

January, 2019

# 2018

## ANNUAL REPORT



**Prepared By:**  
David Rhodes, *Director*  
Cindy G. Livingston, *Deputy Director of Administration*  
Jeffrey Bouchard, *Operations Consultant*  
Dianne Woske, *Recycling Coordinator*  
Patricia Markes, *Principal Account Clerk*

# Fulton County

## Dept. of Solid Waste

Johnstown, New York

# Fulton County Department of Solid Waste Annual Report 2018

*Prepared For:*  
Fulton County Board of Supervisors  
and the  
2019 Public Works Committee

**Greg Fagan, Chairman**  
**Todd Bradt, Vice Chairman**  
**John Blackmon**  
**Sheila Perry**  
**James Selmser**  
**William Waldron**  
**Gregory Young**

## Department of Solid Waste Staff

### Administrative

**David Rhodes**, Director  
**Cindy G. Livingston**, Deputy Director of Administration  
**Jeffrey Bouchard**, Operations Consultant  
**Senior Account Clerk**, Patricia Markes  
**Account Clerks**: Connor Askew, Cynthia Wesselmann

### Landfill Division

**Luke Case**, Operations Manager  
**Alexandra Miller/Josh Brown** 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  
**Motor Equipment Operator**: Daniel Slade  
**Heavy Equipment Operators**: Joshua Barker, Gregory Coon, Nicholas Passero

### Transfer Haul Division

**Heavy Equipment Operators**: L. J. Anderson,  
Andrew Bochenek  
**Laborer**: Jon Bronk

### Recycling Division

**Dianne Woske**, Recycling Coordinator  
**Working Supervisors**: Joseph Orlando, Daniel Kovalovich  
**Auto Mechanics**: Martin Bilger, Tyler Cosselman  
**Motor Equipment Operators**: Cory Bartlett, Victoria Dutcher, Andrew Bornt  
**Skilled Laborers**: Rory Baker, Brian Bicheler, Dustin Calhoun, Danny Ellis, Dona Gisondi, Kevin Green, Greg Jones, Keegan Kolbe, Robert Manchester, Jeffrey Reynolds, Sandra Rogers, Matthew Wandel

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**Transfer Station Operators**: David Cogovan, John DeWitt, Kenneth Felthousen, Thomas Flander, Suzanne Hamalak, James Johnson Sr., Larry Johnston, Floyd Smith, Robert Thompson, William Vicciarelli  
**Supplemental Operators**: John Bowers, Ivan Duesler, David Nilsen

# EXECUTIVE SUMMARY

2018 was a year that saw many changes at the Fulton County Department of Solid Waste, primarily within the staff team. Luke Case joined the Department in February as the new Operations Manager, David Rhodes was appointed Director in March and Allie Miller started in December as the new Environmental Technician. Several other employees were reclassified into new positions. Automotive Mechanic Martin Bilger retired with 39 years of service to the county and Skilled Laborer Greg Jones retired with 38 years of service.

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

2018 was the eighth full year of production of electricity from the Landfill Gas-to-Electric plant at the Fulton County Department of Solid Waste, resulting in nearly \$2.0 million overall revenue in electric sales in 8½ years.

The 2018 Out-of-County ADC (Alternate Daily Cover) contract category brought in 2,583 tons of contaminated soils (in lieu of utilizing additional cover soil which provides no revenue gains). In-county soils were 8,339 tons for the year.

The Villages of Schuylerville, Schoharie, Canajoharie; the Towns of Niskayuna, Day, Edinburg; and the Onondaga County Resource Recovery Agency contracted with Fulton County in 2018.

The contract allowing Out-of-County waste from permitted haulers, at a rate of \$56 per ton, brought in an additional 6,628 tons of material.

The contract with Montgomery County, which brought in 21,017 tons this year, ended in June resulting in the loss of a major revenue stream to the department.

A category for large loads (25 tons or greater) of municipal solid waste was reinstated in 2018 and brought in 23,359 tons for the year. Out of County large loads brought in over \$1.8 million

in revenue. This was used as select refuse for the new cell, which was opened in July.

In 2018 the Fulton County Demolition Team performed 5 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 was involved in a project at the Tryon Technology Park. This project involved loading out stumps from last year's land clearing project and

cleaning up blocks from a subcontracted demolition project and backfilling the foundations.

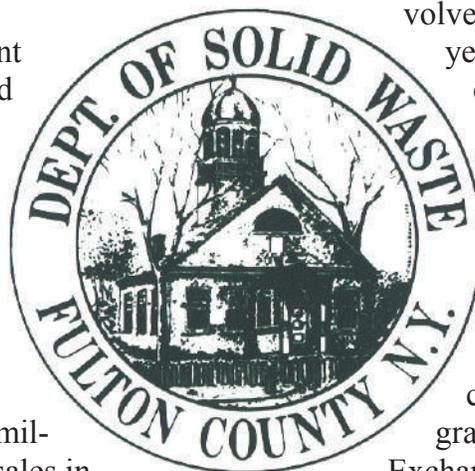
2018 was the first full year of singlestream recycling, which officially kicked off in March of 2017. The department collected 2,367 tons of singlestream recycling. Continuing successful programs include the annual Latex Paint

Exchange and the Electronics and Textile Drop-offs, which are available at all eight transfer stations.

The Department of Solid Waste received grants this year totaling \$30,346.70 from NYSDEC, including 50% for the 2017 Household Hazardous Waste Collection and 2017 electronics disposal costs. The Department continues to pursue a large request (for over \$425,000) for trucks, compactors, and promotional and education costs expended during the switch to singlestream recycling.

Recycling revenue of \$119,957 was reported in 2018. This decrease of \$145,516 from 2017's total was due to China's "National Sword" import ban on recycling that has caused upheaval to recycling markets across the nation. The Department of Solid Waste has received over \$8.7 million in revenue for the sale of recyclable materials since its inception.

