

January, 2020

2019

ANNUAL REPORT



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Fulton County

Dept. of Solid Waste

Johnstown, New York

Fulton County Department of Solid Waste Annual Report 2019

Prepared For:
Fulton County Board of Supervisors
and the
2020 Public Works Committee

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Todd Bradt, Vice Chairman
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Jack Wilson
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Department of Solid Waste Staff

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Cindy G. Livingston, Deputy Director of Administration
Jeffrey Hertik, Deputy Director of Operations
Principal Account Clerk, Patricia Markes-Roennpagel
Account Clerks: Connor Askew, Cynthia Wesselmann

Recycling Division

Dianne Woske, Recycling Coordinator
Working Supervisors: Joseph Orlando, Daniel Kovalovich
Auto Mechanic: Eric Ellis
MEOs: Cory Bartlett, Victoria Dutcher
Skilled Laborers: Rory Baker, Brian Bicheler, Dona Gisondi, Kevin Green, Robert Manchester, Sandra Rogers, Matthew Wandel
HEO: Jonathan Teale

Landfill Division

Luke Case, Operations Manager
Alexandra Miller, Environmental Technician
Greg Perron, Equipment Maintenance Supervisor
Auto Mechanics: Edward Seeley, Stephen Solar
Weigh Scale Operator: Matthew Towne
Working Supervisor: Jack Gifford
Maintenance Mechanic: Erik Dutcher
MEO: Andrew Bornt
HEOs: Joshua Barker, Andrew Bochenek, Nicholas Passero
Skilled Laborers: Dustin Calhoun, Danny Ellis, Jeffrey Reynolds

Transfer Haul Division

HEO: L. J. Anderson
Laborer: Jon Bronk
MEO: Daniel Slade

Transfer Station Operators: David Cogovan, John DeWitt, Kenneth Felthousen, Thomas Flander, Suzanne Hamalak, James Johnson Sr., Larry Johnston, Peter Martyniuk, David Ringer, Floyd Smith, Robert Thompson
Supplemental Operators: John Bowers, Mike Buley, Ivan Duesler, David Nilsen

EXECUTIVE SUMMARY

2019 was another busy year at the Fulton County Department of Solid Waste, primarily within the staff team. Staff was busy throughout the year continuing to upgrade equipment for singlestream recycling. Recycling compactors were installed at five transfer stations and the MRF on Mud Road. The majority of the work was performed in-house.

Operationally, the Department of Solid Waste continued to lead by example with a diverse operation in support of county residents and businesses.

2019 was the ninth full year of production of electricity from the Landfill Gas-to-Electric plant at the Fulton County Department of Solid Waste, resulting in over \$2.0 million overall revenue in electric sales in 9½ years.

The 2010 Out-of-County ADC (Alternate Daily Cover) contract category brought in 1,668 tons of contaminated soils (in lieu of utilizing additional cover soil which provides no revenue gains). In-county soils were 492 tons for the year.

2019 was the first year of a contract with Hamilton County to accept their solid waste. The Towns of Day, Edinburg, and the Onondaga County Resource Recovery Agency also contracted with Fulton County in 2019.

The Hamilton County contract brought in 6,129 tons of material. The contract allowing Out-Of-County waste from permitted haulers brought in an additional 5,795 tons of material.

The Villages of Schuylerville, Schoharie, Canajoharie; and the Town of Niskayuna contracted with Fulton County for sludge disposal. The Out-of-County sludge contracts brought in 5,046 tons in 2019.

A category for large loads (25 tons or greater) of municipal solid waste brought in 50,586 tons

for the year. Out of County large loads brought in over \$2.2 million in revenue.

In 2019 the Fulton County Demolition Team performed 4 demolitions, as the ongoing single stream transition kept crews busy with modifications to the recycling building and transfer stations.

The landfill staff completed NYSDEC required cleaning of the leachate collection systems, leachate tank cleanings, and servicing of the air system.

The department collected 2,441 tons of singlestream recycling in 2019. Continuing successful programs include the annual Latex Paint Exchange and the Electronics and Textile Drop-offs, which are available at all eight transfer stations.

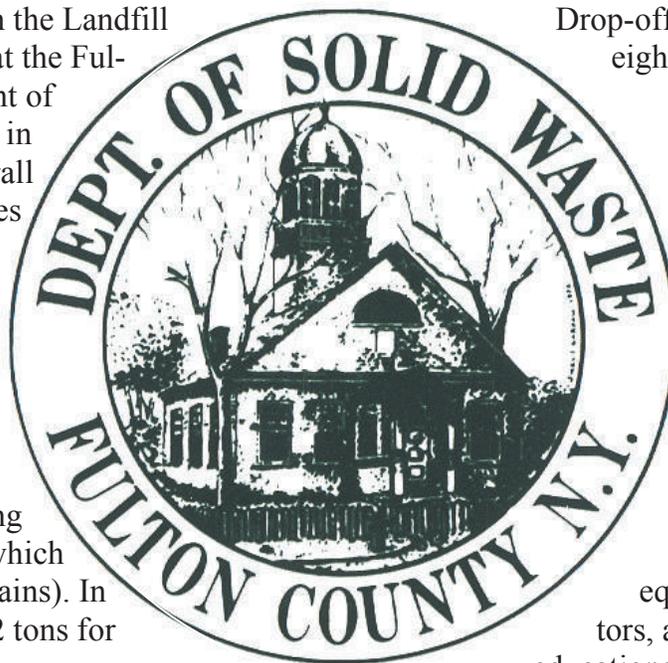
The Department of Solid Waste received grant funding this year totaling

\$19,214.61 from NYSDEC, including \$9,496.33 for 2018 electronics disposal costs and \$9,718.28 for 50% of Recycling Education costs for the first quarter of 2019. The Department continues to pursue a large request (over \$425,000) for equipment, trucks and compactors, as well as promotional and educational costs expended during the

switch to singlestream recycling. Another grant, for 50% reimbursement of recycling education costs in 2020, was approved by the DEC in 2019.

Recycling revenue of \$39,943 was reported in 2019. This decrease of \$80,186 from 2018's total continued a downward trend in recycling due to China's import ban on recycling that has caused upheaval to recycling markets across the nation. The Department of Solid Waste has received over \$8.8 million in revenue for the sale of recyclable materials since its inception.

In 2019 the Department of Solid Waste utilized 188,475 cubic yards of space for the 147,518 tons of refuse and cover received. The landfill compaction rate was 1,542 pounds per cubic yard.



