



**The
Authority**TM
ONEIDA-HERKIMER SOLID WASTE AUTHORITY



LOCAL SOLID WASTE MANAGEMENT PLAN

Biennial Update (March 2021)
Revised June 2021
Planning Period 2019 - 2020
&
Planning Period Extension 2023 - 2024

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Executive Summary

The Oneida-Herkimer Solid Waste Management Authority (Authority) is a New York public benefit corporation which was created by the State Legislature at the request of Oneida and Herkimer Counties by passage of Article 8, Title 13-FF of the New York Public Authority Law on September 1, 1988. The Authority was created to address environmental problems associated with improper solid waste disposal, to develop new facilities and programs for waste reduction and recycling, and to address the lack of long-term disposal capacity for non-recyclable waste.

With this charge and mandatory recycling laws enacted by both Counties, the Authority has developed a regional, comprehensive, integrated system of facilities to serve all the residents, businesses, industries and institutions of the two Counties. This integrated system promotes waste reduction, maximizes recycling, and provides safe, economical disposal for non-recyclable waste. The Authority owns and operates a Recycling Center, Household Hazardous Waste Collection Facility, Green Waste Composting Facility, Regional Landfill, two Land Clearing Debris Facilities, a Pallet-Processing Facility, three Transfer Stations and a Source Separated Organics Processing Facility. Services include recycling, promoting backyard composting, providing public education, promoting waste reduction and reuse of materials, school "Go Green" initiatives, full-scale electronics collection and source separated organics processing.

The Authority developed the region's first Local Solid Waste Management Plan (LSWMP) in 1991. The Plan included development of the comprehensive integrated solid waste management system. All municipalities in both Counties are participants in the Planning Unit and LSWMP. The original plan has been fully implemented. The Authority developed a new 10-year plan to guide the region's solid waste management through 2020. A LSWMP planning period extension for the years 2021 and 2022 was developed and approved by the state in 2019. This biennial update covering the period 2019-2020 will also serve as a LSWMP planning period extension for the years 2023 and 2024 as per 6 NYCRR Part 366-5.2.

The Authority is governed by a 10-member Board of Directors, employs approximately 80 people and has an annual operating budget of approximately \$26 million.

In 2007, the Authority won a landmark case in the United States Supreme Court (United Haulers v. Oneida-Herkimer Solid Waste Authority) establishing a national precedent for local public solid waste systems.

The Authority revenue structure is primarily a fee for service system. A system tip fee is charged for all non-recyclable waste delivered to the Authority. These fees cover the majority of expenses in the Authority budget. The Authority receives additional revenue from other sources such as investments, sale of landfill gas, sale of carbon credits, sale of recyclables, sale of compost and grants. The Authority receives no funding from the Counties.

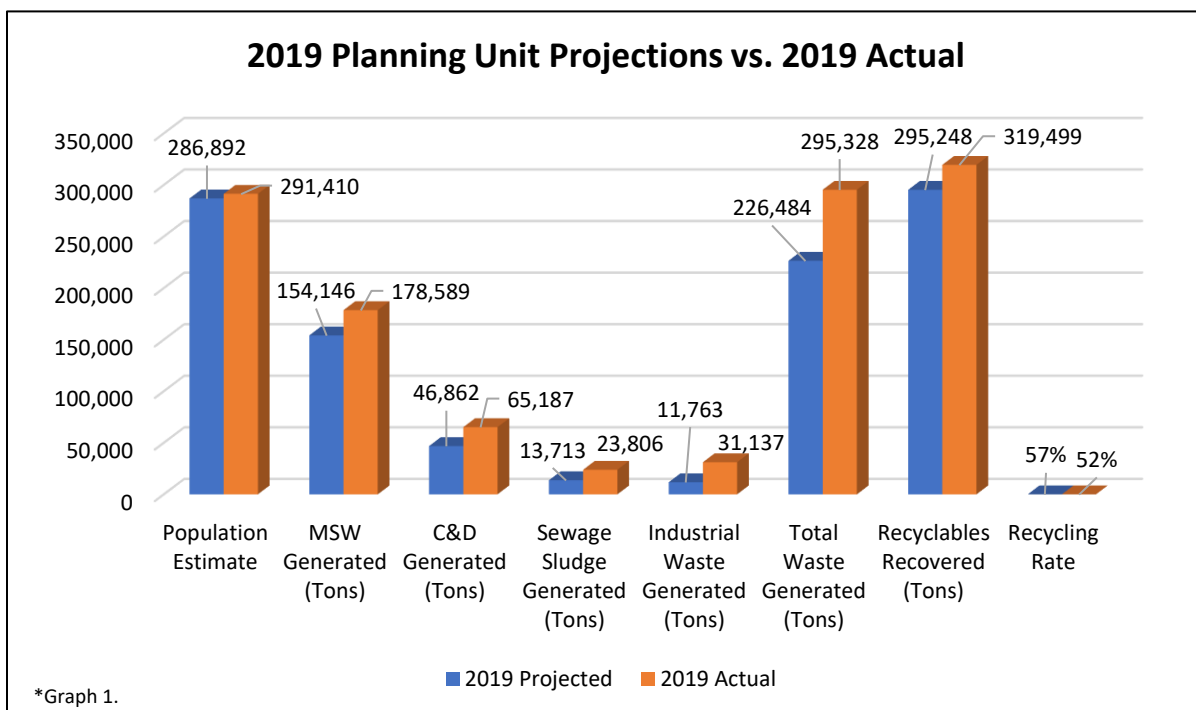
This document features a discussion of actual recycling and disposal data for the operating period 2019-2020, as well as a major update to the LSWMP pertaining to organics recovery. It also describes the Authority's outreach and education activities, obstacles faced, the status of conformance with the current LSWMP, waste composition analysis and a revised implementation schedule.

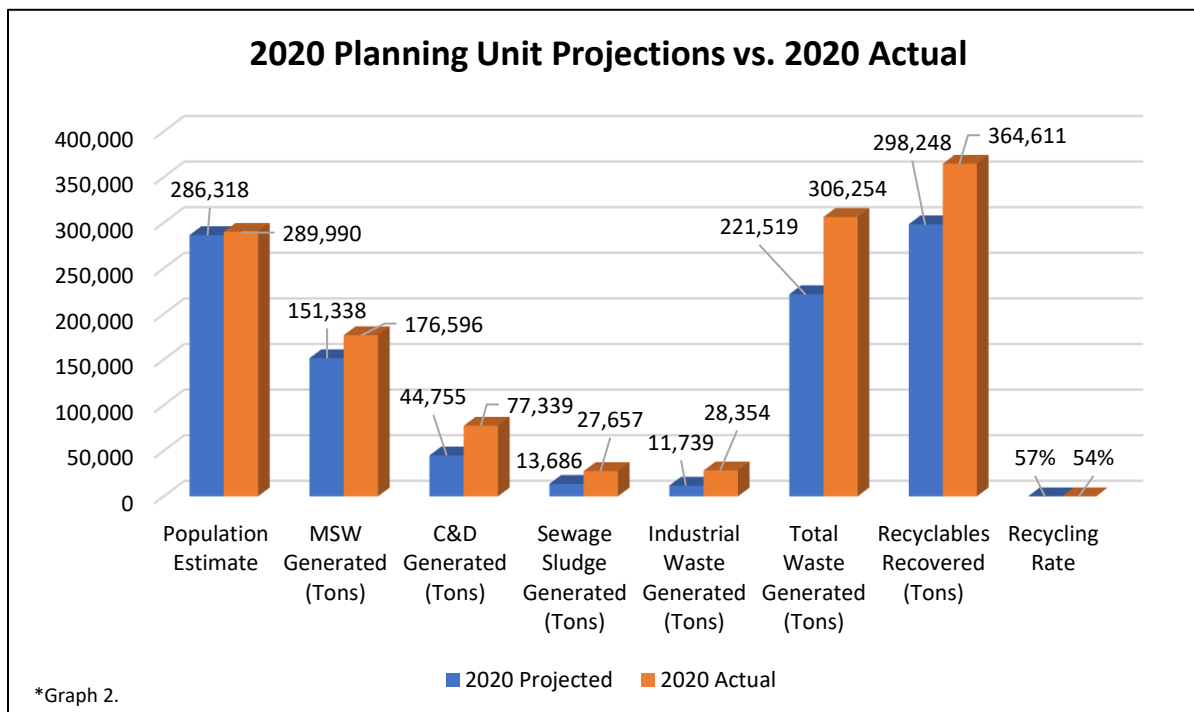
It contains the required elements consistent with 6 NYCRR Part 366-5.2 for a LSWMP planning period extension of two years, 2023-2024.

1. Summary Report

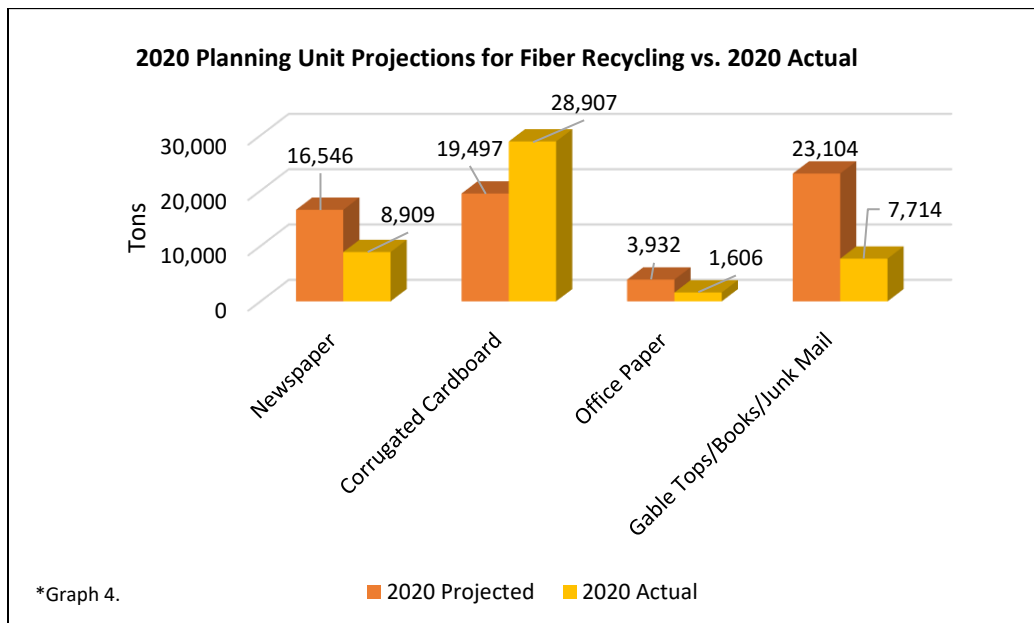
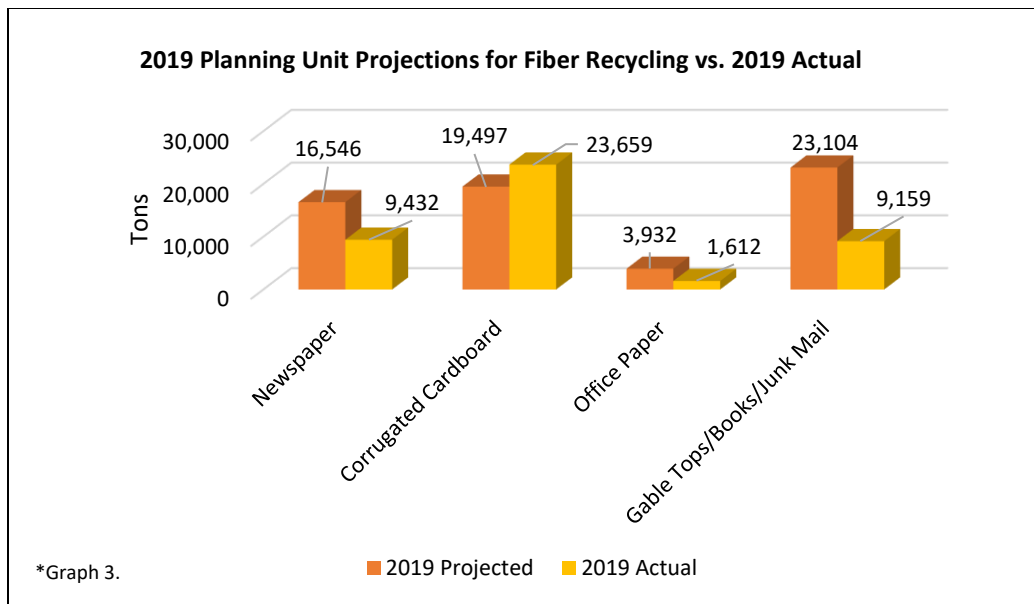
- i. **Changes to the Planning Unit Structure** – The Oneida-Herkimer Solid Waste Authority (Authority) is the solid waste management planning unit for the Oneida County and Herkimer County region. There are no changes to the planning unit structure. Both Oneida and Herkimer Counties and all municipalities located within them participate in the Planning Unit and Local Solid Waste Management Plan (LSWMP).
- ii. **Actual Waste Recycling and Disposal Data** – For the reporting period, the actual 2019 and 2020 Recycling and Disposal data is illustrated in the following Tables and discussed in the associated text. All data is composed of actual scale weights taken at Authority facilities as well as information obtained from the Authority's Annual Recycling Surveys. Each year, the Authority sends over 300 surveys to local businesses requesting their annual recycling information. Once received, we combine that data with the Authority's known data.

Data is compared to 2019 and 2020 projections originating from the current LSWMP. Any discussion of data related to 2020 must include the impacts associated with the Covid-19 pandemic. Economic activity was altered during this crisis which changed consumer practices, employment, and business activity (restaurants, hospitality businesses, manufacturing, construction and demolition). Anecdotally, commercial waste probably decreased (restaurant waste and school waste) while residential waste increased (work from home activity). However, both overall waste and recyclables increased.

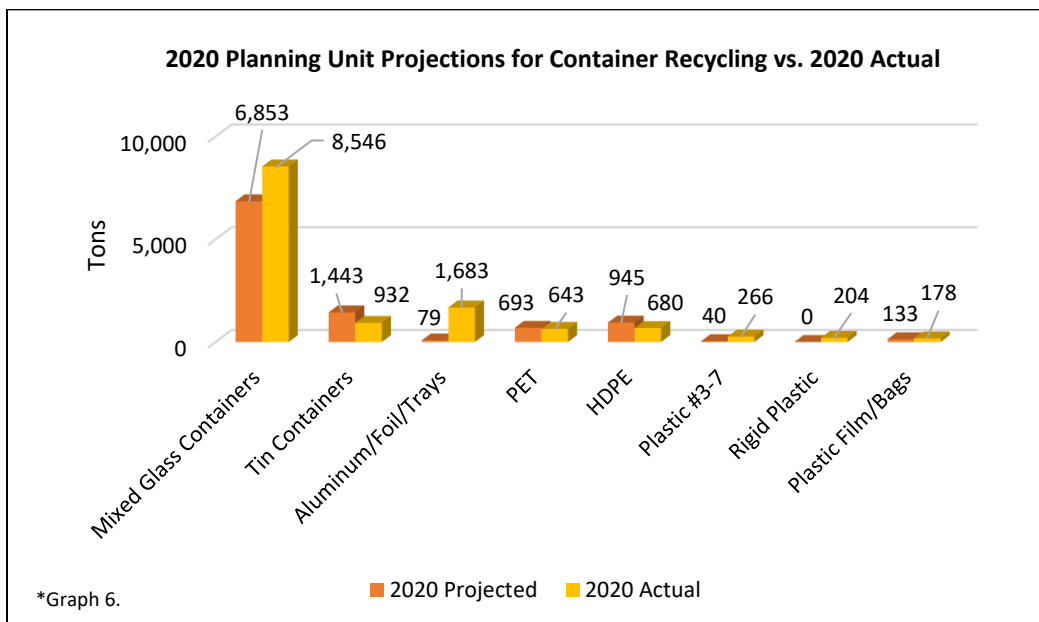
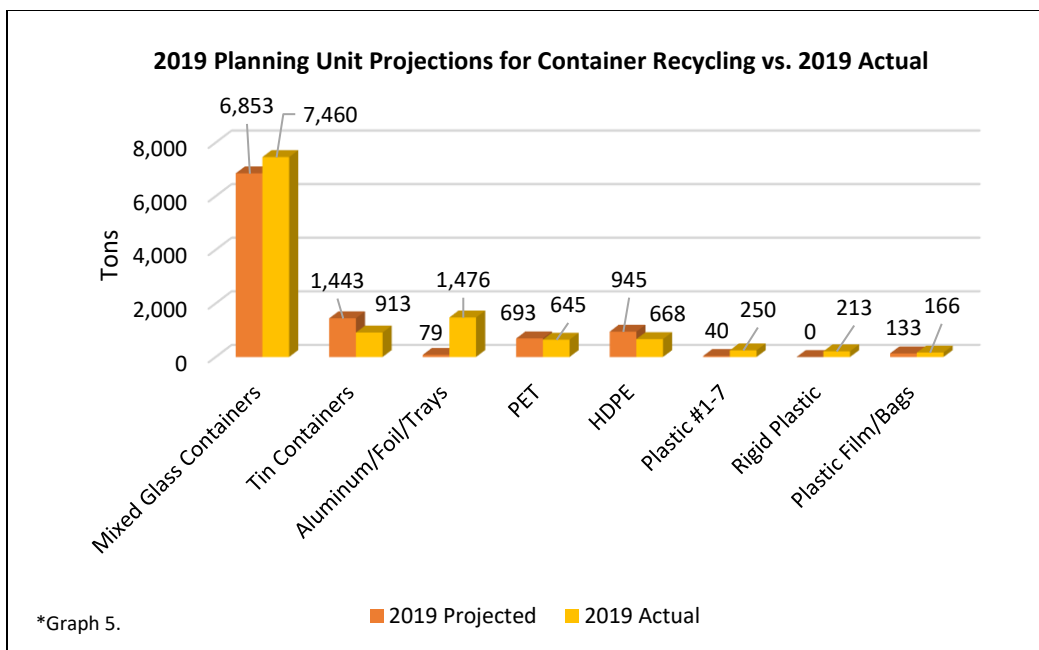




As seen in both Graphs 1 and 2 above, the actual totals are all higher than the projected totals with the exception of recycling rates. It is believed that this is generally due to increased economic activity in the region resulting in greater consumption, which in turn brings increased waste and recyclable material generation. The actual population of the region dropped slightly during the reporting period. Recycling rates remained flat due to a larger total waste plus recyclables universe. Actual waste increased 4% during the two-year reporting period, recyclables increased by 1% during the same period. Local unemployment rates fluctuated during the reporting period (4.4% in 2019 compared to 8.7% in 2010 when the current LSWMP was written according to the Bureau of Labor Statistics) and consumer activity appeared to be increasing. However, in 2020 the unemployment rate increased to 10.7% and it is highly likely that the Covid-19 pandemic contributed to that increase. C&D has risen compared to projections because of more commercial construction and the demolition of older commercial/housing stock specifically attributed to construction of a medical center in downtown Utica, Rome Cable demolition in Rome and Nexus Center construction in Utica. The total waste amounts of these projects totaled 49,924 tons of C&D, asbestos waste and contaminated soil or 16% of all waste disposed at the Regional Landfill in 2020. Industrial waste was up significantly when compared to projections, this is likely due to comparing strictly industrial waste in the current LSWMP to the "Planning Unit Recycling Report" industrial waste which includes asbestos waste and contaminated soil not used as alternate operating cover material. For the purpose of Graph 2, in addition to industrial waste, asbestos and treated regulated medical waste are included. Sewage sludge increased over 14%, this is due to an increase of high strength (whey waste) acceptance by the City of Rome Treatment Plant and the result of a major retrofit of the largest treatment plant in the region, the Oneida County Water Pollution Control Facility. The Oneida County plant no longer incinerates its sludge due to air regulations. Anaerobic digestion is now employed to process plant sludge resulting in an approximate 60% increase in sludge volume generated when compared to sludge ash.