In 2018 the Department of Solid Waste utilized 169,508 cubic yards of space for the 149,406 tons of refuse and cover received. The landfill compaction rate was the highest since 2013.



# The History of the Fulton County Department of Solid Waste

The Fulton County Department of Solid Waste has been in operation for 29½ years and has received a total of 2,922,363 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, which is expected to serve the County's solid waste needs for the next 50 years. 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; Fulton Co. Local Solid Waste Management Plan (LSWMP)*

*2011-2021; Bi-annual LSWMP updates; Stormwater Pollution/Prevention Plan; Annual Planning Unit Recycling Report; SW Landfill Engineering Reports; Annual Transfer Station 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, as 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 10 part-time transfer station attendants and three supplemental employees within the department.

In 2018 Deputy Director of Operations David Rhodes was promoted to Director; two skilled laborer positions were reclassified to maintenance mechanic-landfill gas and heavy equipment operator; a senior account clerk position was reclassified to principal account clerk.

Joining the team this year were: Luke Case and Dustin Calhoun in February, Connor Askew in June, Daniel Slade in July, Danny Ellis in October and Alexandra Miller in December.

In 2018 Auto Mechanic Martin Bilger retired after 39 years of service to Fulton County, as well as recycling Skilled Laborer Gregory Jones, with 38 years service.



**This compact excavator was purchased through state contract for \$64,583 in 2018.**

# SANITARY LANDFILL

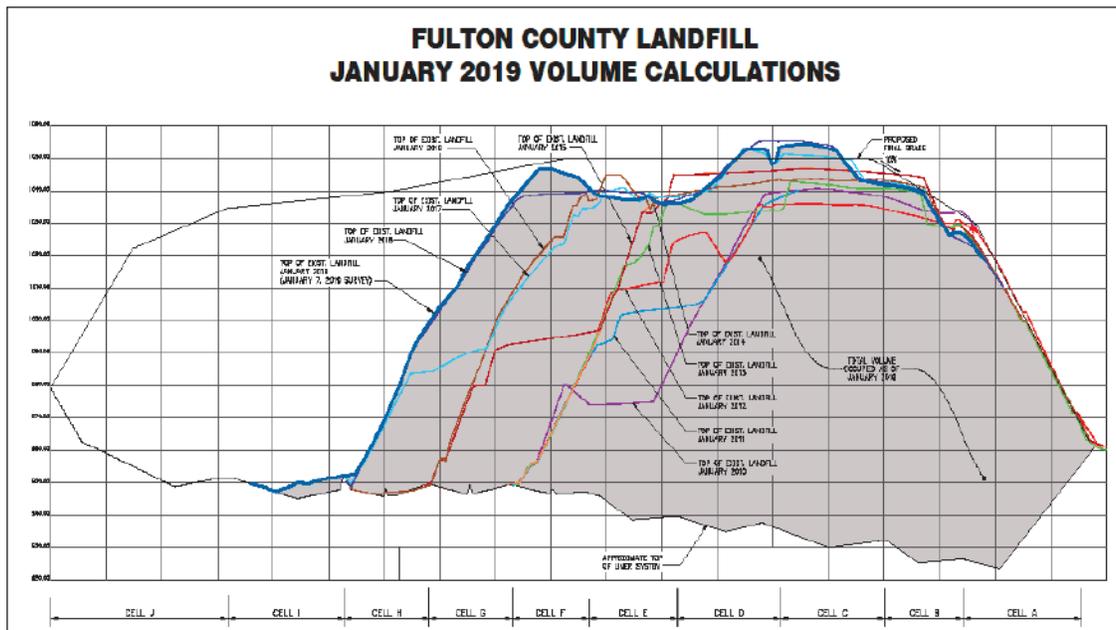
In 2018, a total of 138,484 tons of refuse, and 10,922 tons of contaminated soil/ADC, were brought into the facility, delivered by 18,081 separate truckloads, (an average of 8.3 tons/load). See tonnage breakdown below:

The Department of Solid Waste averaged 597 tons per day in 2018.

The Out-of-County, Large Load category continues to be extremely beneficial in assisting the overall operations of the landfill, bringing in over \$1.8 million in revenue for 2018.

To date, the Department of Solid Waste has received over \$29.3 million in revenue from Out-of-County sources.

2016-2017-2018 Tonnage Comparison			
	Tons 2016	Tons 2017	Tons 2018
Asbestos & Uncovered Loads	411.1	3,684.1	1,349.6
Construction & Demolition Debris (including: Commercial C&D, County Transfer Haul C & D, Municipal C & D, County Demolition Team C & D)	8,421.0	7,464.1	8,545.1
Commercial	19,301	22,286.9	23,996
County Transfer Haul	9,122	9,607.0	9,429.5
Industrial Wet	900.9	1,000.3	1,268.9
Industrial Dry	5,784.1	4,748.6	5,117.1
Municipal Direct Haul	10,832.0	11,371.9	11,046.6
GJWWTF & Municipal Sludge	21,599	21,940.3	20,447.8
Contaminated Soil (In-County)	4,632.1	1,282.8	8,339
Clean Up Program	227.4	263.8	225.7
Out-Of-County Waste (All)	81,566.3	67,187.2	59,641.7
<b>Total</b>	<b>162,796.9</b>	<b>150,836</b>	<b>149,407</b>



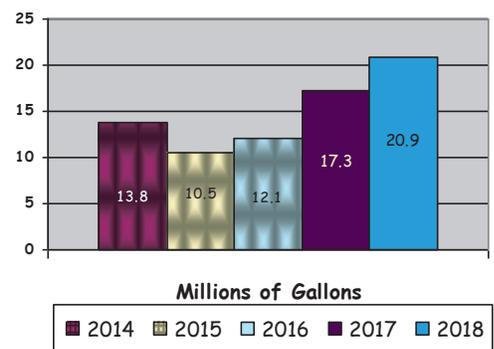
## Site Life Calculations

Cells A-J have a total of 47.9 acres of liner system, which have 1,573,044 cubic yards of space remaining for refuse. At the 2018 airspace consumption rate of 169,508 cubic yards, the landfill's current lined system has 9 years of site life available, (estimated at 150,000 tons per year of refuse).