The History of the Fulton County Department of Solid Waste

The Fulton County Department of Solid Waste has been in operation for 30½ years and has received a total of 3,069,881 tons of refuse. In the 1980's, Fulton County developed a strategy to address the Solid Waste needs of the community. By 1989 Fulton County had created a state of the art landfill, located in the Town of Johnstown. The Fulton County site was approved for 105 acres overall landfill footprint. Currently, 47.9 acres

are lined and the county has invested over \$48 million in facilities and infrastructure. This includes a Materials Recovery Facility, eight transfer stations and a Landfill Gas to Electric facility. The department is responsible for all permits and regulatory compliance requirements to ensure environmental protection. The New York State Department of Environmental Conservation permits and reports required to operate include:

NYSDEC Solid Waste Permit 4506; Contingency Plan; Operation and Maintenance Manual; Environmental Monitoring Plan; NYSDEC Facility ID Number 18S20; Site Analytical Plan; NYSDEC Part 364 Hauler Permit No. 5A-123; Landfill Gas Monitoring Plan; Title V Air Permit 5172800005 /00006; Financial Analysis; Greenhouse Gas Report No. 527597; Annual Recycling Facility Report; Ful-

ton Co. Local Solid Waste Management Plan (LSWMP) 2011-2023; Bi-annual LSWMP updates; Stormwater Pollution/Prevention Plan; SW Landfill Engineering Reports; NYSDEC Landfill Permit # 5-1728- 00005/00003; Annual Electronics Recycling Report; NYS Motor Vehicle Inspection Station Permit; Petroleum Bulk Storage Cert. 5-600404.

County Contributions

The Department of Solid Waste is set up as an Enterprise Fund, established to raise all necessary funds to finance its entire operations.

The Department receives no tax dollars from the County. Tipping fees are established and charged to facility users for all waste received and hauled.

All municipalities are customers

of this operation, and as such, the tonnage hauled from the municipalities is billed back at the designated per ton charge, which pays for utilization of departmental services.

State required reserve accounts are designated for future expansions, gas projects, equipment purchases, capping of the landfill and future environmental monitoring. This approach has allowed the county to provide a wide range of services, maintain its fleet of equip-

ment, and plan ahead for necessary projects in a self-sufficient manner, all without borrowing funds. All capital costs are paid for with departmental reserves and do not impact the County budget.

Annually, the Department of Solid Waste contributes \$350,000 in revenue to the overall County budget, as well as services and equipment to assist in the reduction of various county departmental expenses.

DSW STAFF

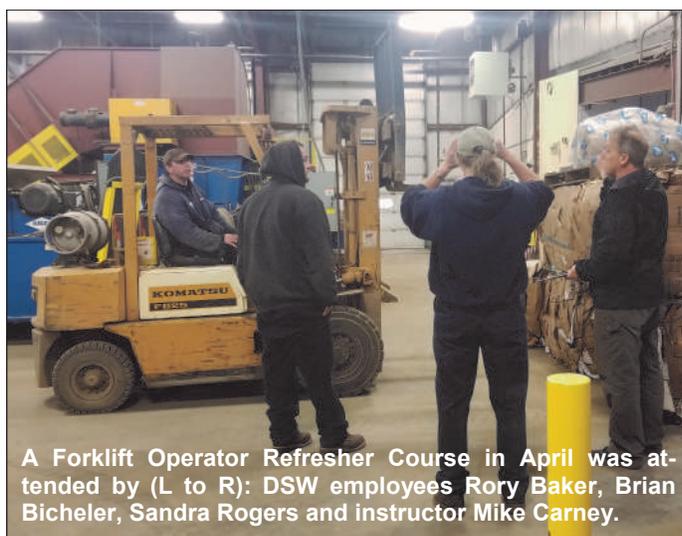
The Department of Solid Waste full-time staff of 38 continues to provide a multitude of services, which include operating a comprehensive solid waste and recyclables management program for the county, as well as extending itself for in-house projects and co-operative efforts with other municipalities, such as clean up programs. There are also 11 part-time transfer station attendants and four supplemental employees within the department.

2019 marked the retirement of long time employee HEO Greg Coon and the appointment of Jeffrey Hertik as Deputy Director of Operations.

Training during 2019 included:

- ◆ Storm Water Training
- ◆ Initial Asbestos Training
- ◆ Asbestos Training Refresher
- ◆ Landfill Operator Training
- ◆ Confined Space Training Refresher
- ◆ CPR / First Aid
- ◆ Forklift Operator Training Refresher

- ◆ NY State Solid Waste Conference
- ◆ Fall Solid Waste Conference on landfill odor control and mitigation
- ◆ NY State Recycling Conference



A Forklift Operator Refresher Course in April was attended by (L to R): DSW employees Rory Baker, Brian Bicheler, Sandra Rogers and instructor Mike Carney.

SANITARY LANDFILL

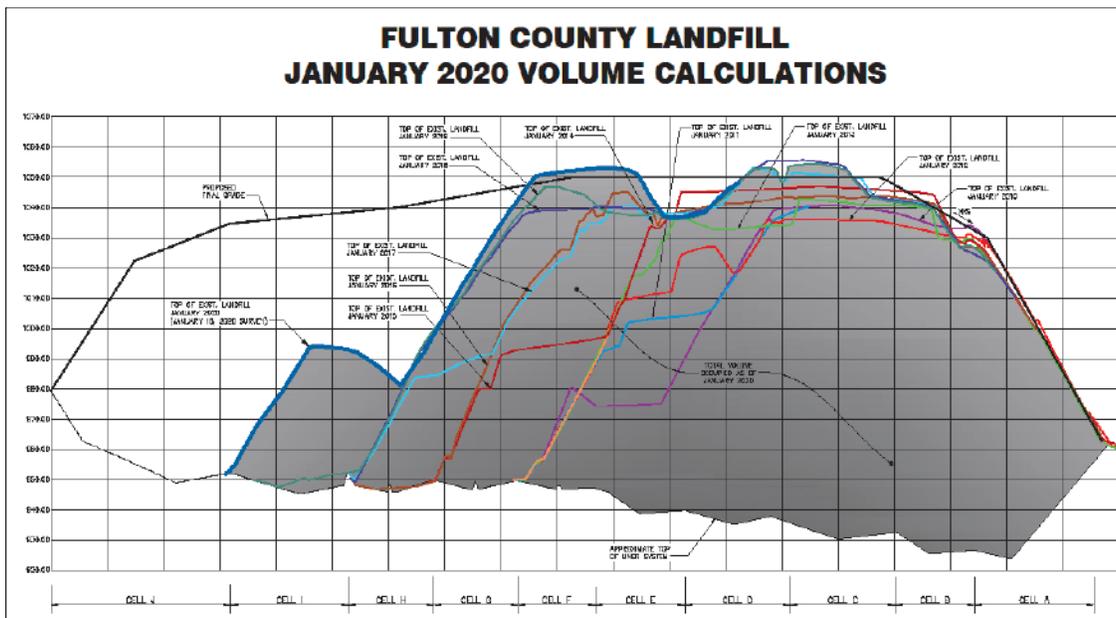
In 2019, a total of 145,357 tons of refuse, and 2,161 tons of contaminated soil/ADC, were brought into the facility, delivered by 18,027 separate truckloads, (an average of 8.2 tons/load). See tonnage breakdown below:

