

Office of the NEW YORK STATE
COMPTROLLER

Local Governments and the Municipal Solid Waste Landfill Business



New York State Comptroller
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Introduction

Many general purpose local governments (counties, cities, towns and villages) in New York State have at least some responsibility for waste management. Many own solid waste facilities such as transfer stations, recycling centers, combustors and landfills. Some even serve as trash haulers. Local governments that are not directly involved in owning and operating solid waste management facilities may nevertheless have a say in solid waste management in their communities by participating in local solid waste planning units that determine what happens to waste in their area.

This report examines the role of local governments in solid waste management, with particular attention to the issues they confront as municipal solid waste (MSW) landfill owners. Local governments or public authorities own 20 of the State's 27 MSW landfills, the type of landfills that take in most of what we typically think of as “garbage”—residential, commercial and institutional waste.

Owning a landfill—particularly an MSW landfill—can generate significant revenues, but also carries significant long-term responsibilities. MSW landfills need to be properly closed and monitored for decades afterward, resulting in costs that must be paid long after the revenue stream has ended. As local governments determine how best to manage this valuable, but challenging, capital asset, they must take a long-term view, balancing their own needs with those of others who depend on the resource or are otherwise impacted by it.

Highlights

- Local governments outside of New York City spent a total of \$917 million on refuse and garbage-related activities in 2017.
- Local governments and public authorities own and operate many types of solid waste management facilities, including transfer stations, combustors, recycling centers and landfills.
- They own 85 of the State's 180 landfill facilities, including 20 of the State's 27 municipal solid waste (MSW) landfills.
- Although some landfills will close in the coming years, others have permits allowing substantial expansions, enabling them to continue operating for several decades.
- After landfills close, they must be capped and other maintenance must be done over a period of many years. In 2017, local governments with active MSW landfills reported liabilities of \$110 million for these costs.

The Local Government Role

Although most general purpose local governments do not own landfills, most have at least some role in solid waste management. These responsibilities range from collecting household and sometimes commercial waste to disposing of biosolids from sewage treatment plants and operating transfer stations, incinerators and landfills.

Expenditures

In total, local governments outside of New York City spent more than \$900 million on trash collection and disposal (“refuse and garbage”) in 2017.¹ Most cities (86 percent) and nearly three-quarters of villages reported spending on this category in their annual financial reports to the Office of the State Comptroller (OSC), compared with fewer than two-thirds of towns, many of which are rural and sparsely populated. However, in total, towns spent more on refuse and garbage than all counties, cities and villages combined. (See Figures 1 and 2.)

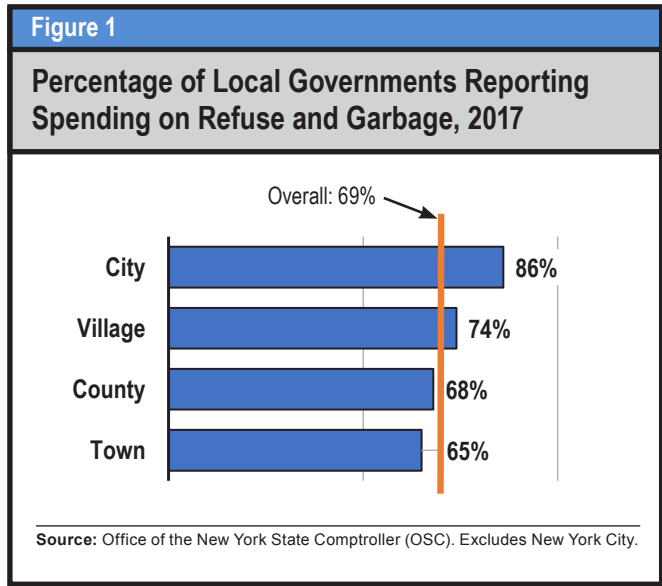


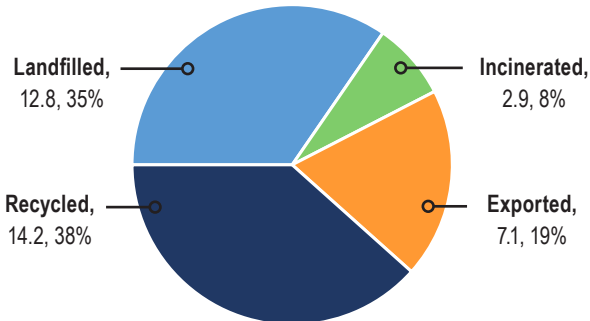
Figure 2
Local Government Spending on Refuse and Garbage, 2017
 (Excludes New York City)

Type of Local Government	Number Reporting Spending on Refuse and Garbage, 2017	Refuse and Garbage Expenditures	Total Expenditures	Refuse and Garbage as a Percentage of Total Expenditures
County	38	\$169,120,135	\$11,853,920,128	1.4%
City	48	\$131,819,437	\$5,151,126,141	2.6%
Town	562	\$508,723,855	\$7,172,849,081	7.1%
Village	378	\$107,492,267	\$2,734,758,714	3.9%
Total/Overall	1,026	\$917,155,694	\$26,912,654,065	3.4%

Source: OSC. Data is for local fiscal years ending in 2017. Totals may not sum due to rounding.

Figure 3

Waste Generated in New York State, 2014 (Millions of Tons)



Source: Department of Environmental Conservation (DEC) with calculations by OSC. Includes New York City.

37 Million Tons of Waste a Year

DEC tries to quantify the amount of solid waste generated in New York State each year using a variety of data sources, including detailed annual reports from solid waste facilities. In 2014, the most recent year for which DEC's summary data are available, 37.0 million tons of waste were generated in New York State.² Slightly more than one third was landfilled in-State and 38 percent was recycled. Nearly one fifth of the waste was exported.

Planning

New York's local governments play a central role in determining how solid waste is managed.³ The State has a solid waste management plan, which emphasizes finding ways to reduce waste generation and manage materials that would otherwise become waste more sustainably. The plan advocates better product stewardship (for example, increasing the role of manufacturers in reusing and recycling the products and packaging they produce and/or use).⁴ Local governments may establish local solid waste management planning units, which then develop plans for their communities, in line with the goals set by the State.⁵ Most local governments belong to one of these planning units, which are often led by one or more counties or a public authority.⁶

To ensure sound economic practices and alignment with the State's solid waste management goals, the local plans may prescribe controls on the solid waste market in their regions, such as whether to accept waste from other communities, where and how specific types of waste must be disposed, and in certain circumstances, which facilities and haulers must be used. These "flow controls," which may be implemented by local laws, help ensure that local governments' capital investments in their public facilities for waste management will generate the business necessary to make them economically viable.⁷

Solid Waste Facilities

Many local governments own and operate solid waste management facilities. A single owner may own multiple facilities on the same site. For example, a county may own a landfill, a composting facility and a recycling facility that operate under separate permits, but are part of a single solid waste management site. Recycling facilities and transfer stations are by far the most common facilities owned by local governments. In some cases, publicly owned facilities are operated by private contractors.⁸

According to the Department of Environmental Conservation (DEC), which regulates many types of solid waste facilities, there are 2,745 solid waste facilities in the State, of which at least 768 are owned by local governments and public authorities.⁹ Local governments and public authorities own most of the transfer stations in the State, and nearly half of the recycling facilities (46 percent, or 142 out of 312) and landfills (47 percent, or 85 out of 180). (See Figure 4.)

