



## Missouri City Wastewater Treatment Plant

Missouri City, Texas



### Project Summary

Missouri City initiated a bioaugmentation program to reduce influent load, energy costs and sludge production at their wastewater treatment plant (WWTP). The program was also designed to control fats, oil and grease, (FOG) accumulation and odour in the collection system.

### Project Strategy

A treatment strategy was designed, installed and maintains forty three dosing units for the collection system. The biological blend of facultative anaerobic bacteria form a biofilm inside the sewer pipes which initiates treatment of the wastewater in the sewer system during conveyance to the WWTP. The treatment also inoculates the influent wastewater with heterotrophic wastewater bacteria that enable a greater degradation of organics' and lower oxygen requirements than normal wastewater bacteria.

### Results

After eighteen months of collection system bioaugmentation treatment the WWTP has observed the following positive changes:

- 30% Reduction in Influent CBOD Load
- 14% Reduction in Effluent TSS Load
- 65% Reduction in Effluent Ammonia Load
- 31% Reduction in Gallons of Sludge Pressed



### Project Profile

#### Summary at a Glance

**Project Initiated:** June 2011

#### Service Objectives:

- Control Collection System FOG and Odour
- Reduce Influent CBOD and TSS Load
- Improve Effluent Quality
- Reduce Energy Use and Sludge Production

#### Performance Summary:

- 30% Reduction Influent CBOD Load
- 14% Reduction Effluent TSS Load
- 65% Reduction Effluent Ammonia Load
- 31% Reduction Sludge for Disposal (Gallons)

### AFORDABLE EFFICIENCY

Sewage Treatment Solutions  
P.O. Box 5294  
Westlock, AB, T7P 2P4  
Phone: 780-307-7657  
[www.stsolutions.ca](http://www.stsolutions.ca)