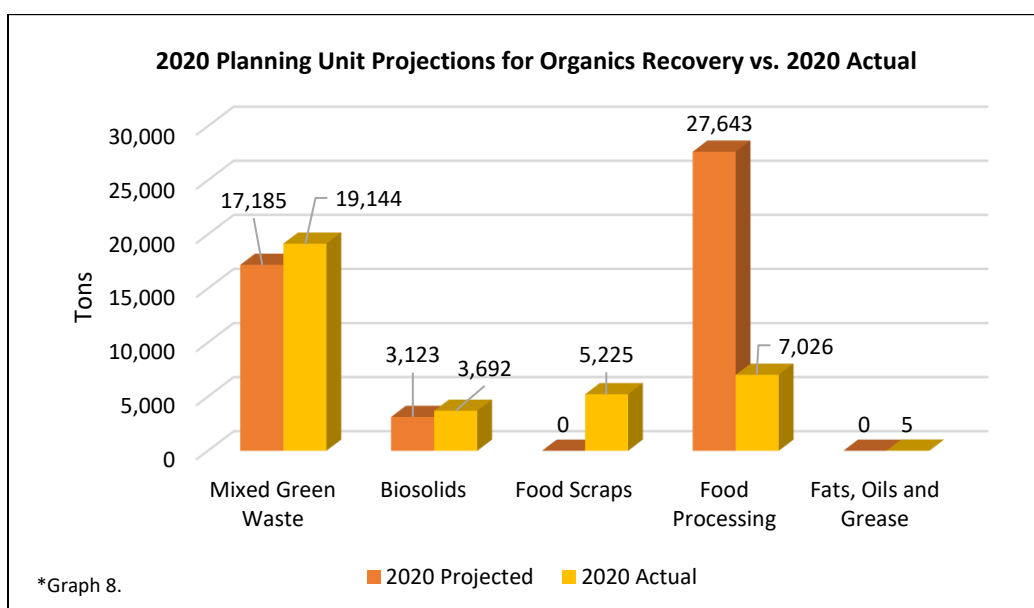
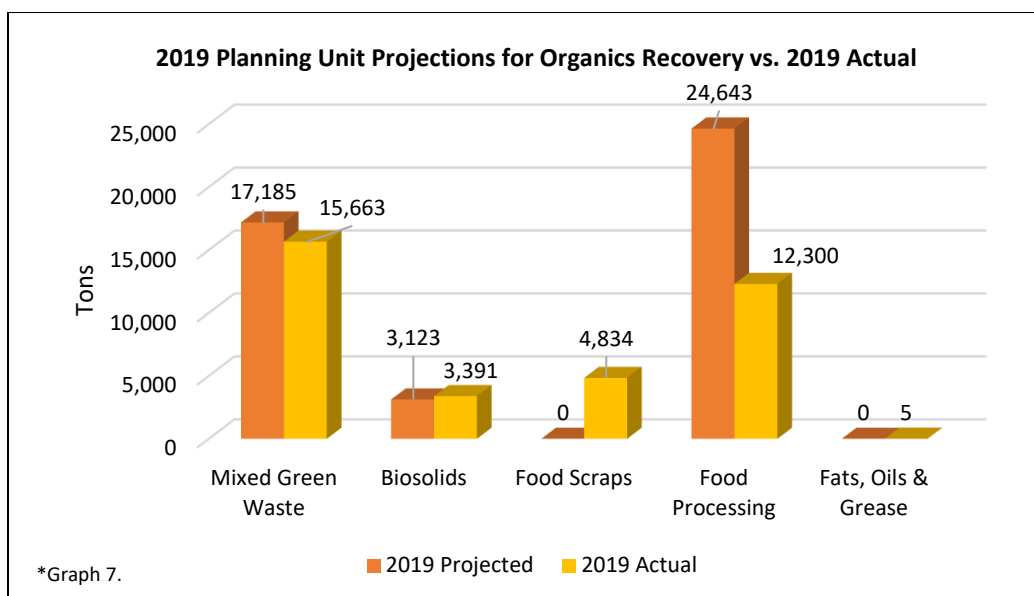
After a review of Graphs 3 and 4, the following observations were made. The actual totals for newspaper, office paper and gable tops/books/junk mail were all down from their projected totals. This is not surprising. Since the projected totals were made in 2010, the Observer-Dispatch, the region's highest circulation daily local newspaper, has been physically reduced by 25%. The digital world fully hit the area during the current LSWMP. Computer users have embraced electronic filing and e-mails over traditional paper files and memorandums. Over the recent years, social media and online advertising have hit an all-time high. Therefore, most residents are reading, getting their news, communicating with one another and doing their business electronically. This phenomenon is a main contributor for the corrugated cardboard (OCC) being higher and office paper being lower in tonnage than the projected totals in 2019. Because more local residents were purchasing items online from retailers such as Amazon and having them shipped to their door, we are seeing an increase in corrugated cardboard shipping containers consistent with this nation-wide trend. In 2020, we see an increase in OCC of over 5,000 tons. It is assumed that this is associated with the Covid-19 pandemic. Again, local residents were purchasing items online and having them shipped directly to their door. Office paper data remained stable during the reporting period.



Graphs 5 and 6 illustrate interesting results. Mixed glass containers, aluminum/foil/trays, plastic #1 - 7 (#3 – 7 in 2020), rigid plastics and plastic film/bags are all showing actual totals to be higher than the projected totals. When looking at mixed glass containers and aluminum/foil/trays, there are a limited number of easy and convenient ways of recycling these materials other than curbside recycling programs. Therefore, we see more of this material coming into our Recycling Center. In 2011, the Authority also installed an Eddy Current Separator which resulted in more aluminum being recovered for recycling. Our facility is also accepting more types of plastics than we originally projected when the current LSWMP was written, which in turn causes an increase in that category. When projected totals were first made back in 2010, we were not accepting rigid plastics. In 2012, this program began, causing an increase in this category. Since January 1, 2009, New York State's Plastic Bag Reduction, Reuse and Recycling Act (Act) has been in effect. Stores with 10,000 square feet or more of retail space and chains which operate five or more stores with greater than 5,000 square feet of retail space, and which provide plastic carry out bags to customers, are required to comply with the law and establish an at-store

film plastic recycling program. This is believed to be the reason for plastic film/bags being higher than the projected total. However, it is important to mention that as of March 1, 2020 all plastic carryout bags (other than an exempt bag) were banned by New York State from distribution by any entity required to collect New York State sales tax. Therefore, even though retailers are still obligated to recycle plastic film, it is assumed that smaller quantities of the material will be available for recycling as the years go by resulting in data shifts.

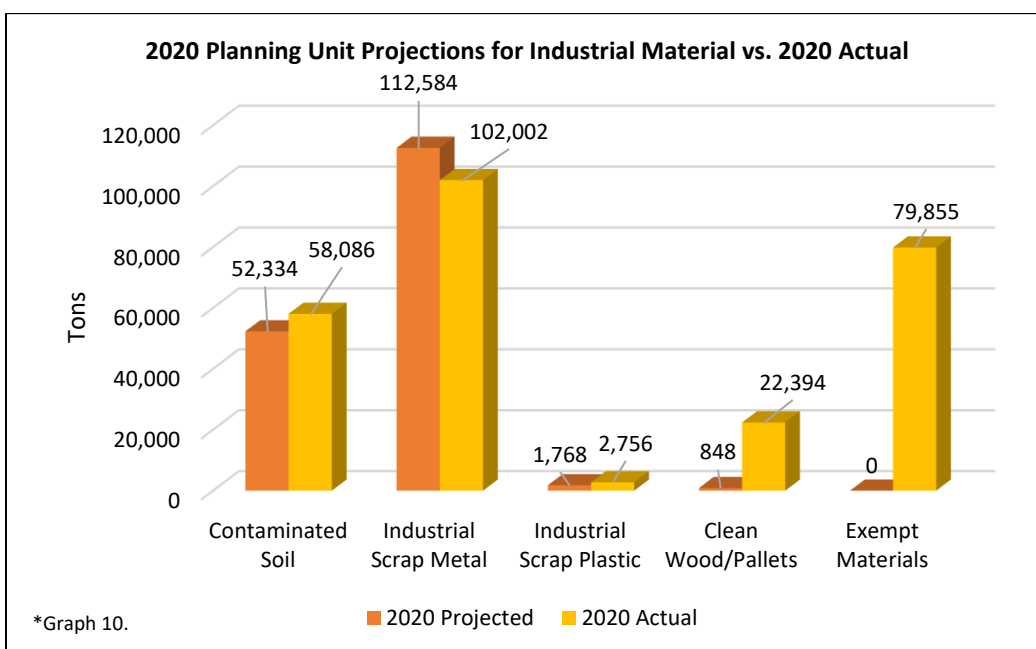
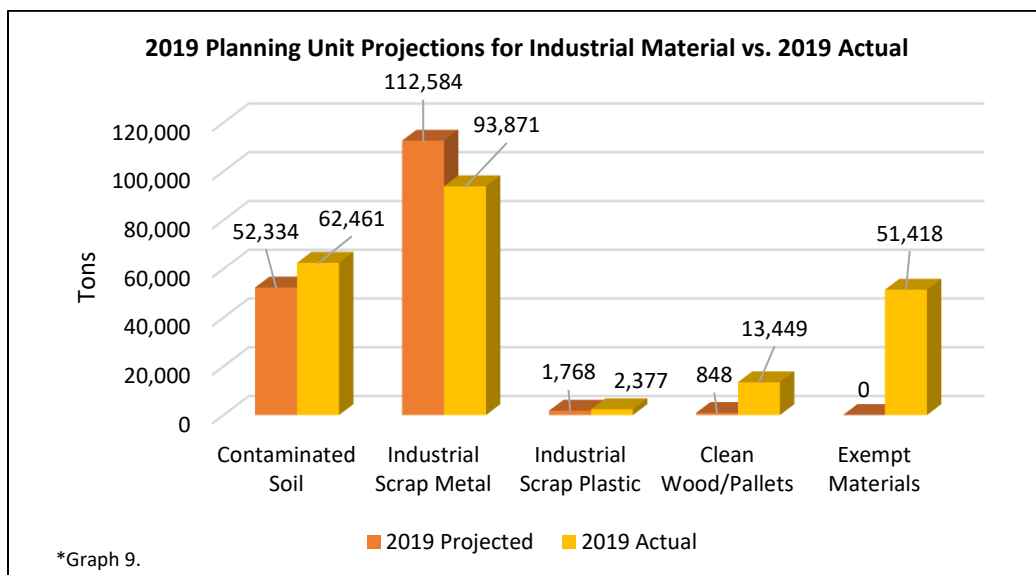
The categories of tin containers and HDPE fell below their projected totals. This difference is likely attributed to the change in manufacturing/packaging and the actual “thinning” of plastic to save weight and thereby decrease shipping costs. We believe the difference in the tin containers comes from the way some businesses choose to report their totals. It is our understanding that the tin containers can often be mixed or included with the industrial scrap metal reported in Graphs 9 and 10.



Graphs 7 and 8 represent the projected and actual totals for organics recovery. Some of the categories are very similar when comparing actual numbers to projections.

One of the reasons we believe we are seeing a difference in mixed green waste is because more people, schools and local businesses are educated and participating in backyard composting programs.

It is also worth pointing out that food scraps and food processing were once reported as one category and now are split into the two, as seen above. Otherwise, these totals would be very close as well. However, it is important to note the decrease in 2020 food processing. A major regional brewery has recently focused much of their efforts on seltzer-based drinks in response to consumer demand, thereby reducing the use of hops used in beer production. Recovered biosolids have been very consistent year to year and are nearly the same for projections and actuals. We did not make any projections for fats, oil or grease in the current LSWMP. We now have some limited data for those materials, due to our private sector waste and recyclables surveys.

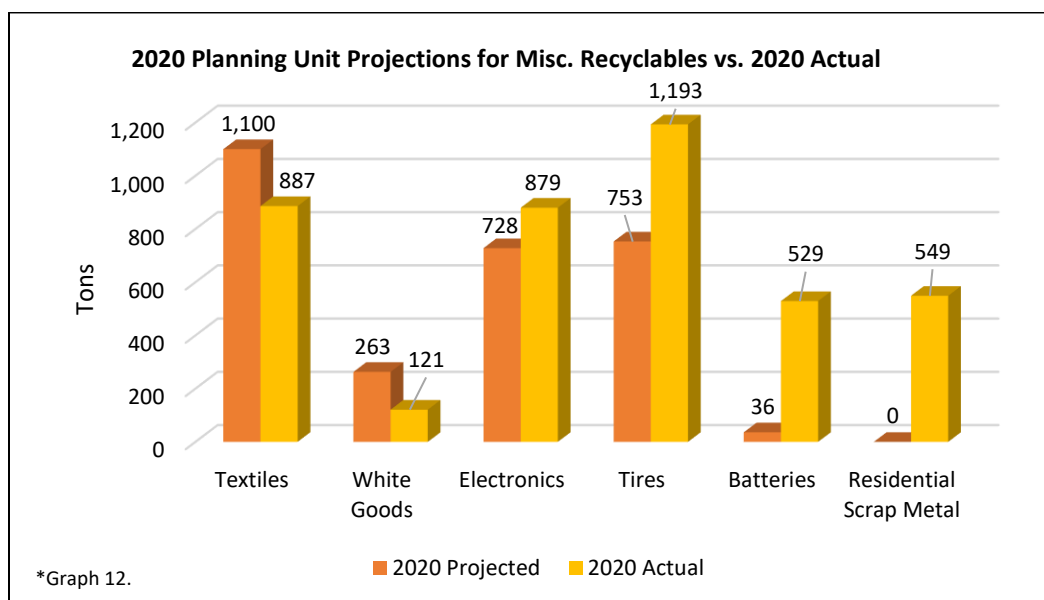
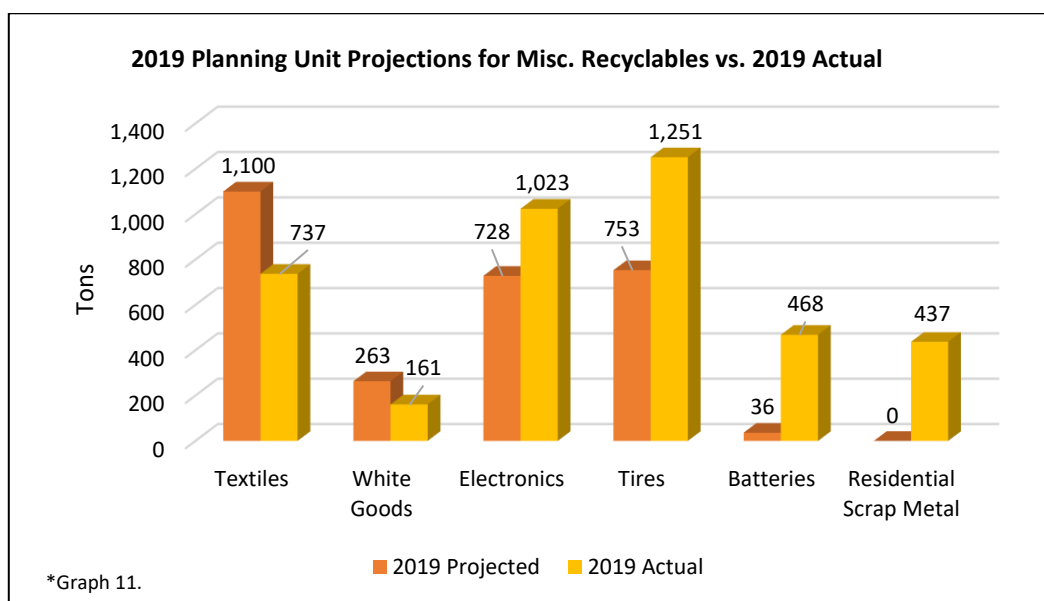


Graphs 9 and 10 show the tonnages reported for industrial material. It is important to recognize that much of this industrial material is managed outside of the Authority. Therefore, we are subject to data availability that may or may not be available to us year by year. The decrease in

contaminated soil is likely due to differences in the area's industrial clean-ups and road improvements from year to year associated with public entity budgets as well as state regulatory guidelines. In order to start new construction, road repair or put in place new infrastructure, contaminated soil may need to be removed. Scrap metal is largely a private sector industry and we rely on the private sector to accurately report to us. This sector is also subject to double counting (scrap from outside the region hauled in), but this practice is out of the Authority's control.