The Department of Solid Waste averaged 585 tons per day in 2019.

The Out-of-County, Large Load category continues to be extremely beneficial in assisting the overall operations of the landfill, bringing in almost \$2.3 million in revenue for 2019.

To date, the Department of Solid Waste has received over \$32.3 million in revenue from Out-of-County sources.

2017-2018-2019 Tonnage Comparison			
	Tons 2017	Tons 2018	Tons 2019
Asbestos & Uncovered Loads	3,684.1	1,349.6	1,059.1
Construction & Demolition Debris (including: Commercial C&D, County Transfer Haul C & D, Municipal C & D, County Demolition Team C & D)	7,464.1	8,545.1	8,413.5
Commercial	22,286.9	23,996	22,536.7
County Transfer Haul	9,607.0	9,429.5	9,740.1
Industrial Wet	1,000.3	1,268.9	1,443.2
Industrial Dry	4,748.6	5,117.1	4,548.0
Municipal Direct Haul	11,371.9	11,046.6	11,182.5
GJWWTF & Municipal Sludge	21,940.3	20,447.8	18,622.8
Contaminated Soil (In-County)	1,282.8	8,339	492.6
Clean Up Program	263.8	225.7	254.9
Out-Of-County Waste (All)	67,187.2	59,641.7	69,224.8
Total	150,836	149,407	147,518



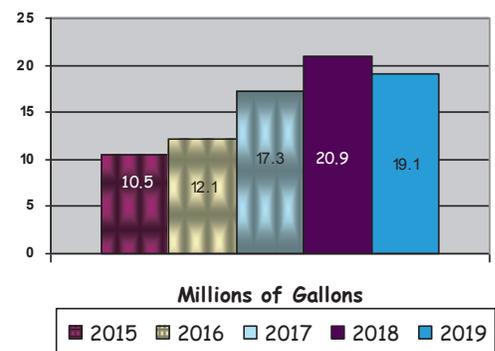
Site Life Calculations

Cells A-J have a total of 47.9 acres of liner system, which have 1,376,484 cubic yards of space remaining for refuse. At the 2019 airspace consumption rate of 188,475 cubic yards, the landfill's current lined system has 7 years of site life available, (estimated at 150,000 tons per year of refuse).

LEACHATE

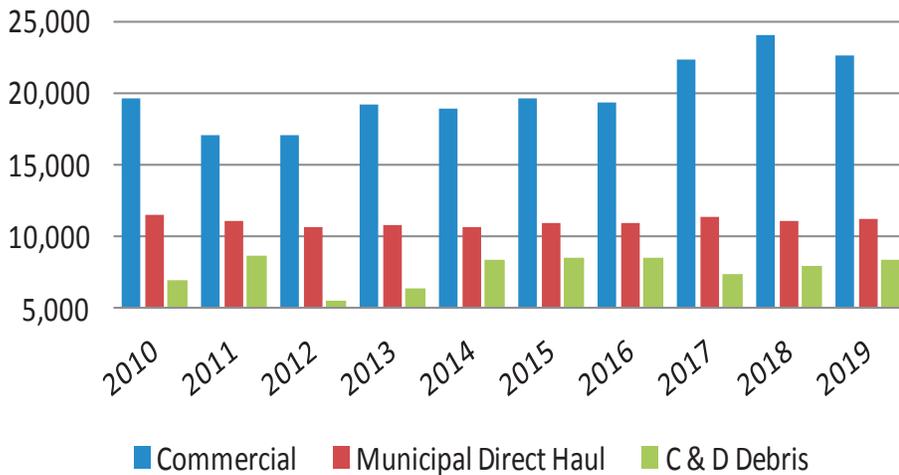
A total of 19,055,518 gallons of leachate were pumped to the Gloversville-Johnstown Joint Wastewater Facility in 2019, a 1.9 million gallon decrease from the 20,937,025 gallons reported in 2018.

The direct pumping of leachate in the double contained HDPE leachate pipe line that runs to the Wastewater Facility replaced the previous method of disposal, which consisted of driving the leachate in a tanker truck. To date, almost 346 million gallons have been sent to the GJWWTF.



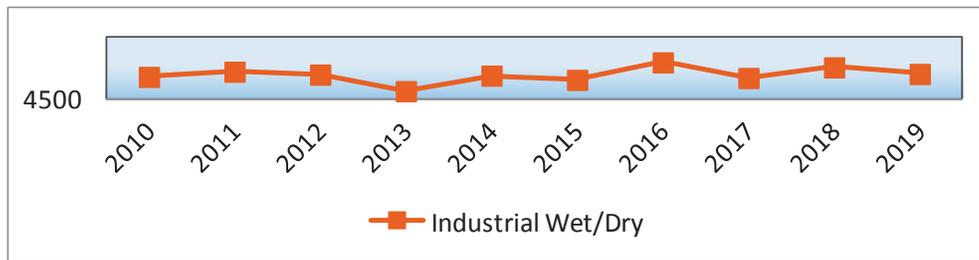
TRENDS

Commercial / Municipal Direct Haul / C&D Debris - 10 Year History



- **Commercial Waste** in Fulton County decreased by 1,460 tons from the previous year, with 22,536 tons in 2019 and 23,996 tons in 2018.
- **Municipal Waste** showed a slight increase (135 tons), with 11,182 tons in 2019, compared to 11,047 tons in 2018.
- **C&D Debris** showed an increase of 409 tons in 2019. There was a total of 8,364 tons in 2019, compared to 7,955 tons reported for 2018.

