

# MSW, INDUSTRIAL OR ASH LANDFILL ANNUAL/QUARTERLY REPORT

**Submit the Annual Report no later than March 1, 2019.**

- A. This annual/quarterly report is for the year of operation from January 01, 2018 to December 31, 2018  
 B. Quarterly Report for:  Quarter 1  Quarter 2  Quarter 3  Quarter 4

## SECTION 1 – FACILITY INFORMATION

FACILITY INFORMATION			
<b>FACILITY NAME:</b> Delaware County Solid Waste Management Center - C&D Landfill			
<b>FACILITY LOCATION ADDRESS:</b> 32230 State Hwy 10	<b>FACILITY CITY:</b> Walton	<b>STATE:</b> NY	<b>ZIP CODE:</b> 13856
<b>FACILITY TOWN:</b> Walton	<b>FACILITY COUNTY:</b> Delaware	<b>FACILITY PHONE NUMBER:</b> 607-865-5805	
<b>FACILITY NYS PLANNING UNIT:</b> (A list of NYS Planning Units can be found at the end of this report). Delaware County			<b>NYSDEC REGION #:</b> 4
<b>360 PERMIT #:</b> 4-1256-00040/00004	<b>DATE ISSUED:</b> 10 June 2014	<b>DATE EXPIRES:</b> 1 June 2019	<b>NYS DEC ACTIVITY CODE OR REGISTRATION NUMBER:</b> 13-D-01
<b>FACILITY CONTACT:</b> Tyson Robb	<input checked="" type="checkbox"/> public <input type="checkbox"/> private	<b>CONTACT PHONE NUMBER:</b> 607-832-5800	<b>CONTACT FAX NUMBER:</b> 607-746-7212
<b>CONTACT EMAIL ADDRESS:</b> tyson.robbs@co.delaware.ny.us			
OWNER INFORMATION			
<b>OWNER NAME:</b> Delaware County	<b>OWNER PHONE NUMBER:</b> 607-832-5800	<b>OWNER FAX NUMBER:</b> 607-746-7212	
<b>OWNER ADDRESS:</b> PO Box 311	<b>OWNER CITY:</b> Delhi	<b>STATE:</b> NY	<b>ZIP CODE:</b> 13753
<b>OWNER CONTACT:</b> Tyson Robb	<b>OWNER CONTACT EMAIL ADDRESS:</b> tyson.robbs@co.delaware.ny.us		
OPERATOR INFORMATION			
<b>OPERATOR NAME:</b> Andrew Tompkins	<input type="checkbox"/> same as owner		<input checked="" type="checkbox"/> public <input type="checkbox"/> private
PREFERENCES			
<i>Preferred address to receive correspondence:</i> <input type="checkbox"/> Other (provide):	<input type="checkbox"/> Facility location address	<input checked="" type="checkbox"/> Owner address	
<i>Preferred email address:</i> <input type="checkbox"/> Other (provide):	<input type="checkbox"/> Facility Contact	<input checked="" type="checkbox"/> Owner Contact	
<i>Preferred individual to receive correspondence:</i> <input type="checkbox"/> Other (provide):	<input type="checkbox"/> Facility Contact	<input checked="" type="checkbox"/> Owner Contact	

**Did you operate in 2018?**  Yes; Complete this form.

No; Complete and submit Sections 1 and 22. If you no longer plan to operate and wish to relinquish your permit/registration associated with this solid waste management activity, also complete the "Inactive Solid Waste Management Facility or Activity Notification Form" located at: <http://www.dec.ny.gov/chemical/52706.html>.

## SECTION 2 - SITE LIFE

### 1. Landfill Capacity Utilized Last Year (reporting year .

- a. What is the estimated landfill capacity that was utilized during the reporting year?

23255.4 Cubic Yards of Airspace

- b. What is the estimated in-situ waste density for the reporting year?

1.05 Tons/Cubic Yard

Please do not report units as pounds per cubic yard.

### 2. Remaining Constructed Capacity

- a. What is the remaining capacity of the landfill that is already constructed?

87253.6 Cubic Yards of Airspace

- b. What is the estimated remaining life of the constructed capacity?

2 Years 2.2 Months

at 40548.12 Tons/Year.

Please note that this tonnage rate must include all materials placed in the landfill, i.e., waste, soil, cover, alternative daily covers, etc.

