

Tippecanoe County Solid Waste Management District Metrics May, 2020

Background

The Tippecanoe County Solid Waste Management District (TCSWMD) has redirected items destined for the landfill for decades. Citizens of Lafayette and West Lafayette have had curbside recycling service. Residents outside the cities could drop off recyclables at the West Lafayette single-sort recycling center or at bins located at East Tippecanoe Middle School, Southwestern Middle School or the town of Stockwell. TCSWMD offered residents the opportunity to drop off 60 kinds of hazardous materials to be safely discarded or repurposed. Best Way Disposal and Oscar Winski have been key business partners in handling the materials.

In May, 2019, West Lafayette closed its pre-sorted recycling drop-off center, and the County opened a new site on Best Way's property at N. 9th street. The county also directed Best Way to add a second collection bin at Southwestern Middle School and to increase the frequency of pick-ups at the remote bins from three times per week to 4 times per week. Prior to 2019, Best Way received the recyclables from county citizens and sold them to recycling companies at no charge to the TCSWMD. Since volumes have increased substantially, Best Way began receiving payment for the management and transportation of recyclables when total volume exceeded 500 tons per month and for the transportation of the additional remote bin pick-ups.

In 2018 cutting contamination of recyclables became an urgent need when China refused to take recyclables with more than 5% contamination. This changed processing requirements and increased the cost of recycling. Energy prices have been dropping as well, and the 2020 price is the lowest since 2003. Lower oil costs directly reduce the demand for recycled plastics and often have a ripple effect in reduced demand for recycled papers and metals.

Current Recycling and Hazardous Waste Metrics

Routine hazardous material collection has cost an average \$5,766 in 2020. In 2019, TCSWMD paid a total of \$69,350 for the collection and proper disposal of hazardous materials. This included \$4,578 per month for routine hazardous materials, \$12,514 for two e-waste collection days and \$1,905 for 5 months of used oil and fuel collection.

After many changes in early 2019, recycling costs became fairly consistent beginning in September. In the 8 months since then, TCSWMD has paid an average of \$16,858 per month for recycling. Details of the number and weight of bins collected is not yet available, but the N. 9th Street location collects substantially more than the remote locations. Sampling of the remote bins shows 51% good recyclables with the remainder consisting of trash, contaminated recyclables and bagged recyclables.

TCSWMD's recycling efforts have a measurable positive impact on the environment. Using standard conversion factors for co-mingled recyclables, 4800 cubic yards of material has been diverted from the landfill each month. That's the equivalent of one football field piled 8 feet high. Each month the volume of materials recycled has reduced greenhouse gases emissions the equivalent of taking 225 cars off the road for a year and left 3050 trees growing in the forest.

Priorities Moving Forward

There is a significant opportunity to improve the environmental impact and cost of TCSWD's recycling program by reducing contamination. Consistent and persistent communication plans along with improved signage should be a priority in 2020. A 35% reduction in contamination would take TCSWMD's weights below 500 tons per month and dramatically lower costs due to excess tonnage and transportation. Best Way and their recycling partners would benefit by reducing the hauling and processing costs, and fewer greenhouse gases would be emitted during transportation as a result. Better analysis of the recycling process may point to other possibilities to reduce environmental impact and cost by changing the types of recyclables and the end use of recyclables.