Industrial Wet/Dry

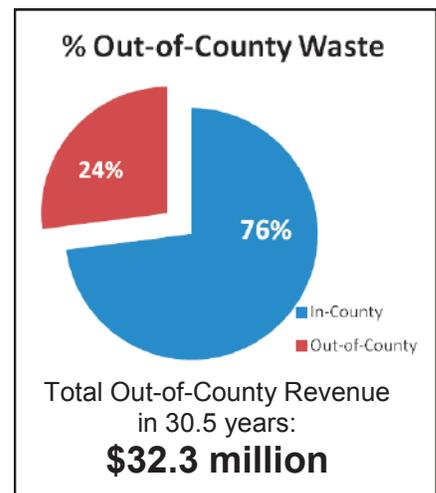


The Industrial Waste category showed a decrease of 395 tons over the previous year. In 2019 there were 5,991.2 tons of combined wet and dry industrial waste reported, compared to 6,386 tons in 2018.

OUT-OF-COUNTY WASTE

The Out-Of-County Large Load category, which was reinstated in 2018, is one category that has grown substantially in the past few years. It provides the municipal solid waste needed for a better percentage of dry to wet waste for operations, as well as the necessary revenue to support department programs. In 2019 almost 50,586 tons were reported in the large load category, compared to 23,356 tons in 2018.

There were a total of 69,224.8 tons of Out-Of-County waste reported in 2019 (including the large load category), an almost 10,000 ton increase from the 59,641 tons reported in 2018. Out-of-County loads accounted for \$3.3 million in revenue in 2019 and \$32.3 million in revenue in the past 30.5 years.



Successful Programs

- Singlestream Recycling
- Latex Paint Exchange
- Yard Waste Composting
- Electronics Collection
- Fluorescent Bulb Drop-Off
- Rechargeable Battery Drop-Off
- Mercury Thermostat Drop-Off
- Propane Tank Drop-Off
- Textile/Clothing Collection
- Small Business Recycling and Non-Profit Recycling Programs
- Demolition Team
- Confined Space Safety Training
- Government Surplus Program
- Metal Processing
- Equipment Sharing
- Clean Wood/Clean C&D Disposal
- Out-of-County Contracts
- Alternate Daily Cover Materials
- Financial Contributions to the County
- Municipal Clean-ups
- Public Event Recycling Program

COMPOST

Incoming compost tonnage increased by 216 tons compared to the previous year - with 3,087 tons reported in 2019, and 2,871 tons in 2018. This is mostly leaf and yard waste from municipalities and local landscapers. Limbs and branches are chipped and turned to advance the composting process. The finished compost is used for on-site vegetation and side slopes.

There was no “Clean C&D Wood” generated in Fulton County this year, a drop from the 189 tons reported in 2018. The Out-Of-County Clean C&D/Wood category also dropped, with 7.5 tons reported in 2019, com-

pared to 26.1 tons in 2018. This material, eligible for LEED (Leadership in Energy and Environmental Design) certification, is non-residential disposal for construction and demolition debris. It is run through the tub grinder and chipped, and used as landfill cover.

With the exception of the “Out-of-County” category for Clean Wood, (\$25/ton), all other compost categories were zero tipping fee in 2019. The Out-of-County Clean Wood category generated \$186 in revenue.

There was also 271 tons of in-county concrete / millings /stone accepted, which is used for hard fill needs.

CLEAN UP PROGRAM

The 25th year of the county sponsored Clean Up program was offered in spring or fall, at \$50 per ton, with several municipalities participating. Totals for the year were 255 tons of garbage in 88 loads, a 29-ton increase from the 2018 total of 226 tons.

Also taken in were 52 tons of metal, 12 tons of electronics and 750 tire units for a total cost of \$15,627 to the municipalities.

Municipal Clean Up <i>(by ton)</i>	
2015	338
2016	197
2017	234
2018	226
2019	255

GRANT HISTORY

The Department of Solid Waste continues to monitor submitted grants awaiting payment or submission approval with the State DEC.

A total of \$19,214.61 was received by the DSW in 2019, including a payment of \$9,496.33 which was reimbursement for 34% of expenses for electronics disposal in 2018.

The second payment received was \$9,718.29, which covered 50% of expenses for recycling education, promotions, advertising and the Recycling Coordinator’s salary and benefits in the first quarter of 2019. The Department is approved for 50% reimbursement of up to \$128,704 for these costs in 2019.

Another Recycling Education grant, already approved

by DEC, will reimburse 50% of up to \$100,000 of expenses for 2020. Also expected in 2020 is 50% reimbursement of the \$43,858 in costs for the 2019 Household Hazardous Waste Drop-Off program held on August 10.

A recycling equipment grant for state funding consideration, totaling \$425,675 for the transition to singlestream recycling, is in the works. This would cover modifications to the recycling facility, new trucks and compactors. Close to \$50,000 of the grant is derived from promotional and educational costs for 2017, dealing with the transition to singlestream recycling.

To date, the Fulton County Solid Waste Department has received \$4,058,038.40 in grants.

GAS TO ENERGY

2019 continued as a successful year for electric generation at the Solid Waste Department. The landfill gas-to-energy plant has resulted in nearly \$2.3 million in revenue since production began. This can be attributed to the countless man hours spent by DSW staff expanding and maintaining the landfill’s vast gas collection system.

The gas crew installed 1,000 feet of 6-inch collection piping to create a loop system in 2019. In addition, four

wells were installed by DSW gas crews. The wells were 36 inches in diameter and ranged from 25 to 30 feet in depth.

All of these endeavors bolster production by supplying a higher flow rate of good quality gas (50% Methane or higher) to run the 3520 CAT engines at the landfill gas to energy plant, run by Aria Energy.

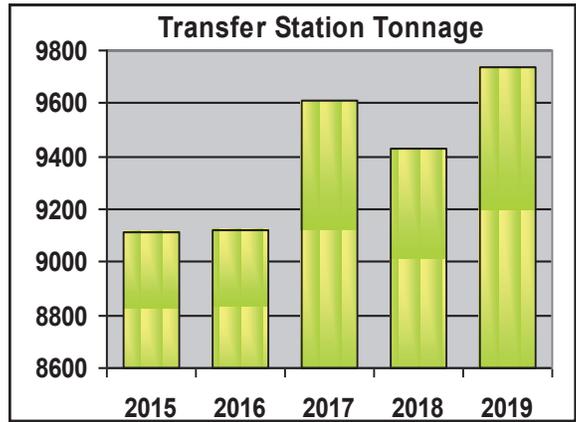
Carbon credits were banked for sale when prices rebound.