## LEACHATE

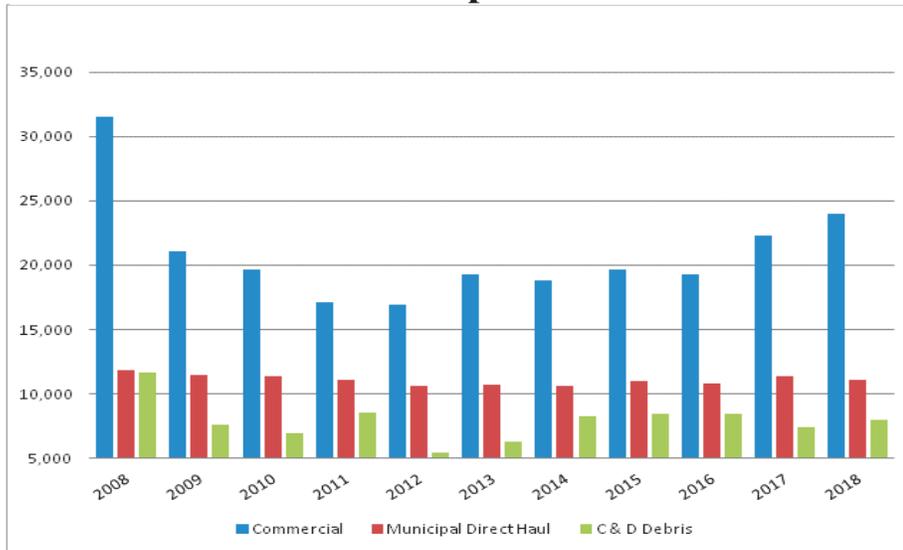
A total of 20,937,025 gallons of leachate were pumped to the Gloversville-Johnstown Joint Wastewater Facility in 2018, a 3.7 million gallon increase from the 17,268,680 gallons reported in 2017, and the highest total to date.

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, over 326.5 million gallons have been sent to the GJWWTF.



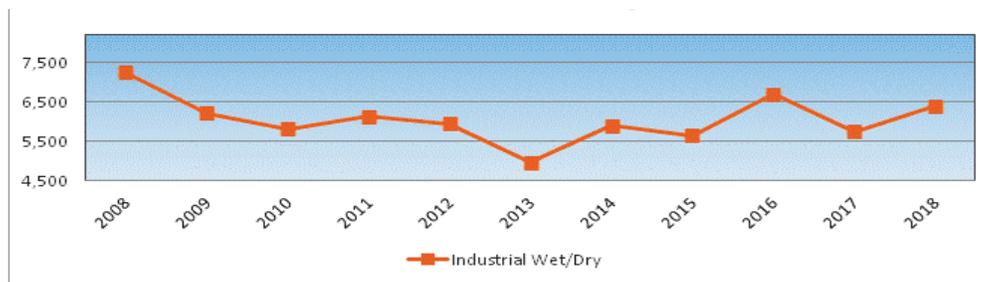
# TRENDS

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



- **Commercial Waste** in Fulton County increased by 1,709 tons from the previous year, with 22,287 tons in 2017 and 23,996 tons in 2018.
- **Municipal Waste** showed a slight decrease, with 11,372 tons in 2017, compared to 11,047 tons reported in 2018.
- **C&D Debris** showed an increase of 513 tons in 2018. There was a total of 7,442 tons in 2017, compared to 7,955 tons reported for 2018.

## Industrial Wet/Dry

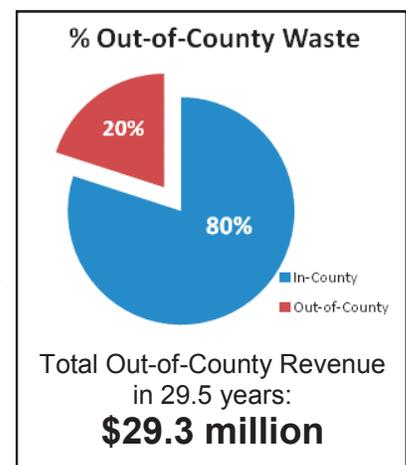


The Industrial Waste category showed an increase of 637 tons over the previous year. In 2017 there were 5,749 tons of combined wet and dry industrial waste reported, compared to 6,386 tons in 2018.

# OUT-OF-COUNTY WASTE

This is one category that has grown substantially in the past few years, with several Out-of-County categories created. While the Montgomery County contract ended in June, the Out-Of-County Large Load category, which was reinstated for 2018, provided 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.

There were 59,641 tons reported in 2018 bringing in \$2.7 million in revenue. The total of all Out-of-County tonnage taken in over the past 29.5 years is 669,229 and \$29,319,818 in revenue.



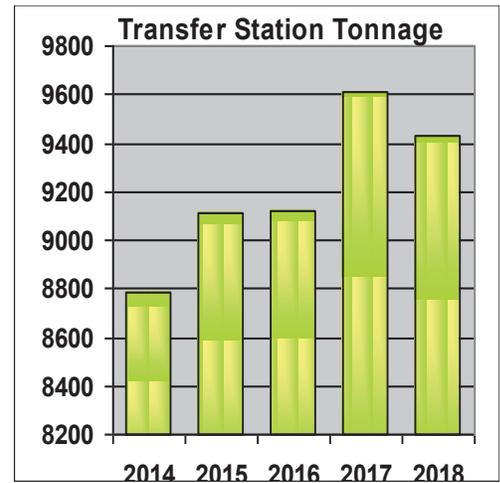
## Successful Programs

- 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

# TRANSFER OPERATIONS

2018 saw several changes for Fulton County transfer stations, including new hours at the Stratford station and the start of installation of recycling compactors. A total of 9,430 tons of residential refuse; 600 tons of metal; 753 tons of recyclables from A-frames; 133 tons of miscellaneous recyclables, (including motor oil, tires and vehicle batteries); 207.5 tons of electronics and 26.6 tons of textiles were handled through the seven transfer stations and the transfer station at the DSW. Increases for 2018 were seen in tires (36.6 tons more than 2017) A-frame recycling (up by 37.7 tons from 2017), with decreases in bulk metal (down 30 tons), while total garbage decreased by 178 tons.