The increase in 2020 industrial scrap plastic is attributed to better reporting from the private sector.

A large increase is also shown in the clean wood/pallets category, which we believe can be directly related to better private sector reporting, increased goods shipments, and the improving economy. At the time of projections in 2010, exempt materials (asphalt, rock, concrete, sand and brick) was not being tracked as its own category, however, it will be going forward. Compared to 2019 actuals we see a significant increase in this material in 2020 of 35%, this is due to better access to private sector waste records.



Lastly, are Graphs 11 and 12. The decrease in textiles can once again be attributed to reporting inconsistency, similar to plastic film/bags recycling in Graphs 5 and 6. Not all facilities that collect this material report their numbers to us. All other categories, except for white goods, seen in the above two graphs saw an increase in their actual totals from their projected numbers. This can be directly related to our outreach and education campaigns. Electronics are significantly up when compared to LSWMP projections, 29% for 2019 and 17% for 2020. This is attributed primarily to the wide-spread use of flat screen computers and TV's, with the associated discarding of old-style computer screens and TV's. However, we may be witnessing the beginning of the end of older style screen TV and computer screen removal as actual electronics decreased 14% during the reporting period. The Authority now makes it more convenient than ever to recycle white goods, electronics, tires, batteries and residential scrap metal. All mentioned items can be disposed of at either our EcoDrop Utica or EcoDrop Rome Facilities six days a week.

In addition, battery recovery is up a whopping 92% and 93% versus projections during the reporting period, because of the widespread use of rechargeable batteries in tools and other common household items.

iii. Current Status and Changes to Solid Waste Management Practices

Recycling

The Authority implemented single stream recycling in 2012. This took the place of the Authority's previous dual stream processing system. The single stream processing system utilizes mechanical star screens and optical sorting technology to sort recyclable material by size and type. This advanced technology is able to perform efficiently with high throughput. Residents and businesses in the two-County region are able to recycle a wide-range of materials which are processed at the Recycling Center. Those materials include newspaper, magazines, boxboard, office paper, junk mail, gable top containers, juice boxes, PET plastics, HDPE plastics, mixed plastics (#1 - #7), mixed rigid plastics, glass, ferrous cans and mixed aluminum. In 2020, the Authority went from marketing mixed plastics (#1 - #7) to a mixed plastics (#3 - #7). This was due to market demand and the recycling mills wanting very few 1's and 2's in the mix. This difference can be seen in Graphs 5 and 6.

Recyclables are collected curbside with a combination of municipal and private haulers. The Authority directly markets recyclables processed at its Recycling Center. It has business relationships with 33 local and interstate buyers for recyclable material. During this period, the Recycling Center processed over 60,000 tons of in-county recyclable material.

Since investing in its state-of-the-art single stream processing facility to process recyclables from Oneida and Herkimer Counties, the Authority has proven it has excess capacity which allows more recyclables to be processed. Under its enabling legislation, the Authority is authorized to process out-of-region recyclables.

The Authority has intergovernmental agreements for the processing and marketing of recyclables from Fulton County, Lewis County and Oswego County.

In 2019 and 2020, the Recycling Center processed over 23,000 tons of recyclables from outside the Oneida-Herkimer region.

The Authority continues to promote its Business Recycling Program which assists businesses, industries, schools and other commercial establishments by providing information on starting and maintaining a recycling program as well as decreasing the volume of waste produced by businesses.

Through a waste assessment/audit, the Authority evaluates current solid waste and recycling practices at area businesses, schools and institutions; identifies waste generation points; assesses individual workspaces and waste produced to document participation and compliance rates; and determines potential opportunities for increasing recyclable material recovery. This service is provided free of charge.

As part of the Business Recycling Program, the Authority also offers a voluntary RecycleOne Business Certification which recognizes businesses and industries for taking steps to reduce solid waste, increase recycling and save energy. Five businesses achieved Certification in 2019-2020.

During the 2019-2020 period there were no major changes to recycling program practices.

Household Hazardous Waste Management

The Oneida-Herkimer Household Hazardous Waste Collection Facility opened for its 27th and 28th seasons during the reporting period.

The facility is one of the first permanent facilities in the northeast to recycle paint and to accept a full range of household hazardous waste. This facility is designed to serve Oneida and Herkimer Counties' residents and select businesses. There is no charge for residents to drop off household hazardous waste.

The Oneida-Herkimer Solid Waste Authority has a specially designed Household Hazardous Waste Collection Facility for receiving, sorting, packaging and storing household hazardous waste material.

In 2019 and 2020, 110,623 gallons of hazardous waste were collected at the Authority's Household Hazardous Waste Collection Facility and shipped for disposal. Other materials collected included motor oil, anti-freeze, oil filters, automobile batteries, fluorescent lamps and electronics, which continue to be accepted at the facility year-round.

Conditionally-Exempt Small Quantity Generators (CESQG) [small businesses] and Universal Waste Generators are allowed to drop-off waste after obtaining approval from the Authority.

During the reporting period, 164 CESQGs and Universal Waste Generators continued to take advantage of this program, resulting in substantial savings for these generators. Under this program, small businesses are charged a fee for disposal costs.

To provide additional environmentally sound recycling and disposal options for the residents, businesses and institutions of Oneida and Herkimer Counties, the Oneida-Herkimer Solid Waste Authority developed an Electronics Recycling Program.

During the reporting period, 1,232 tons of computers and electronic equipment were accepted for recycling and proper disposal, including computers, monitors, CPUs, keyboards, computer components, televisions, video equipment, CD/DVD players, desktop copiers, fax machines, microwaves, electronic games, printers, toner cartridges, cellular phones, battery chargers, calculators, answering machines and other electronics. It is estimated that over 32,500 individual items were recycled.

In 2020, due to the COVID-19 pandemic, the opening of the Household Hazardous Waste Collection Facility was delayed by two months. The facility typically opens on April 1st but was pushed back to June 1st. However, despite the delay in opening, the total quantities collected remained consistent with previous years.

Green Waste Composting

The Authority's Green Waste Composting Facility was in its 26th and 27th years of operation in 2019-2020. This regional facility serves area residents, municipalities, private haulers, businesses, institutions and landscapers. About two-thirds of the population of Oneida and Herkimer Counties utilizes the site.

During the reporting period, the facility received nearly 23,500 tons of green waste (grass, leaves, brush, etc.). The Authority continues to provide local municipalities, residents and businesses with an environmentally sound destination for green waste.

Green waste is processed, placed in windrows, turned as needed, and screened to facilitate natural decomposition, all in compliance with New York State regulatory requirements. The end-product of these efforts is high quality compost. The Authority's compost is tested quarterly to stringent standards, resulting in the Seal of Testing Assurance issued by the U.S. Composting Council.

The compost is made solely from yard waste and makes a great soil amendment for gardens and landscape applications. The Authority's compost can be purchased in convenient 45-pound bags, or in bulk. During the reporting period 19,537 bags of compost were sold. In 2020, there was a slight decrease in bags sales (approximately 350 bags). Again, it is assumed that this is associated with the Covid-19 pandemic and the delay in having bagged compost available to residents. This very successful program is in direct response to the requests of local residents wanting a more convenient way to get compost.

In addition, approximately 40 local businesses and municipalities regularly purchase bulk compost from the Authority. In 2019-2020, 13,594 cubic yards of bulk compost was sold.

There were also no changes in the manner green waste was managed by the Authority during the reporting period.

Waste Disposal

Since 2006, all non-hazardous, non-recyclable solid waste (MSW, C&D, asbestos waste, industrial waste, sewage treatment plant sludge and medical waste) is disposed of at the Authority's Regional Landfill (RLF) located in Ava, NY. The vast majority of the region's MSW is transported to the RLF via two transfer stations, the Eastern located in Utica and the Western located in Rome. The RLF, which was constructed in 2006, has a design capacity of 1,000 tons per day.

In 2020, the Regional Landfill marked it's 14-year anniversary. Given current tonnage, the RLF has a capacity for nearly 78 years of operational life. This is mainly due to a higher waste density of (.96 tons/cubic yard) as compared to original estimates.

In the 2019-2020 period, the Authority's Regional Landfill safely disposed of 354,575 tons of MSW; 142,526 tons of C&D; 7,489 tons of industrial waste; 40,263 tons of asbestos waste; and 44,381 tons of sludge. Alternate operating cover materials totaled 143,219 tons for that period.

During the reporting period, the Authority began construction of the RLF's newest cell. The construction of cell 4 began in 2020 and is dual-phased. Phase I consisted of soil stripping to sub-grade within the cell footprint, gray till mining/screening and soil stabilization. Phase II will include the installation and testing of the clay liner and the HDPE primary and secondary leachate collection layer.

The release of methane from landfills is a contributor to greenhouse gas generation. The Authority's Landfill Gas to Electricity Project represents a significant commitment by the Authority to dramatically reduce our carbon footprint by capturing methane from our landfill and converting it to green energy. This project is a win-win for the environment, the Authority, and energy consumers.

In 2019, the Authority installed 15 new gas collection wells at the RLF, continuing to advance the active landfill gas collection system which brings the total number of vertical wells to 135 and horizontal wells to 35.

During 2020, a landfill gas flare expansion project was approved and plans were developed to supply an additional flare stack and skid. The new flare will have the capability of collecting and destroying up to 3,000 cfm of landfill gas. The additional flare will run in conjunction with the two existing 1,200 cfm flares.

The addition of the new flare skid required the original flare building be expanded. An area 18 x 38 ft. was added to the front and an area 10 x 38 ft. was added to the rear. The overall dimension of the flare building is now 46 x 38 ft (1,748 sq. ft.). The front portion of the building will house the larger flare skid and associated electrical items, while the rear of the building will serve as a compressor room and provide additional storage.

The RLF constructs cells on a regular basis, depending on existing cell usage and fill progression projections. The Authority has constructed six cells, the newest being Cell 7 which became operational in 2019.

New York State Regulations and the Permit require that the Regional Landfill be closed in a phased manner. The location and construction of the phased closure of the facility were elements of the plans prepared and submitted to the NYSDEC during the Authority's comprehensive landfill siting process, which included review of compliance with all the requirements of the New York State Environmental Quality Review Act (SEQRA).

In 2019, the Authority's consulting engineer completed the design for the Regional Landfill Stage 1 Closure Construction and a request for bids was issued on February 16, 2019.

At the March 1, 2019 Authority meeting, the Authority Board approved a resolution authorizing the Executive Director to sign a contract with a closure contractor. The contractor began the closure project in 2019 and completed Stage 1 of the closure project in Fall 2020. The Stage 1 project consisted of soil stripping for stormwater protection, installing geotextile and geonet to existing landfill cover soil, infilling with an additional capping soil, installation of a geomembrane and finalizing the site work with topsoil and seeding.



The Authority owns and operates the Western Transfer Station (WTS) in Rome which receives municipal solid waste, industrial/commercial waste and construction and demolition debris from primarily western Oneida County. The continual and future use of the current WTS required renovation of the current building structure, systems and employee work areas. In 2019, the Authority Board approved moving forward with this capital project.

The Authority solicited bids in November 2019 for the renovation project and in December 2019 contracts were awarded. The general construction contract included the removal and replacement

of roof and siding panels along with interior demolition and construction of the existing office, breakroom and locker areas. The electrical contract work included new high bay lighting, interior lighting, outlets and network fixtures. The mechanical and plumbing contracts consisted of a new HVAC system and new bathroom facilities.

In 2020, the Authority introduced a new program to assist local municipalities and both Oneida and Herkimer Counties when disaster occurs with reduced tipping fees for disposal of disaster debris, and/or to assist the Industrial Development Agency and Developers related to Brownfield clean-up/Industrial Development Agency Projects.

In December 2020, the Authority Board of Directors adopted a policy for reduced tip fee programs that includes an application procedure; eligibility requirements; and process to establish rate structure and tonnage limits for such programs. The Authority's 2021 Adopted Budget includes both a natural disaster debris tipping fee and a Brownfield clean-up/IDA project tipping fee at rates of \$42 per ton. Both programs must be approved through an application process.

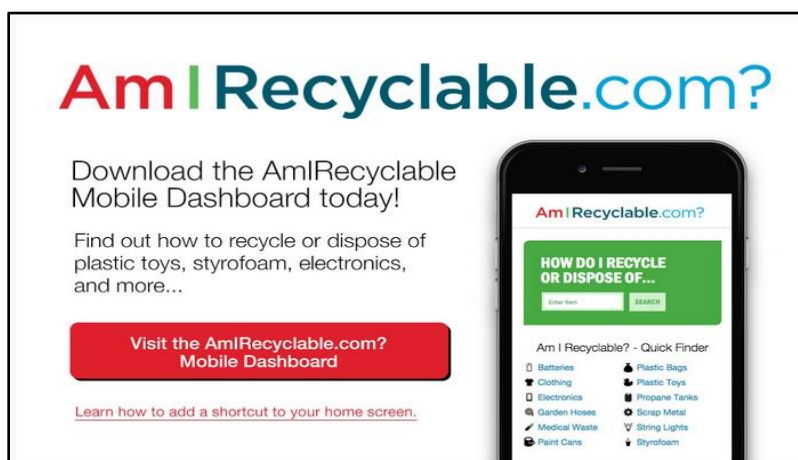
There were no significant changes in solid waste disposal methods during the reporting period.

iv. Summary of Outreach and Education Activities

During the reporting period, the Authority remained committed to public outreach and education. However, the 2020 Covid-19 pandemic led to cancellation or postponement of many public education events. Virtual presentations and tours replaced in-person activities.

“Am I Recyclable?” Campaign

In 2020, the Authority continued its educational campaign and Mobile Web App, “Am I Recyclable?”. The goal of the campaign was to target contamination in the recycling stream. Through social media marketing, the campaign helped educate and encourage audiences to engage in the recycling conversation.



The “Am I Recyclable?” tool is a Mobile Web App which is a scaled down version of the “How Do I Recycle or Dispose Of” search tool on the ohswa.org website. This Mobile Web App includes a “Quick Finder” which highlights the top 12 items (batteries, clothing, electronics, garden hoses, medical waste, paint cans, plastic bags, plastic, propane, scrap metal, string lights and Styrofoam) that are improperly recycled or disposed. The Mobile Web App can be viewed by visiting www.AmIRecyclable.com.



In 2019 and 2020, the Authority used social media marketing through Facebook and Instagram to promote the “Am I Recyclable?” campaign.

Am I Recyclable.com?



Oneida-Herkimer Solid Waste Authority
Sponsored ·

It's easy to leave your bulky plastics laying around the house, but did you know there's a way to properly dispose of them? Don't let your bulky plastics build up, click here to see what you should do with your plastics!



Backyard Toys?

OHSWA

[Learn More](#)



Baskets & Trash Cans?

OHSWA

[Learn More](#)



Storage Containers?

OHSWA

[Learn More](#)



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Smartphones, computers, speakers – oh my! 📱 Our houses are FULL of little gadgets that blink, click, and beep at us. But what do you do when they finally meet their end? Click here to see what common electronics are recyclable! ♻️



Kitchen & Office Items?

Recycle Your Electronics

[Learn More](#)



GPS Device & Computer Tools?

Am I Recyclable?

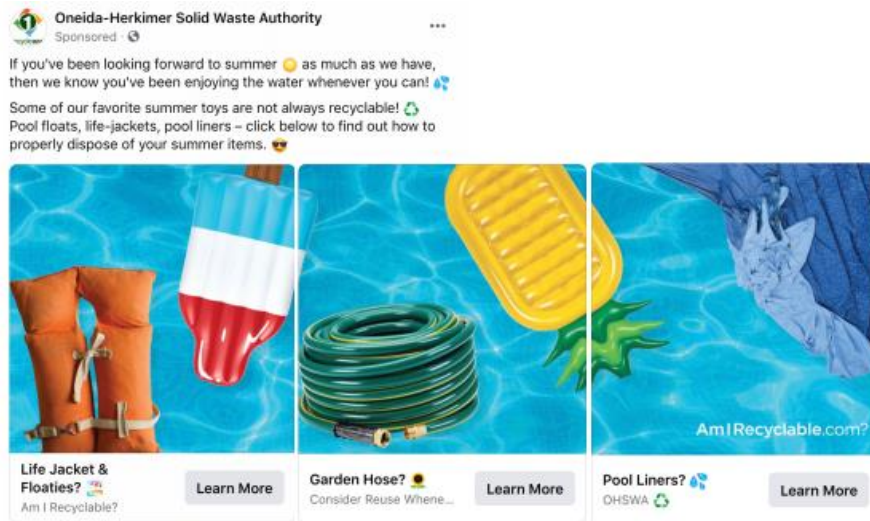
[Learn More](#)



Smartphones & Stereos?