TRANSFER OPERATIONS

Major focus on Fulton County transfer stations in 2019 was the continued installation of recycling compactors. Increases were seen in the total tonnage of refuse, recycling and bulk metal disposed of at transfer stations, as well as the total number of loads.

A total of 9,740 tons of residential refuse was reported for 2019, compared to 9,430 tons in 2018. Also of note are the 699 tons of metal (an increase of almost 100 tons from 2018); 764 tons of singlestream recycling (11 ton increase from 2018); 121 tons of miscellaneous recyclables, (including motor oil, tires and vehicle batteries); 129 tons of electronics and 30 tons of textiles that were handled through the seven transfer stations and the transfer station at the DSW.

Also showing an increase were the number of vehicular loads - with 187,570 loads in 2019 compared to 179,175 loads in 2018, an increase of 8,395 loads.



The Solid Waste Department operates seven off-site transfer stations around the county, as well as the landfill transfer station. Residents must purchase permits from their municipality to dispose of garbage, recycling and bulk metal. Transfer Station projects in 2019 include installation of compactors and fabrication of hoppers at five transfer stations, a continuing effort to make the transportation of recycling more efficient.

Paving repairs and installation of recycling compactors was completed in-house at Broadalbin, Ephratah, Northampton, Oppenheim and Stratford Stations. The East Fulton Street Station was completed in 2018, and the Caroga Transfer Station is slated for an upgrade in 2020.



Top left: the new compactor for singlestream recycling at Ephratah. The lower dumping chute will speed up the process for residents.

Top right: prep work for new paving at the Ephratah Transfer Station. All work was done in-house.

Bottom right: DSW staff begin work at the Ephratah station in June.

Bottom left: Automotive Mechanic Ed Seeley installs a line to the new equipment.



NEW EQUIPMENT

New equipment purchased in 2019 as Capital Projects included an excavator, truck lift for the garage, pick up truck with plow, a Teleskid compact loader to use for loading singlestream recycling, and a GPS system which will optimize compaction and assist in utilizing all permitted air space. Major equipment purchases for the year include:

- ◆ Kobelco 350 Excavator - \$263,087
- ◆ Truck Lift - \$44,983
- ◆ Pick-up with plow - \$30,434
- ◆ GPS - \$97,960



Teleskid



Truck Lift



Ford 250 Pick Up



Kobelco 350 Excavator

GOVERNMENT SURPLUS PURCHASES

A large number of vehicles and equipment are purchased through the Government Surplus Program, where the DSW buys used merchandise from the federal government, at reduced prices. In 25 years of this program, the DSW has purchased \$237,124 worth of equipment that was valued at roughly \$3.3 million.

Once equipment reaches the end of usable life, it is disposed of sustainably, either through on-line auctions, traded in, or recycled for the bulk metal.

In 2019 four items were sold at auction, generating \$19,250 in revenue. These included a 1995 Samsung Loader, 1980 John Deere backhoe (originally purchased from government surplus), 1974 FWD plow truck and 2003 Chevy Blazer.

2019 Government Surplus Program Purchases

ITEM	COST
Water Truck (parts truck)	\$2,680
1985 Chevy diesel 4x4 PU	\$885
1998 Chevy 1-ton dump truck	\$1,000
1979 AM General dump truck	\$3,701
Snowmobile	\$560



1979 dump truck



1998 Chevy dump truck



Water parts truck



1985 Chevy 4x4 pick up

2019 RECYCLING REPORT

In the third year described as “catastrophic” to the recycling industry worldwide, Fulton County’s program suffered a similar fate, showing a sharp decline financially for many materials that were profitable in the past.

Fulton County previously used dual-stream collection, with materials sorted into three different categories by residents, and disposed of in clear plastic bags. Materials were processed at the Recycling Facility, baled and sold.

In 2016 the County Board of Supervisors approved a 5-year contract with Oneida-Herkimer Solid Waste Authority (OHSWA) to process Fulton County’s recycling at the modernized singlestream recycling plant in Utica. Profits or losses from the sale of recyclables are figured monthly, (based on a fluctuating commodities

market) and Fulton County receives a portion of the profits, or a bill for deficits.

In 2017, the DSW received \$77,330 for the sale of 2,297 tons of singlestream recycling. Two years later Fulton County DSW paid \$53,535 for the 2,381 tons hauled to Utica.

Singlestream recycling tonnage from curbside pickup dropped by 167 tons from the previous year (1,530 tons in 2019 versus 1,697 tons in 2018), although transfer station recycling showed an increase (764 tons in 2019 versus 753 tons in 2018).

The “Chinese National Sword,” which came into effect in February 2018, banned imports of 24 types of waste material and set a tougher standard for contamination levels in others. This had a ripple effect across the industry, and prices dropped dramati-



cally as an oversupply of plastics and fiber loads filled warehouses.

Some bright spots in 2019 included bulk metal, which continue to provide income, as well as textiles and vehicle batteries, which are both drop-off programs that take very little manpower to maintain, but provide revenue.

The chart below gives a 3-year comparison of materials:

Recycling Materials: Three-Year Comparison

MATERIAL	2017	2018	2019	COMMENT
SINGLESTREAM RECYCLING	2,296.7 tons \$77,330	2,361.3 tons (\$11,707)	2,381.4 tons (\$59,070)	The DSW kicked off the county-wide singlestream recycling program in March, 2017. Although the amount hauled to the OHSWA processing plant in Utica has been fairly similar all three years, the continuing worldwide decline paid for recyclable materials has resulted in a larger negative cost to Fulton County, and a \$41,828 increase from the previous year in recycling costs.
CORRUGATED CARDBOARD	228.7 tons \$40,622	182.4 tons \$17,441	68.4 tons \$2,450	A big difference in the amount of cardboard collected, along with a continuing drop in prices paid per ton, resulted in a big drop in revenue compared to previous years. The DSW continues to collect, bale and sell (in accordance with the OHSWA agreement) recyclable cardboard that comes in from business customers.
MIXED PAPER	138.6 tons \$15,963	23.1 tons \$461.40	22.3 tons \$0	Although only a small percentage of the total materials handled by the DSW, this category demonstrates the bleak state of the recycling industry. The only load produced for a year was moved for zero revenue; 2018’s single load of mixed paper sold for \$20/ton (considered shockingly low, at the time).
BULKY METAL	504.1 tons \$69,899	547.7 tons \$87,052	602.8 tons \$68,779	This is the scrap metal brought in from 8 transfer stations, (as well as refrigerators and freezers, once Freon is removed), and stored on site until there is enough to market. There was a 55 ton increase in tonnage from 2018, but revenue dropped by \$18,273, due to market fluctuations.
VEHICLE BATTERIES	9.1 tons \$6,656	9.1 \$6,426	14.7 tons \$8,848	Residents can drop off vehicle batteries at any transfer station. Batteries are brought back to the Recycling Facility, consolidated and palletized until they are sold. Tonnage increased by 5.6 tons and revenue by \$2,422 in 2019, compared to the previous year.
TEXTILES	28.3 tons \$2,833	28.3 tons \$2,831	30.1 tons \$3,011	American Clothing Recycling of Glens Falls places drop-off containers at each of the 8 transfer stations. They pick up all materials and pay the DSW \$100/ton. Over 1,212 tons (2.4 million pounds) of textiles have been kept out of the landfill since 1991.

Singlestream Recycling

In 2017 the Fulton County DSW switched to singlestream recycling countywide and new compacting rear-loading trucks were purchased for pick up of the loose material. Once curbside recycling is picked up, it is transported back to the Solid Waste Department on Mud Road, consolidated with transfer station recycling and loaded into the department's "walking floor" trailer. Full tractor trailer loads of recycling are trucked to Utica, where Fulton County's recycling is processed.

Total recycling tonnage taken to Utica in 2019 increased by 20.1 tons from 2018. Offsetting revenues took a dramatic decrease, causing Fulton County costs to increase by \$47,000 from the previous year.

During 2019 the DSW continued installing compacting recycling containers at each transfer station (with the exception of the Landfill Transfer Station). This will help make transportation more efficient by getting more recycling into containers and needing fewer trips to empty containers.

The DSW also finished converting the recycling processing facility into a more effective loading operation during 2019, with almost all work done in-house by DSW crews.



This Singlestream Curbside Recycling truck is pictured unloading at the MRF (Materials Recovery Facility) at the Solid Waste Department. Curbside recycling is offered to 85% of Fulton County residents, with transfer station drop-off available to other residents.

Commercial Recycling

The multi-year agreement with OHSWA to process Fulton County's singlestream recycling excludes commercial recycling. This is primarily cardboard from businesses. Once it is received at Fulton County's facility, it is sorted, baled and marketed.

In 2019 there were 147.3 tons of commercial recycling, down from the 244.6 tons sold in 2018. Recycling from the Small Business and Non-Profit Recycling Program is included in these totals.

There were 68.4 tons of corrugated cardboard sold in 2019, netting \$2,450 in revenue. This was a big decrease from the 182 tons sold in 2018, for \$17,441. Only one 22.3-ton load of mixed paper was marketed in 2019, at net zero, due to a lack of market for the material.

In 2019 a survey was included with annual renewals to permitted haulers, to track if they are recycling any materials (other than at the FCDSW) that are generated within Fulton County (like bulk metal or mulch). Results will be tabulated and submitted to DEC, as well as giving better data locally.



Small Business / Non-Profit Recycling Programs

A program aimed at increasing non-residential recycling rates is the **Small Business Recycling Program** - where a small business pays a \$25 annual fee, and then can bring all their recycling directly to the Mud Road Recycling facility.

A similar program is the **Non-Profit Recycling Program**, where non-profit groups like churches can bring recycling directly to the DSW. The \$25 registration fee is waived for this group.

Electronics

2019 saw a significant drop in the amount of electronics recycled; with 129.2 tons collected in 2019, compared to 207.8 tons in 2018, an almost 79-ton decrease. Costs also declined in 2019, with \$19,127 reported in 2019, compared to the \$26,000 paid to Maven Technology of Victor, NY, the firm that recycles old electronics for Fulton County.

The focus on keeping old electronics out of landfills (which became a state law in 2015) is particularly on CRTs (Cathode Ray Tubes) which contain significant amounts of lead and are mostly found in old-style monitors and televisions.

No expenses for the electronics program are charged back to municipalities or residents.

Electronics Drop-Off					
Year	2015	2016	2017	2018	2019
Tons	226.4	217.0	229.6	207.8	129.2

OTHER RECYCLING MATERIALS

Batteries

The DSW sold 14.7 tons of used **vehicle (wet cell) batteries** in 2019 (approximately 1,050 batteries at 28 lbs each), almost 5 tons more than the 9.08 tons sold in 2018. Revenues for batteries also increased from the previous year, with \$8,848 in 2019, compared to \$6,426 received in 2018.

The 913.5 lbs of **rechargeable batteries** recycled in 2019 represents a 267.5 pound increase from the 646 lbs. reported in 2018. The DSW receives no income from these, but participates in a free mail back program with “Call 2 Recycle” (a Product Stewardship program).

Bulky Metal

Bulk metal sales continued to be one of the more profitable materials for the recycling division in 2019. This category showed a 55.1-ton increase in total **bulk metal** tonnage sold, with 602.8 tons reported in 2019, compared to 547.7 tons sold in 2018.

Although more metal was sold in 2019, a weak metal market resulted in \$68,779 revenues, a decrease of \$18,273 from 2018.

The bulky metal category consists of items like old washing machines or bikes, which are dropped off at transfer stations and hauled to the Solid Waste Department.



Fluorescent Bulbs

The Electronics Trailer at the Solid Waste Department also serves as a drop-off spot for rechargeable batteries, **fluorescent light bulbs (both CFLs and tubes)** and mercury containing thermostats. All these programs are aimed at keeping potentially dangerous materials out of the landfill.

Fluorescent light bulbs are packed in special, pre-paid mailer boxes and shipped to a firm specializing in their disposal. (This program is open to residents only). In 2019, 765.5 pounds of fluorescent bulbs were recycled, (476 at the regular Solid Waste residential drop-off and 290.5 at the HHW event) compared to 689 pounds in 2018.

