



# Greene County Highway and Solid Waste Department 2022 Annual Report

Scott R. Templeton, Superintendent



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# Mission Statement

## Highway and Solid Waste



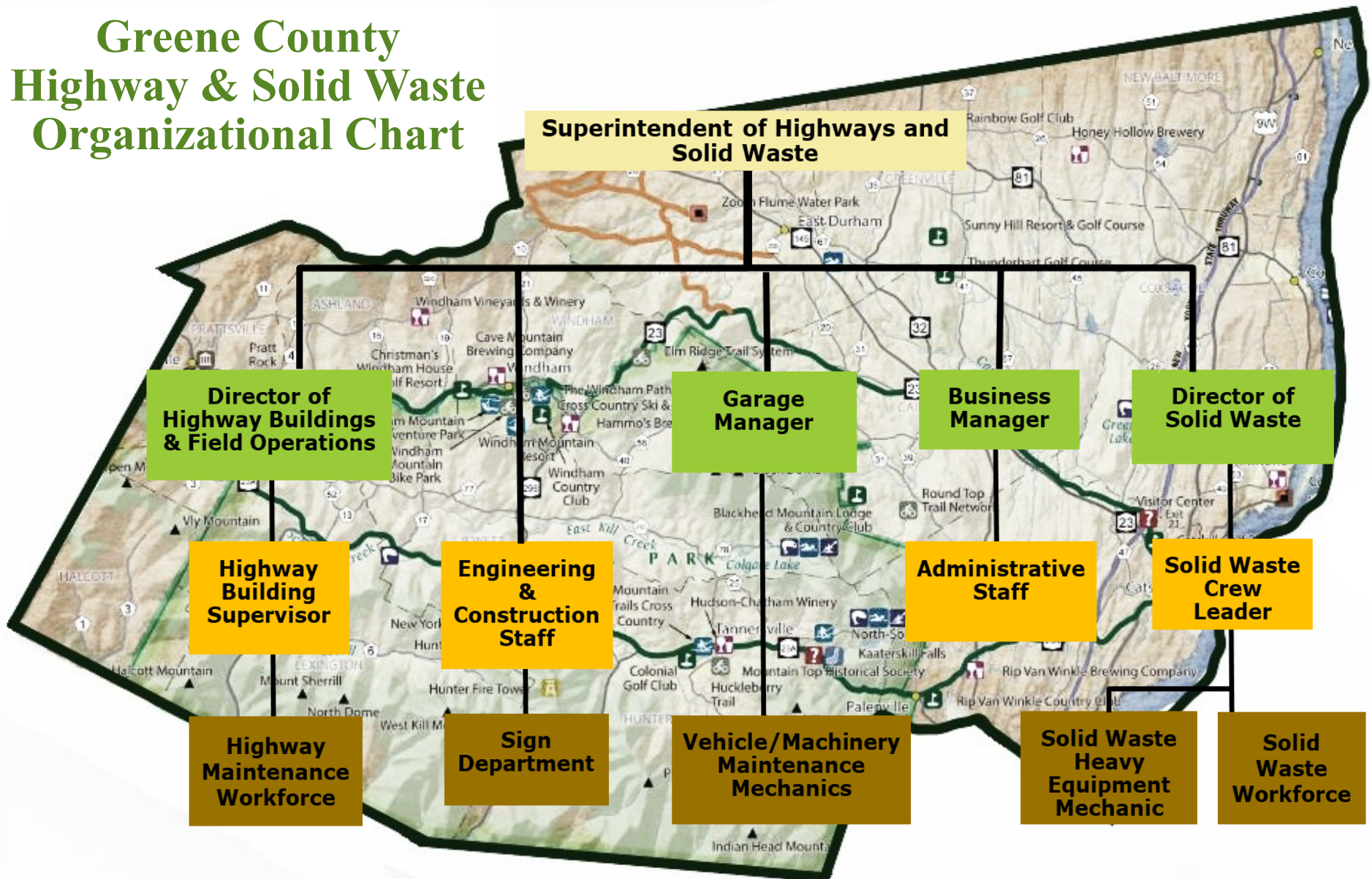
*The Greene County Highway Department exists to effectively maintain and improve the Highway and Bridge Infrastructure of Greene County for the efficient and safe use of the traveling public.*



*The mission of the Greene County Solid Waste Department is to create a safe, efficient and effective waste management disposal and recycling program to serve the county's residents and businesses.*



# Greene County Highway & Solid Waste Organizational Chart





# Greene County Highway Department Staff

## 5 - MANAGEMENT

- 1- Superintendent
- 1- Director of Highway Buildings & Field Operations
- 1- Business Manager
- 2- Project Managers

## 5 - ADMINISTRATION PERSONAL

- 1- Senior Engineering Tech.
- 1- Administration Assistant
- 2- Senior Account Clerks
- 1- Stenographer

## 33 - HIGHWAY EMPLOYEES

- 3- Highway Building Supervisors
- 1- Working Foreperson
- 17- Motor Equipment Operators
- 7- Heavy Equipment Operators B
- 1- Heavy Equipment Operator A
- 1- Sign Maintenance Worker
- 1- Sign Maintenance Assistant

## 4- FLEET MAINTENANCE PERSONAL

- 1- Garage Manager
- 1- Lead Automotive Mechanic
- 2- Service Mechanics



# Greene County Highway Buildings

**BUILDING # 1 - CATSKILL**



**BUILDING # 4 FREEHOLD**



**BUILDING # 2 - ATHENS**



**BUILDING # 5 - HUNTER**



**BUILDING # 3 ASHLAND**



**SHOP # 1 - ATHENS**





# Highways in Greene County

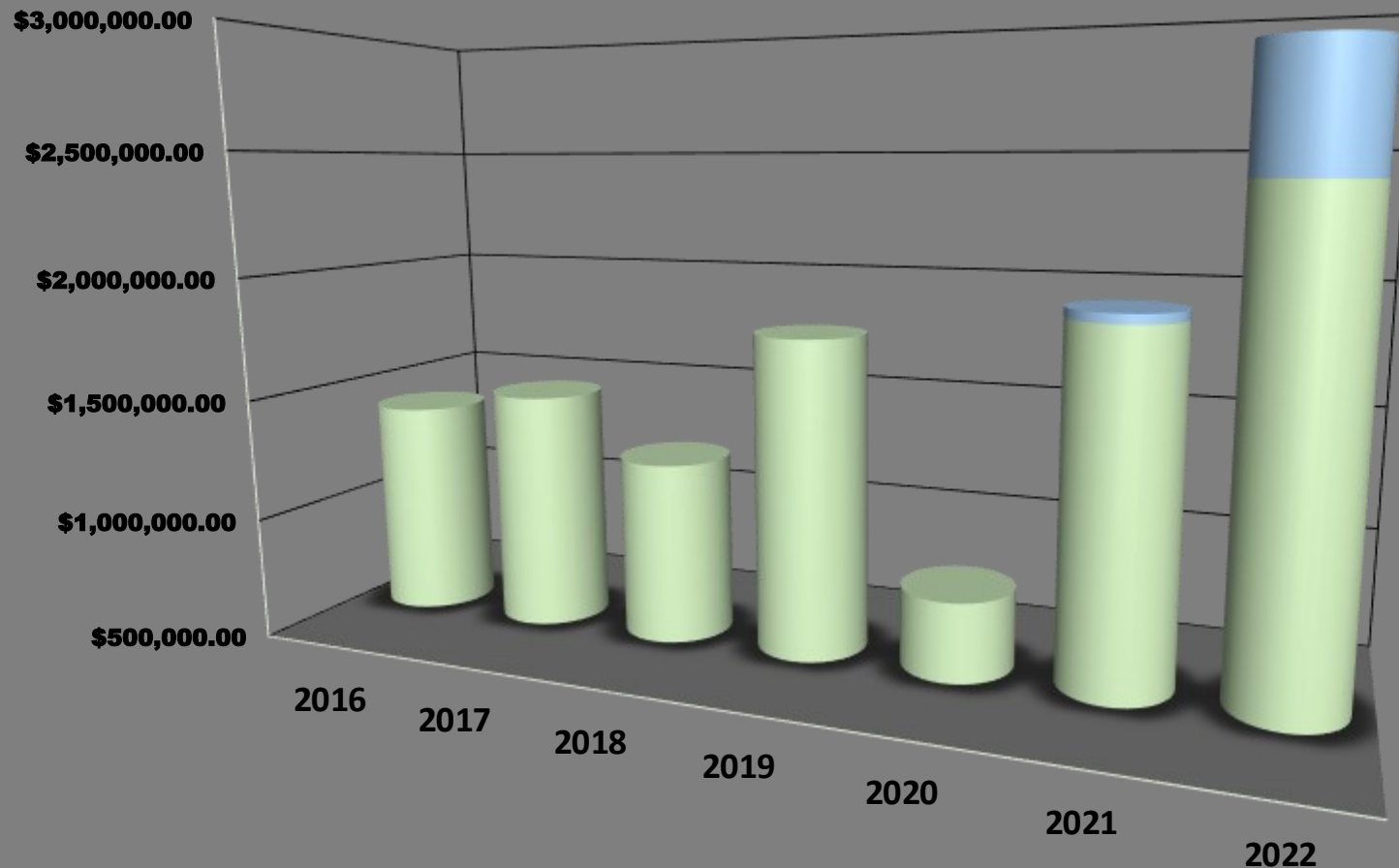
Mileage of each class of highway in Greene County is as follows:

Class 1 – State Highways.....	220.88 miles
Class 2 – Controlled Access Highways .....	9.77 miles
Class 3 – State Thruways .....	23.83 miles
Class 4 – County Roads.....	262.52 miles
County Roads within Villages.....	3.70 miles
Class 5- Town Roads.....	663.61 miles

	County Roads in Towns	County Roads in Villages	County Roads	Town Highway Total
Ashland	16.59	--	16.59	17.99
Athens	11.97	2.75	14.72	31.67
Cairo	30.21	--	30.09	91.34
Catskill	18.68	--	18.56	83.39
Coxsackie	17.73	0.56	18.29	49.42
Durham	22.67	--	22.67	80.02
Greenville	23.59	--	23.59	62.51
Halcott	7.16	--	7.16	16.34
Hunter	14.01	0.39	14.40	38.97
Jewett	23.88	--	23.88	39.07
Lexington	16.79	--	16.79	34.97
New Baltimore	23.83	--	23.83	63.18
Prattsville	12.62	--	12.62	18.91
Windham	19.07	--	19.07	35.83



# Annual Road Maintenance Money



**In 2022 there was a concerted effort to implement more preservation techniques. Prices were roughly 30% higher in 2022 compared with 2021.**



# Greene County Highway Department

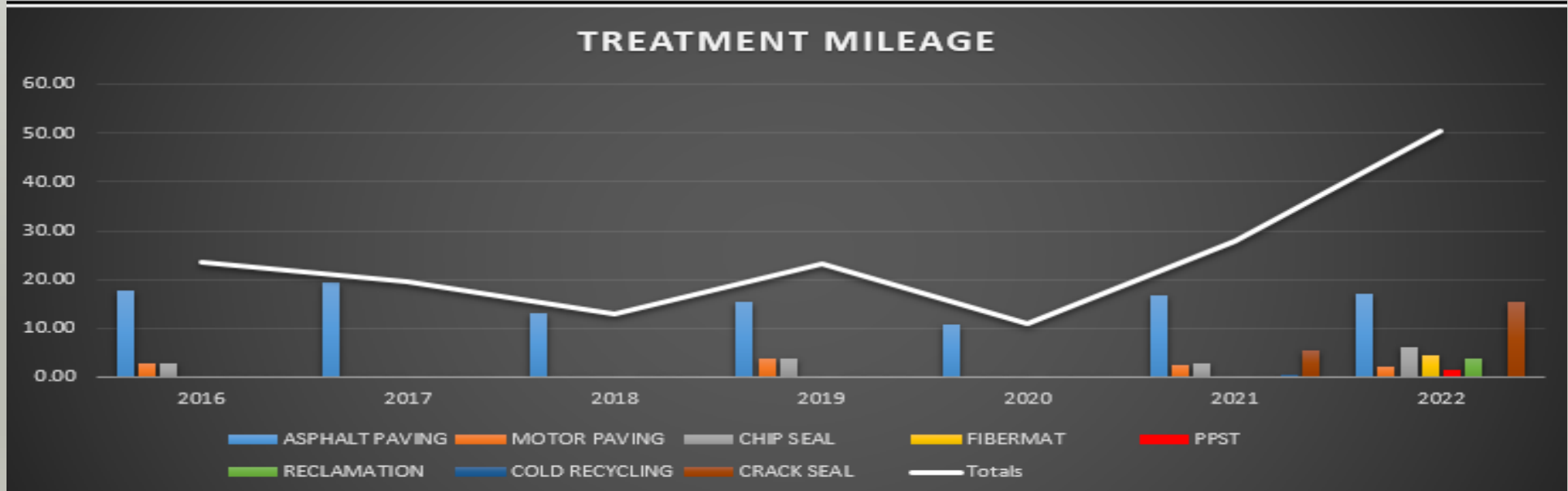
## 2022 Completed Paving List (Roads & Sections)

Road Name	Town	From	To	Road Width (feet)	Length (miles)	Estimated US Tons	Actual US Tons
CR. 5	Ashland	CR 10	Brink Rd.	18.0	1.21	1,756.92	1722.69
CR. 10	Durham/ Windham	CR 21	CR 20	21.0	1.79	2,756.60	2744.41
CR. 18	Hunter	SR 23A	Scutt Ln	21.0	2.22	3,418.80	3398.39
CR. 21	Windham	CR 10	Siam Rd. (North)	21.0	1.75	2,695.00	2690.35
CR. 23B	Cairo	Shingle Kill Bridge	SR 23	22.0	0.85	1,371.33	1395.52
CR. 23C	Jewett	SR 296	CR 77	20.0	2.06	3,021.33	3253.16
CR. 24	Cairo	CR 39	CR 31	21.0	1.48	2,279.20	2107.30
CR. 26	New Baltimore	Honey Hollow Rd.	Alcove Rd.	21.0	1.72	2,648.80	1985.40
CR. 47	Catskill	SR 23A	CR 30	20.0	1.82	2,669.33	2717.57
CR. 54	New Baltimore	CR 26	Jennings Rd.	20.0	1.27	1,862.67	1880.48
CR. 84	Cairo	CR 23B	SR 23	21.0	0.54	831.60	1147.38
CR. 85	Cairo	CR 23B	SR 23	21.0	0.41	631.40	833.94
						<u>Estimated</u>	<u>Actual</u>
<b>Grand Total</b>						<b>17.12</b>	<b>25,942.99</b>
						<b>25,942.99</b>	<b>25,876.59</b>



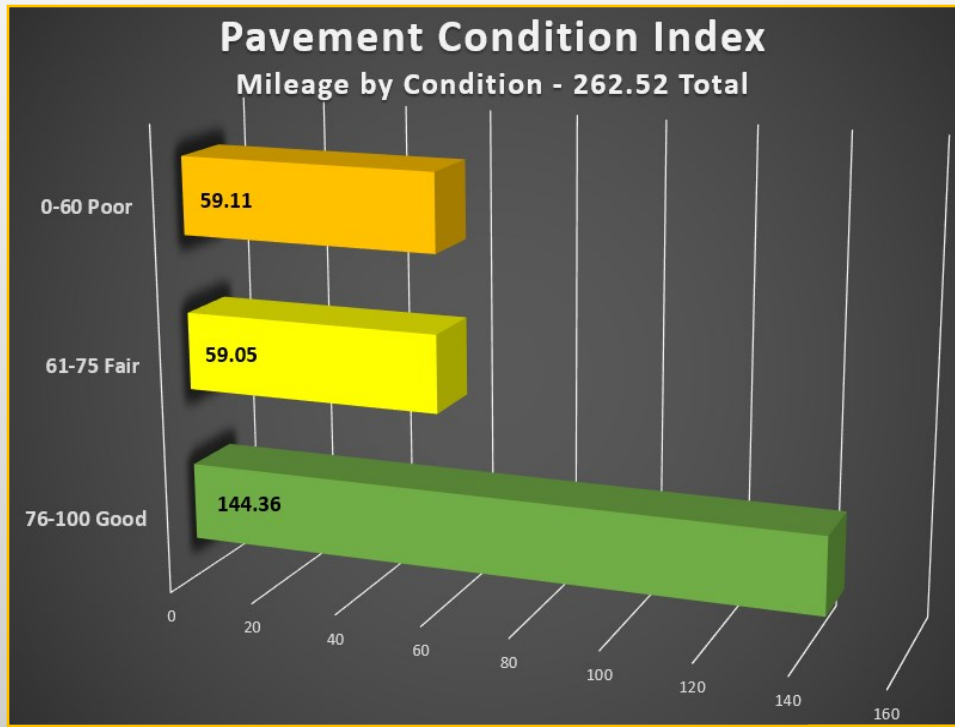
# Pavement Treatment Summary

TREATMENT	2016	2017	2018	2019	2020	2021	2022
ASPHALT PAVING	17.77	19.50	12.95	15.50	10.85	16.65	17.12
MOTOR PAVING	2.84	0.00	0.00	3.89	0.00	2.41	2.20
CHIP SEAL	2.84	0.00	0.00	3.89	0.00	2.94	6.07
FIBERMAT	0.00	0.00	0.00	0.00	0.00	0.00	4.30
PPST	0.00	0.00	0.00	0.00	0.00	0.00	1.38
RECLAMATION	0.00	0.00	0.00	0.00	0.00	0.00	3.81
COLD RECYCLING	0.00	0.00	0.00	0.00	0.00	0.60	0.00
CRACK SEAL	0.00	0.00	0.00	0.00	0.00	5.34	15.50
<b>Totals</b>	<b>23.45</b>	<b>19.50</b>	<b>12.95</b>	<b>23.28</b>	<b>10.85</b>	<b>27.94</b>	<b>50.38</b>