- c. The tonnage rate reported under 2.b. is based on (select one):

The amount of materials placed in the landfill in the reporting year

Estimated future disposal

Permit limit

Other (explain): \_\_\_\_\_

### 3. Permitted Capacity Still to be Constructed

- a. What is the remaining but not yet constructed landfill capacity that is authorized by a Part 360 permit?

0 Cubic Yards of Airspace

- b. What is the projected life of capacity reported in 3.a?

0 Years 0 Months

at 0 Tons/Year.

Please note that this tonnage rate must include all materials disposed in the landfill, i.e., waste, and soil and alternative daily covers.

- c. The tonnage rate reported under 3.b. is based on (select one):

The amount of materials placed in the landfill in the reporting year

Estimated future disposal

Permit limit

Other (explain): not applicable

4. Capacity Proposed in a Part 360 Permit Application

What is the capacity of any expansion proposed in a Part 360 permit application that has been submitted to the Department but not authorized by a permit as of the end of the reporting period?

0 Cubic Yards of Airspace

5. Estimated Potential Future Capacity Not Permitted or in an Application (optional)

What is the estimated capacity of any potential future expansion at the facility that is not yet authorized by a permit or proposed in a Part 360 permit application that has been submitted to the Department?

1,000,000 Cubic Yards of Airspace

### SECTION 3 - PRIMARY LEACHATE

Name of off-site leachate treatment facility s utilized: Three

Does the landfill have a constructed liner and a leachate collection system?  Yes  No

Enter the quantity of primary leachate that was collected, removed for on-site and off-site treatment, and recirculated each month, and the corresponding **Acreage, by Cell**:

Note: For double-lined landfills this should not include the volume of leachate collected from secondary leachate collection and removal systems.)

For **each cell**, please report the **acreage** and the **primary leachate** amount.

PRIMARY LEACHATE COLLECTED (GALLONS)							PRIMARY LEACHATE TREATED OFF SITE (GALLONS)						
	Cell 1 6.5 Acres	Cell 2 4.6 Acres	Cell 3 7.1 Acres	Cell 4 7.9 Acres	Cell 5 9.7 Acres	Cell 6 3.5 Acres	Cell 1 6.5 Acres	Cell 2 4.6 Acres	Cell 3 7.1 Acres	Cell 4 7.9 Acres	Cell 5 9.7 Acres	Cell 6 3.5 Acres	
January	na	0	24,237	44,346	144,597	67,530	na	0	24,237	44,346	144,597	67,530	
February	na	0	18,553	61,888	139,229	64,094	na	0	18,553	61,888	139,229	64,094	
March	na	0	18,220	61,620	173,085	68,073	na	0	18,220	61,620	173,085	68,073	
April	na	0	18,950	42,630	182,073	62,872	na	0	18,950	42,630	182,073	62,872	
May	na	0	17,929	22,542	160,548	76,804	na	0	17,929	22,542	160,548	76,804	
June	na	0	17,887	12,432	136,532	64,654	na	0	17,887	12,432	136,532	64,654	
July	na	0	21,553	35,150	269,987	123,476	na	0	21,553	35,150	269,987	123,476	
August	na	0	19,402	108,712	96,233	121,832	na	0	19,402	108,712	96,233	131,832	
September	na	0	25,477	39,618	17,319	102,376	na	0	25,477	39,618	17,319	102,376	
October	na	0	24,763	68,962	15,123	117,839	na	0	24,763	68,962	15,123	117,839	
November	na	0	23,705	50,466	11,366	129,746	na	0	23,705	50,466	11,366	129,746	
December	na	0	25,196	26,688	5,492	114,445	na	0	25,196	26,688	5,492	114,445	
ANNUAL	na	0	255,873	575,024	1,351,586	1,113,742	na	0	255,873	575,024	1,351,586	1,113,742	

PRIMARY LEACHATE RECIRCULATED (GALLONS)							PRIMARY LEACHATE TREATED ON SITE (GALLONS)						
	Cell 1 Acres	Cell 2 Acres	Cell 3 Acres	Cell 4 Acres	Cell 5 Acres	Cell 6 Acres	Cell 1 Acres	Cell 2 Acres	Cell 3 Acres	Cell 4 Acres	Cell 5 Acres	Cell 6 Acres	
January													
February													
March													
April													
May													
June													
July													
August													
September													
October													
November													
December													
ANNUAL													

