

Proving Cost Effectiveness based on a Price-Performance Evaluation

PROJECT OVERVIEW

In 2009, the City of Florence, under the direction of City Public Works Director Mike Miller, commissioned a study to explore treatment methods that could provide value-added processing for the town's biosolids.

▪ Ownership:	City of Florence, Oregon
▪ Location:	Florence, Oregon:
▪ Start-Up:	Demo Project: 2010 / Phase I: 2012 / Phase II: 2016
▪ Product	SG Mobile® with Gore Covers
▪ Input quantity:	200 tons per batch (100 tons per heap)
▪ No. of Heaps:	2 Heaps, 50ft x 20ft x 9ft each
▪ Treatment time:	8 weeks in 3 phases 4 weeks in Phase 1 – Covered 2 weeks in Phase 2 – Covered 2 weeks in Phase 3 – Uncovered
▪ Aeration:	In-ground (previously Above-ground):
▪ Control Parameters:	Oxygen Control Mode
▪ Input material:	Biosolids
▪ Equipment:	Front-end-loaders / Alu Front-end Mixer for Bobcat / Rock Screen
▪ End product:	High Quality Finished Compost: FloGro Compost

FLORENCE WASTEWATER TREATMENT FACILITY

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PROJECT CHALLENGES & RESULTS

In 2009, the City of Florence, under the direction of City Public Works Director Mike Miller, commissioned a study to explore treatment methods that could provide value-added processing for the town's biosolids.

Specifically, the study compared technologies that could produce Class A biosolids with the goal of finding a solution that would eliminate the need to haul the city's biosolids 75 miles over a mountain pass to a landfill.

The evaluation team studied: thermal drying, composting and thermal / lime treatment. They chose composting and specifically Covered Aerated Static Pile (CASP) Composting as the best option.

After investigating various CASP methods, in 2010, the City ran a pilot demonstration project using the SG Mobile® System with GORE® Cover because it did not require dedicated construction nor hard-wired equipment.

The pilot was successful in proving that this system could produce a Class A product, meet pathogen requirements and Vector Attraction Requirements (VAR). The City of Florence also concluded that the SG system provided the most cost effective solution based on a Price-Performance evaluation.

In 2012, the City applied for and was awarded a Lane County Waste Diversion Opportunity Grant for \$100,000 to support a small-scale biosolids composting facility. The City of Florence selected Sustainable Generation, LLC to provide an SG Mobile® System with GORE® Covers utilizing above ground aeration.

The system was implemented in the winter of 2012 by a team from SG and the City of Florence Wastewater Treatment Facility. The system enabled the City of Florence to produce up to 600 tons of Class A biosolids compost per year.

In 2014, the City of Florence moved the SG Mobile® System to a dedicated asphalt pad and installed in ground aeration piping.

In 2016, the City of Florence added a second SG Mobile® System enabling the operation to produce 1,200 tons of Class A biosolids compost per year.

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City of Florence gives the compost away for free to residents of Florence, Oregon. The compost is very high quality, and under the direction of Public Works Director Mike Miller, it has been labeled as FloGro compost.

At each giveaway, there has been a line at the gate prior to the giveaway and the product is completely gone within two hours. This illustrates the demand for and quality of the FloGro product.

The City of Florence is exploring the development of a larger scale facility utilizing the same technology.

PROJECT IMAGES