There were 170,803 vehicular loads deposited by residents in 2017 compared to 179,175 loads in 2018, an increase of 8,372 trips.



# COMPOST

Incoming compost tonnage increased by 313 tons compared to the previous year - with 3,184 tons reported in 2017, compared to 2,871 tons in 2018. This is mostly leaf and yard waste from municipalities and local landscapers. Limbs and branches are chipped and turned monthly to advance the composting process. The finished compost is used for on-site vegetation and side slopes.

A big increase was seen in the “Clean Construction & Demolition/Wood” generated in Fulton County this year, with 189 tons in 19 loads reported in 2018 - versus none brought in during 2017.

The Out-Of-County Clean C&D/Wood category re-

ported an increase of 13.9 tons, with 12.2 tons in 2017 and 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. A magnetic separator keeps nails from pallets and other “clean C&D” out of the compost.

With the exception of the “Out-of-County” category for Clean C&D/Wood, (which stayed at \$25/ton), all other compost categories remained at zero tipping fee. The Out-of-County clean C&D category generated \$652 in 2018.

# CLEAN UP PROGRAM

The 24th 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 226 tons in 77 loads, an 8-ton decrease from the 2017 total of 234 tons.

Also taken in were 123 tons of metal, 15 tons of electronics and 523 tire units for a total cost of \$13,135 to the municipalities.

Municipal Clean Up (by ton)	
2014	280
2015	338
2016	197
2017	234
2018	226

# GRANT HISTORY

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

A total of \$30,346.70 was received by the DSW in 2018. One grant, for \$14,305.96, was a 50% reimbursement of the \$28,611.92 spent on electronics in 2017. A similar grant is ready for submission to cover a portion of 2018 electronics disposal costs.

The second grant received was \$16,040.74, which covered 50% of expenses of the 2017 Household Hazardous Waste Drop-off Day.

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.

Another grant, for \$64,352, would reimburse 50% of up to \$128,704 of expenses for recycling education, promotions, advertising and the Recycling Coordinator’s salary and benefits during 2019. This application has already been approved by the DEC, and will be submitted for payment in early 2020.

To date, the Fulton County Solid Waste Department has received \$4,038,823.80 in grants.

# GAS TO ENERGY

2018 continued as a successful year for electric generation with the highest production to date. The landfill gas-to-energy plant has resulted in nearly \$2 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.

In addition, eight 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. The Department has started looking into utilizing waste heat from the gas-to-electric CAT engines as a pilot project.

Carbon credits were banked for sale when prices rebound.



**20-cylinder 3520 engine uses methane gas as the fuel to produce electricity.**

# NEW EQUIPMENT

Several new pieces of equipment were purchased in 2018, including a new tractor truck, bulldozer, off-road dump truck and compactors for singlestream recycling, which are part of planned updates at transfer stations in 2019. Major new equipment purchases for the year include:

- ◆ Compact Excavator - \$64,583.66
- ◆ Seven stationary compactors and receiving containers - \$216,912
- ◆ MRF Compactor - \$59,850
- ◆ Off-road truck - \$373,493
- ◆ Tractor Truck - \$145,368.50
- ◆ Bulldozer - \$294,200
- ◆ Two ejection trailers \$170,218



**Tractor Truck**



**These compactors (above) will be installed at all transfer stations (except the landfill TS) in 2019. The Recycling Facility compactor (right) will pack loose singlestream recycling into ejection trailers for transport to Utica for processing.**



**Off Road Truck**



**Bulldozer**



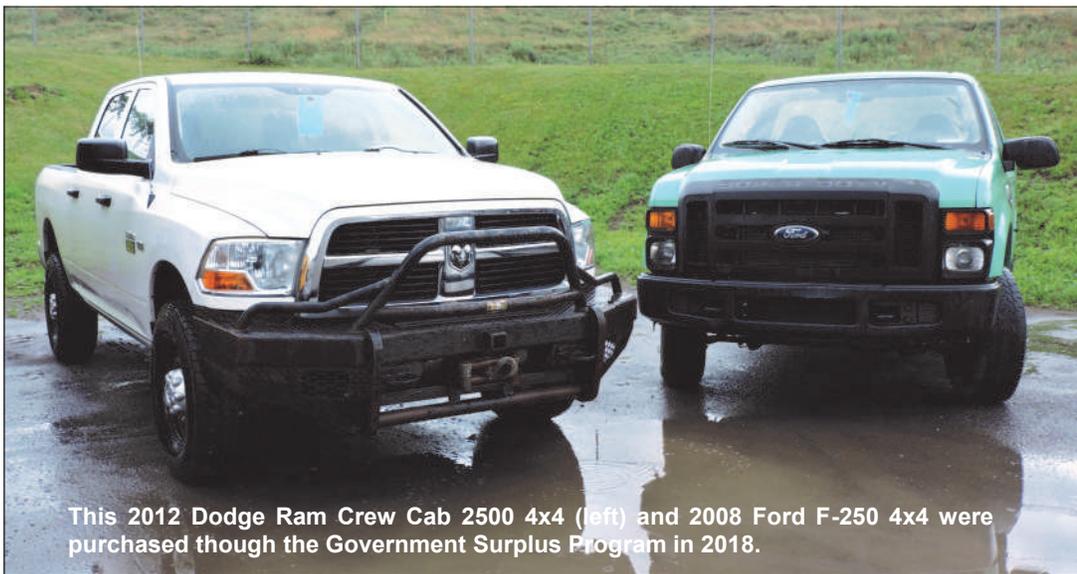
# GOVERNMENT SURPLUS PURCHASES

## 2018 Government Surplus Program Purchases

ITEM	COST
2009 Chevy Avalanche 4x4	\$13,000
2012 Dodge Ram Crew Cab 4x4	\$9,800
2008 Ford F-250 4x4	\$5,700
<b>Total</b>	<b>\$28,500</b>



This 2009, 4-wheel drive Chevy Avalanche was purchased for \$13,000 through the Government Surplus Purchasing Program.