Nearly half (42 out of 85) of the landfills owned by local governments or public authorities are for land clearing debris (vegetative matter, soil and rock from sites in preparation for construction projects or other land improvements, utility line maintenance, or storm-related cleanup). (See Figure 5.) Only 20 are MSW landfills. As with the facilities above, multiple types of landfills may be listed at the same location. For example, the 12 locally owned “gas recovery landfills” must be co-located with active or closed MSW landfills, since the source of the gas they recover is the waste in the landfill.

Figure 4

Solid Waste Facilities by Owner Type, 2017

Facility Type	Local Government	Private	Other / Not Categorized	Total Count	Share of Total
Landfills (All Types)	85	84	11	180	6.6%
Anaerobic Digestion or Waste Combustion	3	13	4	20	0.7%
Construction and Demolition Debris Processing	22	370	25	417	15.2%
Composting	47	63	83	193	7.0%
Land Application	11	94	111	216	7.9%
Recycling Handling and Recovery	142	151	19	312	11.4%
Transfer Stations	440	129	14	583	21.2%
Vehicle Dismantling	0	574	24	598	21.8%
Other	18	147	61	226	8.2%
Total	768	1,625	352	2,745	100.0%

Source: DEC with OSC calculations. Data is as reported by DEC and includes New York City. The “Local Government” category includes public authorities. Land application facilities are facilities involved in applying solid wastes such as sewage sludge, other sludge, septage and food processing waste to land. These materials can help amend soil and divert waste from landfills and incinerators.

Figure 5

Landfills by Owner Type, 2017

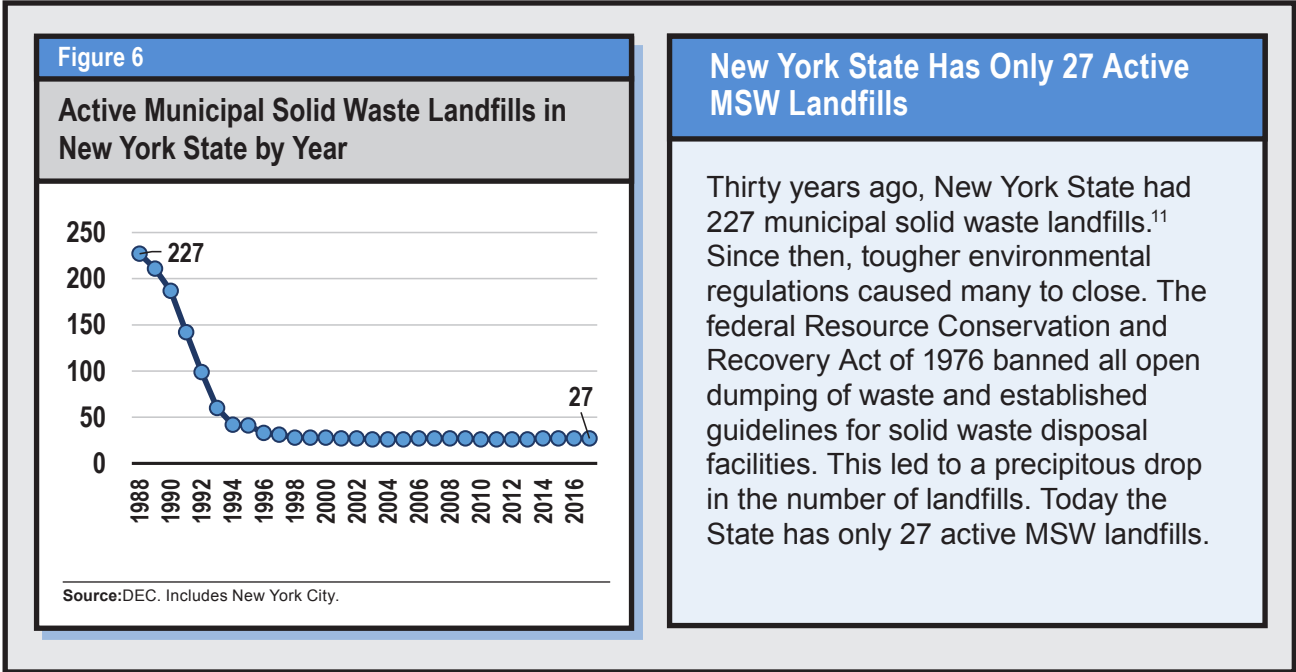
Landfill Type	Local Government	Private	Other / Not Categorized	Total Count	Share of Total
Construction and Demolition Debris	5	7	0	12	6.7%
Gas Recovery Landfill	12	3	1	16	8.9%
Industrial/Commercial	1	9	1	11	6.1%
Land Clearing Debris	42	57	9	108	60.0%
Long Island Landfills	5	1	0	6	3.3%
Municipal Solid Waste	20	7	0	27	15.0%
Total	85	84	11	180	100.0%

Source: DEC with OSC calculations. A single site can have multiple landfill activities. For example, many municipal solid waste landfills also have a landfill gas recovery facility. The “Local Government” category includes landfills owned by public authorities.

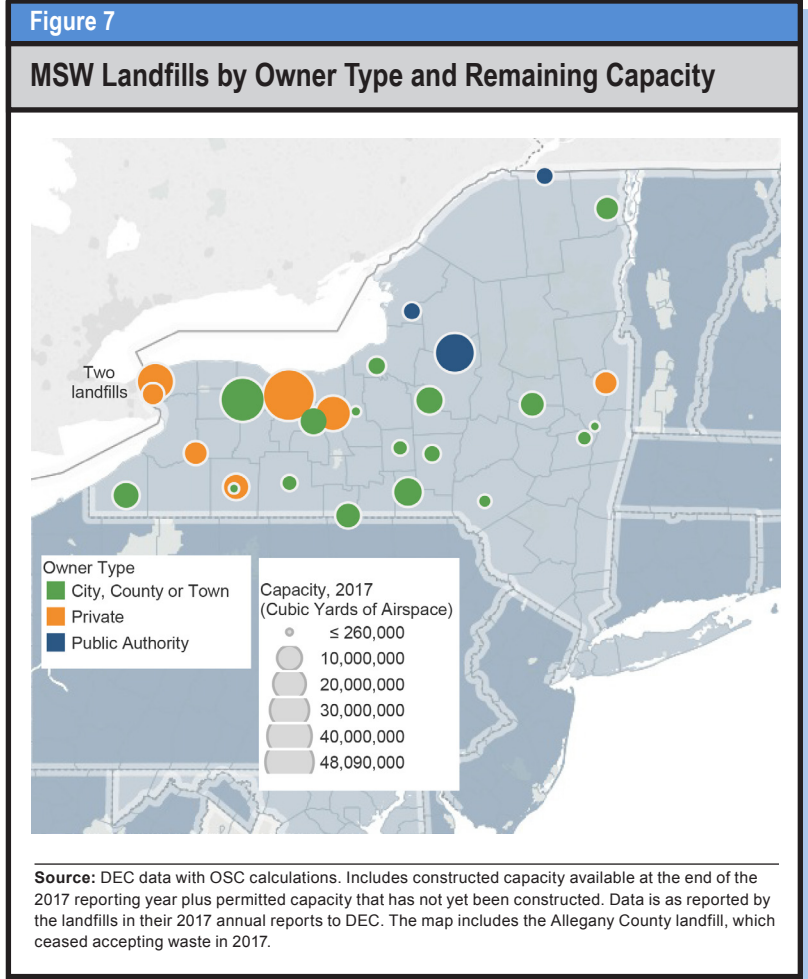
Municipal Solid Waste Landfills

Municipal solid waste (MSW) landfills accept garbage from households, institutions, and commercial entities. The definition of MSW in DEC regulations excludes construction and demolition debris and biosolids (sewage sludge) “unless they are commingled.”¹⁰ However, landfill permits may allow MSW landfills to accept many other types of waste, including industrial waste, construction and demolition debris and sewage treatment plant sludge. (See Appendix A for more detail on the types of materials MSW landfills in New York accept.)