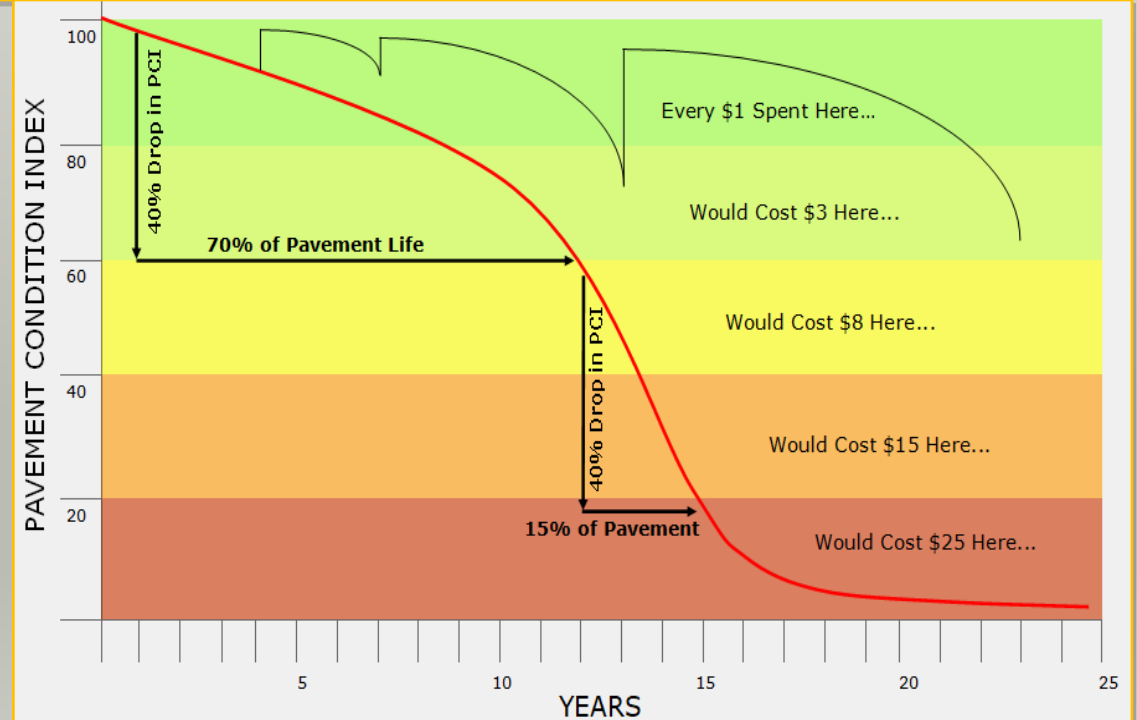
\*Paving totals in 2022 were low due to Covid-19





The graph to the left shows the current condition of our roads, based on an October 2022 PCI survey. 78% of the network is in fair or better condition with 55% being in good condition. The principles behind pavement preservation encourage keeping the “good” roads in good condition while working to bring the “fair” roads into good condition. It does not suggest that “poor” roads be ignored, but they also should not be given priority, as their repair is not as economical or beneficial to the health of the road network as a whole. The ultimate goal being, allocating more resources to preserving good roads, while slowly rebuilding roads in the network that are already in poor condition.

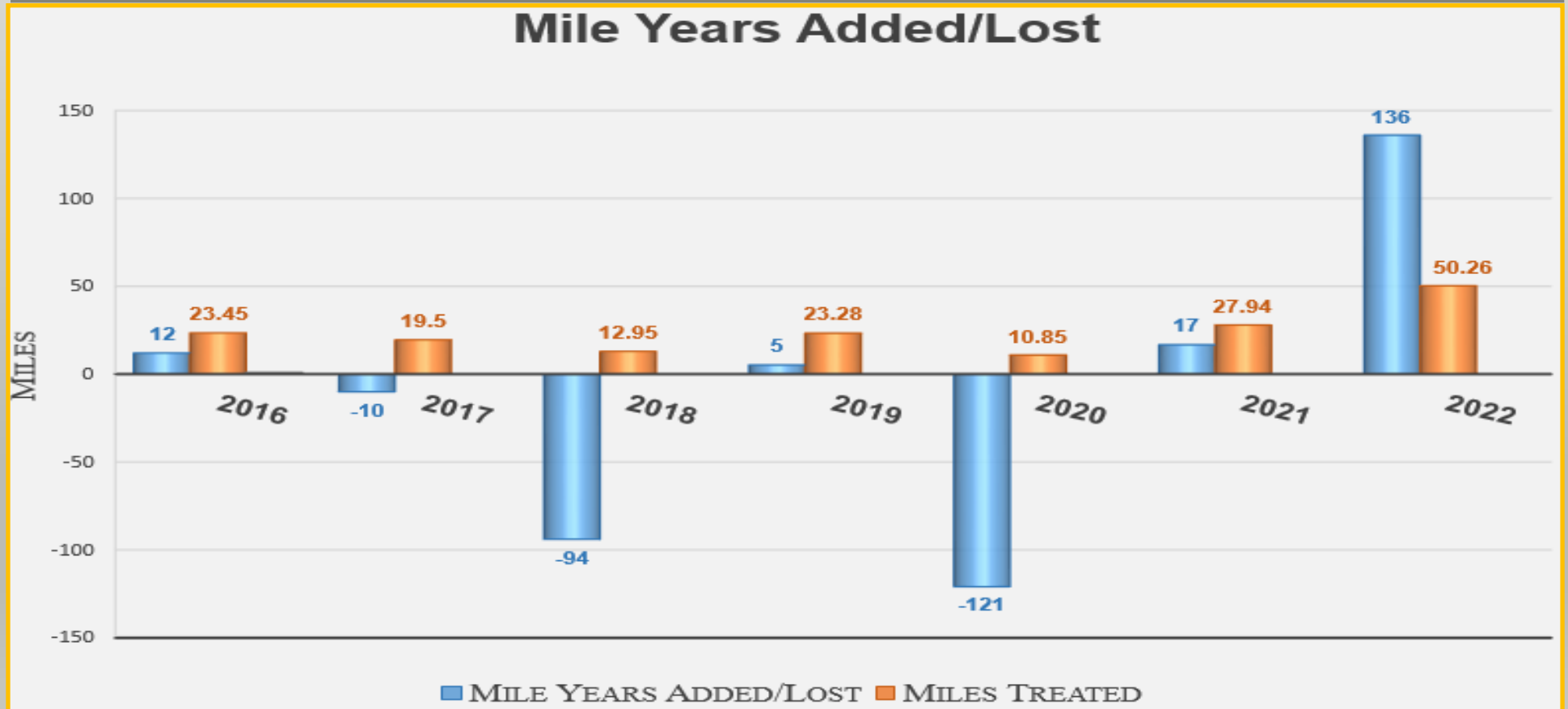
The chart on the right illustrates a typical pavement deterioration curve. As pavement ages, it begins to rapidly deteriorate between years 10 and 15. Preservation techniques have been shown to drastically flatten this curve, at a fraction of the cost of waiting until the pavement has failed. By optimizing preservation strategies, it is possible to see cost savings upwards of 50% over a 40 year period, when compared to a 15 year overlay schedule.





A critical principle in pavement maintenance is concept know as a “Mile Year”. It states that every year, every mile of road loses one year of service life. Every treatment has an expected service life, be it 3 years for crack seal, 7 years for micro-surface, or 13 years for a two inch overlay. If three, one mile sections were treated with those examples, 23 years of service life would be added to the network. Greene County maintains 262.5 miles of road, meaning that if we don’t add 262.5 years of service life annually, the network is in decline. It would take approximately 20 miles of two in overlay to reach 262.5 mile years, at a cost of approximately \$2.4 million. Conversely, that same \$2.4 million could micro-surface 52 miles and add 364 mile years of service life. While not every road is a candidate for every treatment type, this principle demonstrates the benefits that lower cost preservation techniques can have on the network as a whole.

The graph below represent mile years added/lost, in relation to our network mileage, as well as total mileage treated. In 2022, our treatments totaled 398.5 mile years, less the 262.5 network mileage, yields 136 mile years added. In 2020, covid-19 played a major role in the lack of treatments being done, resulting in a 121 mile year loss for the network.





# 2022 FEDERAL & STATE AID PROJECT SUMMARY

<u>BIN / PIN</u>	<u>PROJECT DESCRIPTION</u>	<u>FUND APPROPRIATION</u>	<u>CONTRACT COST</u>
<b>PIN 1760.23</b> (Federal Aid)	<b>CR 83 Culvert and Pedestrian Bridge</b> Engineering - CDM Smith, Inc. ROW Incidentals - CDM Smith, Inc. ROW Acquisitions	<b>Project 93</b>	<b>(2017 &amp; On Going)</b> \$193,719.00 \$23,739.00 <u>\$2,000.00</u> <b>\$219,458.00</b>
<b>BIN 3303120</b> <b>PIN 1760.89</b> (Federal Aid)	<b>CR 22 Over the Catskill Creek</b> Engineering - Clark, Patterson & Lee Construction Support - Clark, Patterson & Lee Construction Inspection - Creighton Manning Construction - ING Civil	<b>Project 105</b>	<b>(2019 &amp; On Going)</b> \$173,760.95 \$10,551.60 \$266,000.00 <u>\$1,768,756.98</u> <b>\$2,219,069.53</b>
<b>BIN 3302860</b> <b>PIN 1761.92</b> (Federal Aid)	<b>CR 40 Over the Batavia Kill</b> Engineering - Barton & Loguidice ROW Incidentals - Barton & Loguidice	<b>Project 124</b>	<b>(2022 &amp; On Going)</b> \$316,137.00 <u>\$57,627.00</u> <b>\$373,764.00</b>
<b>BIN 3302910</b> <b>PIN 1761.91</b> (Federal Aid)	<b>CR 61 Over the Coxsackie Creek</b> Engineering - Creighton Manning ROW Incidentals - Creighton Manning	<b>Project 125</b>	<b>(2022 &amp; On Going)</b> \$312,000.00 <u>\$23,000.00</u> <b>\$335,000.00</b>

