

Division of Solid Waste Management

2017 Summary



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Dutchess County Executive
A. Gregg Pulver
Chair of the Legislature

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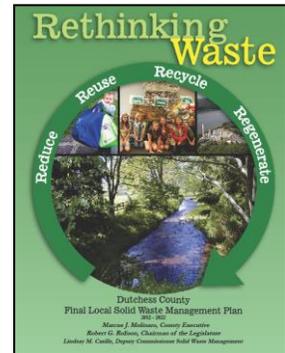
2017 Annual Summary

Dutchess County serves as a New York State designated local solid waste management planning unit. The Division of Solid Waste Management (Division), representing the Dutchess County Planning Unit, is responsible for the formulation and implementation of programs for the collection and disposal of solid waste generated within the County. Responsibilities include having a NYS Department of Environmental Conservation (DEC) approved ten-year Local Solid Waste Management Plan, biennial compliance reporting to NYS DEC, and enforcement of Local Law No 3 of 2014 Dutchess County Solid Waste Materials Management Rules and Regulations.

The Division liaisons with the Dutchess County Resource Recovery Agency (RRA), who oversees the waste-to-energy facility (WTE), and county, state, and federal agencies in reference to the operation, maintenance and safety of solid waste facilities. The Division is currently staffed by a Deputy Commissioner, Compliance Inspector and Recycling Educator.

In April of 2013, the Dutchess County Local Solid Waste Management Plan, *Rethinking Waste*, was adopted by Dutchess County Legislature and subsequently approved by New York State Department of Environmental Conservation (NYS DEC) June 2013. The ten-year plan for the management of solid waste has three main goals:

- Decrease solid waste generation;
- Increase reuse and recycling; and
- Convert the remaining waste to electricity and minimize the use of landfills for solid waste disposal.



RECYCLING, COMPOSTING AND REUSE

Recycling Rate:

A recycling rate is determined by totaling the amount of Municipal Solid Waste (MSW) and Construction and Demolition (C&D) debris disposed of, then totaling the amount recycled, and dividing the recycled amount by the combined total.

$$\text{Recycling rate} = \frac{\text{Total Recycled}}{\text{Total (Recycled and Disposed)}} \times 100$$

Rethinking Waste Projections and Actual Rates								
	2010 Actual	2014 Actual	2015 Actual	2016 Projected	2016 Actual	2017 Projected	2017 Actual	
MSW only recycling rate	22.9%	36.4%	36.4%	44.0%	37.7%	48.7%	40.6%	
MSW and C&D debris recycling rate*	26.4%	46.4%	43.8%	47.7%	43.7%	54.1%	44.2%	
Combined recycling rate with ADC ash**	N/A	60.7%	58.3%	N/A	58.0%	N/A	55.0%	
*Includes C&D debris used as Alternate Daily Cover (ADC) at landfills.								
** Ash used as ADC and ferrous metals were included in the recycling total and subtracted from the MSW incinerated total, to avoid counting this material twice.								
N/A = Not applicable.								

County-wide, approximately 138,622 tons of the total approximate 341,570 tons of MSW generated is recycled. 145,637 tons were converted to electricity (6,117 tons of this are metals, which are recovered and included in recycling) and approximately 52,000 tons were landfilled, primarily at the Ontario County Landfill located over 230 miles northwest of Dutchess County.

While our recycling rate continues to increase, it has not met the Local Solid Waste Management Plan's (Plan) projected goals. There are several reasons for this. One of the main reasons is the "evolving ton." What the industry is calling the evolving ton, means the weight of recyclables has decreased due to the decline in newspaper tonnage, plastics increasingly being used over glass and aluminum, and due to increasingly lightweight packaging being used. Recycling rates are calculated using weights, so while we may be recycling more, it will not be reflected in the recycling rate.

One of the projected increases of our recycling rate when doing the Plan, was the expectation that organics diversion and composting would significantly increase. When the Plan was written, it was expected that New York would follow other states, such as Connecticut and Massachusetts, in regulating organic/food scrap diversion for large generators. Our numbers show that we have increased organic diversion and composting, but the lack of regulations for diversion of organics for large organic waste generators has limited our success in meeting this particular recycling goal. New York State is currently considering passing legislation requiring the diversion and composting of large generators of food scraps, but as of this date it has not happened.

Organics Diversion:

The diversion of food scraps, leaves and brush for composting is an essential part of recycling, and increasing food scrap diversion is a critical component to increasing the County's recycling rate. Most municipalities collect brush and leaves on a seasonal basis, either curbside or through drop-off locations. The amount of leaves and brush composted at the municipal level is unknown, as most do not track

volume. The Division's recommended method of disposal for leaves and grass clippings is mulching (leaving them on the lawn), or through backyard composting.