This 2012 Dodge Ram Crew Cab 2500 4x4 (left) and 2008 Ford F-250 4x4 were purchased through the Government Surplus Program in 2018.

## Auction

Surplus items are auctioned off, using an on-line auction. Nineteen items were sold in 2018, for a total of \$19,080. This included several government surplus vehicles and conveyor systems formerly used for sorting recycling.

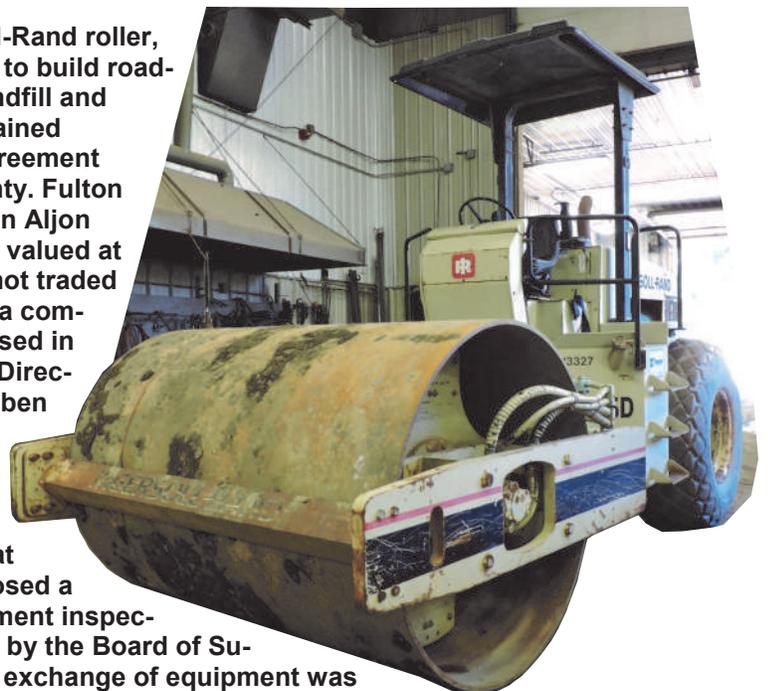
## Re-Use

At the Solid Waste Department, we practice what we preach when it comes to reuse. 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 24 years of this program, the DSW has purchased \$228,299 worth of equipment that was valued at roughly \$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.

## Trade Nets New Roller for DSW

This 1992 Ingersoll-Rand roller, which will be used to build roadways within the landfill and DSW site, was obtained through a trade agreement with Steuben County. Fulton County DSW had an Aljon landfill compactor, valued at \$18,000, that was not traded in when a new Tana compactor was purchased in 2017. The FCDSW Director found that Steuben County DPW had a 10-ton roller with 2,100 hours of operation in surplus inventory (valued at \$20,000) and proposed a trade. After equipment inspections and approval by the Board of Supervisors, an even exchange of equipment was arranged.



# 2018 RECYCLING REPORT

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

The county’s recycling program also had its first full year of singlestream recycling in 2018, where all materials are combined for collection and mechanically sorted.

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 defi-

cits.

In 2017, the DSW received \$77,330 for the sale of 2,297 tons of singlestream recycling. In 2018 the DSW paid \$11,707 for the 2,367 tons hauled to Utica.

Singlestream recycling tonnage from curbside pickup dropped slightly from the previous year (1,804 tons in 2017 versus 1,697 tons in 2018), as did transfer station recycling (716 tons in 2017 versus 636 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 dramatically as an oversupply of plastics and fiber loads filled warehouses.

Fulton County felt the effect of the drop in revenue from singlestream



DSW crews picking up curbside singlestream recycling in the City of Johnstown, Fall 2018.

recycling, as well as the few other fiber loads marketed in 2018 (cardboard and mixed paper) which both had significant decreases in the price paid per ton.

Some bright spots included bulk metal, which showed a profitable year, 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 comparison of materials sold in 2018 and the previous year:

## Recycling Materials: Two-Year Comparison

MATERIAL	2017	2018	COMMENT
<b>SINGLESTREAM RECYCLING</b>	2,296.7 tons \$74,127	2,367.7 tons (\$11,707)	The DSW kicked off the county-wide singlestream recycling program in March, 2017. Although the amount hauled to the OHSWA processing plant in Utica was fairly similar for both years, a volatile year in the recycling industry resulted in a big swing in revenue.
<b>CORRUGATED CARDBOARD</b>	228.7 tons \$40,622	182.4 tons \$17,441	The 2017 figures included some clean-up loads from the residential pick up, (singlestream began in March of 2017) as well as commercial cardboard, which the DSW continues to collect, bale and sell, in accordance with the OHSWA agreement. Cardboard prices in 2018 were roughly half of the traditionally stable fiber market.
<b>MIXED PAPER</b>	138.6 tons \$15,963	23.1 tons \$461.40	In 2018 only one load of mixed paper was sold, at \$20/ton. This was from the small accumulation that comes in with cardboard from commercial haulers, mainly from schools. The 2017 figures were mostly “clean up loads” sold during the transition to singlestream. Paper prices dropped sharply in 2018, sometimes to negative figures.
<b>BULKY METAL</b>	504.1 tons \$69,899	547.7 tons \$87,052	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 43.6 ton increase in tonnage in 2018, as well as a \$17,153 increase in revenue.
<b>VEHICLE BATTERIES</b>	9.1 tons \$6,656	9.08 \$6,426	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.
<b>TEXTILES</b>	28.3 tons	28.3 tons	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 1,183 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. (right). Full tractor trailer loads of recycling are trucked to Utica, where Fulton County's recycling is processed.