*Background - Deck pour of CR 22 Bridge over the Catskill Creek*



# 2022 BRIDGE OF NEW YORK PROJECT SUMMARY

<u>BIN / PIN</u>	<u>PROJECT DESCRIPTION</u>	<u>FUND APPROPRIATION</u>	<u>CONTRACT COST</u>
<b>BIN 3201240</b>	<b>Timber Lake Road Over the Broad Street Hollow</b>	<b>Project 106</b>	(2020 & On-Going)
<b>PIN 1761.21</b>	Engineering - Creighton Manning Engineering, LLP		\$268,424.00
(Federal Aid)	ROW Incidentals - Creighton Manning Engineering, LLP		\$37,534.00
	ROW Acquisitions		\$16,900.00
			<b>\$316,858.00</b>
<b>BIN 3200960</b>	<b>Bloomer Road over Gooseberry Creek</b>	<b>Project 107</b>	(2020 & On-Going)
<b>PIN 1760.21</b>	Engineering - Clark Patterson Lee		\$275,656.20
(Federal Aid)	ROW Incidentals - Clark Patterson Lee		\$30,430.00
	ROW Acquisitions		\$2,400.00
			<b>\$308,486.20</b>

# 2022 SWSMP GRANT WITH SOIL & WATER PROJECT SUMMARY

<u>SWSMP #</u>	<u>PROJECT DESCRIPTION</u>	<u>FUND APPROPRIATION</u>	<u>CONTRACT COST</u>
<b>SWSMP</b>	<b>CR17 Embankment and East Kill Stabilization</b>	<b>Project 117</b>	(Completed)
<b>2021-23-004, &amp; 006</b>	Construction - Evergreen Mountain Contractors		<b>\$1,399,832.88</b>
<b>SWSMP</b>	<b>CR 02 Culvert over Unnamed Tributary of Schoharie Creek</b>		(2021 & On Going)
<b>2021-23-002</b>	Construction - Advanced Enterprise (Construction has not begun)		<b>\$227,477.00</b>

# 2022 CATSKILL WATERSHED CORPORATION GRANT SUMMARY

<u>CIN</u>	<u>PROJECT DESCRIPTION</u>	<u>FUND APPROPRIATION</u>	<u>CONTRACT COST</u>
<b>CIN 01-00-474 HAL</b>	<b>CR 01 Culvert over Brownell/West Settlement Creek</b>	<b>D5112.2160</b>	(2022 & On Going)
	Engineering - Creighton Manning		<b>\$58,500.00</b>

*Background - CR 02 Culvert over Unnamed Tributary of Schoharie Creek (Current Condition)*



# 2022 LOCAL FUNDED PROJECT SUMMARY

<u>LOCATION/ BIN / CIN</u>	<u>PROJECT DESCRIPTION</u>	<u>FUND APPROPRIATION</u>	<u>CONTRACT COST</u>
<b>BIN 3201020 Hunter</b>	<b>Platte Cove Rd. over Plattenkill Creek</b> Rehabilitation Study - CDM Smith, Inc.	D5112.2160	(2022 & On Going) <u>\$18,222.27</u> <b>\$18,222.27</b>
<b>BIN 3303140 Durham</b>	<b>CR 20 Bridge Replacement over Cornwallville Creek</b> Engineering - CDM Smith, Inc. Construction - HVB Construction	D5112.2160	(Completed) \$33,800.00 <u>\$314,000.00</u> <b>\$347,800.00</b>
<b>Lexington</b>	<b>CR 02 Slope Stabilization System and Road Reconstruction</b> Design and Construction - GeoStabilization International Excavation - Evergreen Mountain Contracting	D5112.2140	(Completed) \$941,556.15 <u>\$94,520.00</u> <b>\$1,036,076.15</b>
<b>Halcott</b>	<b>CR 01 &amp; 03 Tree Removal Project, Town of Halcott</b> Construction - K. Hughes Expert Tree Service	D5112.2140	(Completed) <b>\$55,169.00</b>
<b>BIN 3302830 Windham</b>	<b>CR 12 over Batavia Kill Approach Slab and Joint Repair</b> Construction - Town and County Bridge and Rail	D5112.2160	(Completed) <b>\$78,552.64</b>

*Background - New approach slab and joint repair of CR 12 Bridge over Batavia Kill*



# **2022 LOCAL FUNDED PROJECT SUMMARY**

## **(continued)**

<b><u>LOCATION/ BIN / CIN</u></b>	<b><u>PROJECT DESCRIPTION</u></b>	<b><u>FUND APPROPRIATION</u></b>	<b><u>CONTRACT COST</u></b>
<b>Jewett</b>	<b>CR 23C 60-inch Crossover Pipe Repair</b> Construction - Town and County Bridge and Rail	D5110.4056	(Completed) <b>\$23,180.00</b>
<b>Durham</b>	<b>CR 20 over Unnamed Tributary of Catskill Creek Structure Repair</b> Construction - Town and County Bridge and Rail	D5110.4056	(Completed) <b>\$32,696.00</b>
<b>Cairo, Prattsville, Catskill CR 23B, 41, 02</b>	<b>Guide Rail Repair/Replacement Program</b> Material - Chemung Supply Construction - Litchko Construction	D5110.4056	(Completed) \$45,490.94 \$6,000.00 <b>\$51,490.94</b>
<b>All County Roads</b>	<b>Roadside Vegetation Management Program (Guide Rail Spraying)</b> Construction - Chase Enterprise	D5112.2140	(Completed) <b>\$15,984.44</b>
<b>Athens, Cairo, Catskill, Coxsackie, Greenville</b>	<b>Silane Sealer Treatment of Concrete Bridge Decks (5 Year Cycle)</b> Construction - Town and County Bridge and Rail	D5112.2160	(Completed) <b>\$32,559.42</b>

*Background - Shotcrete repair of 60" crossover pipe, CR 23C*



# Bridge Structural Flags

New York State Department of Transportation administers an annual or bi-annual inspection of all publicly owned bridges located in Greene County. The Engineering Division receives from New York State Department of Transportation the inspection reports and any “Flag” information resulting from those bridge inspections. Red Structural Flags require immediate response in the form of a site inspection, by the County’s General Consultant Engineer, and subsequent repair plan formulated and submitted to New York State Department of Transportation within 24 hours or 6 weeks from the initial notification, depending on the designated urgency of the flagged condition.

Yellow Structural Flags are reviewed and a proposed plan to effect repairs is formulated before the flagged condition worsens, resulting in a red flag.

The Engineering Division monitors all structural and safety flags received from New York State Department of Transportation and then updates the files in our Bridge Management database. In 2022, there were a total of 6 Structural Flags, all Yellow.

**The table below indicates the number of Red and Yellow Flags received over the past five years:**

<b>YEAR</b>	<b>RED</b>	<b>YELLOW</b>
<b>2022</b>	<b>0</b>	<b>6</b>
<b>2021</b>	<b>3</b>	<b>8</b>
<b>2020</b>	<b>1</b>	<b>4</b>
<b>2019</b>	<b>2</b>	<b>9</b>
<b>2018</b>	<b>5</b>	<b>10</b>

12/14/2021



# 2022 Sign Program

The Greene County Highway Sign Department is responsible for over 15,000 road signs. These signs include Speed Limit, Pedestrian Crossings, Hidden Driveways, School Bus Ahead, Signal Arrows and Chevrons.