OHSWA

[Learn More](#)



New Website Design

In February 2019, the Authority launched a new website design to help users access recycling and solid waste information in a quick and efficient manner.

The website provides accurate information about all Authority facilities, including its Recycling Center, Transfer Stations, Green Waste Composting Facility, Solar Panel Array, Regional Landfill, Source Separated Organics Processing Facility and both the Utica and Rome EcoDrops.

The website also highlights the Authority's curbside & drop-off recycling services, as well as its special programs.

- Household Hazardous Waste Disposal
- RecycleOne Business Certification
- School Recycling & 'Green Teams'
- Electronics Recycling
- Composting
- Food2Energy

The website offers its "Am I Recyclable" and "Find a Hauler" tools and special announcements directly on its homepage. With the new user-friendly layout, resources such as Authority brochures, municipal flyers, guidelines and other Authority documents are easily accessible to users.



Included on Website:

- Comprehensive information about all Authority services and programs.
- Icon system under search tool.
- “Am I Recyclable?” quick finder that highlights the top 12 items that are improperly recycled or disposed of and includes a Mobile Web App which can be viewed by visiting www.AmIRecyclable.com.
- “How Do I Recycle or Dispose of” search tool that allows users to type in hundreds of items to learn how to properly recycle or dispose of a particular item.
- “Find a Hauler” tool that allows residents in Oneida and Herkimer Counties to type in their zip code to view a list of waste haulers that service their location.
- User-friendly set-up with categorized information valuable to residents, businesses, haulers and schools.
- Online invoice payment service.
- Video series, including FAQ videos available for viewing.
- Mobile-friendly format allows optimal user experience from multiple devices (i.e., smart phones, tablets, laptops, desktops).
- Website users can “Contact Us” with questions via an electronic submission.
- Timely information highlighted under “News”.
- Pop-up to subscribe to E-Newsletter.

New E-Newsletter

As part of the Authority’s recycling education and outreach efforts, the Authority launched an e-newsletter through a website called “Constant Contact” in March of 2019. This newsletter focuses on providing accurate and helpful recycling information to subscribers, as well as reporting on Authority news and events. Between January and December of 2020, a total of 27 e-newsletters were sent out. Topics covered included battery and electronic waste recycling, composting, food waste recycling, plastic film recycling, Authority news and holiday centered messages such as the Fourth of July, Halloween, and New Year’s Eve. The below graph shows the growth of the newsletter during 2020, amounting in a growth rate of 107% since 2019. As of December 31, 2020, the newsletter has over 2,075 subscribers.



The Newsletter features images designed to give readers quick, easy to understand answers to common recycling questions. Subscribers can reply to the newsletter to ask additional questions or seek clarification on the proper disposal of items featured in the message, providing a convenient way for readers to engage with the Authority. The newsletter frequently directs people to the Authority's website and the "**Am I Recyclable?**" search tool, increasing website traffic.



2020 NYSAR³ Recycling Leadership Award



In November of 2020, the Authority received a Recycling Leadership Award from the New York State Association for Reduction, Reuse and Recycling (NYSAR³). NYSAR³ annually recognizes individuals, institutions, campaigns, and programs that demonstrate commitment to enhancing and expanding waste reduction, recycling and reuse across New York State.

The Authority was recognized by NYSAR³ with the 2020 Innovation Award for its food waste diversion program, Food2Energy. This program allows for separate processing of food scraps to divert this waste from the Regional Landfill and turn it into energy. Residents, schools, and commercial businesses are encouraged to deliver bagged, packaged or palletized food waste to the Source Separated Organics Processing Facility (SSOPF) on Leland Ave in Utica, NY. The recovered material is then de-packaged and emulsified into a slurry and is delivered to the Oneida County Water Pollution Control Plant's (WPCP) anaerobic digestion system, allowing for the collection of methane gas that is turned into electricity.

Food2Energy conserves landfill airspace, reduces greenhouse gas emissions, reduces disposal costs for Source Separated Organics (SSO) by \$22/ton and increases the energy production generated in the anaerobic digesters by providing a comingled feedstock to the WPCP's independent collection and anaerobic digestion of biosolids. Currently, the WPCP is getting 25-30% of their energy needs met by the biogas generated from the anaerobic digesters. In 2020 alone, Food2Energy allowed for 3,290 tons of food waste to be recovered for energy.

The Authority was honored at a virtual awards ceremony on November 19th, 2020 during the NYSAR³ Annual Recycling Conference.

RecycleOne Campaign



The Authority maintains an excellent recycling rate; however, frequent and consistent communications from the Authority is necessary to remind residents of recycling guidelines.

To keep residents informed of the Authority's single stream recycling program, dubbed RecycleOne – One and Done, the Authority continued its public education campaign throughout 2019 and 2020. The Authority invested resources into direct public education through TV, web and print media. The RecycleOne campaign communicates to residents that recycling is easier and more convenient than ever.



The Authority also provided direct outreach, informational posters and RecycleOne bin decals to haulers and municipalities to further get the message directly to residents.

Authority Presentations and Tours

Authority staff maintains a strong commitment of outreach to the public through presentations on a wide range of Authority activities and issues including information on waste reduction, reuse of materials, recycling, landfill operations, backyard composting, source separated organics processing, bio-solids management, and services provided at Authority facilities. Regular presentations are done at area schools, colleges, businesses, civic groups and other organizations. More than 100 presentations and tours were given in 2019. The 2020 Covid-19 pandemic led to cancellation or postponement of many of these public education events. The Authority staff was able to offer some virtual tours and presentations throughout 2020, as well as a few limited in person tours at our facilities. Virtual tours and presentations are available by contacting the Authority office at (315) 733-1224 or www.ohswa.org.



Go Green School Recycling Program

The Authority continues its efforts to improve recycling in schools throughout our region and is dedicated to working with the schools in Oneida and Herkimer Counties to develop, support and maintain recycling programs in each school through a Go Green initiative.

In 2019, the Authority's recycling staff visited individual classrooms and provided over 90 presentations to area schools. In addition, over 30 tours of the Oneida-Herkimer Recycling Center were given to students throughout the two-County region. In 2020, many presentations were postponed or cancelled due to the Covid-19 pandemic, virtual presentations and tours replaced in-person presentations.



The Go Green School Recycling Program provides educational tools, resources, promotional materials, technical information, recommendations, program training and recycling and waste evaluations to the schools. A School Recycling Program Guide is provided to assist teachers and educate students on the value and long-term benefits of recycling, conservation and environmental stewardship. Promotional posters, banners, decals, Green Team vests, recycling containers and an interactive website are used in the program.

Business Recycling Program

In 2019 and 2020, the Authority continued to promote its Business Recycling Program which assists businesses, industries, schools and other commercial establishments by providing information on starting and maintaining a recycling program as well as decreasing the volume of waste produced by businesses.

Through a waste assessment/audit, the Authority evaluates current solid waste and recycling practices; identifies waste generation points; assesses individual workspaces and waste produced to document participation and compliance rates; and determines potential opportunities for increasing recyclable material recovery. This service is provided free of charge.



As part of the Business Recycling Program, the Authority also offers a voluntary RecycleOne Business Certification which recognizes businesses and industries for taking steps to reduce solid waste, increase recycling and save energy. Four businesses achieved Certification in 2019 and one in 2020. To date, 40 businesses have received RecycleOne Business Certification.

2020 Recycling Champion

In recognition of America Recycles Day, the Oneida-Herkimer Solid Waste Authority annually recognizes an individual, institution or local business that has taken initiatives to reduce their solid waste stream through recycling and proper disposal.

The Resource Center for Independent Living, Inc. (RCIL) was the recipient of the Authority's 2020 Recycling Champion Award. RCIL continuously prioritizes waste reduction, recycling, and reuse initiatives at their business locations. Additionally, in 2007, RCIL's Dorothy Smith Center location installed a geothermal unit, which has provided for 100% of the facility's energy demand since its installation. In October of 2019, RCIL also received the Authority's RecycleOne Business Certification.

In accordance with state social distancing guidelines, the Authority was unable to present the 2020 Recycling Champion Award to RCIL in-person, however, RCIL was honored virtually at the Authority's December Board meeting.



Annual Earth Day Events

April 22, 2019 marked the 49th annual Earth Day. In celebration of Earth Day 2019, the Authority partnered with Senator Joseph Griffo and held its annual Earth Day events on Saturday, April 13th at the Oneida-Herkimer Recycling Center, Leland Avenue Extension, Utica. The event was open to the public and drew over 840 cars.

2019 AUTHORITY EARTH DAY EVENTS

- Free Confidential Paper Shredding – The Authority, in cooperation with CONFIDATA, a data destruction company, offered free confidential paper shredding to residents. Nearly 21,060 pounds of paper were received, destroyed and properly recycled during this event.
- Free Collection & Disposal of Unused Medication and Pharmaceuticals – The Authority, in cooperation with NYS Department of Environmental Conservation (NYSDEC) and the Mohawk Valley Pharmacist Society, held its fifth household pharmaceutical/medication collection event. In 2019, 640 pounds of pharmaceutical waste was collected. All collection activity was performed under the direct supervision and control of an on-site NYSDEC Environmental Conservation Officer. In accordance with the requirements of the U.S. Drug Enforcement Agency (DEA), controlled substances were passed from an individual to the control and custody of a law enforcement official.
- Free Bulky Rigid Plastics Drop-Off—Residents could deliver bulky rigid plastic items that are not accepted and recycled through curbside recycling at no cost.
- Free Household Hazardous Waste & Electronics [E-Waste] Drop-Off—Residents had the opportunity to drop off household hazardous waste and electronic material including paints, chemicals, electronics and more, for proper recycling/disposal at no cost as part of the Authority's seasonal household hazardous waste program. Approximately 37.48 tons of E-Waste was collected at the 2019 event.
- Compost for Purchase—Screened, cured compost material was available for purchase.
- Free Clothing & Textiles Drop-Off – Residents could drop off unwanted clothing, shoes, belts, purses, blankets, sheets and drapes for reuse and recycling.

Due to the Covid-19 pandemic, all Earth Day Events were cancelled in 2020.

Plastic Film Recycling Challenge

In 2019, the Authority sponsored its fourth annual Plastic Film Recycling Challenge for local schools. The purpose of this challenge was to promote and educate youth and the community on proper recycling of plastic grocery bags and other plastic film, which cannot be recycled through regular curbside recycling programs. Fourteen schools participated in the Challenge and had five weeks to collect plastic film for recycling.



Participating schools partnered with local grocery stores and delivered the plastic film directly to the stores for proper recycling. The initiative focuses on collecting clean, dry, plastic film to keep it out of our Regional Landfill.

With the efforts of these schools combined, over 5,000 pounds of plastic film was collected for recycling. This is the equivalent of recycling over 350,000 plastic grocery bags.

Due to the Covid-19 pandemic, the challenge was cancelled in 2020.

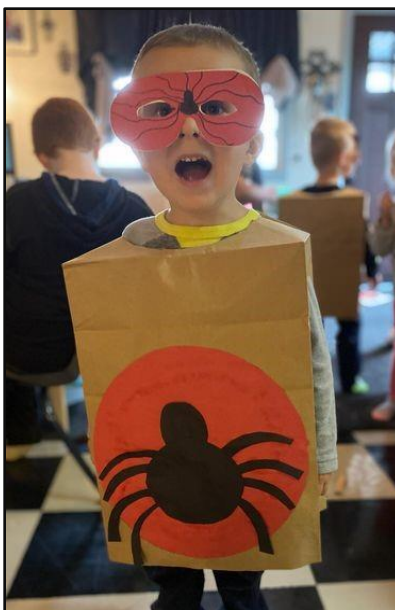


“Green” Halloween Costume Contest

In October 2020, the Authority sponsored its second annual recycled costume contest to encourage residents to be environmentally conscious on Halloween. The contest was open to all children aged 0-16 that reside in Oneida or Herkimer County.

The initiative focuses on reuse and recycling to divert waste from our Regional Landfill and to conserve natural resources and energy. Costume submissions were divided into three categories: ages 0-6, ages 7-11 and ages 12-16.

The Authority received five entries to the contest. Each of the three winners (pictured below) received a \$25 Amazon gift card.



Food Waste Composting Program

The Authority's Go Green School Recycling Program is committed to taking recycling to the next level. In combination with our general school recycling program, the Authority has designed a food/green waste composting program for the schools of Oneida and Herkimer Counties. In doing so, the Authority is prepared to aid and facilitate local schools with composting initiatives.

As of December 2020, the Authority has provided a total of 23 facilities in our region with Mantis Compost-Twin composting units for use in composting cafeteria food waste at no cost to the schools.



The Authority assisted the following schools/facilities in developing and facilitating a plan for separation and removal of food waste in their cafeteria.

- Poland Central School District
- New York Mills School District
- Holland Patent Middle School
- Sauquoit Valley Elementary School
- Camden Elementary School
- Central Valley Academy
- Frankfort-Schuyler High School
- Adirondack Middle/High School
- Harts Hill Elementary School
- Staley Upper Elementary School
- Denti Elementary School
- Gansevoort Elementary School
- John Joy Elementary School
- Barringer Road Elementary School
- Westmoreland Middle School
- McConnellsville Elementary School
- Mohawk Valley Community College (Rome)
- Mohawk Valley Community College (Utica)
- Munson Williams Proctor Art Institute
- United Cerebral Palsy of Utica
- United Cerebral Palsy of Rome
- United Cerebral Palsy of Chadwicks
- Utica Zoo

Reuse Education

The Authority's website has proven to be an effective tool to get the word out to the local community on reuse options. The most effective way to reduce waste is to not create it in the first place. Manufacturing new products requires raw materials and energy. As a result, reusing is one of the most effective ways you can conserve natural resources, energy and landfill space.

The Authority encourages reuse before disposal. There are various locations and organizations in Oneida and Herkimer Counties that accept used items as a donation for reuse or recycling.

Some acceptable items include clothing, books, furniture, household items and more. Certain organizations will arrange for the pickup of donated items.

The Authority has partnered with the organizations below to boost reuse in the area.

- Habitat for Humanity ReStore (Utica)
- New 2 U Thrift Store (Utica)
- Second Chance Tool Store (Utica)
- CNY Veteran's Outreach Center (Utica)
- The Salvation Army (Utica)
- The Rescue Mission of Utica
- The Rescue Mission of Rome
- Goodwill-HARC Store & Donation Center (Herkimer)
- Freecycle

Special Events

"CNY Dirty Jobs"

In 2019, BUG Country radio station filmed a four-part documentary series showcasing four different businesses in Central New York. This series was modeled after the hit TV show "Dirty Jobs," and featured the Oneida-Herkimer Recycling Center, Utica Zoo, Wagner Farms and Heritage Logging. The goal of taking part in this documentary was to further community awareness of what happens to recyclables once they leave residential homes or businesses, demonstrating that recycling is a viable and productive business even during times of dramatic market shifts. The resulting 16-minute video takes viewers through the Recycling Center, starting with incoming material on the tip floor and finishing with outgoing recyclables entering the baler. This video highlights acceptable curbside recyclables, drop-off only recyclables, the Authority's EcoDrop Facility and household hazardous waste program, as well as items that are not accepted for recycling. This video was shared on the Authority Facebook page and to date has been viewed over 3,000 times.

Compost Bin & Rain Barrel Sale

To increase backyard composting, reduce waste, conserve water usage and improve municipal stormwater runoff, the Authority, in cooperation with the Oneida County Sewer District, hosted a compost bin and rainwater barrel sale in 2019. A total of 19 compost bins and 15 rainwater barrels were sold. Due to the Covid-19 pandemic, the event was cancelled in 2020.

Boilermaker Road Race

In 2019, for the 12th consecutive year, the Authority has provided the Boilermaker 15K Road Race Committee with recycling assistance. With the Authority's assistance, a Boilermaker "Green Team" was developed and recycling information and recycling collection containers were provided, resulting in 1.30 tons of recyclables collected from the week-long events in 2019. Due to the Covid-19 pandemic, the event was cancelled in 2020.

Major Events

In 2019, Authority staff assisted with recycling at several major events throughout Oneida and Herkimer Counties. The Authority provides these services at no cost. In addition to providing support, these worthy efforts provide us with opportunities to educate our constituents on recycling programs and opportunities.