One reason for the switch to singlestream was to make transporting recycling more economical. To streamline the transport process, the DSW is in the midst of installing com-

pacting recycling containers at transfer stations. This will help make pick ups more efficient by getting more recycling into containers and needing fewer trips to empty containers.

At the same time, the DSW is converting the former recycling processing facility into a more effective loading operation. (During the transition period, the trailer was loaded with loose recycling by a bucketloader).

This is a major project, with most of the work being done in-house. The changes will be completed in 2019.



This "walking floor" trailer is used to transport singlestream recycling to Utica.



## BEFORE

The recycling facility was previously set up with a row of concrete block bunkers and second level sorting line with several conveyor systems used to move the bulk materials as they were sorted.



DSW crews dismantled the sorting system. Here, the cages and small conveyors have been removed



DSW staff are taking apart the steel magnet system and upper level deck. Most of the conveyor system was sold at online auction.



Two forklifts were used together to lift extra-heavy pieces of metal framing. The wood reclaimed in the deconstruction was used for in-house projects, including building new offices in the recycling facility



## AFTER

All bunkers on this side of the recycling facility have been removed. This is where recycling will be stored before it is loaded directly into the new compactor.



DSW crews drilling through the concrete floor to install bollards for the new push wall and compactor.

Building trusses on the exterior of the facility to house the large compactor that will be installed.



The partially completed wall where singlestream recycling will be stored until loaded (right).



# OTHER RECYCLING MATERIALS

## Batteries

The DSW sold 9.08 tons of used **vehicle (wet cell) batteries** in 2018, (approximately 650 batteries at 28 lbs each), very similar to the 9.1 tons in 2017. Revenues for batteries dropped slightly from the previous year, with \$6,426 received in 2018, compared to \$6,656 in 2017.

The 646 lbs of **rechargeable batteries** recycled in 2018 represents a 183 pound increase from the 463 lbs. reported in 2017. The DSW receives no income from these, but participates in a free mail back program with the Rechargeable Battery Recycling Corporation (a Product Stewardship program).



## Bulky Metal

Bulk metal sales was one of the more profitable materials for the recycling department in 2018. This category showed a 43.7-ton increase in total **bulk metal** tonnage sold, with 504 tons reported in 2017, compared to 547.7 tons sold in 2018.



Although a little unsightly, piles of bulky metal like this have brought in almost \$1.19 million in revenue.

Stronger metal markets resulted in revenues of \$87,052 in 2018, compared to \$69,899 in 2017, an increase of \$17,153.

The bulk 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 2017, 423.4 pounds of fluorescent bulbs were recycled, compared to 689 pounds in 2018.

## Freon Units

**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 13.7 tons of these units were reported in 2018. The same Freon reclamation

company takes all air conditioners and dehumidifiers to be recycled at their facility, taking 13.6 tons of air conditioners in 2018, compared to 16.8 tons in 2017.

Residents are not charged to dispose of Freon units, although commercial haulers do have a \$5 per unit fee. Disposal cost to the Solid Waste Department in 2018 was \$2,694, compared to \$2,127 in 2017.

## 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 are disposed at Bornt's Waste Metal in Gloversville at zero charge.



The total amount of **propane tanks** collected at transfer stations in 2018 decreased from the previous year, with 960 lbs. (59 tanks) reported in 2018 compared to 3,180 lbs. (159 tanks) in 2017.

## Tires

The amount of **waste tires** disposed of in 2018 increased by 36.6 tons from the previous year, with 104.2 tons reported in 2018 and 67.6 in 2017.



## 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 2018 was 6,555 gallons, a 990-gallon increase from the 7,545 gallons in 2017.

In total, the DSW has collected 166,125 gallons (665 tons) of used motor oil since 1991.

# Electronics

There were 207.8 tons of electronics recycled in 2018, an almost 22-ton decrease from the 229.6 tons recycled in 2017.

In 2012 Fulton County DSW expanded the free municipal electronics collection to every transfer station. 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.

Non-profits, municipalities and small businesses are allowed to bring material to the Electronics Drop-Off at the Mud Road site (also at no charge).

Disposal costs for the DSW were \$26,000 in 2018, down from the \$31,000 spent in 2017.



Old TVs, computers and electronic equipment are picked up at each transfer station, and brought to the Solid Waste Department, where they are consolidated and packed for transport to an electronics recycler. DSW employee Sam Rogers (top) loads televisions and monitors into a bucket loader. Rory Baker (above) stretch-wraps a pallet of TVs.

Electronics Drop-Off					
Year	2014	2015	2016	2017	2018
Tons	200.7	226.4	217.0	229.6	207.8

# Textiles

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

Tonnage remained virtually the same as 2017, but revenue increased slightly in 2018. There was

\$2,858.85 in revenue from textile sales.

The total weight of textiles in 2018 was 28.4 tons compared to 28.3 tons in 2017.

Although previously only clothing and paired shoes were accepted, residents can now dispose of an expanded list of materials, including

all clothing (even ripped or stained items), shoes and accessories, as well as linens, towels, curtains, and stuffed animals. (The only exceptions are wet, mildewed or petroleum-soaked items). Residents do not need a transfer station permit to dispose of textiles at transfer stations.