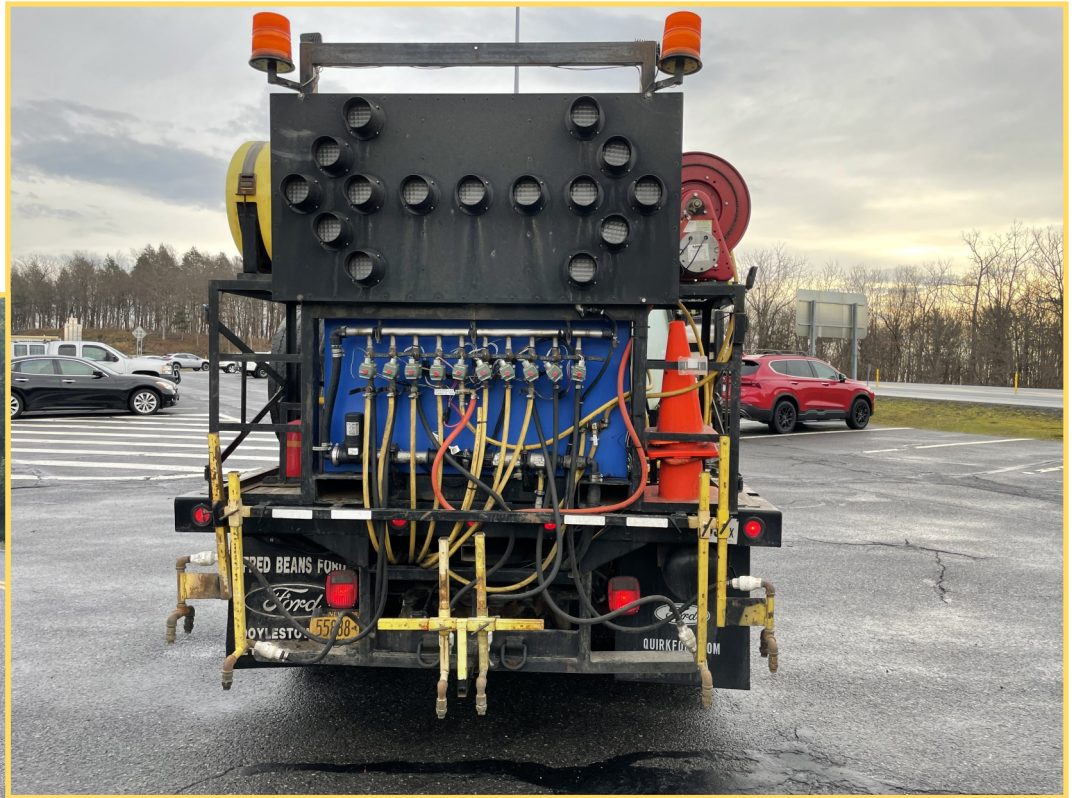
The Sign Department is often called upon to design and implement complete highway closure detours for construction projects. These include bridges, paving, culvert replacements and road stabilization projects. The department is also responsible for contacting New York Dig Safe for all pipe and sign replacements, along with saw cutting of pavement for said pipe replacement projects. The sign department also delivers voting machines to various locations for the November General Election as well as School Budget Votes, Primary Elections and Special Elections.

## In 2022, the Sign Department completed the following:

- \* 130 New high-intensity prismatic facings installed
- \* 36 No Parking Signs on CR 18
- \* 2 New Handicapped Parking spot on Main St. Cairo
- \* 2 New No Parking Signs on Main St. Cairo
- \* 8 Full Detours - CR2, 12, 20, 22, 25, 30, 41, 57, 74
- \* Share The Road Signs on CR 56
- \* New 4-Way Stop - CR 67, Sandy Plains, and Ira Vail Rd.
- \* New Street Signs in the Industrial Park
- \* 50 underground utility call-ins
- \* 62 pavement cuts for pipe excavation
- \* 228.8 miles of centerline marking
- \* 215.6 miles of edge line marking
- \* 16 crosswalks re-stripped
- \* Tunis Edwin Rappleyea Jr. Memorial Drive sign CR 6



## 2022 Roadside Vegetation Maintenance Program



Beginning in 2021, Greene County has been treating roadside vegetation with a chemical herbicide to prevent weed growth along guide rail on county roads. In 2022 there was a spring application to eliminate established vegetation, and a fall application to prevent growth of new vegetation for 2023. The application was done by Chase Enterprises of Syracuse. All chemicals used are approved for use by NYSDOT and NYSDEC.



# Angelo Canna Town Park



In May of 2022, Greene County, along with the Town of Cairo, completed paving in Angelo Canna Town Park. While an attempt was made to recycle the existing material, core samples revealed that recycling wasn't an option due to inconsistencies in the existing pavement types and thickness. It was determined that removal of the existing asphalt and a full pavement reconstruction would be the most structurally sound way to proceed. The old asphalt was milled out to a depth to accommodate a new stone base, 3 inches of binder and 1.5 inches of top coat.



# Angelo Canna Town Park



The walking path received 2.5 inches of binder and 1.5 inches of top. The paving portion of the project was completed over a 2 week period and included milling, nearly 4100 tons of stone base, and over 4900 tons of asphalt.

Callanan Industries was contracted to complete the project by way of honoring their In-place paving contract with The Greene County Highway Department for much of the park. Project costs, as well as labor and equipment were shared between The Town of Cairo and Greene County.





# Slope Stabilization of County Route 02, Town of Prattsville



Following the spring thaw of 2022 excessive movement of an existing slope failure along a section of County Route 02 in Prattsville was observed, the pavement had settled up to 5 inches (top left). The Highway Department engaged GeoStabilization International to provide a cost effective, engineered solution. The process began with the installation of threaded soil nails of varying lengths, up to 50 feet into bank. These nails have a sacrificial drill bit with holes to allow the injection of grout while drilling. The grout surrounds the nail, locking it in place (top center). Next, drain boards are installed and wire mesh is placed over the nail and secured with a metal plate and nut (top right). The slope face is then coated with 8 inches of shotcrete to tie everything together (bottom left). Approximately 4000 cubic yards of material needed to be removed to complete this project, which began September 15th and finished November 30th.



## Cornwallville Road Bridge (CR 20) over the Cornwallville Creek



The original bridge (top left) carrying County Route 20 over the Cornwallville creek was replaced in 2022 with a new structure designed by CDM Smith. This design left part of the abutments from the old bridge in place to provide scour protection for the new one. This project was a locally funded project administered by the Greene County Highway Department. The contractor was HVB, one of our prequalified miscellaneous bridge contractors. The total cost of the bridge replacement was \$639,297.58





# Liquid Deicers

It has been a long standing belief that abrasives were not only necessary for traction, but a cost effective alternative to the use of chlorides. Neither is necessarily true. While abrasives do provide temporary traction, their effects are short lived. They are either pushed out of the wheel path by traffic, or can become imbedded in the snow, diminishing their effectiveness. Hard pack can be a problem with abrasive use due to their limited ability to melt, resulting in snow and ice bonding to the surface. Cost analysis reveals that the two treatments are, based on costs and application rates of the respective materials, are nearly identical at \$5.88/lane mile for sand and \$5.91/lane mile for salt.



However, the associated costs of using abrasive make them far more costly. While salt prices include delivery, abrasive are picked up by county forces. To stock the buildings with the 8500 tons of abrasives required involves 570 loads, nearly 850 man hours, 28,500 miles traveled and approximately 5,700 gallons of fuel. Furthermore, abrasives need to be swept up in the spring which involves sweeper rentals and weeks of labor. Ditches ultimately get filled and pipes clogged, resulting in more damage to the infrastructure.

- 2022 saw the introduction of liquid de-icing products to assist in our winter road maintenance. Pre-wetting salt on board or in a stockpile, can reduce application rates by  $\pm 30\%$ . This reduction in application rate translates to a cost of \$5.67/lane mile, which includes the liquid additive. Furthermore, liquid deicers will accelerate the melting process, increase efficiency at lower temperatures, and continue working longer than solid chemical deicers.



# Greene County Highway Department Vehicle List

ID. Num.	VEHICLE DESCRIPTION	ID. Num.	VEHICLE DESCRIPTION	ID. Num.	VEHICLE DESCRIPTION
19-01	19 Dodge Durango	15-33	15 Ford F350 Crew Cab 1 Ton Pickup	02-67	02 Int'l Tandem Axle w/Plow
02		13-34	13 Ford F350 Crew Cab 1 Ton Pickup	68	
19-03	19 Ford F250 3/4 Ton 4x4 Pickup	01-35	01 Ford F 450 XL 1 Ton Utility Truck	02-69	02 Ford F450 1 Ton w/Stake Body
13-04	13 Ford F250 3/4 Ton 4x4 Pickup	36		06-70	06 Int'l Single Axle w/Plow
19-05	19 Ford F250 3/4 Ton 4x4 Pickup	89-37	89 Oshkosh Tandem Axle w/plow	23-71	Int'l HX520 SFA 6x4 Tandem w/Plow
06		16-38	16 Ford F350 1 Ton Crew Cab Pickup	23-72	Int'l HX520 SFA 6x4 Tandem w/Plow
16-07	16 Ford F250 3/4 Ton 4x4 Pickup	16-39	16 Ford F350 1 Ton Crew Cab Pickup	23-73	Int'l HX520 SFA 6x4 Tandem w/Plow
16-08	16 Ford F250 3/4 Ton 4x4 Pickup	88-40	88 Int'l S1600 Sign/Rack Truck	23-74	Int'l HX520 SFA 6x4 Tandem w/Plow
15-09	15 Ford F250 3/4 Ton 4x4 Pickup	41		22-75	Int'l HV507 Single Axle 4wd w/Plow
06-10	06 Ford Expedition	42		22-76	Int'l HV507 Single Axle 4wd w/Plow
15-11	15 Ford F250 3/4 Ton 4x4 Pickup	02-43	02 Int'l 4700 Sign/Rack Truck	22-77	Int'l HV507 Single Axle 4wd w/Plow
20-12	20 Ford F350 Service Truck	83-44	83 Oshkosh Single Axle w/Plow	22-78	Int'l HV507 Single Axle 4wd w/Plow
04-13	04 Dodge 2500 3/4 ton 4x4 Pickup	07-45	07 Int'l 7500 Single Axle w/Plow	05-79	05 Johnson Sweeper – Freightliner
14		46		07-80	07 Freightliner 55-ft. Bucket Truck
17-15	17 Ford Escape	03-47	02 Int'l Tandem Axle w/plow	01-81	01 Int'l Altec + F11 65-ft. Bucket Truck
14-16	14 Dodge Durango	13-48	13 Ford F250 3/4 Ton 4x4 Pickup	82	
08-17	08 Ford F250 3/4 Ton 4x4 Pickup	95-49	95 Int'l 4800 Single Axle w/plow	18-83	18 Freightliner Tymco Broom
04-18	04 Dodge 2500 3/4 ton 4x4 Pickup	50		88-84	88 Oshkosh Tandem Axle w/plow
19		97-51	97 Oshkosh Single Axle w/Plow	00-85	00 Int'l Eagle Paystar Tri-Axle Dump Truck
86-20	86 Oshkosh Single Axle w/Plow	95-52	95 Oshkosh Single Axle w/Plow	01-86	01 Int'l Eagle Paystar Tri-Axle Dump Truck
18-21	18 Dodge Ram 5500 Dump w/plow	04-53	04 Mack Single Axle w/Plow	00-87	00 Int'l 6x4 Day Cab Tractor
92-22	92 Int'l Single Axle Dump Truck	54		19-88	19 Int'l HX520 SFA 6x4 Day Cab Tractor
18-23	18 Dodge Ram 5500 Dump w/plow	90-55	90 Ford/Oshkosh Single Axle w/Plow	00-89	00 Oshkosh Single Axle w/Plow & sander
17-24	17 Dodge Ram 5500 Dump w/plow	56		88-90	88 Oshkosh Single Axle w/Plow & sander
17-25	17 Dodge Ram 5500 Dump w/plow	57		91	
26		17-58	17 Western Star Tandem w/plow	92	
91-27	91 Int'l 4600 Crew Cab Dump Truck	58-59	58 Oshkosh Snow Blower (Durham)	91-93	91 Int'l Dump Crew Cab (Water Truck)
28		60		05-94	05 Int'l Paystar 4x4 Truck w/plow
29		61		95	
30		16-62	Freightliner Tandem Axle w/plow	96	
87-31	87 Oshkosh Single Axle w/Plow	63		97	
07-32	07 Int'l 7500 Dump Truck w/plow	14-64	Freightliner Tandem Axle w/plow	98	
		65		99	
		01-66	01 Int'l Paystar 4x4 w/Plow	100	



