

Commission Agenda Item May 6, 2026

Account: 501703 53689
Project: Removal of grit and inorganic debris from aeration basins
Amount: \$500,000
Description: Asking for an amendment to the budget to fund project.

At an activated sludge wastewater treatment plant (WWTP), the core of the biological process occurs within the aeration basins. We currently operate four of these basins, which are critical for meeting our discharge requirements. However, over time, debris and grit accumulate at the bottom of these tanks, reducing their effective volume and hindering the mechanical equipment's ability to function at peak efficiency.

While our headworks include a grit removal system designed to capture these solids, it is not 100% efficient. Fine grit often passes through, and occasional mechanical failures at the headworks allow even more material to bypass into the secondary treatment stage. When this accumulation becomes excessive, it triggers significant operational challenges. The most critical issue we face is the incomplete removal of ammonia. Furthermore, debris buildup can lead to insufficient dissolved oxygen (DO) levels and spikes in Enterococci bacteria, Biochemical Oxygen Demand (BOD), and Total Suspended Solids (TSS) all of which are strictly regulated permit parameters.

To maintain optimal performance, our objective is to clean one basin per year on a rotating schedule. Unfortunately, we have consistently fallen behind this target due to several compounding factors:

- **Financial Constraints:** Last year, a cleaning project was halted midway because the volume of debris was far greater than anticipated. This, combined with a significant rise in service costs since our previous cleaning cycle, caused us to exceed our available budget.
- **Budget Depletion:** In other instances, routine and unplanned emergency repairs have exhausted our maintenance funds before a purchase order for basin cleaning could be finalized.
- **Weather and Capacity:** Our facility cannot sacrifice treatment capacity during prolonged wet weather. Frequent rain forecasts have forced us to cancel scheduled cleanings to ensure we can handle increased hydraulic loads.

Securing this specific funding would provide the necessary resources to complete the unfinished cleaning from last year and allow us to thoroughly clear a second basin. This investment is essential to restoring our treatment capacity, ensuring permit compliance, and protecting the long-term health of our infrastructure.