The State has only 27 active MSW landfills. Local governments (counties, cities or towns) own 17 of these, and local public authorities own another three. Private sector entities own only seven but operate five of the local government-owned landfills by contract. (See Appendix B.)



As Figure 7 shows, all of New York's MSW landfills are located upstate; most are near major highways.¹² There are no active MSW landfills in the New York City area, and State law forbids MSW landfills on Long Island. (See text box.) In addition to exporting waste outside of downstate (and often outside of the State), downstate communities may send MSW to waste combustion facilities that burn MSW and other types of waste to produce energy.¹³ Half of the State's 12 active waste-to-energy facilities are located downstate: four on Long Island and two in the Mid-Hudson Region. The remaining six are located in Jefferson, Niagara, Onondaga, Oswego and Washington counties.

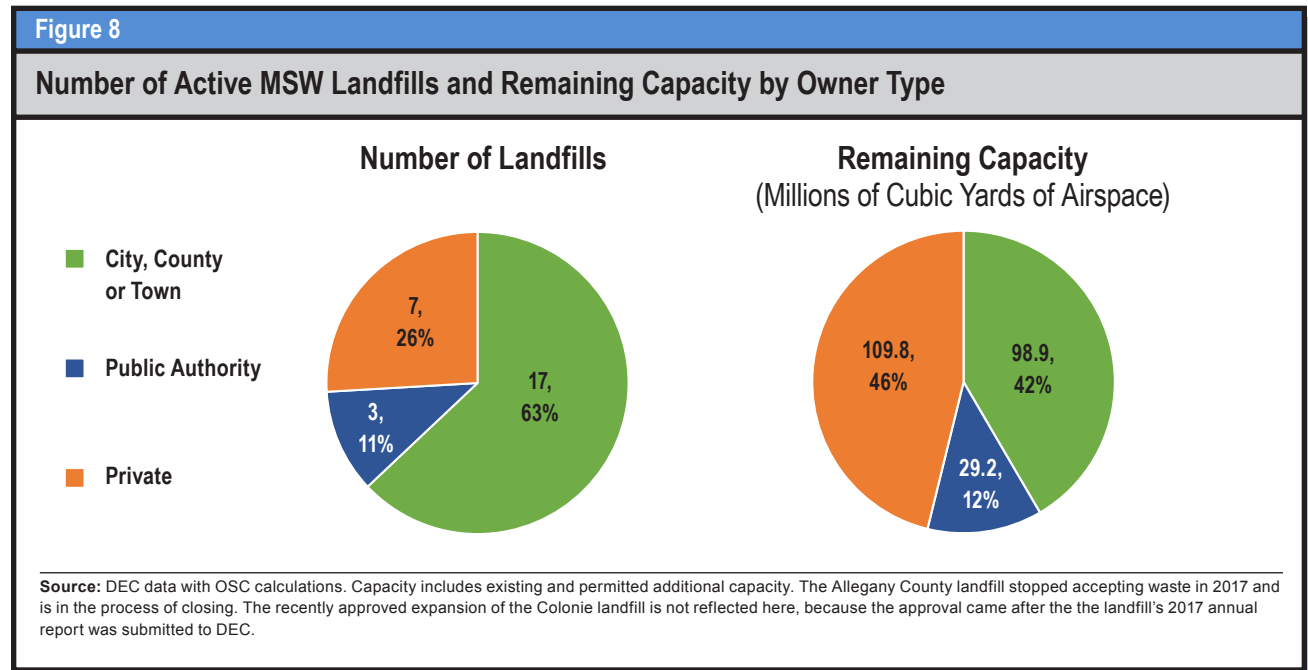


Long Island Has No Active Municipal Solid Waste Landfills

Landfills on Long Island are subject to tighter State regulation than those in other parts of New York. The Long Island Landfill Law (Environmental Conservation Law, Section 27-0704), enacted in 1983, restricts the types of waste that can be landfilled there, in order to prevent contamination of the groundwater. Consequently, Long Island has no facilities that landfill raw municipal waste. However, it does have facilities that incinerate MSW and certain other types of waste, and three landfills that dispose of ash resulting from waste incineration. Landfills accepting clean fill (uncontaminated soil or other “inert material”) are also allowed by permit throughout Nassau and Suffolk Counties.

Long Island has six active landfills, all located in Suffolk County. Two are ash monofills (i.e., accepting only ash from incinerated waste); one accepts ash in addition to a variety of other types of non-MSW waste; while the other three accept either clean fill, land clearing debris, construction and demolition debris, or some combination of these.

Landfills are, ultimately, a non-renewable resource. Some are scheduled to close in the next few years, and siting new landfills is a long and difficult process. However, DEC has granted large expansions to some active landfills.¹⁴ At the present rate of use, the existing and permitted capacity of currently operating MSW landfills could last several decades. Nearly half (46 percent) of this capacity is in the seven privately owned landfills (See Figure 8.)



Waste Management in New York City

New York City's Department of Sanitation (DSNY) maintains sanitary conditions and enforces sanitary compliance by collecting, recycling and disposing waste, cleaning streets and vacant lots, and clearing snow and ice. In fiscal year 2017, expenditures for the DSNY totaled \$2.7 billion.¹⁵ That same year, DSNY reported:

- 10,676 tons of waste disposed per day
- 2,565 tons per day diverted for recycling
- A total annual recycling diversion rate of 20.5 percent

There are no active landfills in New York City. All solid waste that is not diverted for recycling is exported. In FY 2017, DSNY disposed of 3.2 million tons of refuse to facilities outside of New York City.

Local Government MSW Landfills

For the local governments and public authorities that have them, municipal solid waste landfills are an important responsibility. They are a valuable asset for local residents and neighboring local governments but also, in many cases, carry long-term liabilities. The challenges are many and have implications that affect many people outside the jurisdiction, as well as local residents.

Post-Closure Costs

When landfill cells become full, they must be properly closed and contained (or “capped”) to prevent waste from migrating and reduce the potential for contaminants to seep into the groundwater.¹⁶ In addition, the sites need to be monitored and maintained on an ongoing basis: leachate (liquid draining from the landfill) needs to be monitored, collected and disposed of, and the landfill cover soil needs to be repaired and maintained. Many of these post-closure costs continue for decades with no new revenues to offset them. It is critical that local governments recognize these future costs and plan for them.

In their annual reports to DEC, MSW landfill owners or operators report their estimated post-closure costs. Local governments also report estimated landfill closure and post-closure costs in their annual financial updates to OSC. They report the amount they expect to pay over a thirty-year period as a liability on their balance sheets. For local fiscal years ending in 2017, 80 local governments reported post-closure liabilities for all types of landfills (including non-MSW landfills and landfills that have already closed) totaling \$298 million.¹⁷ The reported amounts range from \$23,155 for the Town of Arietta (Hamilton County) to \$34 million for the Town of Brookhaven (Suffolk County). For the 12 cities, counties and towns that have active MSW landfills and reported post-closure liabilities for 2017, those reported landfill closure costs total \$110 million, ranging from \$2.1 million to \$14.5 million. (Five other local governments have active MSW landfills, but did not report post-closure liabilities to OSC.)¹⁸

DEC has a Landfill Closure and Landfill Gas Management State Assistance Program that provides grants to local governments to close older inactive landfills in accordance with current regulatory standards or to establish a landfill gas management system to control landfill gas at active landfills.¹⁹ The Program is authorized to reimburse costs up to the lesser of \$2 million or 50 percent of costs. However, it is funded at just \$250,000 per year and has a long waiting list.