# Greene County Highway Department Equipment List

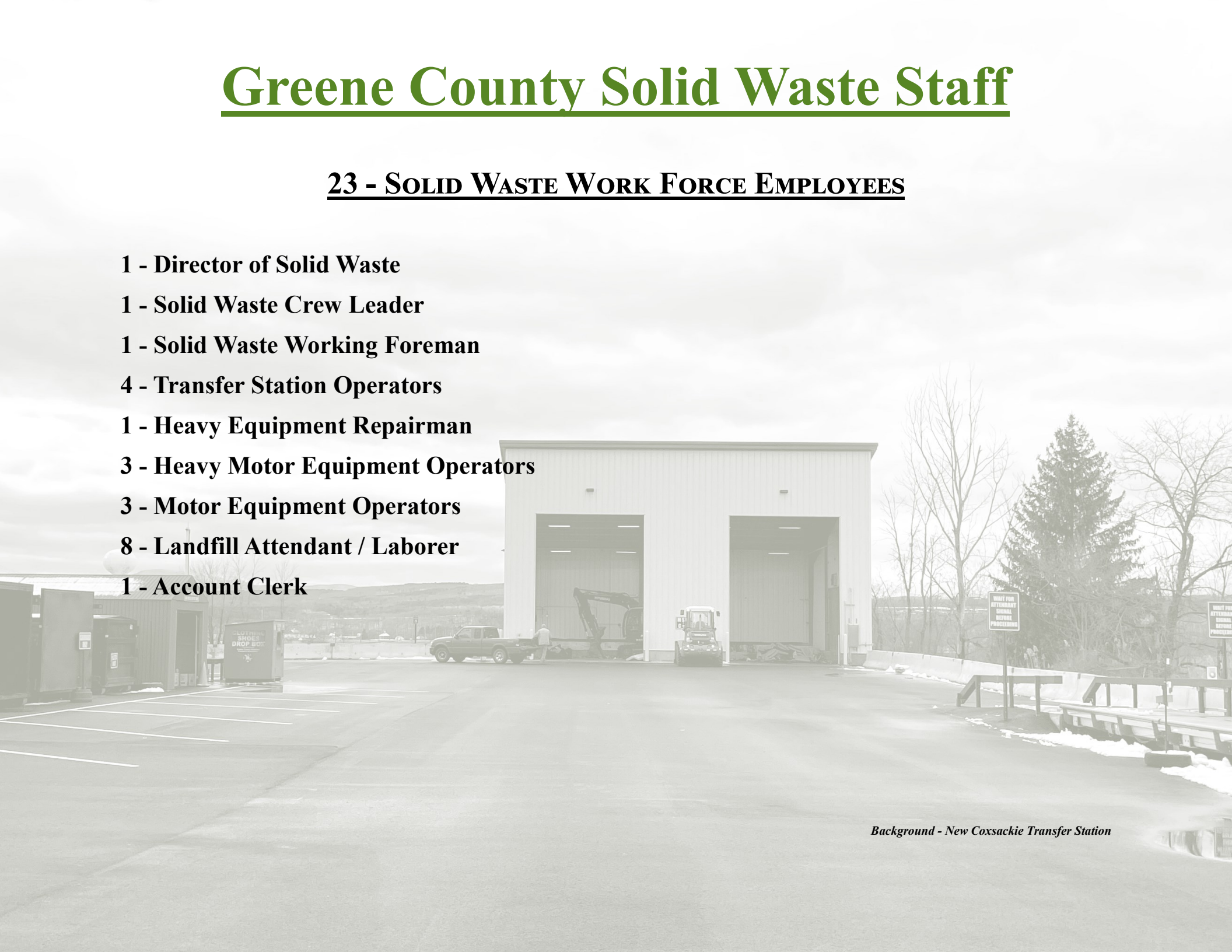
81-E02	81 Power Pack 605 Road Widener 3 cy. / 18 hp.	94-E74(A)	94 Gradall XL-4100 8 cy. / 145 hp. (Upper Structure)
99-E06	99 Case 650G Dozer, 80 hp. 2.2cy.	20-E81	MORBARK Eager Beaver 1215 Chipper
19-E12	19 John Deere 544K Loader	00-E85	00 Case 590 Super L Backhoe
87-E16	87 Mastercraft Forklift	01-E86	01 John Deere 4x4 624 Loader / 2.5 cy.
17-E17	John Deere 544K Loader	01-E87	01 Ingersoll-Rand DD110 Double Drum Roller / 120 hp.
21-E21	John Deere 6110M Tractor w/Rotary & Flail Mower	00-E87T	00 Talbert 35 Ton Trailer
18-E22	John Deere 6110M Tractor w/Rotary Boom Mower	98-E88	98 Miller Welder
20-E23	BOMAG BW 120 SL -5 Vibratory Roller	98-E90	98 Vermeer 1230A Chipper 4 cy. / 86 hp.
20-E24	BOMAG BW 120 SL -5 Vibratory Roller	98-E91	98 Vermeer 1230A Chipper 4 cy. / 86 hp.
01-E26	01 Stone Wolfpac 2500 Vibratory Roller / 18 hp.	00-E92	00 Salsco Chipper / 4.21 cy. Diesel
04-E27	04 Stone Wolfpac 3100 Vibratory Roller / 18 hp.	20-E93	MORBARK Eager Beaver 1215 Chipper
17-E28	17 John Deere 544K Loader	02-E96	02 Case 590 Backhoe 4cyl. / 99 hp.
05-E29	05 Brim Trailer w/winch	80-E108	80 Hauck Steam Culvert Thawer
03-E35	03 Broce Broom RJ350 Street Sweeper 80 hp.	83-E111	83 Sullair Air Comp. 68 hp., 185 cfm.
15-E40	15 John Deere 5085M Tractor w/ Side Flail Mower	88-E112	88 Sullair Air Comp. 78 hp., 185 cfm.
17-E41	John Deere 5085M Tractor w/ Side & Rear Flail Mower	07-E115	07 Caterpillar 314C Excavator Track
00-E46	00 John Deere 5310 Tractor w/Mower (No Cab) 55 hp.	89-E120	89 Caterpillar Grader 120 hp.
01-E48	01 John Deere 5320 Diesel Tractor w/Mower		
99-E53	99 Gradall G3WD / 8cy. / 190 hp.		<u>TRAILERS</u>
97-E54	97 Gradall Excavator (parts)	99-T07	Trail King 20-Ton Tag Trailer
95-E55	95 Gradall Excavator (needs repair)	20-T25	Big Tex Single Axle Trailer
19-E68	19 John Deere 544K Loader	20-T56	Big Tex 6-Ton Trailer
21-E70	T66 Bobcat Compact Track Loader	20-T57	Big Tex 6-Ton Trailer
97-E72	97 99 Gradall G3WD / 8cy. / 190 hp.	20-T87	Talbert 35-Ton Lowboy
07-E73	Gradall XL-3100	22-T88	Felling 35-Ton Lowboy
94-E74	94 Gradall XL-4100 8 cy. / 145 hp.	02-T89	Dump Trailer



# Greene County Solid Waste Staff

## 23 - SOLID WASTE WORK FORCE EMPLOYEES

- 1 - Director of Solid Waste**
- 1 - Solid Waste Crew Leader**
- 1 - Solid Waste Working Foreman**
- 4 - Transfer Station Operators**
- 1 - Heavy Equipment Repairman**
- 3 - Heavy Motor Equipment Operators**
- 3 - Motor Equipment Operators**
- 8 - Landfill Attendant / Laborer**
- 1 - Account Clerk**