INFORMATIONAL DISPLAYS/RECYCLING SERVICES AND/OR CONTAINERS PROVIDED IN 2019:

- Bavarian Festival
- Boilermaker Road Race
- Boonville Youth Athletic Association
 - CNY Farm Progress Show
 - Clinton Farmer's Market
- FX Matt Brewing Co. – Saranac Thursdays
 - Great American Irish Festival
 - Utica - Handshake City
- Human Technologies Corporation Wellness Fair
- Masonic Care Community - Take Steps Walk
 - NYS Woodsmen's Field Days
 - MVCC Relay for Life
- Oneida-Herkimer School Districts
- Resource Center for Independent Living Wellness Fair
 - Remsen Barn Festival
 - Utica Auditorium
- Utica College Earth Day Festival
 - Utica Comets

Due to the Covid-19 pandemic, all events listed above were cancelled in 2020. Therefore, no informational displays, recycling services or recycling containers were provided.

v. Compliance with Local Recycling Laws

The Authority's compliance efforts are based upon Oneida County Local Law No.1 of 1990 and Herkimer County Local Law No. 1 of 1990. Both laws are in effect, have survived legal challenges, and indeed were upheld by the United States Supreme Court. In general, the laws regulate the collection and disposition of solid waste and recyclables in the two-County area. First and foremost, the laws mandate the separation of residential and commercial/industrial recyclable material from the waste stream.

Proper disposition of each component of the waste stream including waste destination is addressed. Prohibitions against unauthorized dumping and enforcement penalties for non-compliance is also set forth. In addition, a requirement for all entities engaged in waste and or recyclables collection to obtain an Authority permit is mandated. The permit is another tool (in addition to the local laws) for recycling compliance. The Counties have designated contracts through the Authority as the enforcement agent for their solid waste laws.

The Authority currently administers over 500 contracts, each with a permit for solid waste/recyclables collection and disposal. Revocation of the disposal permit is the main deterrent used by the Authority for enforcement. For example, if a permitted waste hauler is repeatedly caught mixing recyclables with solid waste collection, privileges may be revoked by voiding their permit.

The Authority employs a multi-pronged approach to ensure compliance with Oneida County and Herkimer County recycling laws. As described in detail in Section iv., a comprehensive and up-to-date public education program is used to keep the public informed on the “do’s and don’ts” of proper recycling as stated in the local recycling laws.

The Authority also has a day-to-day presence on the streets of our largest city, Utica, using solid waste inspectors. Two inspectors are involved in enforcing the solid waste/recycling laws by conducting set out requirement compliance checks, educating the public and issuing citations if needed.

There is also constant interaction with the public by Authority staff to follow-up on complaints that citizens may have about potential recycling law violations.

Lastly, there are Authority inspectors located at the Eastern and Western Transfer Stations, Recycling Center and Regional Landfill that have the responsibility to observe truckloads of waste or recyclables as they are discharged or dumped. At the Transfer Stations, haulers are subject to fines for significant amounts of recyclable material contained in a load of C&D or MSW. At the Recycling Center, haulers are subject to fines for significant amounts of waste in recyclable material loads.

vi. Obstacles

The most serious and ongoing obstacle that the Authority faced during the reporting period was the negative impacts to fiber recycling markets due to China’s widespread import restrictions. In July of 2017, China announced its “National Sword” or “Green Sword” policy in which it would ban the importation of certain types of solid waste, as well as set strict contamination limits on recyclable material. In other words, China would no longer accept shipments that they deem were contaminated with trash, the wrong type of recyclable material, or low-quality recyclables. Following the announcement in July 2017, the ban officially began January 1, 2018 and is currently still in effect.

China has been one of the world’s largest importers of recyclable material for decades. However, the implementation of National Sword has greatly reduced the rate at which paper was being imported into that nation. This caused significant problems within the international recycling system. The Authority was challenged with finding new market destination facilities for the material.

The Authority continues to work with Waste Management Recycle America for the purchase of baled fiber (mixed paper and OCC) material. Even though the destination facilities have changed, the Authority was able to ensure that these materials were being properly recycled. However, it was not until mid to late 2020 that the prices for material started to bounce back.

The Authority has remained committed to its mission and has continued to recycle all material that has been delivered to its facility. No recyclable material was warehoused or stored. Following the announcement of China's new policy, the Authority was, and has remained, very pro-active. In order to minimize contamination, the Authority has conducted numerous "bale breaks" in order to determine contamination rates. It has also purchased new equipment to help calculate and monitor moisture content in the fiber.

Table 1 below shows the average fiber revenue per overall ton for the years 2018, 2019 and 2020. This provides a good look at how the prices initially dropped due to implementation of National Sword. During the 2018-2019 period, mixed paper fell 39% and OCC fell 36%. It wasn't until mid-2020 that the prices rebounded.

Table 1			
COMMODITY	2018	2019	2020
Mixed Paper (Newspaper)	\$22.07/ton	\$13.44/ton	\$18.96/ton
Old Corrugated Cardboard (OCC)	\$88.94/ton	\$56.61/ton	\$78.67/ton

Table 2 shows total recycling revenue by commodity for the years of 2018, 2019 and 2020. Again, showing how National Sword has directly impacted the Authority's recycling markets. Between 2018 and 2019, total recycling revenue fell \$453,196, or approximately 27%. However, between 2019 and 2020, the total recycling revenue increased by \$244,551, or approximately 18%.

Table 2			
COMMODITY	2018	2019	2020
Plastics	\$559,276	\$474,293	\$514,429
Mixed Paper	\$203,498	\$120,939	\$156,034
Old Corrugated Cardboard (OCC)	\$729,278	\$480,171	\$655,291
Ferrous	\$188,508	\$133,504	\$112,649
Aluminum	\$59,621	\$69,348	\$76,126
Other	\$24,802	\$33,532	\$41,809
TOTALS	\$1,764,983	\$1,311,787	\$1,556,338

Going forward, the Authority will remain mindful of the impact of this revenue decrease obstacle as it considers future recycling projects and the budgetary impact to overall revenues.

Another ongoing obstacle faced by the Authority during the 2019-2020 timeframe was the lack of viable markets for container glass received and processed at the Recycling Center. Container glass inevitably breaks during the collection/trucking process and consequently the glass shards damage the single stream recycling system components (such as bearings) through abrasive wear. The shards are also a contaminant for other recyclable materials such as paper and plastic. The Authority is forced to haul the glass to our Regional Landfill at extra cost to re-use the glass in civil engineering applications when it would be more beneficial to recycle this material into new glass containers.

During the reporting period, the Authority faced another ongoing obstacle related to the potential expansion of our Landfill Gas to Energy Project. Since 2018, and continuing in 2019 and 2020, the Authority has been flaring enough landfill gas to power an additional landfill gas to energy generator which would produce enough power equivalent to the electricity consumed by 1,650

homes. The additional generator would give the Authority a total of three operating units. Unfortunately, the cost of interconnect improvements, facility upgrades to house the additional generator and generator purchase are still not supported by the current depressed electricity market returns. The large supply of natural gas and its effect on the electricity market is the main factor for this economic obstacle. In addition, the landfill is too far away from a natural gas pipeline to institute the significant investment and facility overhaul to provide pipeline quality natural gas. Therefore, the Authority continues to flare the excess gas to mitigate its effect on the environment without energy production benefits.

Yet another obvious obstacle the Authority faced in 2020 was the Covid-19 pandemic. It impacted our workforce and operations in a widespread manner. As detailed in this document, popular annual programs were postponed and interaction with the public, especially in the realm of public education, was curtailed. It was a credit to Authority management and staff that facilities remained open to serve the public without interruption throughout the pandemic period.

vii. Status of Conformance with the Implementation Schedule

Table 3

STATUS	CURRENT LSWMP PROJECTION	PROJECT/TASK/MILESTONE	RESPONSIBLE PARTY	COMMENTS
Implemented 2012	2013	Implemented Single Stream Recycling	Authority	Accomplished one year ahead of schedule.
Not Implemented 2012	2012, 2013	Evaluate feasibility of providing recycling containers to each household in the region	Authority	Deemed not feasible due to cost and logistical issues (distribution & replacement).
Implemented 2011-2012	2011	Complete Landfill Gas to Electricity Project	Authority	On schedule.
Ongoing	Ongoing	Expand/Continue PAYT Program	Authority Municipalities	No additional municipalities added during reporting period. Support continued to existing programs.
Ongoing	2011-2015	Expand/Continue School Recycling & Go Green Projects	Authority Schools	Expanded during 2019.
Ongoing	2011-2015	Expand/Continue School Organics Recovery Projects	Authority Schools	Expanded during 2019.
Ongoing	2011-2015	Implement Backyard Compost Unit Sales Event	Authority	Sales event held in 2019.
Implemented 2013	2012-2013	Evaluate/Implement Pilot Food Waste Compost Project – (Brewery hops)	Authority	On schedule and operation continued during reporting period.
Not Implemented	Ongoing	Support Private Sector Biosolids Recycling Efforts	Authority Private Sector	Change in policy, see Section 4 herein.
Ongoing	Ongoing	Continue Waste Assessments/Audits	Authority	See page 9.
Ongoing	Ongoing	Expand/Continue Public Education Efforts	Authority	See Section iv. herein.
Ongoing	Ongoing	Expand/Continue Public Outreach Programs	Authority	See Section iv. herein.
Ongoing	2016-2018	Evaluate New Processing Technology	Authority	Evaluated Bio-solids Re-use Technology during the reporting period.
Ongoing	Ongoing	Expand/Continue Reuse of Materials in Civil Engineering Practices	Authority	Glass use at the Regional Landfill. Processed pallet use at Regional Landfill.
Not Implemented 2017	2013	Evaluate/Implement, if feasible an Alternative Energy Project (such as Greenhouse) that could utilize excess thermal energy from the Landfill Gas to Energy Facility	Authority	Not feasible, at this time; re-evaluate in the future. See 2017-2018 Compliance Report.
Not Implemented	2013-2017	Evaluate/Implement if feasible sewer line hook-up for landfill leachate	Authority	Not feasible, at this time. See 2017-2018 Compliance Report.
Implemented 2017-2018	2014-2015, 2019-2020	Build New Cells at Landfill	Authority	See page 12.
Ongoing	Ongoing	Support Private Sector C&D Recycling Efforts	Authority	Limited but increasing interest from private sector during reporting period, mostly exempt material and clean wood.
Ongoing	Ongoing	Hold Pharmaceutical Collection Days	Authority Pharmacists	Held in 2019.
Ongoing	Ongoing	Continue and Evaluate Municipal Demolition Assistance Program	Authority Municipalities	Successful programs continued during the reporting period.
Ongoing	Ongoing	Continue and Evaluate Library Location Book Recycling Program	Authority Libraries	Events held in 2019 & 2020.
Ongoing	Ongoing	Continue Confidential Paper Shredding Events	Authority	Events held in 2019 & 2020.
Ongoing	Ongoing	Add any feasible material to Recyclable List	Authority	No feasible materials identified during the reporting period.

Table 3 above shows the status of conformance with the current LSWMP Implementation Schedule. It lists the project, task, or milestone, responsible party for implementation, current LSWMP date projection for implementation, status and any relevant comments. Five projects/tasks have been implemented, four have not been implemented. Reasons for implementation or non-implementation are contained in the comments section. The remaining projects or tasks are listed as having a status of ongoing meaning that the Authority is continuing that project.

2. Solid Waste and Recyclables Data

i. and ii. Facilities, Locations and Quantities of Accepted Waste and Recyclables (2019)

RECYCLABLES

Ferrous Metal Containers – (1,250.85 tons)

The Conti Group **(84.53 tons)**
1661 46th Street
Brooklyn, NY 11204

N.H. Kelman **(166.90 tons)**
41 Euclid Street
Cohoes, NY 12047

Empire Recycling Corporation **(177.27 tons)**
64 Genesee Street
Utica, NY 13502

Recyclable Materials Marketing **(761.01 tons)**
217 Terrace Hill Street - Unit B10
Brantford, ON N3R 1GB

Ekman Recycling **(61.14 tons)**
1608 Route #88 West - Suite #301
Brick, NJ 08724

PET Plastic/HDPE Plastic – (1,799.42 tons)

N.H. Kelman **(316.12 tons)**
41 Euclid Street
Cohoes, NY 12047

The Conti Group **(20.90 tons)**
1661 46th Street
Brooklyn, NY 11204

Nursery Supplies, Inc. **(88.58 tons)**
1415 Orchard Drive
Chambersburg, PA 17201

BlackBridge Investments **(173.94 tons)**
3600 Route #66 - Suite #150
Neptune, NJ 07753

Recycle America - Container Group **(21.46 tons)**
6255 Sheridan Drive - Suite #412
Williamsville, NY 14221

Canusa-Hershman Recycling Co. **(106.20 tons)**
45 N.E. Industrial Road
Branford, CT 06405

Recyclable Materials Marketing – ReMM **(110.78 tons)**
217 Terrace Hill Street - Unit B10
Brantford, ON N3R 1GB

TABB Packaging Solutions, LLC **(45.56 tons)**
500 N. Dunham Street
Dundee, MI 48131

Ekman Recycling **(110.26 tons)**
1608 Route #88 West - Suite #301
Brick, NJ 08724

CellMark Recycling **(413.91 tons)**
P.O. Box 641
Norwalk, CT 06854

Blue Ridge Plastics **(111.91 tons)**
11511 NC Hwy. 770 East
Eden, NC 27288

Haycore Canada, Inc. **(128.67 tons)**
3144 Gregoire Road
Russell, ON K4R 1E5

Tomra of North America, Inc. **(40.05 tons)**
1 Corporate Drive – Suite #710
Shelton, CT 06484

Industrial Container Services **(44.87 tons)**
1704 Barnes Street
Reidsville, NC 27320

Park Polymers **(66.21 tons)**
601 Baltimore-Annapolis Blvd. – Suite #208
Severna Park, MD 21146

1-7 Mixed Plastics – (341.75 tons)

The Conti Group **(95.75 tons)**
1661 46th Street
Brooklyn, NY 11204

BlackBridge Investments **(67.62 tons)**
3600 Route #66 - Suite #150
Neptune, NJ 07753

Ekman Recycling **(95.79 tons)**
1608 Route #88 West - Suite #301
Brick, NJ 08724

Casella **(82.59 tons)**
110 Main Street
Saco, ME 04072

White Goods & Scrap Metal – (598.06 tons)

Empire Recycling Corporation **(2.51 tons)**
64 Genesee Street
Utica, NY 13502

SIMS Metal Management East **(595.55 tons)**
167 West River Road
Frankfort, NY 13340

Bulky Rigid Plastics – (213.05 tons)

Canusa-Hershman Recycling Co. **(20.81 tons)**
45 N.E. Industrial Road
Branford, CT 06405

Ekman Recycling **(18.43 tons)**
1608 Route #88 West - Suite #301
Brick, NJ 08724

BlackBridge Investments **(173.81 tons)**
3600 Route #66 - Suite #150
Neptune, NJ 07753

Aluminum Containers/Aluminum Foil & Trays – (127.99 tons)

Tomra of North America, Inc. **(89.36 tons)**
1 Corporate Drive – Suite #710
Shelton, CT 06484

N.H. Kelman **(38.63 tons)**
41 Euclid Street
Cohoes, NY 12047

Textiles and Other Clothing Items – (15.05 tons)

St. Pauly Textile, Inc. **(15.05 tons)**
1067 Gateway Dr.
Farmington, NY 14425

Tires – (1,095.05 tons)

Geiter Done of WNY **(1,095.05 tons)**
300 Greene Street
Buffalo, NY 14206

WASTE

Municipal Solid Waste (MSW) – (177,979 tons)

Oneida-Herkimer Regional Landfill (177,979 tons)
7044 State Route 294
Boonville, NY 13309

Construction & Demolition Debris (C&D) – (65,187 tons)

Oneida-Herkimer Regional Landfill (65,187 tons)
7044 State Route 294
Boonville, NY 13309

Industrial Waste – (3,181 tons)

Oneida-Herkimer Regional Landfill (3,181 tons)
7044 State Route 294
Boonville, NY 13309

Biosolids – (20,416 tons)

Oneida-Herkimer Regional Landfill (20,416 tons)
7044 State Route 294
Boonville, NY 13309

i. and ii. Facilities, Locations and Quantities of Accepted Waste and Recyclables (2020)

Ferrous Metal Containers – (1,294.90 tons)

The Conti Group (64.20 tons)
1661 46th Street
Brooklyn, NY 11204

N.H. Kelman (419.64 tons)
41 Euclid Street
Cohoes, NY 12047

Empire Recycling Corporation (87.37 tons)
64 Genesee Street
Utica, NY 13502

Recyclable Materials Marketing (196.36 tons)
217 Terrace Hill Street - Unit B10
Brantford, ON N3R 1GB

Ekman Recycling (252.56 tons)
1608 Route #88 West - Suite #301
Brick, NJ 08724

CellMark Recycling (274.77 tons)
P.O. Box 641
Norwalk, CT 06854

PET Plastic/HDPE Plastic – (1,837.68 tons)

N.H. Kelman **(146.53 tons)**
41 Euclid Street
Cohoes, NY 12047

The Conti Group **(83.01 tons)**
1661 46th Street
Brooklyn, NY 11204

Nursery Supplies, Inc. **(91.48 tons)**
1415 Orchard Drive
Chambersburg, PA 17201

BlackBridge Investments **(23.31 tons)**
3600 Route #66 - Suite #150
Neptune, NJ 07753

Recycle America - Container Group **(168.42 tons)**
6255 Sheridan Drive - Suite #412
Williamsville, NY 14221

Canusa-Hershman Recycling Co. **(87.33 tons)**
45 N.E. Industrial Road
Branford, CT 06405

Recyclable Materials Marketing – ReMM **(89.89 tons)**
217 Terrace Hill Street - Unit B10
Brantford, ON N3R 1GB

Park Polymers
601 Baltimore-Annapolis Blvd. – Suite #208 **(69.75 tons)**
Severna Park, MD 21146

Ekman Recycling **(111.47 tons)**
1608 Route #88 West - Suite #301
Brick, NJ 08724