Policy Changes in China Disrupt the U.S. Solid Waste Market

Starting in 2013, China began putting policies in place to reduce illegal imports of scrap materials and tighten controls on the amounts and quality of recyclable imports.²⁰ By the end of 2017, a ban on imports of certain recyclable materials including unsorted mixed paper, textiles and certain types of scrap plastic went into effect. For most of the materials not subject to the ban, China applied strict standards on the allowable level of contamination, beginning in March 2018. In April, China announced that it would extend its import ban to additional materials over the course of 2018 and 2019. Other Southeast Asian nations are also taking steps to restrict scrap plastic imports.

These changes have effectively closed the Chinese market to most U.S. recyclables and turned the global recyclables commodity market on its head. Prices have fallen, so instead of earning a profit from these materials, operators of recycling centers are experiencing losses and scrambling to adapt to the new reality. In some parts of the country, recycling programs have stopped accepting certain materials and have even begun sending recyclable materials to landfills.

New York State's local governments are also starting to feel the impact of the ban. In the City of Albany, increased fees charged by its recycling firm are going to cost the City an estimated \$400,000 per year. Monroe County is receiving lower revenue-sharing payments for recyclables from the firm operating its recycling center, and the firm has approached the County about renegotiating its agreement in light of the drop in recyclable commodity prices.

In the long term, the U.S. solid waste industry may be able to adjust by increasing capacity to process more recyclables domestically and developing markets for the processed materials. Better product stewardship could also help promote more sustainable consumer products and practices to reduce the overall waste stream. In the meantime, however, recycling has become more costly and complicated. DEC is working to identify ways to improve recycling and respond to the new market conditions.

Local Government Landfill Owner Strategies and Challenges: A Few Examples

Local governments have different strategies for managing their MSW landfills. Some try to extend the landfill's useful life for residents by diverting as much waste as possible and not importing waste from outside their local planning unit. Others seek to boost revenues by accepting waste from other regions. Some operate their landfills themselves, while others contract with private firms to run their facilities. In many cases, landfill operators negotiate host community agreements specifying benefits that local governments, residents and in some cases school districts or other entities will receive in return for hosting the landfill.

Each of these strategies has pros and cons, and there is no "one size fits all" solution. For instance, maximizing tipping fees (a charge for receiving waste) can generate revenue to supplement a local government's bottom line, but accepting more trash now can mean the landfill will close sooner, exposing it to post-closure costs and new trash disposal fees even as that revenue evaporates. Below are some examples that illustrate several potential issues and outcomes that local government landfill owners have faced.

Town Orders Closure of Privately Owned Landfill

Local governments may adopt local laws regarding MSW landfills within their boundaries. In 2016, the Town of Seneca Falls adopted a local law prohibiting new solid waste disposal facilities in the Town and requiring existing landfills to close by the end of 2025.²¹ A news article reported that a private landowner operating the Seneca Meadows landfill in the Town initiated a lawsuit against the Town challenging the local law.

In 2017, the Seneca Meadows MSW landfill disposed 2.15 million tons of waste—nearly one quarter (24.2 percent) of the total waste disposed in the State's 27 MSW landfills that year.

City of Albany

The City of Albany's MSW landfill is nearly full and DEC has not permitted any further expansions. Officials are studying options for handling waste once the landfill closes, and appear to be trying to extend the landfill's useful life by reducing the rate at which the remaining landfill capacity is exhausted. The City had expected the landfill to close by 2022; however, a recent news report states that increased tipping fees paid by private haulers have reduced the amount of waste disposed at the Albany MSW landfill enough to extend its life through 2026.²²

Having to close the landfill presents the City with a three-fold problem: First, it will lose a significant revenue generator. The landfill contributed approximately \$11 million in 2016 to the City's general fund.²³ Second, once the landfill closes, the City will face substantial closure and post-closure costs. As of 2018, the City reported anticipated post-closure costs of nearly \$11 million over a 30-year period, and it has set aside just \$916,000 in restricted funds to pay for those costs.²⁴ Third, MSW will then have to be exported, and the City will have to develop and implement a new business model for its management.

Town of Colonie (Albany County)

In 2007, an OSC audit found that lack of Board oversight had left the Town of Colonie with a 2006 deficit of over \$10 million in its major governmental funds and an inability to maintain adequate cash flow. In addition, the landfill fund—from which Town officials had made large transfers to help shore up the general fund over several years—had a negative balance of \$8 million in unrestricted net assets.²⁵ These practices eroded the Town’s fiscal condition and its credit rating.

Over time, the Town worked to improve its financial position. One step it took (in 2011) was to enter into a 25-year agreement with a private operator to run the landfill. In addition to guaranteeing an annual revenue stream (\$2.3 million a year for the first five years and then \$1.1 million a year for the remainder of the contract), the company agreed to pay for the landfill’s closing costs and provide a one-time up-front payment of \$23 million.²⁶ Colonie put \$10.1 million of this into its general fund and the rest into escrow to pay off outstanding debt in the landfill fund.²⁷ In April 2018, DEC approved an expansion of the landfill with a permit to operate until April 2028.²⁸ The operator will pay for capital improvements and the Town will receive an additional lump sum payment as well as royalties based on the amount of waste disposed in the expanded capacity.²⁹

Delaware County

Delaware County seeks to provide its residents with “long term, cost competitive, environmentally responsive, comprehensive solid waste management services.”³⁰ The County’s Solid Waste Management Center (and much of the County) is located in the New York City watershed, so it must balance its residents’ need for solid waste management services against requirements to protect the City’s drinking water. Accordingly, the County works to make its landfill space last as long as possible by minimizing waste going into the landfill. For example, the composting facility turns a wide variety of organic waste, including screened MSW waste and biosolids, into compost.³¹

Landfill Risks and Concerns for Neighbors

Landfills can have significant local and even regional impacts.³² Some issues, such as odors and lower property values, affect primarily residents and businesses near the landfill, while others, such as impacts on roads and traffic from trucks going to and from the landfill can affect public health and safety over a much wider area.

Some risks remain a concern well beyond the landfill’s useful life. These include risks of groundwater contamination and migration of methane gas into surrounding neighborhoods. Regulations on landfill design, operations, closure and post-closure monitoring help mitigate these risks.