Freon Units

The total tonnage of Freon-containing units recycled through the DSW rose in 2019 from the previous year, although disposal costs remained fairly steady. Freon is removed from refrigerators and freezers on-site by an outside firm, before those appliances are included with the bulk metal. A total of 18.4 tons of these units were reported in 2019, compared to 13.7 tons in 2018. The same Freon reclamation company takes all air conditioners and dehumidi-

fiers to be recycled at their facility, reporting 13.6 tons of air conditioners in 2018, compared to 17 tons in 2019.

Disposal cost to the Solid Waste Department in 2019 was \$2,768, compared to \$2,694 in 2018.

Residents were not charged to dispose of Freon units, and commercial haulers had a \$5 per unit fee in 2019. In 2020 a \$5 fee for residents and \$10 fee for commercial haulers will be implemented.

Propane Tanks

Old **propane tanks** (mainly 20-lb barbeque tanks) are diverted from the bulk metal program, where they can be of concern if any gas is present. There is not a paying market for this material and they were brought to Bornt’s Waste Metal in Gloversville at zero charge.

The total amount of **propane tanks** collected and recycled at the Landfill Transfer Station in 2019 increased from the previous year, with 960 lbs. (59 tanks) reported in 2018 compared to 1,820 lbs. (112 tanks) in 2019.

Textiles

The DSW continued its successful textile collection program, with drop-off bins located at each transfer station.

Tonnage and revenue in 2019 rose slightly from the previous year. There was \$2,858 in revenue from textile sales in 2018 and \$3,010 in 2019.

The total weight of textiles in 2018 was 28.4 tons compared to 30.1 tons in 2019. The DSW works with American Clothing Recyclers from Queensbury, who provide the drop-boxes, pick up donated textiles, and pays the DSW \$100/ton for a large list of acceptable textiles. Residents do not need a transfer station permit to dispose of textiles.

Tires

The amount of **waste tires** disposed of in 2019 decreased by 25 tons from the previous year, with 104.2 tons reported in 2018 and 79.2 tons in 2019. A total of \$17,368.50 was spent on tire disposal in 2019.



Used Motor Oil

Used motor oil is gathered from the eight transfer stations, the DSW’s garage, and the Landfill-Gas-To-Energy plant located at the DSW. The old motor oil is used for heating the recycling facility and maintenance shop - saving on fuel costs as well as disposal cost of the waste oil.

The amount reported in 2019 was 6,733 gallons, a 178-gallon increase from the 6,555 gallons reported in 2018.

In total, the DSW has collected 172,850 gallons of used motor oil since 1991.

RECYCLING PROGRAMS

2019 HHW Drop-off Day

The 16th Household Hazardous Waste Drop-Off Day, held August 10, featured a different entrance, and less tonnage from more participants, compared to the previous event. Total cost was \$44,738, which is eligible for a 50% reimbursement grant from NYSDEC. Total expenses were higher than the 2017 event, which was \$33,441. The HHW Drop-Off event is held every two years; the next is Aug. 14, 2021. This year, HHW participants were directed to a Mud Road entrance, and separated from the regular transfer station and landfill traffic. This resulted in an efficient and prompt drop-off, with minimal wait times.

A total of 23.8 tons of household hazardous waste was collected at the 2019 event. This was a decrease of 3.7 tons from the previous collection (27.5 tons in 2017). Attendance in 2019 was higher (359 carloads), compared to 327 in 2017.

The Department of Solid Waste also took in other items at the HHW event, which are part of established programs, but accepted for the convenience of the public. These items included used motor oil, recyclable cardboard, vehicle and rechargeable batteries, computer equipment and latex paint.



Above left: DSW Skilled Laborer Dustin Calhoun (far left), Maintenance Mechanic Erik Dutcher (2nd from right) and Director David Rhodes (far right) help a resident unload his vehicle. Above right: HEO Nick Passero separates materials for disposal. Top right: Deputy Director of Operations Jeff Hertik directs residents on site.

Latex Paint Exchange

There were 424 gallons of latex paint recycled during 2019 through the Latex Paint Exchange, which runs Saturday mornings in June through August at the Solid Waste Department. This program accepts good, reusable paint from residents and offers it back to the public at no charge. As well as helping residents get free paint, the program also diverts this material from the more expensive HHW disposal.

Year-round, residents are encouraged to dry up old paint themselves and dispose of cans of solidified paint with their garbage (with the lids removed).



Over 6,789 gallons of this (non-hazardous) paint has been diverted from the HHW collection or landfill disposal since the program began in 2001.

In December of 2019 NY Gov. Andrew Cuomo signed the Paint Stewardship Bill into law, creating a statewide program to be run by industry non-profit PaintCare.

There will be no cost to residents or business to drop off old architectural paint - funding for the program is included in the cost of new paint. The program is anticipated to go into effect in 2021.

FCDSW will continue to monitor the specifics of this program and how it will effect the local program.

Borrow-A-Bin: Public Event Recycling Program

The "Borrow-A-Bin" Public Event Recycling Program (bin loan-out) continues to be used by different groups. These barrels, with clear plastic sides and metal top and bottom, are available to borrow, free of charge, by any group or resident hosting an event. In 2019 the program was taken advantage of by several agencies – including the Caroga Lake Museum Festival, "The Eddie" Music Festival and the annual OFA Senior Picnic at the Concordia Club.



RECYCLING BUILDING RECONFIGURATION

The Recycling Facility building underwent a major renovation to retrofit the building to handle singlestream recycling. This extensive project, which started in 2018 and finished up in 2019, was done almost exclusively in-house by DSW staff.

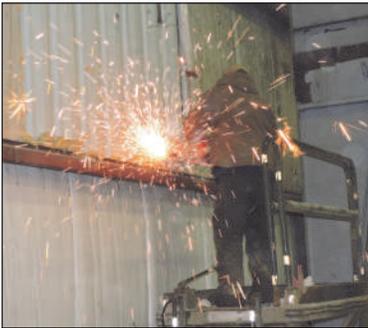
Crews deconstructed the sort line, including a second floor level and took out 12 conveyors. These were scrapped and sold at auction.

A containment wall was installed, with a push wall at one end. After interior renovations to create a loading door, the compactor was installed outside the building. A custom sliding barn door was built from lumber and metal siding, which encloses the area, as well as creating more storage.



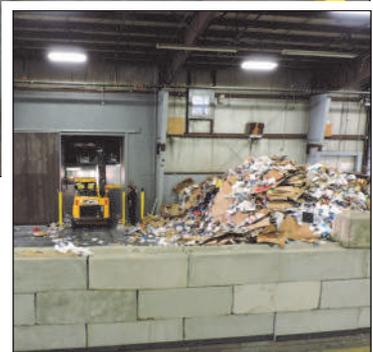
This entire section of the recycling facility was deconstructed by DSW crews, to upgrade it for singlestream loading. Previously, workers stood in front of conveyor belts and sorted recyclables into bins.

