

GES Biotek Upgrades 14,000 CFM Biofilter System

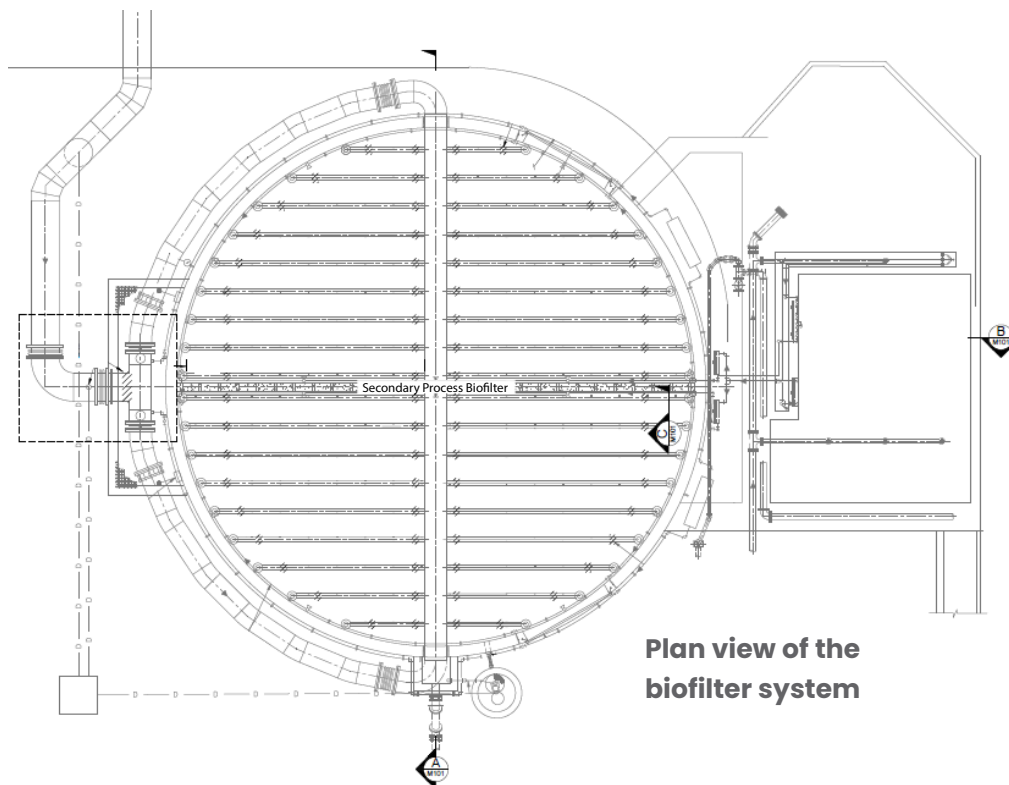
Featuring Cell-Max™ and Enhanced Cell-Max™ Plus Media Technology

GES Biotek has successfully completed the supply of **Cell-Max™** and **Enhanced Cell-Max™ Plus** media for the rehabilitation of the existing biofilter system at the **Vallejo Flood and Wastewater District Wastewater Treatment Plant**. The upgraded system is designed to treat 14,000 cubic feet per minute (CFM) of odorous air collected from secondary treatment process areas.

The retrofit involved a full media replacement within the existing 55-foot diameter biofilter bed. The lower diffuser media layer, originally utilizing **GES Crater-Max®** media, was replaced with **GES Cell-Max™** — a rigid, open-cell, inorganic substrate engineered for consistent airflow distribution and high structural integrity. Above the diffuser layer, the exhausted **GES Fiber-Max™** media was replaced with **GES Enhanced Cell-Max™ Plus** media, a proprietary blend formulated to support diverse microbial populations, promote biological oxidation, and maximize odor removal efficiency.

