



About Us: Pre-treating Wastewater in the Collection System Improves Treatment Economics



In the early 20th century, the methods of biological treatment were devised and now form the basis by which wastewater plants function. How do they work? Microorganisms act to catalyze the oxidation of biodegradable organics and other contaminants generating innocuous byproducts such as carbon dioxide, water and biomass (sludge). In simple terms, naturally occurring bacteria remove organic carbon based waste compounds by 'eating' them. During this process the bacteria clean the wastewater by converting the organic compounds in the



wastewater into water, carbon dioxide, nitrogen and more bacterial cells which are finally separated from the clean effluent stream. Today, this metabolism occurs primarily within the confines of the treatment plant, which has inherent limitations of size, retention time and processing capacity.

Sewage Treatment Solutions engineered technology augments this fundamental biological wastewater treatment process by adding a highly concentrated, carefully selected blend of beneficial bacteria at strategic locations throughout the wastewater collection system. This technology enables the wastewater treatment process to begin outside the limited confines of the treatment plant making the entire wastewater conveyance and treatment system function more efficiently. The collection system bioaugmentation program is engineered to address the dynamic nature of the sewage by delivering bacteria into the sewer system twenty four hours a day, 365 days a year. The feasibility of this approach requires introducing highly-concentrated, well-suited bacteria that can be delivered continuously and economically to the targeted treatment areas. The added bacteria must cause a beneficial change, and then maintain performance despite the continual addition of the indigenous 'bad' bacteria in the wastewater. Sewage Treatment Solution effectively transforms miles of sewer pipe into an active, beneficial part of the wastewater treatment process optimizing the entire infrastructure. This improves operating economics without additional capital expenditure. Since it uses natural, biological methods that work with the treatment plant's own processes, Sewage Treatment Solutions is a sustainable, economical solution.

Service Offering

Sewage Treatment Solutions provides engineered wastewater treatment services to municipalities and industries worldwide. Sewage Treatment Solutions engineers a solution for each customer based on a full system review and includes turnkey installation, service and maintenance.



Unmatched Expertise

- Process Engineering
- Wastewater Treatment Plant Design Optimization
- Microbiology Laboratory
- Project Management
- Control Systems (SCADA) Programming and Remote Monitoring
- Microbial Production



Proven Improvements

- Reduce Influent Loading
- TSS 30%
- BOD 50%
- Ammonia 50%
- Total Nitrogen 30%
- Reduce Sludge Disposal 50%
- Reduce Energy Consumption 30% to 60% (KwH)
- Control H₂S Odor & Corrosion
- Control Fats, Oils, & Grease (FOG)
- Increase Plant Capacity

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