

Division of Solid Waste Management

2019 Summary



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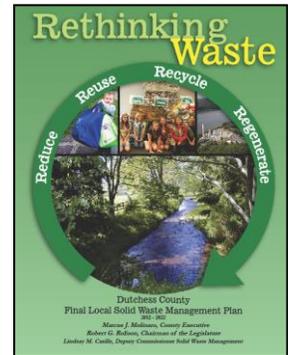
2019 Annual Summary

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 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.



The Plan is due to be updated in 2022.

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	2016 Actual	2017 Actual	2018 Projected	2018 Actual	2019 Projected	2019 Actual	
MSW only recycling rate	22.9%	44.0%	40.6%	51.2%	41.4%	54.6%	44.1%	
MSW and C&D debris recycling rate*	26.4%	47.7%	44.2%	67.9%	50.6%	70.1%	67.5%	
Combined recycling rate with ADC ash**	N/A	58.0%	55.0%	N/A	59.9%	N/A	60.8%	
*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 168,216 tons of the total approximate 381,500 tons of MSW generated is recycled. 152,747 tons were converted to electricity at the Dutchess County Waste to Energy Facility (5,472 tons of this are metals, which are recovered and included in recycling) and approximately 60,500 tons were landfilled, primarily at the Ontario County Landfill located over 230 miles northwest of Dutchess County.

Based on current and historical data, the increase in recycling appears to be mainly due to scrap metal recycling. Whether it is an actual increase in metals recycling or better collection of data from county recyclers is unclear. All other categories have remained fairly stagnant.

In terms of reaching our goals, as outlined in the Plan, they have not yet been reached. The projected diversion numbers and percentages, which were developed in conjunction with DEC input, had the County reaching a 54.6% diversion rate by 2019. While we have made great strides in reaching this goal, it is based on generation and diversion projections that have been unattainable in most of the state, as well as the country. The Plan projected a decrease in MSW generation over the years. This has not been the case for the County or the country. Organics diversion is also a big factor in reaching the stated goals and again, while we have increased our organics diversion of food and yard waste, it has not matched the projections. We have increased organics diversion by approximately 38%, but the Plan called for a 60% increase. Mainly due to siting issues and significant start-up costs, there have been no new food scrap compost facilities, either regionally or locally. We continue to look at local opportunities and will continue to promote institutional and backyard composting.

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 divert food scraps from the waste stream, and the number has increased since the adoption of Rethinking Waste. In 2019, over 2,500 tons of food scraps and 8,000 tons of yard waste from various sources were diverted. The following data, which is not all-inclusive, was reported to the Division for 2019:

- 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 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.

Working with Cornell Cooperative Extension of Dutchess County Agricultural and Horticultural program staff, backyard composting was promoted through demonstrations and events. The Division sells Earth Machine compost bins for resale to residents. Fifteen bins were purchased in 2019 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 2019, of the more than 172,000 tons of C&D debris generated, over 100,000 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 2019 over 56,000 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.

The Division has plans to issue a Request for Proposals to help determine if a composting facility could be instituted in the County, besides the current private facility in the Town of North East. We would be trying to determine what type of facility would be feasible and where one could be sited. New York State is mandating that large quantity generators of food waste either donate or compost food scraps starting January 2022. The composting requirement only applies if there is an organics recycler within 25 miles of the generator. This study would help to determine the large generators, a 25-mile radius of the generators and the possibility of siting a facility within the radius.

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

The RRA oversees the WTE operation with a staff of one full-time employee and three part-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 through 2019 no NSF was requested.

Of the MSW that was generated in Dutchess County, but not recycled (excluding the 5,472 tons of metals recovered), the WTE processed 147,275 tons in 2019. This represents approximately 72% of the total tons of MSW that were disposed. Approximately 28% of the total tons of MSW were landfilled. The MSW processed at the in-county WTE avoided the need to transport over 152,000 tons of waste to distant landfills.

The MSW processed at the WTE is converted to electricity and sold to Central Hudson. In 2019 a net of 42,299 megawatt hours (Mwhs) was generated. 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 5,472 tons of recyclable metals in 2019. These metals would otherwise have been lost forever in a landfill.

The Dutchess County Resource Recovery Agency refinanced their 2007 bond in 2017, which resulted in a \$1.16 million dollar savings over the remaining 10-year life of the bond. The bond goes to 2027.

The RRA also safely incinerates pharmaceuticals collected in County drop-boxes and other counties collections as a free community service. In 2019 over 12,100 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.

One donation collector in Dutchess County reported that over 600 tons of textile donations were received in 2019.

2019 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 due in 2022.
- Submitted the NYS DEC required 2017-2018 Biennial Compliance Report.
- Our recycling rate increased from 41.4% in 2018 to 44.1% in 2019.
- Held and promoted three Household Hazardous Waste and eWaste Collection events. Over 56,000 pounds of chemicals, over 81,000 pounds of eWaste and 1,000 pounds of fluorescents were collected from 931 residents. One Conditionally Exempt Small Quantity Generator hazardous waste collection event for small businesses, schools and local government was held with 20 institutions participating.
- Held the second annual School Recycling Challenge. All public and private schools were invited to participate in the challenge to increase recycling with school-wide recycling promotion. This year's winner with the highest recycling rate and most improved recycling rate was Fishkill Plains Elementary School in the Wappingers Central School District.



- Gave 50 solid waste and recycling presentations to schools, institutions and businesses reaching over 2,000 residents.



- Completed our third purchase of 20 Earth Machine compost bins for resale to residents. This is an initiative to promote backyard composting.
- Loaned bottle and can recycling bins for 7 events. We also loaned bins to 8 schools on a temporary basis for fundraising through the Recycle Bin Loan Program.
- Identified and promoted additional yard waste and food scrap composting opportunities. Staff worked with the Village of Tivoli on a rural community composting project.
- Provided reusable bags to seniors, grocery store shoppers and to over 200 residents attending the Dutchess Outreach Free Farm Stand.
- Partnered with Cornell Cooperative Extension Dutchess County (CCEDC), and the Dutchess County Environmental Management Council (EMC), with additional support from the Dutchess County Regional Chamber of Commerce, on a project to implement a County-wide Single-use Plastics Pollution Prevention (S.U.P.P) Campaign focused on plastics not currently accepted at regional recycling facilities (plastic straws, plastic films, polystyrene products, plastic bags, plastic cutlery/utensils, plastic takeout containers). This project will also inform Dutchess County residents, businesses and municipalities about how to effectively comply with the recent laws on plastic bag bans.

- In a County wide effort to reduce recycling contamination, staff developed recycling stickers to distribute to schools, businesses, and residents. The stickers were designed to be a recycling guide for placement on recycling bins. To date, 323 stickers have been distributed to County schools and residences. We also do custom stickers for schools.



- Participated with the third annual Earth Day event cohosted with the National Park Service and NYSDEC.
- Continued to meet with the Hudson Valley Regional Council Solid Waste Committee to discuss regional solid waste issues and initiatives.
- Through the NYSDEC grant programs, in 2019 we received \$39,415 in reimbursement for recycling promotion and education for the year 2018. Since 2016 we have received over \$211,000 in DEC grant reimbursements for recycling education, Household Hazardous Waste collection and electronics collection events.
- Fined 1 unlicensed hauler and issued one warning notices for non-compliance with recycling.
- Licensed four (4) new solid waste haulers and relicensed 26 existing haulers.
- Over 12,100 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.



Dutchess County Prescription Medicine Drop Box Program