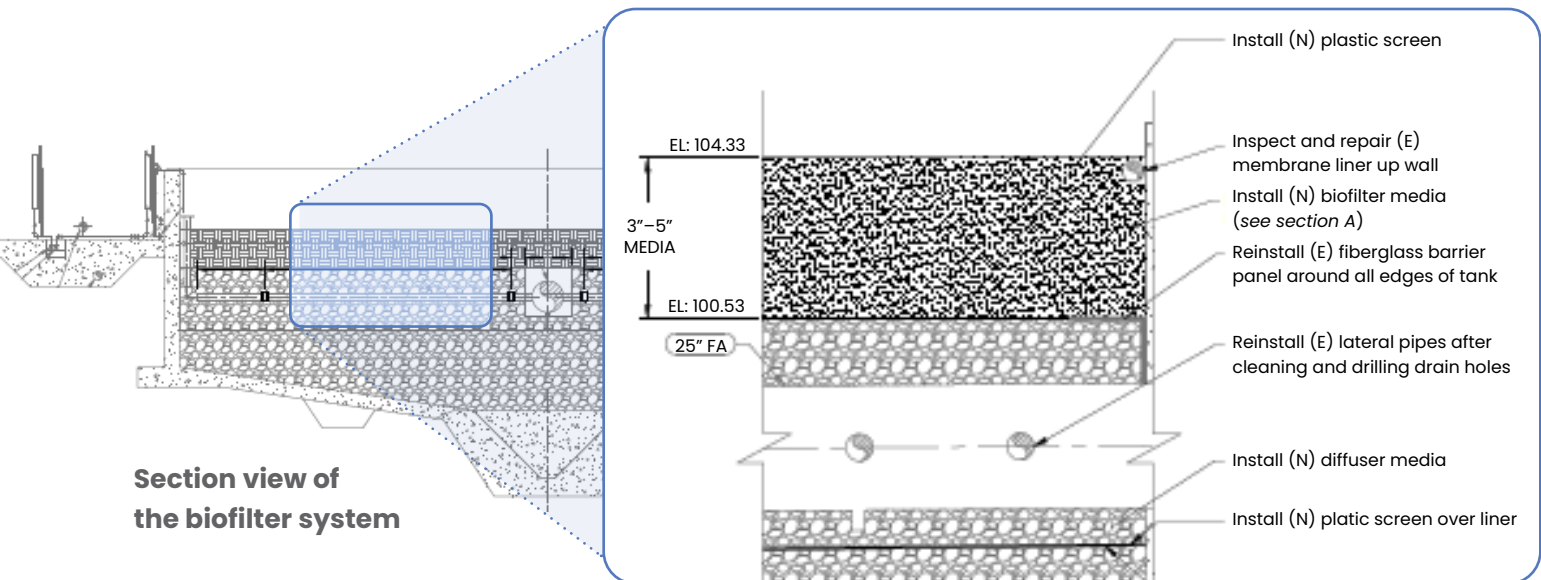


Aerial view of the Vallejo Wastewater Treatment Plant Biofilter



A new **TenDrain geonet barrier screen** was installed between the **Cell-Max™** and **Enhanced Cell-Max™ Plus** layers to prevent media migration, maintain stratification, and ensure long-term system performance and serviceability.

This upgrade provides improved airflow characteristics, reduced pressure drop, and optimized conditions for biological treatment of hydrogen sulfide (H₂S) and other reduced sulfur compounds—delivering reliable, passive odor control with minimal maintenance.



This project underscores **GES Biotek's** commitment to advancing sustainable, high-efficiency odor control solutions through the use of engineered media technologies. By combining performance, durability, and environmental responsibility, **GES Biotek** continues to meet the evolving needs of modern wastewater treatment facilities while supporting long-term operational and environmental goal.

Cell-Max™

Utilized as the air-rock diffuser layer, **Cell-Max™** offers a highly porous structure that enhances both airflow distribution and microbial activity within the biofilter. Its configuration allows for uniform air flow and supports the microbial communities responsible for odor compound degradation.



Geonet Barrier Screen

A high-density polyethylene (HDPE) **Tendrain Geonet Barrier Screen** was installed to maintain separation between the **Cell-Max™** diffuser layer and the biofilter media. This component enhances structural integrity while ensuring efficient airflow and preventing particle migration within the biofilter system.

GES Biotek — Good for People, Good for the Environment

Enhanced Cell-Max™ Plus

This inorganic, engineered media replaced the previous wood chip substrate, significantly improving biofilter system efficiency.

Enhanced Cell-Max™ Plus is optimized for high surface area and porosity, promoting advanced microbial growth and sustained H₂S adsorption, making it highly effective in environments with elevated H₂S concentrations.