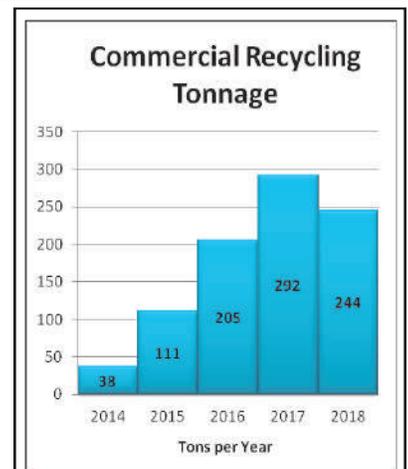
# Commercial Recycling

The multi-year agreement with OHSWA to process Fulton County's singlestream recycling excludes commercial recycling. In 2018, there were 244.6 tons of commercial recycling reported, down from 292.2 tons in 2017. Recycling brought in through the Small Business and Non-Profit Recycling Program is also included in these totals.



Once the material is received at Fulton County's facility, it is sorted, baled and marketed. There were 182 tons of corrugated cardboard sold in 2018, netting \$17,441 in revenue. This was a 46.4-ton decrease from the 228.7 tons sold in 2017. Only one 23.7-ton load of mixed paper was sold in 2018, resulting in \$461 revenue.

DSW employee Brian Bicheler, left, sorts commercial corrugated cardboard before it is baled.



Beginning in 2015, the commercial recycling tipping fee went to zero, giving businesses and private haulers an attractive financial incentive to recycle.

# RECYCLING PROGRAMS

## Latex Paint Exchange

There were 396.5 gallons of latex paint recycled during 2018 as part of the Latex Paint Exchange, which runs Saturday mornings in June, July and August. This low cost/low tech program accepts good, reusable paint from residents and offers it back to the public at no charge.



Staffed mostly by temporary summer help, paint cans are opened and checked, then either put on shelves to give away (good paint), or bulked up or dried in the can and disposed of. As well as giving away latex paint to help residents and encourage community beautification, the program also diverts this material from the more expensive HHW disposal. Although residents are encouraged to dry up old paint themselves and dispose of cans of solidified paint with their garbage (with the lids removed) – many are reluctant to do so and the paint program ends up taking in and handling many gallons of unusable paint.



In 2018 Lexington Industries donated several pallets of paint to the Latex Paint program, including 10 gallons of tempra paint. This was donated to the Mayfield Summer Youth program, to use for arts and crafts projects.

Over 6,365 gallons of this (non-hazardous) paint has been diverted from the HHW collection or landfill disposal since the program began in 2001.



## 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 at no charge.

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.

## 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 clear, snap-together recycling barrels were originally obtained at no cost in 2008 through a grant from Coca Cola and the National Recycling Coalition, to encourage recycling at public events. Barrels are available to borrow, free of charge, to anyone or any group hosting an event. Residents can also borrow bins. Call the Recycling Info-Line at 518-736-5504 for more information.



In 2018 the program was taken advantage of by different groups – including the Northville/Lake Placid Trail Park, Caroga Museum Festival, “The Eddie” at Pine Lake Park, (left, at clean up) and the annual OFA Senior Picnic at the Concordia Club.

In 2018 the program was upgraded with new components to replace damaged bins and converting some with a more permanent metal top and bottom (above, container on the left). These upgraded bins are heavier and will resist being tipped over by wind when used outdoors.



**HHW Drop-off Day** Household Hazardous Waste Disposal collections are held every other year at the Recycling Facility on Mud Road, with no event held in 2018. The next HHW Drop-off is August 10,

2019. Advice is given throughout the year by DSW staff about disposing of these materials - whether to hold items for HHW day, dry out the product, or put into an established program, like motor oil drop-off.

# RECYCLING DIVISION

The Recycling Division's continuing focus during 2018 was on the switch to singlestream recycling. This was a major change to the program involving publicity and public education, as well as extensive behind the scenes planning and logistics across all levels of the Solid Waste Department.

The Recycling Coordinator continued with regular duties, which included issuing press releases, overseeing advertising and contact with residents, commercial and governmental entities on recycling issues. Regular and holiday scheduling, special programs, and standard prep info are publicized in newspapers, radio and municipal and community sources.

The majority of printed materials, such as stickers, posters, fliers, ads, the recycling calendar, and annual reports are designed and paginated in-house.

Tours of the landfill in 2018 include such varied groups as Lexington Center, FMCC environmental classes, and elementary students from Broadalbin-Perth kindergarten and Kingsborough Elementary School in Gloversville.

The Recycling Coordinator also attended events or gave presentations at locations including Gloversville and Caroga Lake Schools, Northville Central School's Wellness Day, an Earth Day Fair in Johnstown and the county OFA Senior Picnic in August (bringing bins for the Public Event Recycling program).



**Fulton County Recycling Coordinator Dianne Woske at an Earth Day fair at Sir William Johnson Park in April (above) and giving a tour of the Recycling Facility to kindergarten-ers from Broadalbin Perth Central School District (below).**



The Recycling Coordinator wrote and submitted two grants to the NYS-DEC in 2018. One grant paid 50% reimbursement for costs to dispose of electronics in 2017 (with Fulton



**Students at Kingsborough School use magnets to test metals on recyclable materials during a presentation.**

County receiving \$14,306 in December). It is likely Fulton county will also receive a portion reimbursed for 2018 electronics disposal costs.

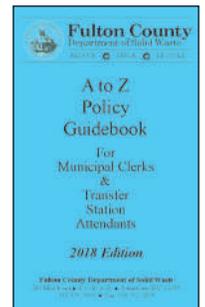
The other grant, which covers expenses for recycling programs and recycling coordinator salary and benefits in 2019, was submitted in October. It will cover 50% of up to \$123,704.

**Trade Association Participation** The Recycling Coordinator remained active in state and national recycling organizations in 2018, including serving on the Board of Directors of NYSAR<sup>3</sup> (New York State Association for Reduction, Reuse and Recycling), as well as several committees. The Recycling Coordinator served as the moderator for a key-note session at the NY State Recycling Conference in November and also attended a legislative training session in Albany.

**A to Z Policy Guidebook** - The Department of Solid Waste updated and produced informational booklets such as "A to Z Policy Guidebook For Municipal Clerks & Transfer Station Attendants," an alphabetical compilation of recycling and solid waste disposal questions and procedures in Fulton County.

