

Best Practices

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Taking Wastewater Management to the Next Level

The City of Lawrence has been receiving some extraordinary attention regarding its innovative wastewater management programs and techniques. The City was honored recently in two awards categories at the Environmental Protection Agency's (EPA) National Clean Water Act Recognition Awards Ceremony in Washington, D.C.

The first award received by the City was the Operation and Maintenance Award (*Large Facilities*) - *First Place*, which recognizes outstanding and innovative technological achievements, proactive involvement of wastewater facility staff, outstanding compliance with regulatory requirements, and program/system sustainability.

The second award received by the City of Lawrence was the Biosolids Management Award (*Small Projects*) - *First Place*. This honor recognizes outstanding biosolids management programs on the basis of sustainability, public acceptance efforts, environmental sensitivity, and regulatory compliance beyond the requirements.

"These are the highest honors given by the EPA to the wastewater industry each year, and the City of Lawrence is honored to receive such national recognition," said Jeanette Klamm, Residuals Coordinator, City of Lawrence.

The starting point for much of these awards and attention is the City of Lawrence's early participation in the National Biosolids Partnership's Environmental Management System (EMS) program.

Formed in 1997, the National Biosolids Partnership is an alliance of the National Association of Clean Water Agencies, Water Environment Federation, and the U.S. Environmental Protection Agency.

The partnership was started to essentially "raise the bar" by serving as a model for the wastewater profession. The partnership created the EMS program as a modern management approach based on continuous improvement which is used to develop, implement, and monitor environmentally sustainable practices.

EMS helps wastewater facilities be efficient, responsive, and protective of

by Mark Tomb

the environment, while at the same time encouraging public input and verifying results through independent audits.

The City of Lawrence was one of the original 27 charter demonstration agencies and became the 10th (and smallest) city in the nation to be certified under the program.

Biosolids

Biosolids are nutrient-rich treated solids derived from the wastewater treatment process. Biosolids, when properly treated and monitored, are suitable for recycling/reuse, usually as a fertilizer or soil additive.

In Lawrence, their award winning biosolids program provides an exceptional soil product for farmers and gardeners while providing a safe and environmentally friendly way to dispose of the material leftover from the wastewater treatment process.

The city operates and maintains a 12.5 million gallons per day wastewater treatment plant that serves nearly 90,000 customers. This results in roughly four dry tons of biosolids per day produced by the plant. The material is dewatered with 2.2 meter belt presses and transported by conveyor to storage bays located adjacent to the facility.

Approximately 90% of the biosolids produced in Lawrence provide nutrients for agricultural uses. The farms that are supplied with the materials are located within 15 miles of the treatment plant, and provide coverage for between 400-700 acres per year.

The City does not currently charge farmers for transporting and applying the product to fields, however, the City still enjoys a cost savings if the material had to be transported and disposed of in a landfill.

Currently, there are seven farmers actively participating in the program; however, land availability has not been a challenge for the program. Application sites are not

contracted, but rather are rotated according to the farmer's preference, needs of the facility, time of year, and land availability.

Public Distribution

While roughly 90% of the biosolids are used for agriculture, the remaining 10% undergoes more extensive drying, turning, testing, and treatment. What is left is provided free-of-charge to local gardeners in seasonal giveaways as well as used by the City for landscaping purposes.

The City of Lawrence has a long history of providing biosolids to area residents. Agricultural applications and public distributions have been the primary recycling methods for biosolids produced by the City's wastewater treatment plant for decades.

Nationwide, some community biosolids programs have faced rather limited demand from the public because of misperceptions. Public acceptance is something that can be a hurdle for some distribution programs, but the demand in Lawrence for biosolids is growing.

"A long history and track record of safe applications have certainly contributed to the high level of public acceptance for our biosolids program. But also contributing to this public acceptance is the commitment the city has made to public education. We regularly distribute information at area festivals and make numerous community presentations on biosolids each year," said Klamm.

For both general and highly technical information on biosolids and biosolids distribution programs visit www.biosolids.org. Additional information on the City of Lawrence's biosolids program can be found at www.lawrenceutilities.org/Biosolids.shtml.

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