*Background - New Cossackie Transfer Station*



# **Solid Waste Services**

## **Greene County Transfer Stations**

**CATSKILL**

**COXSACKIE**

**HUNTER**

**WINDAHM**

**County operated Transfer Stations accept Municipal Solid Waste, C&D, and the following Recyclables:**

Glass, Cans, Cardboard, Metal, Plastic, Paper, Electronics, Appliances, 20lb. Propane Tanks, Tires, Batteries (Lithium and Car) and Nickel Deposits

## **Services Provided by Greene County Solid Waste**

### ***Town Recycling Centers***

**Town of New Baltimore Recycling** - Glass, Cans, Cardboard, Metal, Plastic, and Paper

**Town of Durham Recycling** - Glass, Cans, Cardboard, Metal, Plastic, and Paper

**Town of Greenville Waste & Recycling** - MSW, Glass, Cans, Cardboard, Metal, Plastic, Paper, TVs, and Tires

**Town of Halcott Waste & Recycling** - MSW, Glass, Cans, Cardboard, Plastic, Paper, and TVs

### ***(9) Needle Kiosk***

Locations in: Catskill (2), Cairo (2), Windham, Greenville, Durham, Hunter and Coxsackie

### ***(2) Paper Boxes***

South Cairo Post Office and Earlton Fire Department

### ***(3) Senior Center Recycling Pick-up***

Athens, Catskill and Coxsackie

### ***Town Cleanup Days***

County Provides Containers and Transportation

### ***Household Hazardous Waste Day***

*Background - New Single Source Recycling Building, Catskill Transfer Station*



# Solid Waste Facility Locations



## ★ - Greene County Transfer Stations

Catskill - 181 NY-385, Catskill

Coxsackie - 88 Plank Rd, Coxsackie

Hunter - Hylan Rd, Hunter

Windham - CR 21, Windham

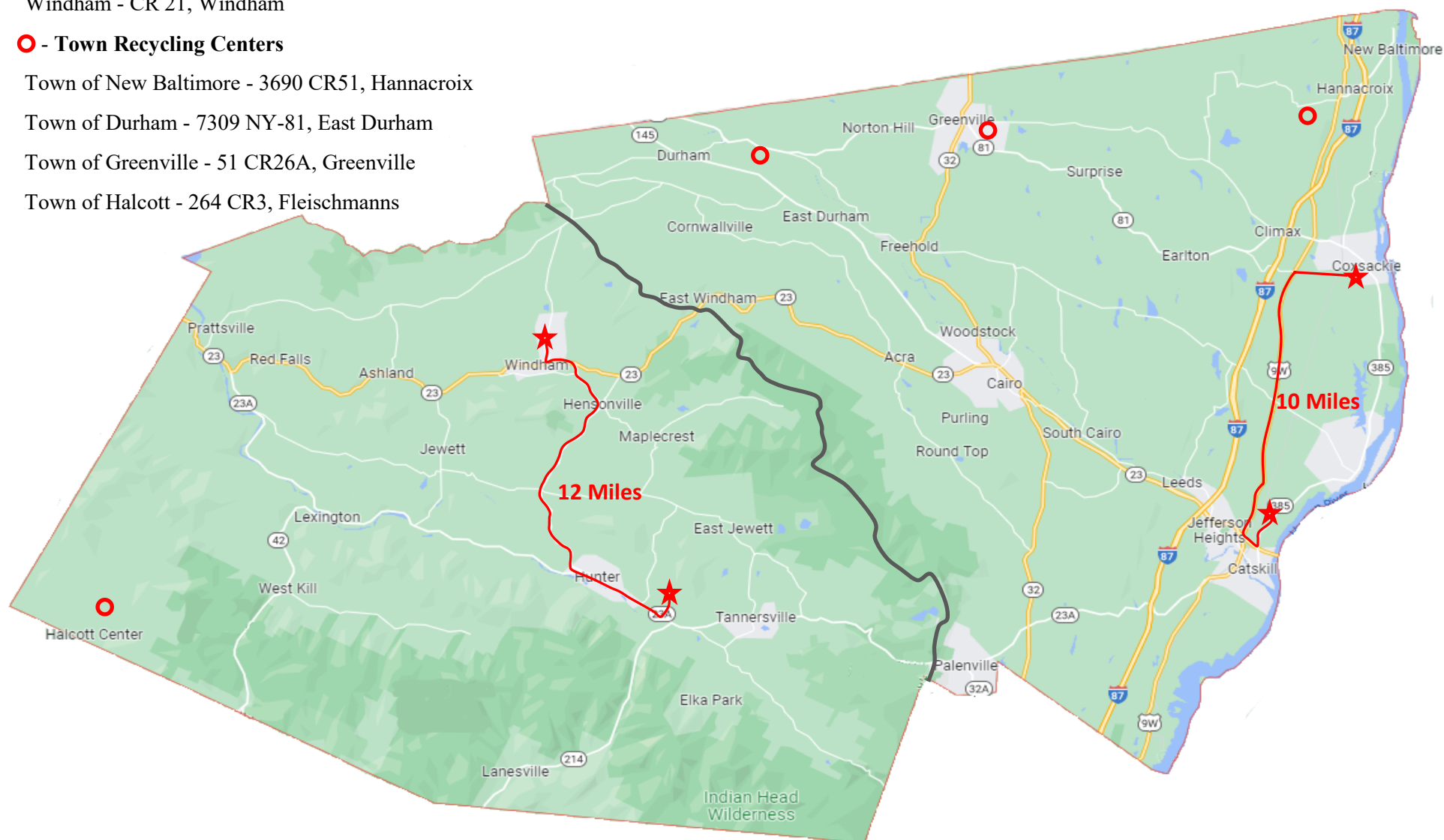
## ○ - Town Recycling Centers

Town of New Baltimore - 3690 CR51, Hannacroix

Town of Durham - 7309 NY-81, East Durham

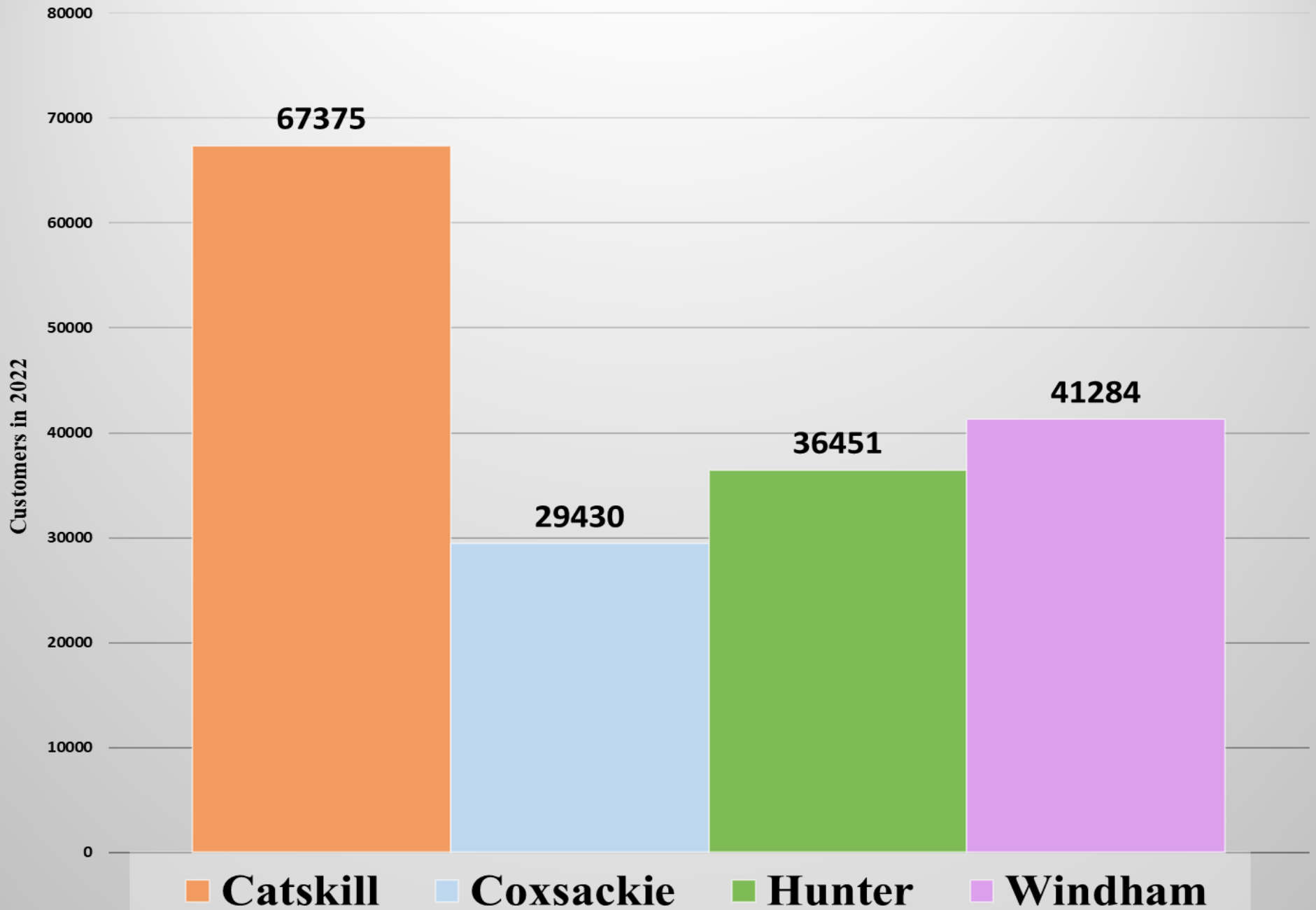
Town of Greenville - 51 CR26A, Greenville