Submit (attached to this form a copy of the maintenance logs which document compliance with the Operation and Maintenance Manual's schedule for the routine annual flushing and inspection of the primary leachate collection and removal system. List required submissions that have been attached to this form or the reason for not attaching a required piece of information:

see attached copies of annual work reports for leachate line clearing and inspection

Submit (attached to this form a tabulated compilation of the semi-annual primary leachate quality data collected throughout the year including a summary comparing this year's data with the previous year's data and a summary discussion of results. This list should identify sample location(s and method of analysis. List required submissions that have been attached to this form or the reason for not attaching a required piece of information:

See attached leachate and groundwater monitoring EMSAP reports

#### SECTION 4 - SECONDARY LEACHATE

Does landfill have a double liner system with a secondary leachate collection and removal system? \_\_\_\_\_ Yes \_\_\_\_\_ No

Submit (attached to this form a tabulated compilation of the semi-annual secondary leachate quality data collected throughout the year including a summary comparing this year's data with all previous years' data and a summary discussion of results. This list should identify sample location(s and methods of analysis. List required submissions that have been attached to this form or the reason for not attaching a required piece of information:

See attached leachate and groundwater monitoring EMSAP reports

Please report total cost for the year, not cost/gal.

Leachate Cost: (including transportation if appropriate) during the calendar year for leachate treatment: \$ \$181,796.89

Total quantity treated: 5,420,411 gal

Enter the quantity of secondary leachate that was collected, removed for on-site and off-site treatment, and recirculated each month, and the corresponding **Acreage, by Cell**:

For **each cell**, please report the **acreage** and the **secondary leachate** amount.

	SECONDARY LEACHATE COLLECTED (GALLONS)						SECONDARY LEACHATE TREATED OFF SITE (GALLONS)					
	Cell 1 6.5_Acres	Cell 2 4.6_Acres	Cell 3 7.1_Acres	Cell 4 7.9_Acres	Cell 5 9.7_Acres	Cell 6 3.5_Acres	Cell 1 6.5_Acres	Cell 2 4.6_Acres	Cell 3 7.1_Acres	Cell 4 7.9_Acres	Cell 5 9.7_Acres	Cell 6 3.5_Acres
January	na	na	1,155	0	304	270	na	na	1,155	0	304	270
February	na	na	912	454	210	292	na	na	912	454	210	292
March	na	na	799	0	206	140	na	na	799	0	206	140
April	na	na	1,977	0	198	253	na	na	1,977	0	198	253
May	na	na	2,231	0	155	28	na	na	2,231	0	155	28
June	na	na	857	0	241	48	na	na	857	0	241	48
July	na	na	1,594	116	1,621	239	na	na	1,594	116	1,621	239
August	na	na	2,234	0	912	52	na	na	2,234	0	912	52
September	na	na	1,897	0	513	848	na	na	1,897	0	513	848
October	na	na	4,318	712	733	709	na	na	4,318	712	733	709
November	na	na	4,737	0	1,309	252	na	na	4,737	0	1,309	252
December	na	na	1,610	0	20	161	na	na	1,610	0	20	161
ANNUAL	na	na	24,321	828	5,108	2,261	na	na	24,321	828	5,108	2,261

	SECONDARY LEACHATE RECIRCULATED (GALLONS)						SECONDARY LEACHATE TREATED ON SITE (GALLONS)					
	Cell 1 _Acres	Cell 2 _Acres	Cell 3 _Acres	Cell 4 _Acres	Cell 5 _Acres	Cell 6 _Acres	Cell 1 _Acres	Cell 2 _Acres	Cell 3 _Acres	Cell 4 _Acres	Cell 5 _Acres	Cell 6 _Acres
January												
February												
March												
April												
May												
June												
July												
August												
September												
October												
November												
December												
ANNUAL												

**SECTION 5 – BENEFICIAL USE DETERMINATION MATERIALS AND ALTERNATIVE OPERATING COVER MATERIALS**

For each type of waste material that the Department has approved for use as alternative operating cover (AOC), intermediate cover, or other landfill material, provide the annual weight in tons, use (i.e., operating cover, intermediate cover, etc.), and source of material. (If material is from a solid waste facility also provide facility name, address, NYS Planning Unit, County/ Province, and State/Country.) Refer to the list of NYS Planning Units that can be found at the end of this report.