CellMark Recycling **(593.33 tons)**
P.O. Box 641
Norwalk, CT 06854

TABB Packaging Solutions, LLC **(86.29 tons)**
500 N. Dunham Street
Dundee, MI 48131

Haycore Canada, Inc. **(217.69 tons)**
3144 Gregoire Road
Russell, ON K4R 1E5

EFS-plastics Inc. **(22.73 tons)**
5788 Line 84
Listowel, ON N4W 3G9

Industrial Container Services **(46.45 tons)**
1704 Barnes Street
Reidsville, NC 27320

3-7 Mixed Plastics – (369.67 tons)

The Conti Group **(150.62 tons)**
1661 46th Street
Brooklyn, NY 11204

Casella **(63.85 tons)**
110 Main Street
Saco, ME 04072

EFS-plastics Inc. **(155.20 tons)**
5788 Line 84
Listowel, ON N4W 3G9

White Goods & Scrap Metal – (670.36 tons)

Empire Recycling Corporation **(263.07 tons)**
64 Genesee Street
Utica, NY 13502

SIMS Metal Management East **(407.29 tons)**
167 West River Road
Frankfort, NY 13340

Bulky Rigid Plastics – (203.50 tons)

Canusa-Hershman Recycling Co. **(40.05 tons)**
45 N.E. Industrial Road
Branford, CT 06405

BlackBridge Investments **(122.18 tons)**
3600 Route #66 - Suite #150
Neptune, NJ 07753

Ekman Recycling **(41.27 tons)**
1608 Route #88 West - Suite #301
Brick, NJ 08724

Aluminum Containers/Aluminum Foil & Trays – (169.41 tons)

Empire Recycling Corporation **(18.96 tons)**
64 Genesee Street
Utica, NY 13502

N.H. Kelman **(150.45 tons)**
41 Euclid Street
Cohoes, NY 12047

Textiles and Other Clothing Items – (13.87 tons)

St. Pauly Textile, Inc. **(13.87 tons)**
1067 Gateway Dr.
Farmington, NY 14425

Tires – (1,040.11 tons)

Geiter Done of WNY **(1,040.11 tons)**
300 Greene Street
Buffalo, NY 14206

WASTE

Municipal Solid Waste (MSW) – (176,596 tons)

Oneida-Herkimer Regional Landfill **(176,596 tons)**
7044 State Route 294
Boonville, NY 13309

Construction & Demolition Debris (C&D) – (77,339 tons)

Oneida-Herkimer Regional Landfill **(77,339 tons)**
7044 State Route 294
Boonville, NY 13309

Industrial Waste – (4,308 tons)

Oneida-Herkimer Regional Landfill **(4,308 tons)**
7044 State Route 294
Boonville, NY 13309

Biosolids – (23,965 tons)

Oneida-Herkimer Regional Landfill **(23,965 tons)**
7044 State Route 294
Boonville, NY 13309

3. Evaluation of Alternatives

During the development of the Authority's current LSWMP, staff evaluated a series of solid waste management alternatives. The LSWMP clearly lists a process that the Authority uses while considering different solid waste management alternatives.

As a general approach, the Authority will consider the following factors in evaluating technology options for each component of the system.

- Ability to meet environmental protection, public health and safety standards.
- Operating experience and reliability.
- Capital cost.
- Operating cost.
- Other pertinent factors (i.e., waste type limitations, assessment of product characteristics, residue, air emissions, etc.).
- Regulatory requirements.

The Authority has used the criteria above to formally evaluate a number of conceptual projects such as gasification, digestion, pyrolysis, and vermiculture alternatives. None of the proposed projects met the criteria.

With regard to MSW management, the Authority considered long term exportation but a policy decision was made to take responsibility for the region's MSW in the region resulting in the siting and construction of the state's newest landfill. The Authority also evaluated waste-to-energy which was deemed to be too expensive when compared to the chosen alternative of landfilling in the region.

A major alternative evaluation was done in relation to dual stream versus single stream recycling. The current LSWMP details the efficiency advantages of the chosen alternative single stream process which leads to increased recycling levels. The single stream process also saves energy and reduces greenhouse gas emissions. The implementation of single stream also allowed the Authority to offer processing capacity to other municipal entities.

As written in previous sections and as listed in the Implementation Schedule, the Authority has evaluated and implemented numerous programs related to waste reduction, reuse, recyclables recovery, organics recovery, PAYT and education/outreach.

The LSWMP also identifies the need to further investigate bio-solids management alternatives. This future project was listed in the previous LSWMP Compliance Report and may have a significant effect on waste entering the Regional Landfill in the future by diverting a major portion of the bio-solids waste stream.

Authority staff conducted reviews of different bio-solids beneficial reuse practices/technology in 2020. Based on those reviews, it was decided to take advantage of private sector expertise in this field and to develop and release a draft Request for Proposals (RFP) for the beneficial use of bio-solids. The draft RFP allowed for respondent comment and was released on October 14, 2020 consistent with the NYS General Municipal Law 120-w procurement process. The RFP was advertised both locally and state-wide. The purpose of the RFP is to identify and select a company that will make beneficial use of bio-solids generated from the two largest water pollution control facilities in the region – Oneida County and the City of Rome. Both facilities combined generate an annual amount of about 19,000 tons of bio-solids. This targeted waste stream represents over 90% of the bio-solids disposed of at the Regional Landfill. There is an historical partnership

between the treatment facilities and the Authority. The two bio-solids generators have transportation and disposal contracts with the Authority for their bio-solids.

It is anticipated that proposals in response to the RFP may include land spreading, fertilizer production, composting, heat/chemical processing or another processing technology. Landfill disposal or incineration will not be considered by the Authority. In addition, the Authority will only consider proposals with the proven ability to employ reliable, existing, fully permitted beneficial use technologies/practices. Any proposed projects must have ownership/control of existing facilities/land that can accept project bio-solids.

The Authority will evaluate the alternative submissions brought forth by the RFP. Evaluation criteria include environmental benefit, cost, logistical ease, respondent experience, liability to the bio-solids generators and Authority, and sustainability over the initial five-year term. Airspace savings at the Regional Landfill and associated loss of landfill gas production and revenues will also be evaluated. Responses to the final RFP are due in 2021.

The Authority's 2010 LSWMP stated "C&D recycling/processing flourished in areas where construction activities are prevalent." Historically, our region has been a demolition dominated area with limited new construction. Even though more recent construction activity is occurring, demolition is still the primary source of C&D debris in the region. It is simply much easier from a separation standpoint and more economical for C&D recycling to occur when the feed stock is construction driven. After serious internal discussion, the Authority determined that this activity should be a private sector endeavor, and the Authority will support such an endeavor provided that environmental safeguards and regulations are met. This policy decision was made from an economic feasibility and local need standpoint. The Authority does not have the physical location for C&D recovery operations, nor is it inclined to involve itself in a business best left to the private sector. Furthermore, there was not a demand from the public for the Authority to enter this business.

The private sector in the region has a limited but growing presence in the C&D recovery business. Private sector participants include aggregate mining operations, asphalt companies and large-scale land clearing/mulch firms. We are seeing increases in the amounts recovered, primarily in the exempt materials category (asphalt, rock, concrete, sand and brick). This material is milled or processed into aggregate or reused in the asphalt business. There is also an increase in recovered clean wood/pallets mostly seen in mulch production, see page 7.

Other than the recycling of clean unadulterated wood at its Pallet Processing Facility, there is another way that the Authority has decided to be involved in C&D recovery – public education. The Authority acts as an information clearing house for those interested in C&D recovery by directing them to a number of local outlets on the Authority's website. The following excerpts come directly from the Authority's website.

<https://www.ohswa.org/special-programs/reuserecycle-programs/reuse-options/>

Reuse Options

The most effective way to reduce waste is to not create it in the first place. Manufacturing new products requires raw materials and energy. As a result, reusing is one of the most effective ways you can conserve natural resources, energy and landfill space.

The Authority encourages reuse before disposal. There are various locations and organizations in Oneida and Herkimer Counties that accept used items as a donation for reuse or recycling.

Some acceptable items include clothing, books, electronics, furniture, household items and more. Certain organizations will arrange for the pickup of donated items.

Please click on the links below to find lists of acceptable items for donation.

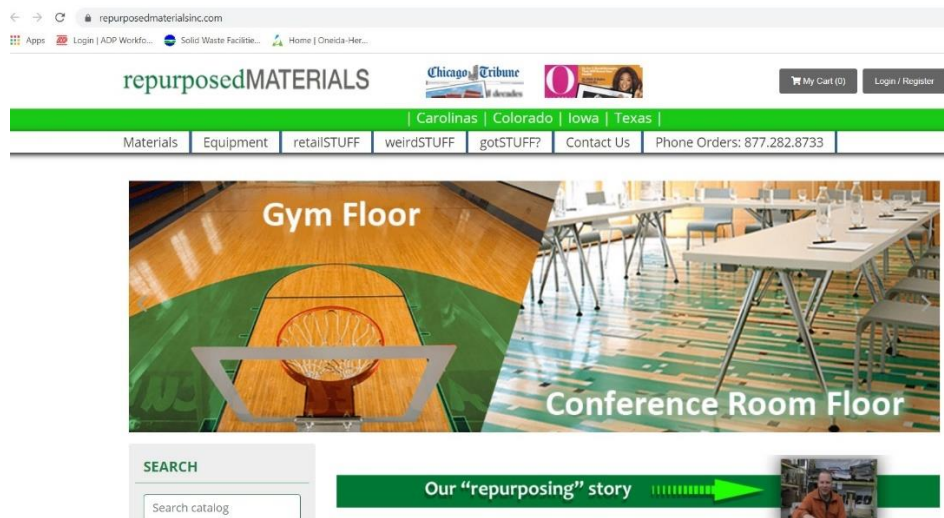
- [Habitat for Humanity ReStore \(Utica\)](#)
- [New 2 U Thrift Store \(Utica\)](#)
- [Second Chance Tool Store \(Utica\)](#)
- [Faith Furniture \(Utica\)](#)
- [CNY Veteran's Outreach Center \(Utica\)](#)
- [The Salvation Army \(Ilion\)](#)
- [The Salvation Army \(Rome\)](#)
- [The Rescue Mission of Utica](#)
- [The Rescue Mission of Rome](#)
- [Goodwill-HARC Store & Donation Center \(Herkimer\)](#)
- [Freecycle](#)
- [St. Pauly Textile \(numerous locations\)](#)
- [Electronic Donation Services \(Rome\)](#)
- [DoorStepInk Recycling Program \(Mail-In\)](#)

If your organization would like to be added to the above list, please [Contact Us](#). Additionally, if you are looking for industrial materials or have industrial materials that can be repurposed, please visit [repurposedmaterialsinc.com](https://www.repurposedmaterialsinc.com). This company buys and sells a variety of materials and equipment for repurposing.

Since 2003, the Authority has also partnered with The GLOW Region Solid Waste Management Committee and their Western New York Materials Exchange Program (MAT-EX). MAT-EX was established in 1992 as a reuse program for businesses in a six-county region. Over the years, it has expanded to include nineteen counties in Western and Central New York. MAT-EX typifies the adage that “one man’s trash is another man’s treasure.”

Any Individual, business, school or institution, non-profit service organization, or government agency in the nineteen-county region may use MAT-EX to locate users for surplus materials previously discarded, or to find free or inexpensive materials. Materials exchanged include: construction, containers, durable goods, electronics, glass, machinery, metals, office equipment, organics, paint, pallets, paper, plastic, rubber, textiles, wood and miscellaneous.

In addition to MAT-EX, the Authority also encourages residents and businesses to visit <https://www.repurposedmaterialsinc.com>. This is another resource that encourages reuse before disposal. See below:



Also, the Authority's website has an excellent page on Building Deconstruction. See below:

<https://www.ohswa.org/special-programs/resuserecycle-programs/deconstruction-tips/>

Building Deconstruction Tips

Deconstruction is an alternative to demolition for the removal of unwanted structures. Deconstruction allows for the recovery and reuse of construction and demolition (C&D) materials.

Construction & Demolition (C&D) Materials often contain bulky, heavy materials such as:

- Concrete
- Wood (from buildings)
- Asphalt (from roads and roofing shingles)
- Gypsum (the main component of drywall)
- Metals
- Bricks
- Glass
- Plastics
- Salvaged building components (doors, windows & plumbing fixtures)
- Trees, stumps, earth and rock from clearing sites

Why Deconstruct?

- *Deconstruction activities increase the opportunity for local business development and because it can be labor-intensive, results in local job growth.*
- *Can be cost-competitive with standard demolition due to reduced disposal costs, avoided purchases of new materials, revenue earned from material sales and potential tax incentives.*
- *Environmentally, deconstruction reduces construction and demolition waste, reduces air pollution, reduces carbon dioxide emissions, conserves landfill space, preserves resources and saves energy.*

When feasible, deconstruction can be applied on a number of levels to salvage usable materials and significantly cut waste and reduce disposal. This can range from reusing an entire structure or foundation, to select assemblies and systems, to the careful removal of specific materials or items for reuse.

While complete deconstruction is the preferred and most sustainable method for removing or renovating a structure, it is not always possible due to the type of building and/or its components.

In many cases, a combination of deconstruction and demolition can be used.

Highly deconstructable buildings include:

- *WOOD-FRAMED BUILDINGS*
- *CONTAIN SPECIALTY MATERIALS WITH HIGH RESALE VALUE*
- *HAVE HIGH-QUALITY BRICK-LAID CONSTRUCTION*
- *STRUCTURALLY SOUND*

The following items are examples of materials that are often desired by others and generally available for reuse. Disposal options, health concerns, and considerations for buying new are also indicated.

Item	What to Reuse	What to Recycle	What to Dispose	Environmental & Health Concerns
Wood (lumber, flooring, etc.)	Timbers; large dimension lumber; plywood; flooring; molding; lumber longer than 6 feet	Unpainted and untreated wood unfit for reuse	Painted, pressure-treated and rotting wood	Lead paint; structural integrity
Windows	Windows in good condition (for single panes, consider adding storm windows)	Metal frames and screens; unpainted and untreated wood	Glass; unusable painted items; wood in disrepair	Lead paint; asbestos in older window glazing compound; energy inefficiency
Cabinets	Cabinets; hardware (hinges and knobs)	Hardware; unpainted and unfinished wood	Painted or finished wood	Lead paint; formaldehyde in particleboard or interior-grade plywood
Plumbing products	Sinks; tubs; faucets	Metal pipe; toilets; inefficient plumbing fixtures; faucets with lead content	PVC and other plastic pipe; toilet seats (not accepted at recycling stations)	Drinking water: lead content in faucets, solder, and old galvanized pipe
Plaster and gypsum wallboard	Wallboard in good condition (to repair cracks or "skim coat")	Clean wood lath; unpainted wallboard	Painted plaster or wallboard	Nuisance dust; lead paint on walls; possible asbestos in older wallboard
Electrical products	Electrical products in good working order	Metals (fixtures, conduit)	Ceramic and plastic parts	Frayed wires; possible asbestos insulation
Landscape materials	Timbers; stone; concrete	Untreated, unpainted wood	Rotting, treated, and painted wood	Treated wood may contain arsenic, etc.
Non-wood flooring (tile, carpet, etc.)	Clean carpet in good condition	Large quantities of ceramic tile	Vinyl; stained carpet; broken tile	Asbestos content in 9-inch tiles or sheet vinyl flooring; lead particles in dust in old carpet
Roofing materials (see Building Envelope guide for more details)	Sheathing in good condition; terra cotta or slate tiles	Metal materials; asphalt roofing materials; untreated cedar shingles	Treated cedar shingles	Possible asbestos content

Source: Adapted from Salvage & Reuse, green home remodeling series, Chicago Department of Environment (October 2007). Originally developed by Seattle Public Utilities.

Resources for Deconstruction Information, Types, Methods & Tips can be found here:

- [*Delta Institute "GO Guide" - Deconstruction and Reuse*](#)
- [*Environmental Protection Agency \(EPA\) Best Practices for Reducing, Reusing, and Recycling Construction and Demolition Materials*](#)
- [*Repurposed Materials Exchange*](#)
- [*Oneida County Habitat for Humanity ReStore*](#)

In accordance with 6 NYCRR Part 366-5.2, there have been some discussions with neighboring planning units regarding participation in the Authority's recycling program, specifically the use of the Recycling Center by a number of neighboring counties. The Authority is prohibited by law from accepting waste from outside the two-county region. Other than interest from neighboring planning units in using our Recycling Center, no comments or recommendations were received from any neighboring planning units regarding our other projects or programs.

No environmental justice issues have been raised by the community regarding our programs.

The Authority needs no new local laws, ordinances or regulations to implement our projects. Standard Authority operating procedures are used for the administrative, contractual (RFP process) and financial requirements (budget and grants) of projects or programs.

4. Significant Updates to LSWMP

The major or significant change to the LSWMP is the way the Authority is beginning to manage a large portion of its organic waste stream – Source Separated Organics (SSO). The Authority's new organics diversion program, "Food2Energy", allows participants to deliver bagged and packaged SSO to the Authority's processing facility where packaging is separated from organic waste (food scraps). Participants may include institutions, businesses and residential drop-off customers. The recovered organic waste is turned into a slurry mixture and is discharged to the Oneida County Sewer District's (OCSD) anaerobic digesters. Once the slurry from the Authority is mixed with the bio-solids from the OCSD, it is estimated that it will help to produce enough energy to provide 50% of OCSD's power needs.