**Recycling Calendar** - The DSW produces a recycling calendar, which is one of the main ways to get recycling and solid waste information out to Fulton County residents.

This free publication lists the recycling curbside pick up schedule, transfer station information, holiday closings and special programs. The 10,000 copies were distributed to municipalities and community organizations, and it was publicized by announcements, posters and ads in local newspapers. They are also mailed to residents upon request.



# IN-HOUSE PROJECTS



DSW mechanic Ed Seeley welds parts for the water tanker truck, pictured, which was fabricated in house from an old government surplus truck. The vehicle is used for dust control at the Mud Road facility.



Equipment Maintenance Supervisor Greg Perron adjusts the sprayer on the water truck.

The DSW routinely takes on numerous tasks in-house. Some projects in 2018 included:

- ◆ Landfill gas system maintenance & expansion;
- ◆ Recycling Facility - major modifications to the building, including dismantling sorting lines, alterations for installation of the new singlestream recycling compactor, building a new office and storage mezzanine.
- ◆ Fabrication and installation of recycling compactor units at transfer stations began;
- ◆ Hydroseeded west side slope in the Landfill;
- ◆ Scalehouse was power washed and stained;
- ◆ Latex Paint Exchange building was painted;
- ◆ Water tanker truck was created from an out-of-service government surplus truck.



In 2018 the scalehouse at the Solid Waste Department was rehabbed. First the structure was power-washed (above) and then it was stained (right), with Joe Orlando operating the paint sprayer and Rory Baker driving the fork truck.



Operations Manager Luke Case (left) core drilling a new hole for pipe penetration in the primary B leachate line vault.



Customized compactor chutes for singlestream recycling were fabricated in-house (left) as part of an ongoing update to transfer stations, which will be completed in 2019. Ed Seeley uses a torch on the unit (left), which was later painted by Danny Ellis (inset).



DSW employees Erik Dutcher (left) and Jeff Reynolds install new piping to the gas collection system at the landfill.

# 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 117 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.



## 2018 Demolitions

Five buildings in the City of Gloversville were taken down by the Fulton County Demolition Team in 2018. County-owned, foreclosed buildings were demolished, then the debris was hauled to the landfill. Fill was brought in and the area was graded and leveled by FCDSW staff, with assistance from the Gloversville Department of Public Works and Fire Department. Demolished structures included:

- 7 Mill Street
- 14 Temple Street
- 29 Bloomingdale Avenue
- 35 Eagle Street
- 23 Second Street

# TRANSFER STATIONS

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 (although the landfill transfer station accepts recycling from any Fulton County resident without a permit). In 2018 the DSW entered into 5-year renewals with municipalities for transfer station use. Some projects in 2018 include:

- ◆ Changed hours at the Stratford Transfer Station;
- ◆ New retaining wall at East Fulton Street Transfer Station was constructed;
- ◆ Fabrication of hopper for singlestream recycling compactor, and installation at the East Fulton Street transfer station;
- ◆ Installed gravel pad at Northampton Transfer Station to relocate metal container.



Work at the East Fulton Street Transfer Station in 2018 included installing a new retaining wall and pad, (above and left).



This compactor unit, (left) installed at the East Fulton Street Ext. Transfer Station in 2018, will be used for singlestream recycling. Eventually all transfer stations will have a similar unit.

# A Look Back In History

TIPPING FEES (per ton)			
Category	1998	2008	2018
Commercial, Industrial & Construction/Demolition	\$50.00	\$48.00	\$55.00
Contaminated Soil	\$23.00	\$23.00	\$25.00
County Transfer Haul	\$58.00	\$47.00	\$53.00
Municipal Direct Haul	\$38.00	\$27.00	\$33.00
Municipal C & D	\$38.00	\$25.00	\$25.00
Municipal Sludge	\$40.00	\$28.00 & \$36.00	\$34.00 & \$44.00
Municipal Clean-ups	\$40.00	\$40.00	\$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 *2018 cost effective actions:*

### Intermunicipal Benefits

- ◆ Traded DSW landfill compactor for Stueben County's 10-ton roller
- ◆ Traded DSW compartmentalized recycling truck for City of Johnstown plow with sander (approximate \$8,000 value)
- ◆ Skid steer loaned to the County Highway Department
- ◆ Crusher loaned to the Town of Ephratah
- ◆ DSW box truck loaned to the county Board of Elections.
- ◆ Firing Range for Fulton County Sheriff's Dept. on site
- ◆ Confined space training
- ◆ City of Johnstown provided millings to repair landfill roads
- ◆ Borrowed Highway's tractor and dump trailer to haul gravel from Town of Ephratah gravel pit

### DSW & Landfill Projects

- ◆ Landfill gas system maintenance & expansion; (in-house)
- ◆ Singlestream Recycling transition ongoing, with Recycling Facility modifications and the start up of installation of recycling compactor units at transfer stations.
- ◆ Hydroseeded west side slope in the Landfill with government surplus hydro-seeder and mixing product provided at no charge from Fulton County Soil & Water District
- ◆ Aria Energy provided personnel to review Landfill gas system and provide recommendations for improved system maintenance
- ◆ Scalehouse was stained and Latex Paint Exchange building was painted, both in-house by DSW staff

### Hydroseeding Side Slopes



Government Surplus hydroseeder (purchased for \$1,282.50) was used on site in July. Soil & Water District provided the mulch/seed/fertilizer mix and on-site compost was used.



## Thank You for Your Support

### 2018 Economic Development and Environment Committee

William Waldron, Chairman - Jack Wilson, Vice Chairman

Richard Argotsinger, Marie Born, Todd Bradt, Warren Greene, G. Michael Kinowski

and

### 2018 Public Works Committee

Gregory Fagan, Chairman - Todd Bradt, Vice Chairman

John Blackmon, Sheila Perry, Charles Potter, James Selmsler, Gregory Young