



Yuba County, CA – Wastewater

Project Location: Yuba County, CA

Team Members Needed: A full team has already been recruited, consisting of an EWB-USA student chapter, and a professional engineer who is equipped to provide the engineering stamp for the project's deliverables. However, additional expert support is needed to provide local, in-person support to the students. Community Engineering Corps is looking to add one volunteer who can provide in-person mentorship to the student team, and help bring the project to completion.

All applicants must be located in the New York metropolitan area, and be able to meet with the student chapter on a regular basis. Preference will be given to applicants with a PE in California.

Project Background: Residents of a small, rural community in Yuba County, CA, run a non-profit company that is shareholder owned and fulfills the community's water and wastewater needs. This utility has operated in partnership with RCAC, California Rural Water Association, and the California Department of Water Resources to evaluate the water system's performance and leak detections, which ultimately resulted in a pro-bono water system assessment from a local engineering firm.

The community has 58 residential lots, of which 26 are developed. There are currently 26 active users of the water system who own septic systems on their approximate $\frac{1}{3}$ acre lots. These systems were originally built in the 1960s.

Given the age of the systems, the tanks are outdated and in need of replacement. Rather than replacing the existing tanks with new, individualized septic tanks, the community is looking to assess the feasibility of establishing a centralized wastewater system.

Description of the Community: The predominantly Latino community is comprised of low and fixed income residents. The greater Yuba County area has a 15.5% poverty rate, and the community has stated that they do not have the funds to hire engineering services to perform the study.

Project Scope of Work: In order to facilitate planning for future wastewater management, the community is looking for support with assessing centralized wastewater treatment alternatives to address current community-wide septic systems challenges. Additionally, produce Preliminary Engineering Report (PER) summarizing alternatives, capital improvement costs, long term O&M costs and rates adjustments, and making a recommendation on path forward. The PER will be used for a future funding application. This will culminate in an alternatives assessment and PER for a centralized wastewater system to replace existing septic tanks.

The community's preference is for a low-energy system like a constructed wetland, lagoon, community septic, advanced ecologically engineered system ("living machine"); however, a conventional activated sludge plant should also be considered.

Timeline: There is not a deadline, but we are hoping to complete this as soon as possible.

Contact: If you are interested in volunteering for learning more, please contact us at CECinfo@ewb-usa.org.