Fulton County

Fulton County had an intermunicipal agreement with Montgomery County allowing the latter to use the Fulton County landfill. However, Fulton officials canceled this agreement in June 2018, on the grounds that Montgomery County was accepting waste from other parts of the State at a markup and delivering it to the landfill, consuming capacity that its residents did not currently need.³³ The counties disagree over whether Montgomery County's actions violated the terms of their agreement.³⁴

Monroe County

Monroe County's Mill Seat MSW landfill, which opened in 1993, has been operated by a subsidiary of a large private sector company since 2002. Under the terms of the 49-year lease, the company is responsible for all annual operating expenses, capital improvements and closure and post-closure costs, and makes annual payments to the County, in addition to an original one-time payment.³⁵

The landfill obtained the necessary State and federal permits to more than double its capacity in 2017.³⁶ Based on MSW landfill annual reports to DEC, the Mill Seat landfill's 32.4 million cubic yards of airspace in existing and permitted capacity was second only to the 48.1 million cubic yards of airspace reported by the High Acres landfill, also in Monroe County, which is owned by the company that operates the Mill Seat landfill. In anticipation of the Mill Seat expansion, the County and the company amended their existing agreement. The County receives a number of benefits, including a one-time payment of \$1 million, higher annual payments and reduced tipping fees.³⁷

Monroe County, in turn, has several agreements between it and other involved local communities. The Town of Riga, which is a "host community," receives about \$2 million per year, "and consequently levies no town property taxes."³⁸ The Town's residents get other benefits, including free waste collection and recycling services. Other "host" local governments include the Town of Bergen, the Village of Bergen, the Byron-Bergen Central School District and the Bergen Fire Department.³⁹

Conclusion

Local government officials with landfills need to manage these assets carefully. Establishing and funding reserves to pay for landfill closure and post-closure costs can ensure that landfills that have reached the end of their useful lives do not become a burden to residents. More broadly, as local officials evaluate options for their communities, they need to consider the long-term impact of the choices on their communities and carefully weigh the financial and other benefits against the risks resulting from these choices.

Even local officials without landfills need to engage in decision-making about what happens to garbage in their communities. Local governments typically lead the local solid waste management planning process. Consequently, they have a lot of discretion in choosing courses of action. The solid waste management business is complex and requires collaboration among a wide range of stakeholders. Identifying and implementing environmentally responsible and cost-effective approaches to solid waste management is a long and difficult process. Not everyone will be satisfied with the decisions made, but the investment in a collaborative approach ensures consideration of a broad range of stakeholder views.

Even the best-laid plans require flexibility. The solid waste market can be subject to destabilizing changes. The major shifts in China's recycling policies have had worldwide repercussions. Changes in technology can also disrupt solid waste management plans. As technology evolves, what seemed like a good strategy for dealing with waste can turn out to be inefficient and costly. Local governments must be flexible enough to revise their plans and look for ways to adapt to the changing needs of their communities.

A future OSC report will examine how local governments are using recycling and other strategies to divert material from the waste stream while trying to keep up with rapidly evolving markets and technologies.

Appendix A:

What Goes in Municipal Solid Waste Landfills

Municipal solid waste (MSW) landfills may be permitted to take many types of waste in addition to MSW, which is garbage from households, commercial entities or institutions. In their annual reports to the Department of Environmental Conservation (DEC), landfill owners or operators report the amounts of asbestos-containing material, ash, construction and demolition debris, industrial waste, oil or gas drilling waste, petroleum-contaminated soil, sewage treatment plant sludge, treated regulated medical waste, and storm debris that are landfilled. These non-MSW materials amounted to 2.4 million tons in 2017, or 28 percent of the 8.7 million tons of waste disposed in the State's MSW landfills. They include nearly a million tons of construction and demolition debris, over a half a million tons of industrial waste and 445,000 tons of sewage treatment plant sludge. (See Figure A-1.)

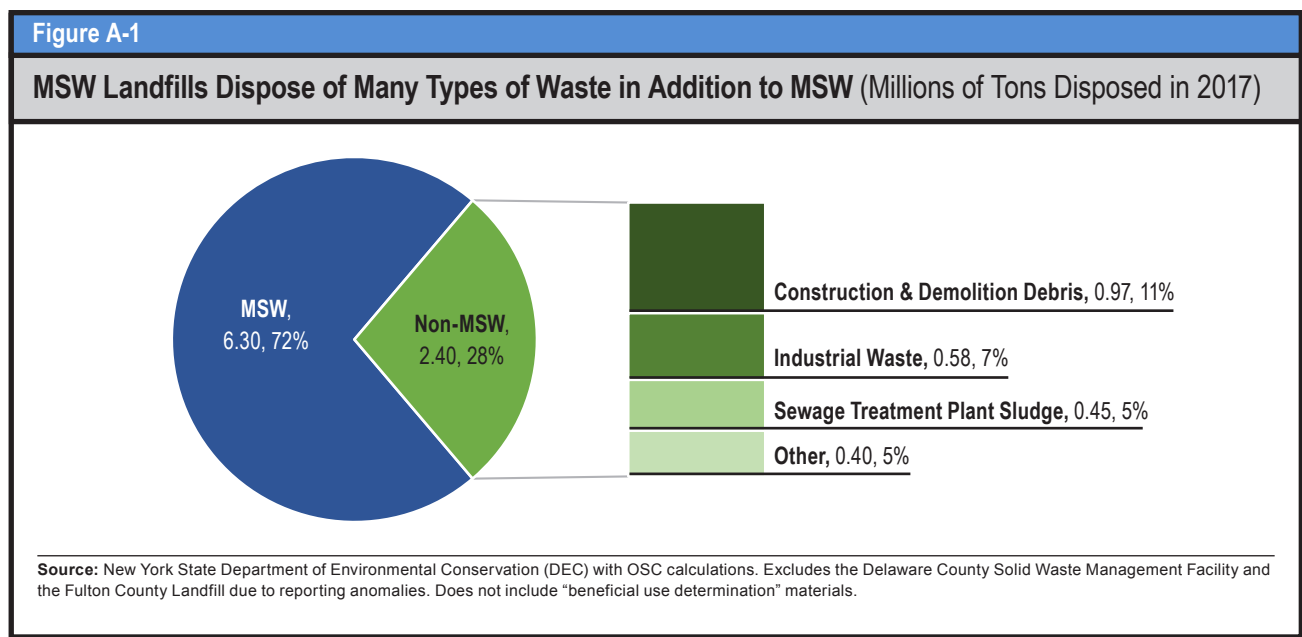
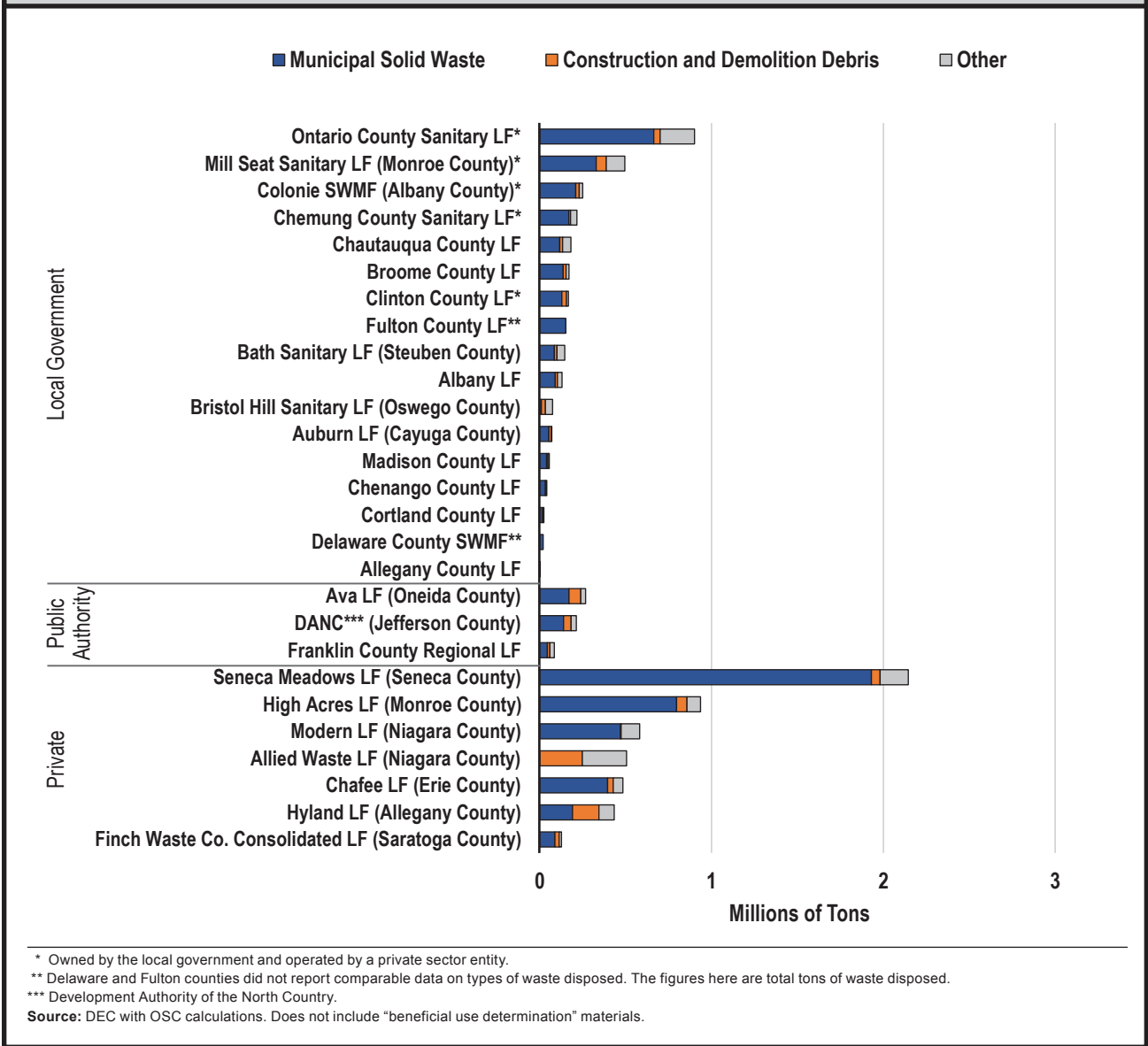