There are several institutions that do divert food scraps from the waste stream, and the number has increased since the adoption of Rethinking Waste. In 2017, over 2600 tons of food scraps and 17,000 tons of yard waste from various sources were diverted. The following data, which is not all-inclusive, was reported to the Division for 2017:

- As noted in Rethinking Waste, all of the area colleges have robust recycling/sustainability programs, including food scrap diversion. Vassar College and the Culinary Institute of America contract with private haulers to transport their organics to a private composting facility, and Bard College composts onsite. Marist College installed a food pulper/dehydration system, which pulps and dehydrates food scraps, producing minimal residue which is sent to a water treatment plant.
- Grocery stores in the area, in addition to recycling over 3700 tons of cardboard and plastics, diverted over 600 tons of food waste, not including food donations.
- McEnroe Organic Farm is the only composting facility in the County that can accept food scraps in addition to yard and animal waste. They are currently permitted to process up to 40,000 cubic yards of materials a year.
- Zero to Go, a company in Beacon, collected and composted over 18 tons of food waste from local restaurants, residents and local special events. The main mode of collection was by bicycle.

Working with Cornell Cooperative Extension of Dutchess County Agricultural and Horticultural program staff, backyard composting was promoted through demonstrations and events. The Division purchased Earth Machine compost bins for resale to residents. This is in an effort to promote backyard composting.

FACILITIES

Recycling:

Approximately 85% of the County's single stream recycling (plastics, metals, and paper/cardboard) is processed at Republic Services recycling (previously ReCommunity Beacon), a privately-run single stream facility which opened in 2012.

There are several in-county facilities that recycle construction and demolition (C&D) debris, such as asphalt, concrete, brick, and clean wood. In 2017, of the more than 132,000 tons of C&D debris generated, over 70,000 tons of C&D debris was recycled, according to facilities that provide reports to the Division.

Transfer Stations:

The County currently has 18 transfer stations, which are facilities where MSW is unloaded from residents' vehicles and briefly held until transfer to the end point of disposal: a WTE, landfill or recycling facility. Three transfer stations are privately run, six are run through contract with a private company, and nine are municipally-run. Not all municipalities have a transfer station, and not all transfer stations accept residential garbage. County residents in fifteen municipalities have the choice of using a transfer station and/or contracting for curbside pick-up.

Composting:

There are several private facilities in-County that process yard waste, clean wood, and manure for compost, and in 2017 over 32,000 tons of organics were composted. As stated previously, there is only one in-county facility that can accept food scraps, but there are several facilities that accept other organic materials and turn the materials into compost.

Resource Recovery Agency (RRA) operation of the Waste-to-Energy Facility (WTE):

The RRA oversees the WTE operation with a staff of three full-time employees. A private company, currently Wheelabrator Dutchess County, operates the WTE. The facility, in operation since 1989, provides stable, long-term employment at a relatively high wage to over forty people.

The 1984 agreement between the RRA and the County provides for a Net Service Fee (NSF) to be paid, based upon a formula outlined in the agreement, if the expenses of the RRA exceed revenues. In fiscal years 2015 and 2016 no NSF was requested. In fiscal year 2017 there was no NSF.

Of the MSW that was generated in Dutchess County, but not recycled in 2017 (excluding the metals recovered), the WTE processed 145,637 tons. This represents approximately 72% of the total tons of MSW that were disposed; 28% of the total tons of MSW were landfilled. The MSW processed at the in-county WTE avoided the need to transport over 145,000 tons of waste to distant landfills.

The MSW processed at the WTE is converted to electricity and sold to Central Hudson. In 2017 a net of 32,939 megawatt hours (Mwhs) was generated. This total was lower than normal due to work done on the turbine, causing downtime. The facility can turn 450 tons of waste into 9.3 megawatts (MW) of renewable power every day, enough to power over 10,000 homes. The facility uses a small portion of the gross Mwhs generated to operate the facility.

The facility recovered 6,117 tons of recyclable metals in 2017. These metals would otherwise have been lost forever in a landfill.

The Dutchess County Resource Recovery Agency refinanced their 2007 bond, which resulted in a \$1.16 million dollar savings over the remaining 10-year life of the bond.

The RRA also safely incinerates pharmaceuticals collected in County drop-boxes and other counties collections as a free community service. In 2017 over 10,500 pounds of medications were safely destroyed.

Reuse:

One of the best ways to reduce the amount of trash that is landfilled or incinerated is reuse. Reusing materials, rather than throwing them out, reduces waste and can provide others needed clothing and goods. Materials that can be reused include clothing, furniture, tools, books, and more. It is estimated

that the average person throws away about 70 pounds of clothing per year, which for Dutchess County would mean over 20 million pounds per year. There is no need to throw these materials in the trash. Even textiles that can't be reused are sold for recycling and turned into other products, such as wiping cloths or carpet padding.

