

Executive Summary

Adequacy of Waste Reduction Practices in Kansas

December 2013

Background and Purpose

HB 2249 passed in 2013 directing KDHE to prepare a report for the Legislature that evaluates the adequacy of current waste reduction practices in Kansas and recommends the need for new laws or regulations to improve those practices. The directive to carry out this study was prompted by local rules adopted by Johnson County to restrict yard waste disposal in any landfill in the county as a way to conserve landfill capacity. The county action stimulated debate regarding the need for new state disposal restrictions to achieve statewide waste reduction goals and to ensure that all waste management service providers are subject to the same rules.

Methodology

In preparing this report, KDHE was directed to solicit input from interested stakeholders including waste generators. In addition, KDHE would assemble all relevant data to summarize the current waste management conditions in Kansas. An open online public survey was carried out in the summer of 2013 to assess public opinion regarding a variety of waste management issues (616 respondents). Feedback was also solicited from a variety of stakeholder groups and industry associations. The information obtained provided a thorough account of public opinion and current conditions and served as the basis for the assessment of current practices.

Current Conditions

Counties are required to prepare solid waste management plans that address waste reduction and recycling, but there are no statewide laws or regulations that mandate certain waste reduction practices or establish waste disposal restrictions. County officials working with their local planning committees have the flexibility to choose from many waste management options based upon site-specific conditions, available resources, and public preferences.

A variety of conditions, or factors, should be considered when evaluating the need for new waste reduction laws or regulations. The key factors that were considered for this study are listed and summarized below:

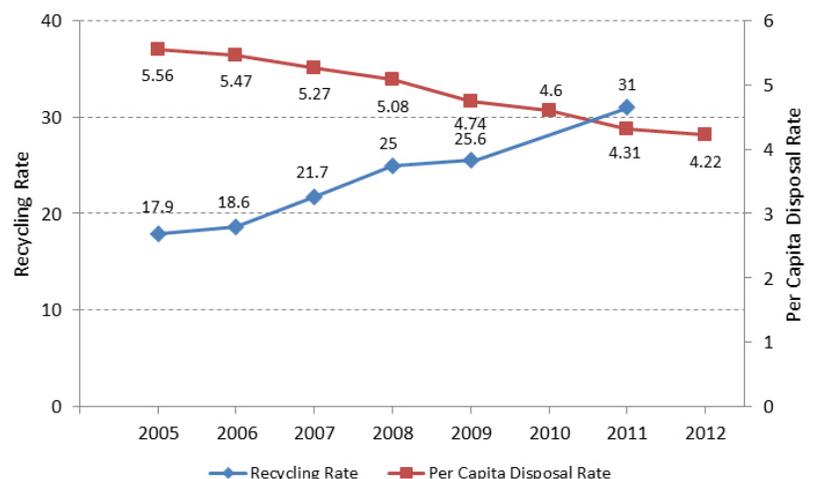
Municipal Solid Waste (MSW) Disposal and Recycling Trends.

Despite some small growth in state population, the amount of MSW landfilled in 2013 compared to 2006 decreased from 3.4 million tons to 2.7 million tons (nearly 20 percent). Some of the decrease may have been due to the economic recession; however, most has resulted from increased recycling. The adjacent table shows the MSW per capita disposal rate and the recycling rate.

Landfill Capacities in Kansas. There are 52 MSW landfills in Kansas with an unused permit capacity of 200,000,000 cubic yards or enough space to meet disposal needs for about 40 years. There is also potential to expand many of these facilities.

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Kansas MSW Recycling Rate and per Capita Disposal Rate Chart



Composting in Kansas. There are 165 permitted or registered central composting facilities in Kansas processing nearly 200,000 tons of organic waste per year (about 55 percent is yard waste). Yard waste generation in Kansas appears to be decreasing as a percentage of the waste stream as more people choose to mulch their grass and leaves and/or perform backyard composting. Composting facilities are operated by mostly cities and counties but some large facilities are run by private businesses. KDHE has estimated that 30-40 percent of collected yard waste is composted; the rest is landfilled.

Landfill Gas Recovery and Use. Fourteen MSW landfills have landfill gas collection systems where the methane is either used (5 facilities) or flared (9 facilities). More than 10 million cubic feet of gas is collected each day for beneficial use (both direct combustion and to generate electricity). At least two other large landfills are expected to begin collecting gas for beneficial use in the next few years. The remaining landfills are small and not subject to gas collection requirements.

Household Hazardous Waste (HHW) Collection. Kansas has had a model HHW program designed to collect household hazardous consumer products for nearly two decades. About 74,000 people voluntarily dropped off over 5 million pounds of HHW at 93 different facilities operated by Kansas counties and regional authorities in FY 2013.