Figure A-2 shows the amount of waste disposed in each of the State's 27 MSW landfills in 2017 according to the landfill annual reports. For most landfills, a majority of the waste disposed is MSW. However, for three landfills, MSW comprised less than half of the waste disposed in 2017. For the Hyland landfill in Allegany County, MSW made up 44 percent of the waste disposed; for the Bristol Hill landfill in Oswego County, MSW made up only 12 percent; and the Allied Waste landfill in Niagara County disposed no MSW in 2017 (except for ash from incinerated MSW). Instead, most of the waste disposed in that landfill in 2017 consisted of construction and demolition debris and industrial waste.⁴⁰

Figure A-2

Waste Disposed in New York’s MSW Landfills, 2017 (Excludes Beneficial Use Determination Materials)



Beneficial Use Determination Materials

Besides the waste disposed in the landfill, a lot of waste material goes in MSW landfills that is not counted as waste per se, because it serves some “beneficial use.”⁴¹ For example, some construction and demolition debris, industrial waste, contaminated soil, tire chips and certain other materials may be used as an alternative daily cover or intermediate cover, or as road construction materials. When approved for such use, these materials are excluded from the State’s definition of solid waste. However, many beneficial uses do take up space in the landfill and so reduce remaining capacity. Beneficial use determination materials are reported separately from the solid waste disposed. In 2017, MSW landfills in New York took in 1.7 million tons of beneficial use determination materials.⁴²

Appendix B: Active MSW Landfills, 2017

Active Municipal Solid Waste Landfills in New York State, 2017						
Facility	Owner/Operator	Capacity (Actual Plus Permitted, 2017, Cubic Yards of Airspace)	Waste Disposed 2017 (Tons)	Beneficial Use Determination Materials Used in the Landfill, 2017 (Tons)	Notes	
Local Government Owned and Operated						
Albany LF	City of Albany	906,533	129,586	17,283	The landfill was expected to close by 2022, but efforts to reduce the amount of waste disposed could extend its useful life by several years.	
Auburn Landfill	City of Auburn	268,864	69,781	8,285	Set to close after reaching capacity in 2021.*	
Allegany County LF	County of Allegany	0	1,781	389	The Allegany County landfill stopped accepting waste in 2017 and is in the process of closing.	
Broome County LF	County of Broome	10,967,972	169,466	85,670		
Chautauqua LF	County of Chautauqua	8,415,908	181,059	17,777		
Chenango County LF	County of Chenango	1,864,265	40,846	12,383		
Cortland County LF (Pine Tree LF)	County of Cortland	1,142,309	23,930	513		
Delaware County SWMF	County of Delaware	597,509	19,595	6,943	The landfill reported 110,509 in constructed capacity plus 487,000 in "entitled" additional capacity, but it does not appear to have a permit for that expansion.	
Fulton County LF	County of Fulton	6,527,099	150,836	7,220		
Madison County LF	County of Madison	9,584,876	55,516	13,582		
Bristol Hill Sanitary LF	County of Oswego	2,375,888	73,876	18,084		
Bath Sanitary LF	County of Steuben	1,321,245	144,869	43,550		
Local Government Owned, Private Operator						
Chemung County Sanitary LF	County of Chemung / Chemung Landfill, LLC (Casella)	7,231,880	215,892	49,403		
Clinton County LF	County of Clinton / New England Waste Services of NY, Inc. (Casella)	5,583,555	171,177	29,615		
Mill Seat Sanitary LF	County of Monroe / Waste Management of NY, LLC	32,400,000	494,810	133,190		
Ontario County Sanitary LF	County of Ontario / Casella Waste Services of Ontario, LLC	9,445,345	900,471	100,328		
Colonie SWMF	Town of Colonie / Capital Region Landfills (Waste Connections)	260,000	249,758	87,452	The numbers in this table do not include the expansion of the Colonie landfill that DEC approved in April 2018.	

Facility	Owner/Operator	Capacity (Actual Plus Permitted, 2017, Cubic Yards of Airspace)	Waste Disposed 2017 (Tons)	Beneficial Use Determination Materials Used in the Landfill, 2017 (Tons)	Notes
Public Authority Owned and Operated					
Development Authority of the North Country Materials Mgt. Facility	Development Authority of the North Country	2,123,533	212,407	37,042	Figures do not include a 110-acre expansion allowed by a permit granted in 2018.*
Franklin County Regional LF	Franklin County SWMA	2,084,861	84,179	14,651	
Ava LF (Oneida County)	Oneida Herkimer SWMA	24,959,853	267,032	69,185	
Private Owner/Operator					
Allied Waste Niagara Falls LF (Niagara County)	Allied/BFI Waste Systems of North America, Inc. (Republic Services)	4,377,302	504,699	100,940	
Chaffee LF (Erie County)	Waste Management of NY, LLC	5,660,000	484,063	16,158	
Finch Waste Co. Consolidated LF (Saratoga County)	Finch Waste Co. LLC	5,254,167	126,267	68,129	Waste Management has agreed to purchase this landfill.*
Hyland Landfill (Allegany County)	Hyland Facility Associates (Casella)	7,685,050	433,299	63,061	
High Acres LF (Monroe County)	Waste Management of NY, LLC	48,090,000	936,104	233,370	
Modern LF (Niagara County)	Modern Landfill, Inc.	20,590,000	581,356	44,885	
Seneca Meadows LF (Seneca County)	Seneca Meadows, Inc. (Waste Connections)	18,148,340	2,145,180	425,947	A local law adopted by the Town of Seneca Falls in 2016 calls for the landfill to close by the end of 2025. The law has been the subject of litigation.
Grand Total		233,136,354	8,867,835	1,705,036	
All MSW Landfills					
<p>Source: New York State Department of Environmental Conservation (DEC) with OSC calculations.</p> <p>Note: "LF" means "Landfill;" "SWMF" means "Solid Waste Management Facility."</p> <p>* On the closure of the Auburn Landfill, see Ryan Franklin, "Auburn City Council Picks Firm to Design Landfill-replacing Transfer Station," auburnpub.com (October 19, 2018). On the expansion of the Development Authority of the North Country (DANC) Landfill, see the DANC website: "Landfill Expansion," available at: www.danc.org/landfill-Expansion. On the purchase of the Finch Waste Company Consolidated Landfill, see Michael Goot, "Finch Paper Sells Saratoga County Landfill to Waste Management," <i>The Post Star</i> (January 1, 2018).</p>					