Two donation collectors in Dutchess County reported that over 1200 tons of textile donations were received in 2017.

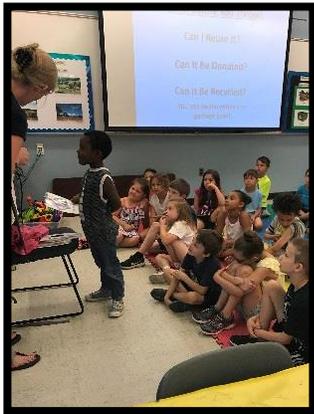
2017 Accomplishments

- Continued implementation of 28 of the 52 *ongoing* tasks listed in Rethinking Waste. Of the 52 tasks, three (3) remain to be implemented. We have not used temporary intern staff or initiated a Pay As You Throw system. The last task is a new Local Solid Waste Management Plan, which is not due until 2022.
- Submitted the NYS DEC required 2015-2016 Biennial Compliance Report
- Submitted the 2016 Annual Planning Unit Recycling Report. Our recycling rate increased from 36.4% in 2015 to 37.7% in 2016. Our rate again increased in 2017 to 40.6%.
- Held and promoted two Household Hazardous Waste and eWaste Collection events. Over 118,000 pounds of chemicals, over 77,000 pounds of eWaste and 1200 pounds of fluorescents were collected from 715 residents. One Conditionally Exempt Small Quantity Generator hazardous waste collection event for small businesses, schools and local government was held with 13 institutions participating.

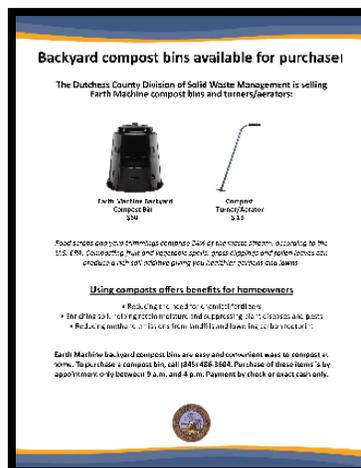


- Over 10,500 pounds of pharmaceuticals were safely incinerated at the Dutchess County Resource Recovery Facility. This is a free community service provided to police departments with medications drop-boxes and from collection events.
- Identified 11 unlicensed haulers and issued warning notices to 52 entities for non-compliance with recycling, and set a hearing for one unlicensed hauler.
- Licensed six (6) new solid waste haulers and relicensed 21 existing haulers.
- Identified additional sources of recycling data for Dutchess County.

- Gave 35 solid waste and recycling presentations to schools, institutions and businesses reaching over 900 residents.



- Purchased 20 Earth Machine compost bins for resale to residents. This is an initiative to promote backyard composting.



- Loaned bins for 13 events through the Recycle Bin Loan Program.
- Identified and promoted additional yard waste and food scrap composting opportunities and continue to work with Cornell Cooperative Extension on the Organics Survey.
- Participated in the second *Feeding the Hudson Valley Event* held on the Walkway Over The Hudson to help raise awareness about food waste and feeding the hungry. Total food rescued, mainly from local farms, was in the thousands of pounds. Meals were served on the Walkway and the rest donated to local charities. Post event, 96.2% of waste was recycled or composted.

- Staff took part in “gleaning” training, collecting leftover crops from farmers’ fields, and helped to glean hundreds of pounds of produce for the *Feeding the Hudson Valley Event*.



- Participated with the National Park Service and NYSDEC to celebrate Earth Day with a recycling and reuse event in Hyde Park. Staff will also participate in the 2018 Earth Day event.
- Participated in the planning and promotion, as well as providing recycling bins, for the 2017 Walkway Marathon. The Marathon achieved a 73.4 % recycling/compost rate.
- Developed Recycling and Waste Reduction informational flyers for Motels, Hotels and Inns, and Convenience Stores and Gas Stations. Over 140 letters with flyers were sent out in an effort to promote recycling and then these businesses were visited by the Compliance Inspector to ensure they are recycling. Local Mobil/Exxon gas stations/convenience stores were the first to respond with adding recycling bins for the pump areas and at entrances to the stores.
- Provided recycling promotion through presentations, media and printed materials.
- Continued to meet with the Hudson Valley Regional Council Solid Waste Committee to discuss regional solid waste issues and initiatives.
- Continued to work with the Hudson Valley Regional Council on food donation and diversion initiatives.
- Through the NYSDEC grant programs, we received \$128,168 in reimbursement for recycling promotion and education for the years 2014-2017, \$15,438 for Household Hazardous Waste collection in 2016 and \$6,000 for electronics collection events in 2016.