Public Survey and Stakeholder Feedback

Feedback received through the public survey demonstrated that Kansans care about minimizing waste generation and disposal; however, the open survey results may not accurately represent the entire Kansas population. The percentage of respondents who worked for government (56 percent) was much higher than for the population as a whole (17 percent). A large majority of respondents believed that waste management practices had improved over the past ten years, but similar percentages believed we could do better statewide. Even though the survey respondents strongly believed that waste reduction decisions should be made by local officials, significant percentages believed that some new state laws or regulations were needed to result in improvements in recycling, composting, and HHW collection.

Separate stakeholder feedback, primarily from businesses involved in waste management but also from some members of the general public, challenged the perceived benefits of forced recycling and composting. Some comments supported the landfilling of yard waste rather than establish separate inefficient curbside collection routes, especially when the yard waste was to be disposed of at landfills that have gas collection/reuse systems.

Conclusions

Several factors have resulted in a major increase in recycling and composting over the past 20 years and the trend appears to be continuing. The current MSW recycling rate in Kansas is estimated to be very close to the national average of 34 percent and trends indicate more improvements are likely. The major factors that yielded these positive results are:

- The cost of disposal increased as a result of new state and federal landfill design and operational requirements.
- Many small local landfills closed when new rules went into effect in the 1990s; transfer became necessary.
- KDHE initiated the WORKS! Conference in 1995 to encourage and educate regarding recycling and composting.
- The state provided financial assistance for waste reduction project start-up through a special grant program.
- Local government officials were influenced by constituents and others to implement new programs.
- Private businesses and non-profits recognized and pursued business opportunities to implement waste reduction programs.
- Local government officials recognized the benefits of implementing waste reduction programs including cost savings in disposal and the conservation of landfill space.

Yard waste generation and collection varies significantly depending upon rainfall, community size, and affluence. A one size fits all approach to yard waste management is not appropriate. Efficient yard waste diversion to composting makes good sense where feasible, but landfill disposal where gas collection systems exist is also acceptable, especially since yard waste readily undergoes biodegradation and compacts in the process taking up little landfill air space.

Regulatory Options

KDHE developed three regulatory options for consideration by the Legislature:

Option 1 – Maintain current approach that combines education, training, and financial incentives to encourage public and private parties to implement and expand waste reduction programs. No additional waste reduction mandates.

Option 2 – Establish new state planning guidelines and requirements, in the form of new regulations, requiring counties to set waste reduction goals and thoroughly evaluate the feasibility of implementing enhanced waste reduction programs. Local decision-makers will continue to select new waste reduction programs based upon local needs, resources, and public opinion.

Option 3 – Establish new state laws and regulations requiring counties to develop and implement updated solid waste plans that adopt new waste reduction practices including things such as countywide yard waste management plans, curbside collection of recyclables for larger communities, required composting and HHW facilities in every county, and food waste collection plans for large generators. Counties could demonstrate that alternative waste reduction practices accomplish similar benefits to prescribed programs.

The comparative benefits of each option were assessed. Option 1 is expected to yield continued improvements, but slower than either Options 2 or 3. The anticipated maximum recycling rate under this fully voluntary approach is estimated to be between 40 and 45 percent. Option 2 will accelerate the increase in the recycling rate, but the ceiling level will be very similar to under Option 1. The end point recycling rate under Option 3 will likely exceed 45 percent and reach that level within just a few years. Based upon existing trends in the expansion of single-stream curbside collection of recyclables, it is possible that most larger cities will implement the programs required by Option 3 without new mandates.

KDHE Recommendation

Based upon all factors including current statewide waste reduction practices, existing trends that indicate continued improvements, landfill capacities, public opinion, costs, and projected benefits, KDHE recommends Option 1, which is to maintain the existing voluntary approach to waste reduction. This is a short-term recommendation through 2015 which will be when KDHE updates the state solid waste management plan. At that time, additional stakeholder feedback will be solicited, updated data will be evaluated, and further analysis will take place to determine if Options 2 or 3 should be reconsidered.

At this time, the costs and anticipated benefits associated with the pursuit of new laws or regulations do not justify their implementation. This includes the law/regulation changes proposed in Options 2 and 3 and other more stringent requirements.

The primary reason for KDHE's recommendation is the demonstrated performance of local government officials, private companies and the citizens of Kansas to voluntarily implement practices and behaviors that have significantly reduced the amount of solid waste sent to Kansas landfills. Waste reduction programs that have been implemented are practical and generally well-supported by the public. Mandated new programs have the potential to lessen efficiency and public support, while potentially adding environmental impacts if full life-cycle effects are considered.