Notes

- ¹ Expenditure data is from the Office of the New York State Comptroller (OSC) based on local government annual financial reports. The data is for the local fiscal years ending in 2017.
- ² New York State Department of Environmental Conservation (DEC), 2014 compilation of annual solid waste management facility data in the form of an Excel workbook, referred to hereafter as *2014 Solid Waste Compilation*. See the “Generation Summary” tab in the workbook available at: ftp://ftp.dec.state.ny.us/dsh/SWMF/Annual%20Reports_Solid%20Waste%20Management%20Facility/Annual%20Report_Yearly%20Compiled%20Data/. These numbers differ from those on the “Managed 88-14” tab because they include “beneficial use determination” materials, which are materials that are used in landfills as cover or that serve some other useful purpose. The 2018 solid waste management facility list is available at: www.data.ny.gov/browse?q=Solid%20Waste%20Management%20Facilities&sortBy=relevance.
- ³ Environmental Conservation Law (ECL), Sections 27-0106 and 27-0107, sets forth policies and plans for solid waste management.
- ⁴ The New York State Department of Environmental Conservation (DEC), *Beyond Waste (2010)*, “Executive Summary,” p. 1. Available at: www.dec.ny.gov/chemical/41831.html.
- ⁵ A planning unit, as defined in ECL Section 27-0107, is a county, two or more counties acting jointly, a local government or authority established by State law for the purposes of managing solid waste, or two or more municipalities which DEC determines capable of implementing a regional solid waste program. Plans cover a period of at least ten years and are subject to approval by DEC. Regulations regarding local solid waste management planning are codified in Title 6 of the New York Code of Rules and Regulations (NYCRR), Part 366. ECL, Section 27-0107 indicates that local solid waste planning is not mandatory; however, see permit application requirements pursuant to 6 NYCRR 360.16. State regulations now prohibit solid waste management facilities from accepting waste from a municipality that is not included in a DEC-approved local solid waste management plan. In addition, in order to receive solid waste management permits, facilities must be consistent with the goals and objectives of a DEC-approved Local Solid Waste Management Plan (6 NYCRR 366.1.1).
- ⁶ Not all municipalities are part of a local solid waste planning unit. See DEC, “Status of Local Solid Waste Management Plans,” available at: www.dec.ny.gov/chemical/65541.html; accessed on August 7, 2018.
- ⁷ Local governments should consult with their attorneys when crafting “flow control” laws because of potential constitutional issues. See *United Haulers Assn. v. Oneida-Herkimer Solid Waste Management Authority*, 550 U.S. 330 [2007].
- ⁸ For example, in 2013, Washington County agreed to lease its five transfer stations to a private firm. See “Earth Waste & Metal Inks Washington County Transfer Station Deal,” www.earthwastesystems.com/earth-waste-metal-inks-washington-county-transfer-station-deal/. Accessed on August 27, 2018. In 2018, the contractor purchased the transfer stations. (Washington County Resolution No. 205 (August 17, 2018).)
- ⁹ DEC, Solid Waste Management Facilities dataset is available on data.ny.gov at: www.data.ny.gov/Energy-Environment/Solid-Waste-Management-Facilities/2fni-raj8. The data used in this report is from February 14, 2018. The “facilities” reflect various types of registered or permitted solid waste activities. The data have some obvious inaccuracies/inconsistencies, notably in the “owner” and “owner type” fields. For example, the “owner” may be identified as a town, but the “owner type” will be blank instead of “municipal.” Also, some public authorities are classified as counties or municipalities in the “owner type” field.
- ¹⁰ Municipal solid waste is defined in 6 NYCRR 360.2.
- ¹¹ DEC, *2014 Solid Waste Compilation*. The 2018 solid waste management facility list is available at: www.data.ny.gov/Energy-Environment/Solid-Waste-Management-Facilities/2fni-raj8. In 1984, DEC issued an enforcement policy (DEE - 8, revised in 1988) “to insist upon compliance with New York State law and regulations governing closures of active solid waste landfills.” The policy is available at: www.dec.ny.gov/regulations/25228.html. The federal Resource Conservation and Recovery Act of 1976 is codified in 42 U.S.C. Section 6901 et seq.
- ¹² Remaining capacity is based on MSW landfill annual reports to DEC. The MSW landfill annual reports are available at: ftp://ftp.dec.state.ny.us/dsh/SWMF/Annual%20Reports_Solid%20Waste%20Management%20Facility/Annual%20Reports_by%20Activity%20Type/.