Type of Solid Waste	Weight (tons/year)	Use	NYS Planning Unit (See Attached List of NYS Planning Units)	County or Province	State or Country	Source (Facility and Address)
Aggregate/Concrete						
Contaminated Soil	503.12	AOC	Delaware County	Delaware Cour	NY	Delaware County Solid Waste Management Center, Walton NY
Foundry Sand						
Glass	433.85	AOC	Delaware County	Delaware Cour	NY	Delaware County Solid Waste Management Center, Walton NY
Industrial Waste (specify)						
MSW Ash						
Wood Ash	112.62	AOC	Delaware County	Delaware Cour	NY	Delaware County Solid Waste Management Center, Walton NY
Paper Mill Sludge						
Processed C&D						
Waste Tire-Derived Aggregate /						
Waste Tires						
Other (specify)						
Net in house soil/C&D blend	6,118.39	AOC	Delaware County	Delaware Cour	NY	Delaware County Solid Waste Management Center, Walton NY
<b>Total AOC</b>						
<b>Total Beneficial Use Determination Materials</b>						

**Percent Alternative Operating Cover (AOC) Calculation**

AOC Calculations: Total Tons AOC/Total Tons Waste Disposed x 100 = 34%

Please note the calculation is: Tons AOC (from table above)/Tons Solid Waste (from table in Section 6) x 100 and **Not**: Tons AOC / (Tons Solid Waste + AOC) x 100

## SECTION 6 - SOLID WASTE DISPOSED

Provide the tonnages of solid waste disposed. Exclude Beneficial Use Material amounts reported in Section 5 and Recyclable Material amounts reported in Section 8. Specify the methods used to measure the quantities disposed and the percentages measured by each method:

100 % Scale Weight \_\_\_\_\_ % Estimated  
 \_\_\_\_\_ % Truck Count \_\_\_\_\_ % Other (Specify: \_\_\_\_\_)

Type of Solid Waste	January (tons)	February (tons)	March (tons)	April (tons)	May (tons)	June (tons)	July (tons)
Asbestos	0	0	0	5.513	5.513	5.513	0.153
Ash (Coal)	0	0	0	0	0	0	0
Ash (MSW Energy Recovery)	17.82	17.82	17.82	0	0	0	0
Construction & Demolition Debris (mixed)	0	0	0	0	0	0	0
Industrial Waste (Including Industrial Process Sludges)	0	0	0	0	0	0	0
Mixed Municipal Solid Waste (Residential, Institutional & Commercial)	72.9	72.9	72.9	127.7	127.7	127.7	152.55
Oil/Gas Drilling Waste	0	0	0	0	0	0	0
Petroleum Contaminated Soil	8.32	8.32	8.32	36.9	36.9	36.9	5.38
Sewage Treatment Plant Sludge	164.82	164.82	164.82	202.32	202.32	202.32	138.14
Treated Regulated Medical Waste	0	0	0	0	0	0	0
Emergency Authorization Waste (Storm Debris)	0	0	0	0	0	0	0
Other (specify)	181.91	181.91	181.91	188.76	188.76	188.16	147.48
compost & MRF residuals	881.99	881.99	881.9	1019.41	1019.41	1019.41	1147.06
<b>Total Tons Disposed</b>	1327.76	1327.76	1327.76	1580.60	1580.60	1580.60	1590.76



SECTION 6 - SOLID WASTE DISPOSED (continued)

Type of Solid Waste	Tip Fee (\$/Ton)	August (tons)	September (tons)	October (tons)	November (tons)	December (tons)	Total Year (tons)	Daily Avg. (tons)
Asbestos	200	0.153	0.153	0	0	0	17.00	0.06
Ash (Coal)	na	0	0	0	0	0	0	0
Ash (MSW Energy Recovery)	22	0	0	19.72	19.72	19.72	112.62	0.43
Construction & Demolition Debris (mixed)	na	0	0	0	0	0	0	0
Industrial Waste (Including Industrial Process Sludges)	na	0	0	0	0	0	0	0
Mixed Municipal Solid Waste (Residential, Institutional & Commercial)	0	152.55	152.55	460.44	460.44	460.44	2440.97	11.16
Oil/Gas Drilling Waste	na	0	0	0	0	0	0	0
Petroleum Contaminated Soil	30	5.38	5.38	117.12	117.12	117.12	503.12	1.91
Sewage Treatment Plant Sludge	varies	138.14	138.14	323.97	323.97	323.97	2487.75	9.42
Treated Regulated Medical Waste	na	0	0	0	0	0	0	0
Emergency Authorization Waste (Storm Debris)	na	0	0	0	0	0	0	0
Other <del>Waste</del>	0	147.48	147.48	64.85	64.85	64.85	1749.03	6.63
compost & MRF residuals	0	1147.06	1147.06	790.90	790.90	790.90	11518.10	43.63
<b>Total Tons Disposed</b>		<b>1,590.75</b>	<b>1,590.75</b>	<b>1,777.0</b>	<b>1,777.0</b>	<b>1,777.0</b>	<b>18,828.59</b>	<b>73.24</b>