Examples of non-residential SSO waste includes grocery store bakery and produce waste, institutional cafeteria waste and restaurant waste. The project is consistent with the Authority's current LSWMP. The LSWMP calls for continued investigation of organics collection and outlets for diverted food waste as a path to decrease MSW from entering the landfill, and thereby increase valuable landfill air space and decrease the landfill's carbon footprint. The project is also consistent with the New York State Solid Waste Management Plan, Beyond Waste, which identifies anaerobic digestion as an available technology for organics management with the added benefit of more efficient biogas production than landfills and the greater potential for energy recovery.

During the previous planning period, the Authority evaluated options for organics diversion including composting to find a practical and economical solution to integrate into its existing solid waste management system. Composting was deemed as a less desirable alternative due to a number of concerns such as facility siting, lack of a suitable location, odor, vectors, marketing of end-product limitations and lack of a partner as opposed to the partnership with the OCSD.

In 2016, the Authority conducted a SSO feasibility study. The study looked at the feasibility of processing food waste and diverting it to OCSD's new digesters. OCSD began the process of installing anaerobic digesters at its treatment plant directly adjacent to the Authority's Eastern Transfer Station Utica in 2018. The feasibility study also assessed the quantity of available organics, the type and sizing of the collection and processing equipment, including any upgrades to the Authority's Eastern Transfer Station, and any potential issues for collection and processing. Some of the data used to make these determinations can be found in Table 4 below.

Table 4

YEAR	TOTAL MSW GENERATED ¹	FOOD WASTE IN MSW ²	COMMERCIAL INDUSTRIAL MSW GENERATED ³	COMMERCIAL INDUSTRIAL FOOD IN MSW ⁴	ACTUAL SSO TOTALS RECEIVED
2018	190,455	43,805	87,609	22,077	N/A
2019	196,288	45,146	90,292	22,754	565
2020	190,244	43,756	87,122	21,955	1,330

Average 22,262

*Note: All Figures in Tons

1 Includes Food Waste Recovered Tons

2 Food Waste 23% of MSW Disposed as per NYSDEC Beyond Waste

3 NYSDEC Beyond Waste, 46% of MSW is Commercial/Institutional/Industrial, 54% is Residential

4 NYSDEC Beyond Waste, Appendix H, Table H-2: 25.2% of MSW from Commercial Entities/Institutions is Food Waste

All volume data was checked against the waste composition numbers per NYSDEC's State Solid Waste Management Plan, Beyond Waste. Data collected as part of the Beyond Waste Plan states that 46% of MSW is commercial, institutional, or industrial in origin, and that 25.2% of commercial and institutional waste is food scraps. Applying these waste composition percentages to the Authority's service area results in an estimated available SSO of 22,200 tons per year. This matches closely with the estimated total commercial SSO available, including food waste already allocated for uses such as donation and composting. Based on the expected phasing of the SSO collection program, a range of expected tonnages of 5,000 to 22,000 was used to size equipment. This range assumes that in addition to larger generators that will be mandated by state legislation to participate in organics diversion, that smaller generators not subject to the legislation will voluntarily participate based on corporate green initiatives or economics.

After much research, it was determined that the separate collection and processing of commercial organics as a feedstock for the OCSO anaerobic digesters would be feasible, given the information that was currently available. In May of 2017, the Authority Board authorized issuance of a Request for Proposals (RFP) under 120-w of the General Municipal Law for entering into an agreement for the Source Separated Organics Processing Facility (SSOPF). One joint proposal was received. An extensive evaluation of the proposal, including meeting with the respondent and contracting references, was conducted by Authority staff. The company that issued the proposal had experience building and designing SSOPFs and also constructed the Authority's single stream processing facility. Based upon this evaluation, the Authority entered into an agreement for the design, procurement and installation of the SSOPF.

The Authority was granted a NYSDEC permit to construct and operate the SSOPF in October of 2018, and in 2019 the construction of the \$3.4 million facility was complete.

On May 17, 2019, the Authority held a ribbon cutting ceremony to announce the opening of its new Food2Energy/Source Separated Organics Processing Facility. The Authority invited all media sources, Food2Energy participants, solid waste haulers and the community to attend the ceremony.

Left to right: Authority Board Members James Franco, Harry Hertline (Treasurer); Acting Regional Director NYSDEC Region 6, Randall Young; Authority Executive Director William Rabbia, Authority Chairman Kenneth Long; Oneida County Executive Anthony Picente; and Chairman of the Herkimer County Legislature and Authority Vice Chairman Vincent J. Bono



The SSOPF design is in accordance with 6 NYCRR Part 360.16(c)(3)(i). The SSOPF 65' x 70' pre-engineered metal building features a tipping floor, storage area, processing area, organics slurry storage and loadout areas. It was estimated that a maximum of 80 tons of SSO per day could be managed through the SSOPF.

SSO collected and hauled to the site is unloaded inside the SSOPF building onto a sloped concrete tipping floor with drain for inspection and removal of unprocessable items. Liquid from the SSO is collected through the drain into a sump and reused in the process. A compact articulated loader or fork-lift transfers the SSO into the feed hopper of the organics separator, where it is transferred through the system via conveyors. The organics separator unit is the main processing unit, which separates any packaging or contamination from the SSO, as well as

reduces the SSO particle size. Gray water from the WPCP is added to the separator for emulsification. Incoming SSO is inspected for contamination such as Styrofoam or textiles and stockpiled prior to processing. An Authority employee is trained to inspect incoming loads and run the processing equipment.

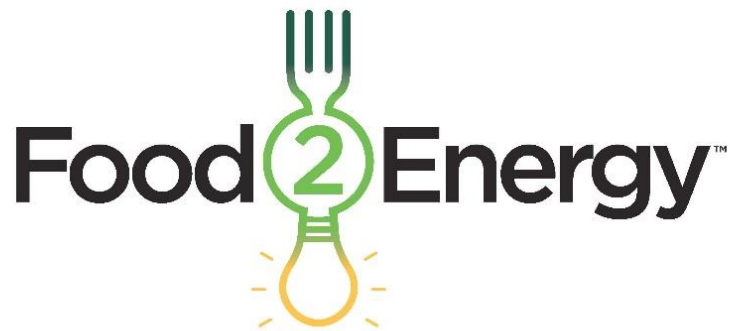
A Scott Turbo Separator, THOR model, is used to reduce the SSO particle size and water is added to form a slurry and to separate out any packaging or contaminants. The Scott Turbo Separator was chosen for its depackaging capabilities and its known efficacy in processing food waste. The THOR model organics separator was chosen for its high throughput capacity, 12 to 20 tons per hour, and its high tolerance for contamination. This model is able to process the maximum anticipated SSO acceptance rate of 80 tons per day and can accommodate high levels of contamination, including packaged pre-consumer food waste, which was highly anticipated at the initial outset of the collection program. This equipment is located in a separate insulated portion of the building to protect the material from freezing and for noise attenuation.

Processed SSO is collected separately from the removed contaminants. The organics separator collects the SSO slurry at the bottom of the unit via an organics' conveyor. This conveyor then directs the processed SSO to a dual-piston organics pump which discharges the organics slurry into a 7,000-gallon conical bottom mixing tank. This tank is continuously mixed and additional gray water added to dilute the organics slurry to a total solids content of 10% and to prevent settlement. The diluted organics slurry is pumped from the mixing tank to a continuously mixed 20,000-gallon storage tank located on the exterior of the SSOPF building. The storage tank is equipped with a tanker truck loadout for loading a bottom hopper style tanker truck for transportation of the diluted organics slurry to the WPCP. The organics slurry is deposited at the WPCP septage receiving building for co-digestion with biosolids in the WPCP anaerobic digester.

For the SSO project to be successful, a comprehensive public education campaign was developed and implemented. In order to do that, the Authority employed an additional recycling coordinator. Along with traditional recycling work, this full-time employee is dedicated to supporting the SSO project through public education, research and organics generator outreach.

The Authority has created a "Food2Energy" campaign that is simple, informative and visually attractive (see pages 40 and 41). The two posters shown below highlight the accepted materials and not accepted contaminants for the SSO project. There is also a summary of the lower tip fee for SSO - a savings of \$22 per ton over the current MSW tip fee. The advantages to the participant of the Authority's SSO project are evident in the posters, such as the ability to accept packaged food waste, bones, liquids and soiled paper/boxes.

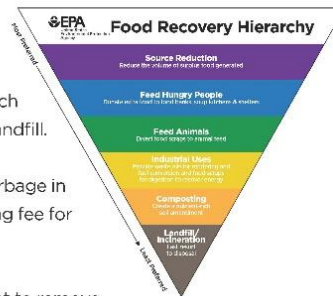
In addition to the economic and environmental benefits, Food2Energy provides our region with the infrastructure to be ahead of the curve when it comes to an organics mandate. In April 2019, New York State passed legislation requiring large generators of organics waste (producing at least two tons per week) to divert the material from regional landfills through waste reduction, donation, or delivery to a certified anaerobic digestion or composting facility (if such facilities are within 25 miles of the generator). The new mandate will take effect January 1, 2022.



Diverting Food Waste From The Regional Landfill

The Oneida-Herkimer Solid Waste Authority has constructed a facility that allows for the recovery of food scraps in order to divert them from the Regional Landfill and recover them for energy. With **Food2Energy**, we are able to divert food waste, which makes up **roughly 22%** of the waste stream, from the Regional Landfill.

Food2Energy is simple and cost-effective! The tipping fee for garbage in Oneida & Herkimer Counties is currently \$62/ton, while the tipping fee for **Food2Energy** is \$40/ton!



Food scraps may be delivered in bags and there is no requirement to remove packaging. The Authority is able to separate the packaging from the food scraps. The recovered food scraps are sent to the Oneida County Waste Water Treatment Plant where they are turned into energy through a process called Anaerobic Digestion.

ACCEPTED MATERIALS	NOT ACCEPTED
All meat & fish (including bones)	No waste containing antibacterial chemicals
All fruits & vegetables	No municipal solid waste
Cereals & grains	No non-food related industrial wastes
Bakery waste, including dry goods like flour	No leaf and yard debris
Restaurant food scraps	No waste with >5% contamination
Cafeteria food scraps, plate scrapings	No clean recyclables (i.e. paper, plastic, metal, glass)
Dairy products	No plastic film intended for recycling
Expired food	No foil-backed or plastic-backed paper
Liquids like milk, soda or beer	No juice or soy milk type boxes with foil liner
Pet food	No cooking oil
Packaged food waste	No diapers
Food processor byproducts	No glass jars or containers
Coffee filters	
Greasy pizza boxes and paper bags	
Paper cups and plates	
Paper ice cream containers (metal rim is OK)	
Paper napkins, tissues and paper towels	
Paper takeout boxes and containers	

Now you can turn your food scraps into energy
and keep them out of the Landfill!



✓ All Meat & Fish (Including Bones)	✓ Liquids (Including Milk, Soda & Juice)
✓ Pet Food	✓ Packaged Food Waste
✓ All Fruits & Vegetables	✓ Food Processor Byproducts
✓ Cereals & Grains	✓ Coffee Filters
✓ Bakery Waste (Including Dry Goods Like Flour)	✓ Greasy Pizza Boxes & Paper Bags
✓ Restaurant Food Scraps	✓ Paper Cups & Plates
✓ Cafeteria Food Scraps & Plate Scrapings	✓ Paper Ice Cream Containers (Including Metal Rim)
✓ Dairy Products	✓ Paper Napkins, Tissues & Paper Towels
✓ Expired Food	✓ Paper Takeout Boxes & Containers



In the Summer of 2018, the Authority began contacting “large generators” of organic waste to provide notice of the new food waste disposal option available to them at the Authority’s upcoming SSOPF. Over 70 large generators were contacted and provided with SSO project information.

Large generators were identified as such by the Authority based on the findings of the Feasibility Study for this project in 2016. Large generators are defined as those facilities that were found to produce at least 2 tons per week of organic waste (including: loose and packaged produce, baked goods, canned and jarred foods, food processing by-products, dairy products, beverages, as well as pre and post-consumer food waste). Examples of ‘large generators’ include colleges and universities, food manufacturing and processing facilities, hospitals, nursing homes, grocery stores, large restaurants, and large businesses with employee cafeterias.

Pre-determined large generators in Oneida and Herkimer Counties were contacted by the Authority (via emails or calls) to inform them of the new Food2Energy program available via the upcoming SSOPF. The Authority requested meetings to discuss the environmental and potential financial benefits of this program to interested generators. Receptive organizations were provided with free Food2Energy posters, decals, waste audits, presentations and staff trainings to ensure proper separation of organics from their municipal solid waste and recyclable materials. Local colleges and hospitals were among the first to participate in this program at their facilities with the Authority’s assistance. Outreach and work with interested generators remain active.

The Authority instructed interested businesses to contact their current waste hauler to determine a schedule and fee for organics pick-ups. Some businesses expressed interest in hauling the material directly to our SSOPF to achieve maximum cost savings.

In order to drop off material, all businesses were instructed to schedule an appointment for delivery. This is to ensure that there is space in the facility to off load the material and that there will be a trained employee present to process the material. Residents, on the other hand, can bring material to the EcoDrop Utica any time during regular business hours and there is a dump hopper on site for that material. The only requirement is that the organics are placed into clear plastic bags no more than 35 gallons. This is so Authority employees can see inside the bag and ensure that it is not MSW. The Authority charges \$2 per bag for residents and no appointment is necessary.

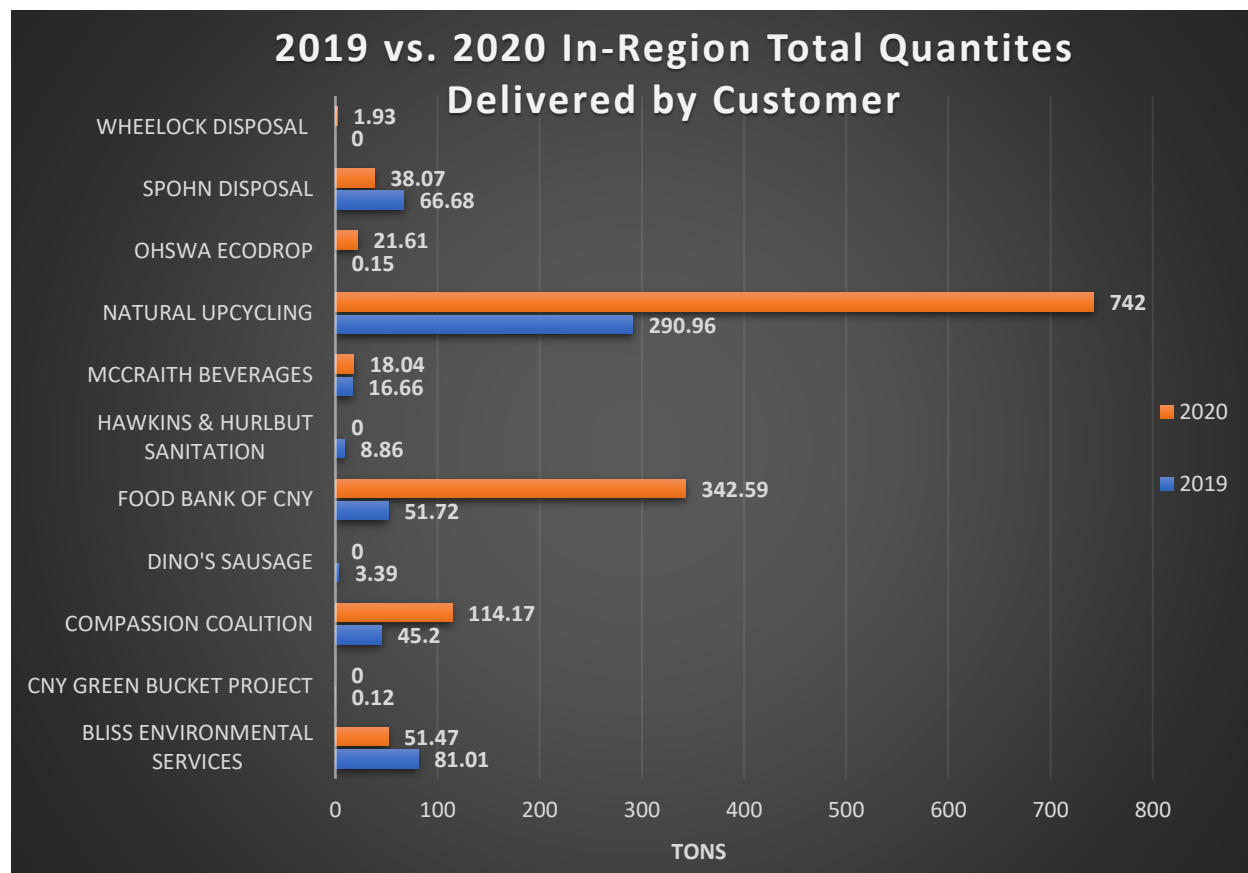
Once the SSOPF began accepting and processing organic waste from large generators in 2019, this action resulted in one of the first major alternatives to solid waste disposal in Upstate New York.

As with any new program, the first initial months brought some challenges. Once the material is placed on the tip floor, an articulated compact loader transfers the SSO into the feed hopper of the organics separator. Initially, palletized items were lifted by fork-lift and then had to be “pushed” into the feed hopper. After researching various pieces of equipment, the Authority purchased a fork-lift attachment that allowed for the rotation of the forks making it easier to dump the material into the hopper.