Town of Halcott - 264 CR3, Fleischmanns



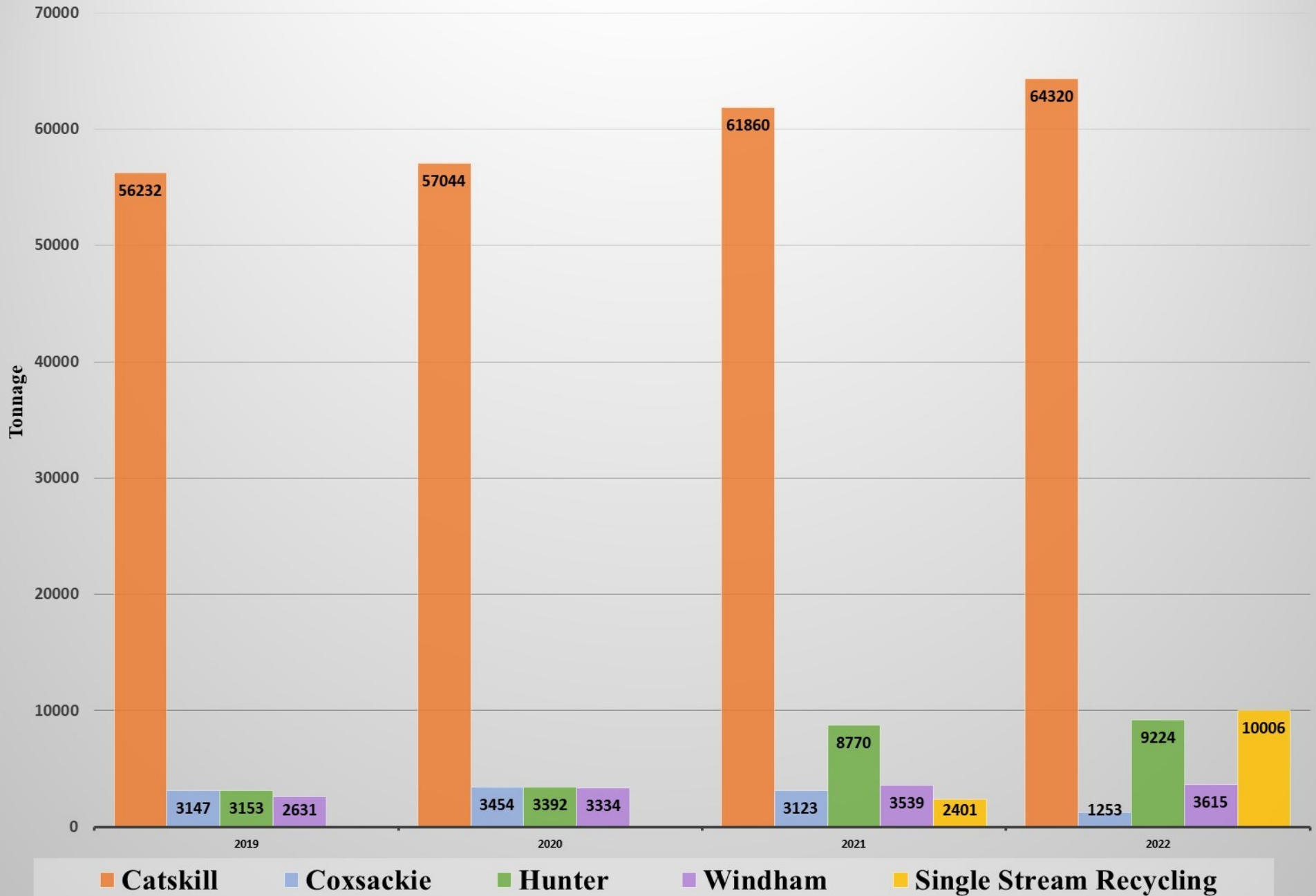


# Solid Waste Customers by Location





# Solid Waste Volume by Location





# 2022 Solid Waste Capital Improvement Project Summary

## **Improvements of Solid Waste Transfer Stations Located in Cossackie and Hunter (2018 & On Going)**

### Contract Cost

Engineering & Construction Inspection - Barton & Loguidice, D.P.C.  
(A8160.2600 Capital Improvement)

**\$386,300.00**

### **Hunter Transfer Station (Project 112)**

Construction - Tweedie Construction Services, Inc.  
Electrical - CDE Electrical Inc.

\$1,066,562.55

\$103,011.35

**\$1,169,573.90**

### **Cossackie Transfer Station (Project 113)**

Construction - Jersen Construction Group  
Electrical - CDE Electrical, Inc.

\$2,231,233.31

\$159,313.46

**\$2,390,546.77**

### **Catskill Transfer Station Single Stream Recycling Building (Project 126)**

Engineering - Barton & Loguidice, D.P.C.  
Construction - Jersen Construction Group  
Electrical - DLC Electric

\$136,570.00

\$1,450,308.33

\$231,000.00

**\$1,817,878.33**

## **Current Grant Applications - Prepared on behalf of Greene County Solid Waste Management by Barton & Loguidice, D.P.C.**

<u>Grant Title</u>	<u>Status</u>	<u>Amount Requested</u>	<u>Item</u>
Municipal Waste Reduction and Recycling Program (NYSDEC)	Submitted	\$97,029.74	Recycling Truck
Municipal Waste Reduction and Recycling Program (NYSDEC)	Submitted	\$87,826.84	Recycling Truck and Roll off Loader
Municipal Waste Reduction and Recycling Program (NYSDEC)	Submitted	\$36,419.30	ER-1000 Composter and Residential Bins
Municipal Food Scraps Recycling (NYSDEC)	Awarded	\$123,750.00	R-2000 Composter (Program Expansion)
Climate Smart Communities (NYSDEC)	Rejected	\$82,500.00	R-2000 Composter (Program Expansion)



# Coxsackie Transfer Station



The new Coxsackie Transfer Station (Capital Improvement Project 113) required the use of light weight fill and Geofoam blocks due to the poor soil conditions on site. The old station remained open during the first phase of construction but had to be removed prior to completion. The new station is now open to serve both residents and commercial haulers.





# Catskill Transfer Station Single Stream Recycling Building



Constructed across the parking lot from the current building, the new Single Stream Recycling Building at the Catskill Transfer Station (Capital Improvement Project 126) is designed to process mixed recyclables from commercial haulers. In 2022 the Greene County Solid Waste Department handled over 10,000 tons of Single Stream Recyclables. The new building will make processing this material cleaner and more efficient, and is expected to be open in March of 2023.





# New Solid Waste Equipment



During 2022 the Greene County Solid Waste Department purchased:

- 1- 2022 Volvo Tri-Axle Roll off
- 1- Takeuchi Loader
- 2- Hyundai Excavators
- 1- Bobcat Skid Steer





# 2022 Solid Waste Vehicle and Equipment List

## VEHICLES

ID. Num.	Description
SW-01	2014 DODGE DURANGO
SW-02	2018 DODGE 1500 TRADESMAN QUADCAB
SW-03	2007 CHEVROLET EXPRESS 2500 VAN
SW-04	2020 CHEVROLET 1500 SERVICE TRUCK
SW-05	2020 VOLVO TRI-AXLE ROLL OFF TRUCK VHD84F
SW-06	2000 GMC 3500 BUCKET TRUCK
SW-07	2003 FORD 350 PICKUP W/PLOW & SANDER
SW-08	2010 FORD F350 DUMP W/SANDER
SW-09	2022 VOLVO ROLL OFF TRUCK
SW-12	2004 INTERNATIONAL BOX TRUCK
SW-13	2004 INTERNATIONAL ROLL OFF TRUCK
SW-14	2021 VOLVO TRI-AXLE ROLL OFF TRUCK
SW-17	2001 OTTAWA YARD TRACTOR
SW-18	1986 OTTAWA YARD TRACTOR
SW-19	2008 KALMAR YARD TRACTOR
SW-20	2001 OTTAWA YARD TRACTOR
SW-21	2002 OTTAWA YARD TRACTOR

## EQUIPMENT

SW-T66	2022 BOBCAT SKID STEER LOADER
SW-310G	2006 JOHN DEERE BACKHOE
SW-416E-1	2008 CATERPILLAR BACKHOE
SW-HX130	2022 HYUNDAI EXCAVATOR
SW-HX130-1	2022 HYUNDAI EXCAVATOR
SW-311FL	2020 CATERPILLAR EXCAVATOR
SW-TW80	2020 TAKEUCHI LOADER
SW-TW80-1	2022 TAKEUCHI LOADER
SW-444 K	2019 JOHN DEERE LOADER
SW-92	2002 YALE FORK TRUCK