**SECTION 7 – SERVICE AREA OF SOLID WASTE RECEIVED**

**Please identify where the waste is coming from.** The total tons received reported below should equal the total tons received in Section 6 Solid Waste Disposed). **DO NOT REPORT IN CUBIC YARDS!**

- If the waste **WAS** received from another solid waste management facility, please write in the name and address of the facility along with the appropriate state, county and planning unit/municipality.
- If the waste **WAS NOT** received from another solid waste management facility, please write in “**Direct Haul**” along with the appropriate state, county and planning unit/municipality where the waste was generated.

Specify transport method and percentages of total waste transported by each:

100 % Road \_\_\_\_\_ % Rail \_\_\_\_\_ % Water \_\_\_\_\_ % Other specify: \_\_\_\_\_ )

Explain which waste types and service areas below are included in these transport methods All \_\_\_\_\_

SERVICE AREA OF SOLID WASTE RECEIVED						
TYPE OF SOLID WASTE	SOLID WASTE MANAGEMENT FACILITY FROM WHICH IT WAS RECEIVED (Name & Address) OR “Direct Haul”	SERVICE AREA STATE OR COUNTRY	SERVICE AREA COUNTY OR PROVINCE	SERVICE AREA NYS PLANNING UNIT (See Attached List of NYS Planning Units)	TONS RECEIVED	TONS RECEIVED
Asbestos	Direct Haul	NY	Delaware County	Delaware County	17.00	
Ash (Coal)						
Ash (MSW Energy Recovery)	Direct Haul	NY	Delaware County	Delaware County	112.62	
Construction & Demolition Debris (mixed)						

**SERVICE AREA OF SOLID WASTE RECEIVED**

TYPE OF SOLID WASTE	SOLID WASTE MANAGEMENT FACILITY FROM WHICH IT WAS RECEIVED (Name & Address) OR "Direct Haul"	SERVICE AREA STATE OR COUNTRY	SERVICE AREA COUNTY OR PROVINCE	SERVICE AREA NYS PLANNING UNIT (See Attached List of NYS Planning Units)	TONS RECEIVED
Industrial Waste (Including Industrial Process Sludges)					
Mixed Municipal Solid Waste (Residential, Institutional & Commercial)	Direct Haul	NY	Delaware County	Delaware County	2440.97
Oil/Gas Drilling Waste					
Petroleum Contaminated Soil	Direct Haul	NY	Delaware County	Delaware County	503.12
Sewage Treatment Plant Sludge	Direct Haul	NY	Delaware County	Delaware County	2487.75
Treated Regulated Medical Waste (TRMW)*					
Emergency Authorization Waste (Storm Debris)					
Other (specify)	Direct Haul - Whey	NY	Delaware County	Delaware County	1749.03
Compost & MRF Residuals	Direct Haul	NY	Delaware County	Delaware County	11518.10
<b>TOTAL RECEIVED (tons):</b>					<b>18,828.59</b>

List generators that provide you Certificates of Treatment forms and quantities of TRMW from each na

## SECTION 8 –LANDFILL RECYCLABLE & RECOVERED MATERIALS

Is your facility also a permitted or registered Recyclables Handling & Recovery Facility?

Yes; Complete Section 9 for material recovered from the mixed solid waste stream. Complete a Recyclables Handling Recovery Facility (RHRF) form for material received as source separated. The RHRF form is located at: <http://www.dec.ny.gov/chemical/52706.html> .

No; Complete Section 9 for material recovered from the mixed solid waste stream and for material received as source separated.

### A. Service Area of Recyclable Material Received

**Please identify where the recyclable materials are coming from. DO NOT REPORT IN CUBIC YARDS!**

- If the materials **WERE** received from another solid waste management facility, please write in the name and address of the facility along with the appropriate state, county and planning unit/municipality.
- If the materials **WERE NOT** received from another solid waste management facility, please write in “**Direct Haul**” along with the appropriate state, county and planning unit/municipality where the recyclables were generated.