Early on, the facility also accepted multiple large loads of liquid (milk, eggnog, beer, bottled water, etc.) that was deemed undesirable for sale or distribution. It was found that the liquid would gather at the bottom of the hopper and not flow through the system as desired. After some research, the Authority invested in a “wet kit attachment” for the processing equipment. This kit allows for the collection of liquids and pumps it to a desired location or tank.

As the program gained popularity, the Authority started to receive multiple phone calls from businesses throughout the state looking to see if they could utilize the program. At that time, it was decided that material outside of our region could be accepted for processing. However, as demand increased, it was decided that businesses within the region would take priority over others.

In 2019, the Authority accepted 1,352 tons of material. 565 tons of that material came from within the two counties of Oneida and Herkimer. Therefore, 787 tons was accepted from outside the two counties. It's important to note that 2019 collection started in June and therefore only represents a half year's data. In 2020, the organics number increased by 60% to 3,291 total tons received. 1,330 tons came from within the two counties and 1,961 tons from outside the two counties.



The graph above shows total organics tonnages by both local customer and year. In 2019, 10 different organizations brought us material. In 2020, the above graph shows participation dropped to 8 different organizations. However, this number can be misleading. As previously mentioned, a dump hopper was placed at the Utica EcoDrop Facility. The purpose was to allow residents and businesses the opportunity to drop off small amounts of bagged source separated organics. Because of this practice, data receipt into our system changed. Previously, it was entered by organization (for example, CNY Green Bucket Project). After the implementation of the dump hopper, it was categorized as OHSWA EcoDrop as seen in the above graph.

It is also important to note that Wheelock Disposal, Spohn Disposal, Hawkins & Hurlbut Sanitation and Bliss Environmental Services are all local contracted haulers. Therefore, they collect material from multiple businesses such as restaurants, colleges, schools, hospitals and transport it to the SSOPF. This means there are more businesses using our program than shown in the graph above because that information is being gathered under the specific hauler's account.

It's also interesting to note that 3 out of the 4 contracted haulers (Spohn Disposal, Hawkins & Hurlbut Sanitation and Bliss Environmental Services) all saw a drop in total tonnage collected from 2019 to 2020. It's believed that this is due to the effect of the Covid-19 pandemic on some of their accounts, such as restaurants and schools.

When looking at Table 4, it's important to note that estimated available SSO vs. actual SSO received is very different. There are a few factors that contribute to this. This program is new and although the Authority remains dedicated to public outreach and education, there was one large challenge in 2020, the Covid-19 pandemic. Once the pandemic hit, most of the public outreach and education was put on hold. Authority staff was no longer able to travel and meet with potential customers and in the very beginning the Authority refrained from sending out any type of mailer that was not electronic. It's also important to mention that many of the large generators such as restaurants and schools mentioned previously were either closed or had very limited hours with no in-person contact. However, as the local economy begins to open back up and with restrictions starting to lift, the Authority is confident that this will be a very successful program with plenty of opportunity to grow and expand.

5. MSW Composition Analysis

Table 5 MSW Composition Projections and associated Pie Charts illustrate the Authority's MSW composition and any projected changes to the baseline year of 2020 through the end of the extension period 2024. The Table and Charts are valuable planning tools as the Authority considers solid waste management priorities. In order to prevent artificial skewing of the data, large quantities of commercial/industrial metals, wood and concrete/soil not managed by the Authority (with the exception of contaminated soil) were not included in this analysis. Otherwise, the 2020 data is actual scale-verified data in combination with the Authority's Private Recycling Survey data as discussed on page 2. Table 5 was generated through the use of NYSDEC's on-line waste calculator and Authority projections based on trends identified in Section 1, pages 4-8.

Table 5 lists the Authority's MSW materials composition by material over the 2020-2024 period. For example, the material glass is made up of components – glass bottles, jars and containers and other glass (flat glass, dishware, light bulbs).

We see a notable downward trend in newspaper and the opposite for corrugated cardboard. We believe this is due to the use of electronics being more popular as well as online shopping and the need for shipping containers like cardboard. It is likely that the other paper components will remain steady through 2024.

There are downticks in metal components ferrous/aluminum containers and other ferrous metals containers based on recent regional trends. Other non-ferrous metals are expected to stay the same during the planning period.

We are projecting the composition of plastics to remain about the same with the exception of a decrease in film plastic due to NYS's plastic bag prohibition legislation, and other plastics to remain the same due to actual regional trend data.

Glass containers are projected to decrease rather significantly because of packaging and container preference changes associated with durability and weight.

In terms of MSW composition, as seen in the pie charts on page 47, the Authority does not project any significant changes to the categories of organics, textiles, wood, and miscellaneous. At this time for these categories, we do not have data that suggests warranted adjustments to DEC's online calculator percentages.

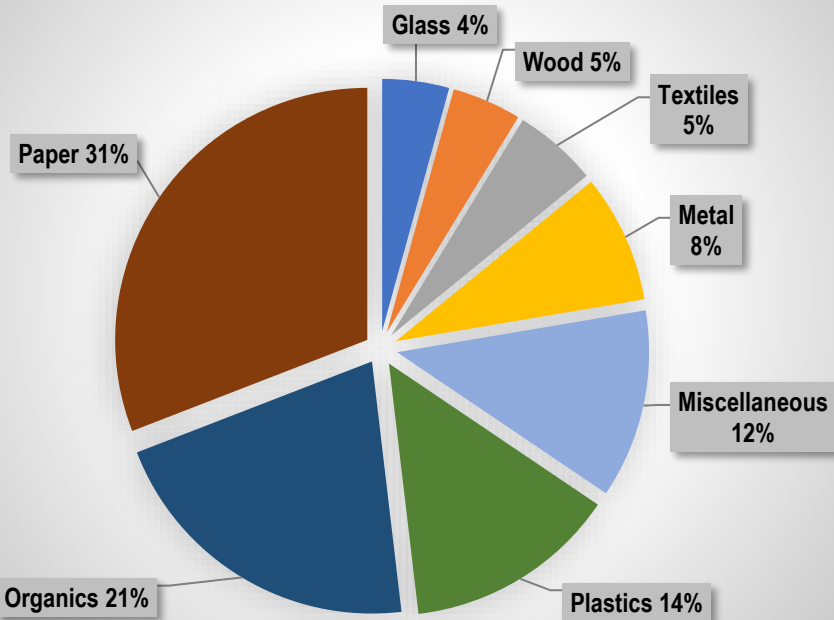
The 2020 MSW Materials Composition Pie Chart clearly shows paper (31%) and organics (21%) being the two largest segments of the region's MSW composition totaling 52%. Paper is the largest segment and this material is, when looking at both charts, and will be, adequately managed by the Authority's Recycling Center and private recyclers. The 2024 MSW materials composition chart shows a 3% increase for total paper. This is primarily due to significant increases in corrugated cardboard associated with consumer preferences for shipped-to-home goods. Metals and plastics show a slight decrease (1%) in each of their respective categories. Again, this will most likely be due to the anticipated changes in manufacturing and packaging.

Organics is the other major segment of the region's MSW as identified in the two Pie Charts. The Authority has deemed this segment as ripe for diversion. Section 4 details the Authority's plan on diverting a major portion of the organics segment through the SSO project.

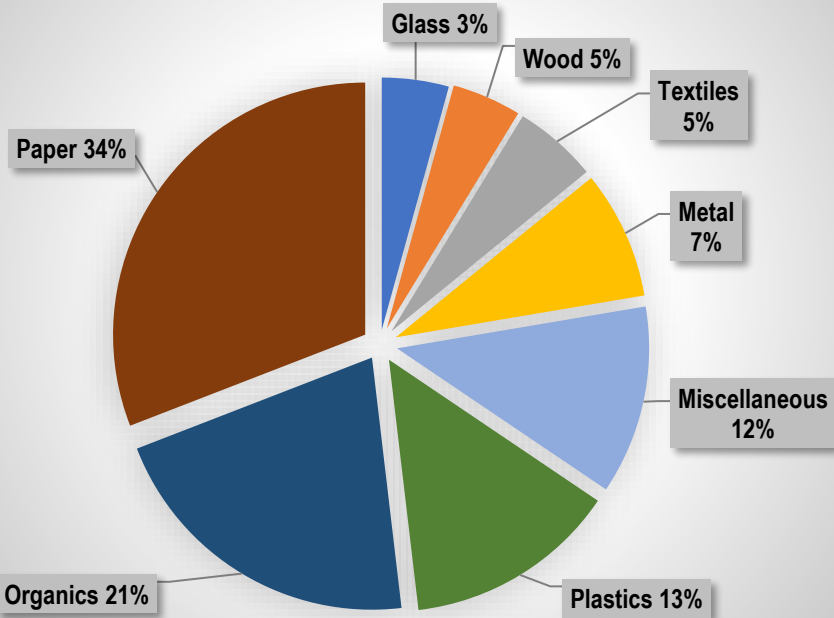
Table 5. Municipal Solid Waste (MSW) Composition Projections 2020-2024

		MSW Materials Composition (%)				
YEAR		2020	2021	2022	2023	2024
Material		100.0%	100.0%	100.0%	100.0%	100.0%
Paper	Newspaper	3.7%	3.5%	3.4%	3.1%	3.0%
	Corrugated Cardboard	9.8%	12.9%	13.3%	14.0%	15.0%
	Other Recyclable Paper (Total)	10.8%	9.9%	9.5%	9.5%	9.5%
	Other Compostable Paper	6.5%	6.5%	6.5%	6.5%	6.5%
	Total Paper	30.9%	32.8%	32.8%	33.1%	34.0%
Metal	Ferrous/Aluminum Containers (Total)	1.7%	1.9%	1.9%	1.8%	1.7%
	Other Ferrous Metals	5.3%	5.3%	5.3%	4.9%	4.3%
	Other Non-Ferrous Metals (Total)	1.2%	1.2%	1.2%	1.2%	1.2%
	Total Metals	8.2%	8.5%	8.4%	7.9%	7.2%
Plastic	PET Containers	0.9%	0.9%	1.0%	1.2%	1.3%
	HDPE Containers	0.8%	0.8%	0.9%	1.1%	1.2%
	Other Plastic (3-7) Containers	0.2%	0.3%	0.5%	0.5%	0.7%
	Film Plastic	5.7%	4.4%	4.1%	4.0%	3.9%
	Other Plastic (Total)	6.1%	6.1%	6.1%	6.1%	6.1%
	Total Plastics	13.7%	12.5%	12.6%	12.9%	13.2%
Glass	Glass Bottles, Jars and Containers	3.9%	2.5%	2.4%	2.4%	2.3%
	Other Glass (Flat glass, dishware, light bulbs, etc.)	0.4%	0.3%	0.3%	0.2%	0.2%
	Total Glass	4.3%	2.8%	2.7%	2.6%	2.5%
Organics	Food Scraps	13.7%	13.7%	13.7%	13.7%	13.7%
	Leaves and Grass / Pruning and Trimmings	7.3%	7.3%	7.3%	7.3%	7.3%
	Total Organics	21.0%	21.0%	21.0%	21.0%	21.0%
Textiles	Clothing Footwear, Towels, Sheets	3.9%	3.9%	3.9%	3.9%	3.9%
	Carpet	1.5%	1.5%	1.5%	1.5%	1.5%
	Total Textiles	5.4%	5.4%	5.4%	5.4%	5.4%
Wood	Total Wood (Pallets, crates, adulterated and non-adulterated wood)	4.4%	4.6%	4.7%	4.7%	4.8%
Miscellaneous	DIY Construction & Renovation Materials	5.0%	5.0%	5.0%	5.0%	5.0%
	Diapers	1.6%	1.6%	1.6%	1.6%	1.5%
	Electronics	1.5%	1.5%	1.5%	1.5%	1.4%
	Tires	1.7%	1.8%	1.8%	1.8%	1.7%
	HHW	0.3%	0.4%	0.4%	0.4%	0.3%
	Soils and Fines	0.3%	0.4%	0.4%	0.4%	0.3%
	Other Composite Materials - Durable and/or inert	1.7%	1.7%	1.7%	1.7%	1.7%
	Total Miscellaneous	12.1%	12.4%	12.4%	12.4%	11.9%
TOTALS		100.0%	100.0%	100.0%	100.0%	100.0%

2020 MSW Material Composition



2024 MSW Material Composition Projections



6. Revised Implementation Schedule

The following Table is a supplement to Table 3 located in Section vii. Implementation Schedule. It shows the revisions to the Implementation Schedule representing the planning period extension as per 6 NYCRR Part 366-4.1(g). The extension is for a two-year period 2023-2024 beyond the planning period of the current LSWMP 2010-2022.

Year/Period	PROJECT/MILESTONE Table 6	Responsible Party
2020	Continued Organics Throughput to SSOPF	Authority/Generators/Haulers
2021 - 2024	Continue Organics Throughput to SSOPF – eventually reaching 5,000 Tons Per Year	Authority/Generators/Haulers
2021 - 2022	Initiate Biosolids Recovery Study Through RFQ, RFP	Authority
2022 - 2023	If Feasible, Implement Biosolids Recovery Project	Authority
2023 - 2024	Evaluate Alternate Uses of Captured Landfill Gas	Authority
2024	Implement Alternate Uses of Captured Landfill Gas	Authority

The revised Implementation Schedule lays out the actual and planned timing for the SSOP project, biosolids recovery technology evaluation and alternate landfill gas use study.

Table 7 illustrates the revised waste projections for the planning extension period of 2023-2024, as well as a more detailed Table (8) which shows MSW generation broken down by sector.

REVISED WASTE PROJECTIONS Table 7					
	2020	2021	2022	2023	2024
Population	292,578	292,160	291,739	291,284	290,830
MSW (Disposed)	176,596	173,331	169,071	164,317	159,071
C&D (Disposed)	65,186*	62,088	61,745	61,402	61,060
Sludge (Disposed)	23,965	23,929	22,393	19,359	15,330
Industrial Waste [including Medical, Asbestos] (Disposed)	28,354	28,311	28,269	28,227	28,185
Source Separated Organics (SSO) Recovered	1,330	3,000	4,000	4,500	5,000
NOTE: 1. All figures, except population, in tons. 2. 2020 figures are baseline actuals except *C&D which is 2019 actual to avoid skewing in data. 3. According to Cornell Program on Applied Demographics, population is projected to fall on average 0.15% per year.					

REVISED MSW PROJECTIONS BY SECTOR Table 8					
	2020	2021	2022	2023	2024
MSW Residential	95,362	93,599	91,298	88,731	85,898
MSW Commercial	67,106	65,866	64,247	62,441	60,447
MSW Industrial	14,128	13,866	13,526	13,145	12,726
TOTALS	176,596	173,331	169,071	164,317	159,071
NOTE: 1. All figures in tons. 2. 2020 figures are baseline actuals. 3. According to NYSDEC's Beyond Waste Plan, MSW is comprised of Residential 54%, Commercial 38% and Industrial 8%.					

Table 7 shows revised waste projections through the planning period extension 2023-2024. We see the region's population declining slightly at a rate of 0.15% per year. For planning purposes, we assume a likewise decline of 0.15% per year for all waste sectors since population decline usually correlates to waste generation decline. In addition, we project a decrease in MSW destined for disposal directly related to the Authority's SSOPF project. This projected trend is consistent with 6 NYCRR Part 366-2.7(b) 2 showing "progressively decreasing quantities of MSW generated in the planning unit managed through thermal treatment and disposal." For 2021 we expect a 3,000 ton MSW decrease, for 2022 a 4,000 ton decrease, for 2023 a 4,500 ton decrease and 2025 a 5,000 ton decrease. The Authority believes that the MSW downward trend projection may be conservative and as the program matures and more generators are identified diversion figures may surpass the projected numbers.

As described on page 3, the Authority saw a major increase in asbestos waste, contaminated soil and construction/demolition (C&D) debris in 2020. This increase directly impacts any waste projections because it artificially raises the baseline data for 2020 especially for C&D. Therefore, we must use a more realistic baseline for C&D which is the 2019 total of 65,186 tons. The Authority also projects a slight decrease for the future planning period in C&D disposed due to a decrease in old housing stock demolitions. For 2022 and 2023 a 343 ton decrease and 2025 a 342 ton decrease.

We must also explain the sludge disposed 2020 baseline figure which is 11,417 tons higher than the 2018 baseline figure. This is due to a major operational change in sludge management at the Oneida County Water Pollution Control Facility (OCWPCF). Beginning in 2020, the OCWPCF no longer incinerates its sludge. Instead, the sludge was anaerobically digested resulting in the increase of sludge destined for the Regional Landfill. The Authority's consulting engineer estimates that for 2022 there will be about 1,500 tons of sludge resulting from the anaerobic digestion of the 4,000 tons of SSO slurry processed at the OCSD digesters. The Authority is committed to beneficially re-using at least that portion of OCSD's sludge in the future. The commitment is largely dependent on the results of the 2021 RFP process discussed in Section 3. However, for planning purposes we are projecting a 1,500 ton decrease in sludge destined for the RLF in 2022, 3,000 tons in 2023 and 4,000 tons in 2024.

When looking at Industrial Waste, the Authority assumed a 0.15% decrease, per year, due to the projected population decline mentioned previously.

Table 8 lists figures associated with revised MSW projections by sector from 2020-2024. The sectors are residential MSW, commercial MSW and industrial MSW. 2020 numbers are actual baseline to provide a realistic starting point. Again, we use a 0.15% decrease across the table for the same reasons as in Table 4. In addition, the impact of the SSO project is clearly observed in the declining trend of commercial MSW figures. This sector (restaurants, grocery stores, colleges, etc.) is the target of the SSO project.