be described. Include the name, title, and phone number of the primary contact person at each facility or project location listed.

**Staff Labor Estimate.** Provide a staff estimate of time for each task to permit the District to determine the level of detail and the number of management, engineering, technical, drafting and support personnel hours envisioned for each task. Estimates of hours for each staff classification shall be provided for each task.

**Project Team Resumes.** A resume of key team members shall be included. Each resume should include a description of projects in related areas. At minimum, resumes of the Consultant's project manager and those of the engineering staff shall be included.

## **VI. EVALUATION AND SELECTION CRITERIA**

Consultant proposals will be evaluated by District staff members including the District Engineer, Director of Operations, General Manager, and Senior Engineer. Proposals will be evaluated by each

reviewer with each proposal receiving a weighted score. Each evaluator’s weighted score will be tabulated and the firm with the highest combined score will be selected and recommended to the District Board. If two or more proposals are similarly ranked, and no clear decision can be made, the District will request interviews before final selection.

PROPOSAL EVALUATION WEIGHTED CRITERIA TABLE.

Criteria	Evaluator’s Score (0 to 5)	Score Weight (Multiplier)	Evaluator’s Weighted Score
Project Understanding and Approach		5 (25%)	
Project Management		3 (15%)	
Project Team and Staff Qualifications		4 (20%)	
Related Project Experience		3 (15%)	
Schedule and Production Capability		5 (25%)	

*Maximum weighted score = 100.*

\*\*\* END OF RFP \*\*\*



