



*City of Lawrence*  
UTILITIES

# 2009 Annual Report

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### A. Accomplishments

The Utilities Department continues to make improvements to better serve our customers and provide good quality drinking water and environmentally sound wastewater treatment practices. Related changes include bringing both water treatment plants under one manager for more consistent operations, cross training for field crew staff for more flexibility, and training in-house instrumentation and control technicians for better control and cost savings.

These changes helped us use our resources better, serve the public better, and be safer. These efforts made strides toward addressing citywide goals during 2009. Citywide goals specifically impacted include adding water and sewer services to areas to enhance economic development, decreasing our negative impact on the environment through excellent regulatory compliance, and dependable and excellent quality customer service.

The department remains ISO 14001, OHSAS 18001, and EMS for Biosolids certified. In June, this program was expanded to include ISO 9001 for product and service quality. The department is the only water and wastewater agency in the nation to reach this level. This combined management system helps in decision-making, planning, and to measure progress toward goals and improvement.

### B. Programs and Projects

The department manages many programs and projects that will accommodate room for future growth, improved service, and provided general repair in 2009. Some of these include:

- Completed Stoneridge Water Tank for 1.5 million gallons of added drinking water storage.
- Completed expansion of the Clinton Water Plant. This added treatment ability for 15 million gallons of drinking water more each day.
- Completed the West Baldwin Creek sewer line to allow growth in the northwest part of the city.
- Began design for Pump Station 25 to allow growth in the southeast part of the city and near the current industrial park.
- Began design for Pump Station 9 added storage.
- Began airport water line project to allow water service and growth for areas near the airport.
- Replaced the chlorine gas with sodium hypochlorite at the Kaw Water Plant for a safer work and neighborhood environment.

- Continued addition of automation and alarms to the water plants, using in-house staff skills.
- Updated and trained on the department's emergency response plan.
- Continued the water main replacement program, based on age, condition, size, record of leaks, fire safety and water quality. Staff replaced 10,902 feet of water main.
- TV inspected 208,441 linear feet of sanitary sewer line.
- Lined over 19,690 feet of sewer lines.
- Had 9 sanitary sewer overflows, a 90% decrease since 2003.

The department continues to recycle biosolids, treated solids from wastewater, as a green alternative to land filling the nutrient rich by-product. Nutri-ject Systems hauls and applies the solids to area farm fields. Local farmers use biosolids as a fertilizer and soil conditioner on agricultural crops in the area. City residents use a dried biosolids compost material in gardens and landscaping projects to provide rich soil traits.

Lime residual is another by-product produced within the department through the drinking water treatment process. R.D. Johnson Excavating removes the spent lime from holding basins and uses it for fill and building base.



Left: The department raised the bowl on Stoneridge Water Tank in late fall. Stoneridge Water Tank will store 1.5 million gallons of drinking water when done. It is located at the northwest corner of 6<sup>th</sup> Street and Stoneridge Drive.

### C. Community Outreach

The department took part in various public outreach events in 2009. The department held public meetings for upcoming capital improvement projects, including the Delaware to New Hampshire sewer project that will soon begin, the Iowa Street water line replacement, and the Airport water/sewer line. All plants gave tours to schools and community groups. Public outreach generally focuses on specific topics.

An example of this is the normal practice of notifying homeowners of tree root and grease problems on their private line, when discovered during routine sewer cleaning and maintenance. Department staff notifies the customer through a door hanger containing a photo and letter explaining their private line problem.



Left: The University of Kansas set up a pilot project to grow algae for use in producing biofuel, as well as the algae's use of nutrients in wastewater effluent. The researchers are using effluent from the wastewater treatment facility for the project and working closely with staff. The results of the pilot project will be available sometime in 2010.

**D. Performance Measures and Other Statistics**

The department uses the following data as an example to judge how we are doing:

Measure	2009 Quantity	2008 Quantity
Sanitary sewer overflows	9	20
Manhole repairs	124	186
City line locates	8326	7876
Water line valves exercised	1702	323
Fire hydrants flow tested	1008	978
Water line installed (in feet)	10,902	11,783
Wastewater treated (in gallons)	3.827 billion	3.964 billion
Drinking water produced (in gallons)	3.460 billion	3.785 billion
Biosolids reused (in tons)	7233	7828
Biosolids reused (in percent)	100	100
Number of work orders addressed	1409	1998

**E. Audits and Compliance Reviews**

The department audits performance with both in-house and outside sources. Auditors review and measure the management system against international standards. The management system requires audits to look for ways to improve. The

2009 third party audit reported only minor findings that needed correction. The auditor also suggested other areas to improve. The department plans correction of all findings and look into the suggested areas to improve.

The department commits to a safe work place for staff, as well as the public. The department has safety training, provided by in-house safety assistants, as well as outside sources. Managers and staff continually look for areas to improve safety hazards and decrease risks.

The department reviews regulatory compliance on a routine basis. These reviews confirmed all drinking water quality requirements and wastewater permit requirements met.

F. Summary

The changes in 2009 resulted in improved service that the public can count on. The department plans more progress in these areas and others in the next year as it looks for ways to improve service and efficiency.



At left: Water distribution crew inspects a leak in the water main under the Kansas River Bridge. Parks and Recreation and Public Works staff assisted with the use of their bucket trucks to repair the leak. Good teamwork and quality staff in this emergency situation helped resulted in no loss of water service to north Lawrence.