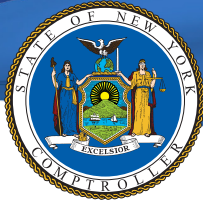
Notes

- ¹³ New York State is a net exporter of waste, according to DEC's 2014 Solid Waste Compilation, which estimated that waste exports (of all types of waste) totaled 5.7 million tons for that year, while imports totaled 2.2 million tons. (See the totals on the "Import Export Sum" tab.)
- ¹⁴ In 2017, the materials landfilled in the State's MSW landfills consumed an estimated 11.9 million cubic yards of landfill airspace, leaving the State's active MSW landfills with just 27.4 million cubic yards of constructed capacity remaining. However, some landfills have been granted permits to expand. As reported in the facilities' 2017 annual reports, the approved additional capacity for all MSW landfills totals 210.4 million cubic yards of airspace. (OSC calculations based on MSW landfill annual reports for 2017.) It is difficult to estimate future disposal amounts, since many factors influence how much waste is generated, disposed and recycled or otherwise diverted from the waste stream. Imports and exports can vary according to shifts in transportation costs and the amount of out-of-state disposal capacity.
- ¹⁵ Expenditures are on an all funds basis and include all associated costs, including centrally funded costs such as fringe benefits (e.g., health care and pensions) and debt service, as reported in the *Message of the Mayor, The City of New York Executive Budget FY 2019*, April 2018. Figures for the amount of waste disposed and recycled are from the *Mayors Management Report*, Fiscal Year 2017. DSNY defines disposed as refuse "sent via transfer stations to landfills or waste-to-energy facilities outside New York City." This would not include trash exported by the private sector.
- ¹⁶ Center for Environmental Oversight, "Landfill Caps and Enhancements" (no date), available at: www.cpeo.org/techtree/ttdescript/lancap.htm. Accessed on August 22, 2018. This article describes various types of landfill caps, including their limitations. Landfill caps are estimated to last from 50 to 100 years, which means that future generations may find themselves burdened with environmental hazards they did not anticipate.
- ¹⁷ All of the figures for landfill closure and post-closure costs in this paragraph come from local government annual financial reports to OSC.
- ¹⁸ The five are Chautauqua, Chemung, Cortland, Monroe and Ontario counties. Cortland County did not file its annual financial report for 2017 with OSC in time for inclusion in this report. Monroe County's agreement with the landfill operator calls for the operator to pay for post-closure costs. See, Barton & Loguidice and Monroe County Department of Environmental Services, *Final Local Solid Waste Management Plan* (July 2015), p. ES-4. The Town of Colonie reports a substantial liability, even though the operator is going to pay it. See, the *Solid Waste Facility Operating Agreement between the Town of Colonie, New York and Capital Region Landfills, Inc.* (August 4, 2011). Available at: www.colonie.org/departments/envservices/documents/SolidWasteFacilityOperatingAgreement.pdf.
- ¹⁹ Information about the program is available at: www.dec.ny.gov/chemical/4776.html. Information on the grant amounts is from email correspondence from DEC staff on August 6, 2018. DEC maintains a waiting list of eligible projects. As of August, 2018 there were 10 projects (including landfill closure and gas management projects) on the waiting list.
- ²⁰ Sources for the information on Chinese recycling policies and their impacts in New York include: *Resource Recycling*, "From Green Fence to Red Alert: A China Timeline," available at: www.resource-recycling.com/recycling/2018/02/13/green-fence-red-alert-china-timeline/, accessed on August 8, 2018; Colin Staub, "Import Restrictions Ripple Across Southeast Asia," *Resource Recycling*, June 5, 2018; accessed on August 8, 2018 at: www.resource-recycling.com/recycling/2018/06/05/import-restrictions-ripple-across-southeast-asia/; Colin Staub, "Local Programs Feel the 'Dire' Effects of China's Ban," *Resource Recycling*, accessed on August 8, 2018 at: www.resource-recycling.com/recycling/2017/10/03/local-programs-feel-dire-effects-chinas-ban/; Brian Nearing, "New Recycling Bill Could Cost Capital Region Millions," *Times Union*, July 5, 2018; Steve Orr, "Curbside Recycling Programs Are Now Such Money-Losers that It's Going to Cost Us More," *Democrat & Chronicle*, June 29, 2018; and Governor Andrew Cuomo, "Governor Cuomo Directs DEC to Launch New Effort to Improve Recycling in New York" (press release), August 13, 2018.
- ²¹ See David L. Shaw, "Town Urged to Litigate, Not Negotiate, Seneca Meadows Lawsuit," *Finger Lakes Times*, August 8, 2018. The local law ordering the landfill's closure is the Town of Seneca Falls Waste Disposal Law (Local Law 3 of 2016 in Seneca Falls). The law was repealed by Local Law 2 of 2017, but the repealing law was annulled by a New York Supreme Court justice.
- ²² Amanda Fries, "Albany Now Projects Landfill to Close in 2026," *Times Union*, August 16, 2018.

Notes

- ²³ City of Albany, *\$52,164,517 City of Albany, Albany County, New York \$33,310,417 General Obligation (Serial) Bonds, 2018 Official Statement*, June 28, 2018, p. 9.
- ²⁴ City of Albany, *Audited Financial Statements and Supplementary Information*, 2016, p. 50.
- ²⁵ OSC, *Town of Colonie: Financial Condition and Internal Controls Over Cash Disbursements (2007M-278)*, p. 6.
- ²⁶ “Colonie Town Board Approves Landfill Operating Agreement with Waste Connections, Inc.” *The Record* (Troy, NY), July 29, 2011.
- ²⁷ In May 2006, Moody’s Investors Service downgraded the Town of Colonie’s general obligation debt from Aa3 to A2. See Moody’s Investors Service, “Moody’s Downgrades to A2 with a Negative Outlook the Rating on the Town of Colonie’s (NY) GO Debt” (May 2, 2006). For information on how the Town used proceeds from the agreement with Capital Region Landfills, Inc., see, Moody’s Investors Service, “Colonie, NY: Update – Moody’s Upgrades the Town of Colonie’s (NY) GOLT Debt to A3,” April 4, 2016.
- ²⁸ Waste Dive, “Update: Expansion Approval Granted to New York Landfill Operated by Waste Connections” (April 9, 2018). Available at: www.wastedive.com/news/new-york-landfill-scales-back-expansion-plans-awaits-state-approval/519749/. Accessed on September 25, 2018.
- ²⁹ Town of Colonie, *\$4,550,000 Various Purposes Refunding Serial Bonds, Official Statement*, June 15, 2017, p. 21.
- ³⁰ Delaware County Department of Public Works, *Delaware County –Final– Local Solid Waste Management Plan Update 2018-2027* (December 2017), p. 6. The County’s Solid Waste Management Center includes an MSW landfill, a construction and demolition debris landfill, a materials recovery facility, a mixed waste composting facility, and a landfill gas extraction system and flare (combustion of landfill gas without energy recovery).
- ³¹ Delaware County also plans to request a permit to expand the MSW landfill to provide 60 years of additional solid waste program service life. Both New York City’s Watershed Rules and Regulations and the Memorandum of Agreement among New York City and its watershed communities allow for expansion of the landfill. (Ibid, p. 8.)
- ³² Information on DEC’s regulations regarding solid waste management and landfills is available at: www.dec.ny.gov/chemical/8498.html. For information on the risks due to landfill gas migration, see New York State Health Department, “Important Things to Know about Landfill Gas” (April 2010). For information on methods for capping landfills, see Center for Public Environmental Oversight, “Landfill Caps and Enhancements,” available at: www.cpeo.org/techtree/ttdescript/lancap.htm. Accessed on September 12, 2018.
- ³³ Fulton County Board of Supervisors, “Fulton County Terminates Landfill Privileges of Montgomery County,” press release, June 18, 2018.
- ³⁴ Winnie Blackwood, “Fulton County Nixes Landfill Contract with Montgomery County,” *The Recorder* (Amsterdam, New York) (June 19, 2018).
- ³⁵ Barton & Loguidice and Monroe County Department of Environmental Services, *Final Local Solid Waste Management Plan (July 2015)*, *Final Local Solid Waste Management Plan (July 2015)*, p. ES-4 and p. 28.
- ³⁶ Monroe County, *\$77,815,000 Public Improvement Serial Bond – 2018, Official Statement*, June 21, 2018, p. A-24.
- ³⁷ Monroe County, New York, *\$77,815,000 Public Improvement Serial Bond – 2018*, op. cit., p. A-23.
- ³⁸ Steve Orr and Meaghan McDermott, “Monroe County Finds Ways to Leverage Waste System,” *Democrat & Chronicle*, November 10, 2013.
- ³⁹ Town of Riga, “Community Benefits,” available at: www.townofriga.com/landfill/community-benefit/, accessed on August 8, 2018.
- ⁴⁰ Two MSW landfills were excluded from these calculations because they did not report using these waste categories.
- ⁴¹ Regulations on the “beneficial use” of waste materials are codified in 6 NYCRR 360.12.
- ⁴² OSC calculations based on 2017 MSW landfill annual reports to DEC.

Contacts

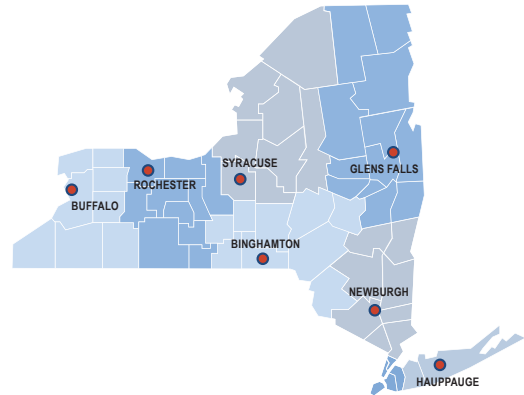


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