BEFORE

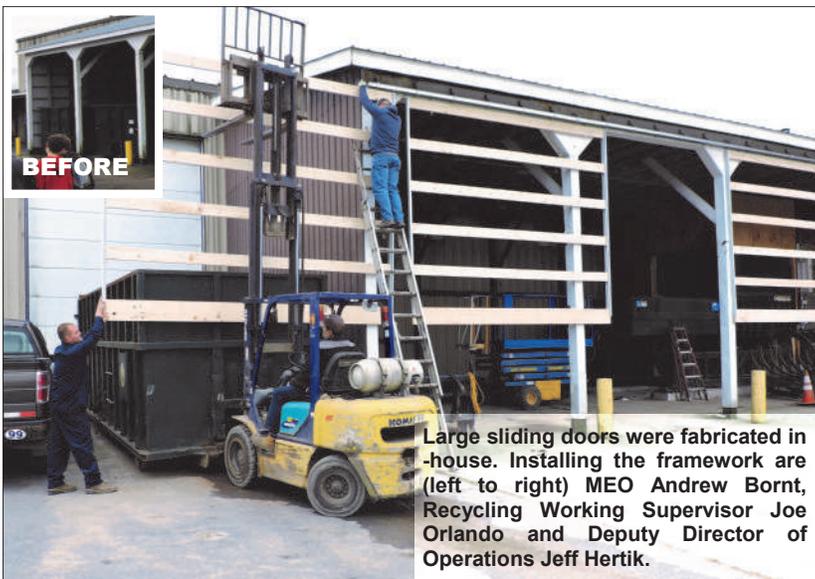


AFTER

This area is where singlestream is dumped, then loaded through the door into a compactor, which compresses the recycling further and loads it into a trailer to be taken to Utica for processing.



The above photos show interior work done to the building. Top left: DSW worker Jeffrey Reynolds cuts an opening for the new recycling compactor. Middle: the doorway is framed out (top) and a sliding door is installed. Bottom left: This compactor push wall, faced in steel plate, was fabricated in-house. It can be seen (above right), along with the containment wall (the large cement blocks). The shot to the right shows the completed loading bay, with loose recycling being loaded into the compactor.



BEFORE

Large sliding doors were fabricated in-house. Installing the framework are (left to right) MEO Andrew Bornt, Recycling Working Supervisor Joe Orlando and Deputy Director of Operations Jeff Hertik.



Compactor installation



AFTER

New barn doors keep the weather out of the loading area, and create additional storage.

DSW crews converted the bay formerly used for glass and aluminum containers into a dedicated singlestream loading dock and storage area.

DEMOLITION TEAM

The Fulton County Demolition Team was formed in 2000 to fight blight and make removal of old buildings more economical. The DSW purchased an excavator and other equipment needed to demolish and remove dilapidated, municipal-owned structures.

A total of 122 structures have been demolished since the inception of the program. The average cost per structure is \$2,800, plus the \$1,500 air monitoring fee, for an average cost of \$4,300 per structure.

2019 Demolitions

Two houses in the City of Groversville and “The Grange” in Perth were taken down by the Fulton County Demolition Team in 2019. These municipally-owned buildings were demolished, then the debris was hauled to the landfill. Fill was brought in and the area was graded.

In a cooperative project between the City of Groversville and County, the DSW hauled 591 tons of debris to the landfill, at a rate of \$25/ton, after the city hired Jackson Demolition to knock down buildings at 211 and 213 S. Main St.

In November the County sold 10 properties on the demolition team list to Groversville and waived the municipal/county demolition tip fee for these buildings, as a means to advance demolitions into 2020.



The DSW hauled 591 tons of debris from demos at 211 and 213 N. Main Street, Groversville (above).



The old Grange building in Perth (inset) was razed by the Demo Team in 2019, and the debris hauled to the landfill. The Perth VFD assisted with water spray for dust control (above).



DSW Skilled Laborer Matt Wandel sprays down a demolition in progress at 19 Wilson St., Groversville (above). Photo at left shows the Kobelco excavator in the process of knocking down a dilapidated structure at 14 Division St., Groversville.

A Look Back In History

TIPPING FEES (per ton)			
Category	1999	2009	2019
Commercial, Industrial & Construction/Demolition	\$50.00	\$50.00	\$58.00
Contaminated Soil	\$23.00	\$25.00	\$25.00
County Transfer Haul	\$58.00	\$49.00	\$53.00
Municipal Direct Haul	\$38.00	\$29.00	\$33.00
Municipal C & D	\$25.00	\$20.00	\$25.00
Municipal Sludge	\$40.00	\$30.00 & \$38.00	\$34.00 & \$44.00
Municipal Clean-ups	\$40.00	\$45.00	\$50.00
Transfer Station Recycling	\$12.50	\$12.50	\$10.00
Curbside Recycling	\$25.00	\$25.00	\$20.00
Commercial Recycling	\$10.00	\$10.00	\$0.00

EFFICIENCIES *2019 cost effective actions:*

2019 Intermunicipal Benefits / Shared Services

- ◆ The Department of Solid Waste lent a tractor truck to the Highway and Facilities Department for driver training
- ◆ Provided a roll-off container to the county DSS for a house clean-out
- ◆ Lent the lowboy trailer to City of Johnstown to transport a vehicle in need of repair
- ◆ Hauled gravel from the Town of Ephratah for entrance road into the landfill



Misc.

- ◆ Entered into lease agreement with New Cingular Wireless for a cell tower at the DSW, which will improve emergency management communication systems, as well as cell phone coverage in the vicinity
- ◆ Held session for all transfer station attendants, which will be an annual refresher
- ◆ First year of multi-year contract with Hamilton County for MSW
- ◆ LSWMP Update approved by NYSDEC on Nov. 6, 2019
- ◆ Tours: Fulton County Board of Supervisors in August (*photo below*), the Inter-County Legislative Committee of the Adirondacks in October, and BOCES.



Thank You for Your Support

2019 Public Works Committee

Gregory Fagan, Chairman - Todd Bradt, Vice Chairman

John Blackmon, Sheila Perry, James Selmsler, William Waldron, Gregory Young