Specify transport method, list type of material s and percentages of total waste transported by each:

100 % Road: Waste Type(s) : All \_\_\_\_\_ % Rail: Waste Type(s) : \_\_\_\_\_  
 \_\_\_\_\_ % Water: Waste Type(s) : \_\_\_\_\_ % Other (specify: \_\_\_\_\_): Waste Type(s) : \_\_\_\_\_

#### SERVICE AREA OF RECYCLABLE MATERIAL RECEIVED

MATERIAL	SOLID WASTE MANAGEMENT FACILITY FROM WHICH IT WAS RECEIVED (Name & Address) OR “Direct Haul”	SERVICE AREA STATE OR COUNTRY	SERVICE AREA COUNTY OR PROVINCE	SERVICE AREA NYS PLANNING UNIT (See Attached List of NYS Planning Units)	TONS RECEIVED
<b>Commingled Containers</b> (metal, glass, plastic)	Direct Haul	NY	Delaware County	Delaware County	1901.80
<b>Commingled Paper</b> (all grades)	Direct Haul	NY	Delaware County	Delaware County	1321.84
<b>Single Stream (total)</b>					
<b>Brush, Branches, Trees, &amp; Stumps</b>	Direct Haul	NY	Delaware County	Delaware County	69.38
<b>Food Scraps</b>					
<b>Yard Waste</b> (curbside)					
<b>Other (MSWt) compost</b>	Direct Haul	NY	Delaware County	Delaware County	19,509.74
<b>WWTP to compost</b>	Direct Haul	NY	Delaware County	Delaware County	3,565.15
<b>TOTAL RECEIVED (tons):</b>					26367.91

**SECTION 8 – LANDFILL RECYCLABLE & RECOVERED MATERIALS**  
**B. Material Recovered**

Identify the name of the destination facility to which the material was sent from your facility, the corresponding State/Country, the County/Province, the NYS Planning Unit, and the amount of material transported. Refer to the list of NYS Planning Units that can be found at the end of this report. DO NOT REPORT IN CUBIC YARDS!

Specify transport method and percentages of total material transported by each:

100 % Road \_\_\_\_\_ % Rail \_\_\_\_\_ % Water \_\_\_\_\_ % Other (specify: \_\_\_\_\_)

Explain which materials and destinations below are included in these transport methods \_\_\_\_\_

PAPER RECOVERED					
RECOVERED MATERIAL	DESTINATION (Name & Address)	DESTINATION STATE OR COUNTRY	DESTINATION COUNTY OR PROVINCE	DESTINATION NYS PLANNING UNIT (See Attached List of NYS Planning Units)	TONS RECOVERED (out of facility)
Commingled Paper (all grades)	Delaware County Solid Waste Management Center - Recycling Center	NY	Delaware County	Delaware County	1321.84
Corrugated Cardboard	Delaware County Solid Waste Management Center - Recycling Center	NY	Delaware County	Delaware County	600.71
Junk Mail					
Magazines					
Newspaper					
Office Paper					
Paperboard / Boxboard					
Other Paper (specify)					
<b>TOTAL PAPER RECOVERED (tons):</b>					<b>1922.55</b>

**SECTION 8 – LANDFILL RECYCLABLE & RECOVERED MATERIALS (continued)**

**B. Material Recovered**

GLASS RECOVERED						
RECOVERED MATERIAL	DESTINATION (Name & Address)	DESTINATION STATE OR COUNTRY	DESTINATION COUNTY OR PROVINCE	DESTINATION NYS PLANNING UNIT (See Attached List of NYS Planning Units)	DESTINATION NYS PLANNING UNIT	TONS RECOVERED (out of facility)
Container Glass	Delaware County Solid Waste Management Center - Recycling Center	NY	Delaware County	Delaware County	433.85	433.85
Industrial Scrap Glass						
Other Glass (specify)						
<b>TOTAL GLASS RECOVERED (tons):</b>						433.85
METAL RECOVERED						
RECOVERED MATERIAL	DESTINATION (Name & Address)	DESTINATION STATE OR COUNTRY	DESTINATION COUNTY OR PROVINCE	DESTINATION NYS PLANNING UNIT (See Attached List of NYS Planning Units)	DESTINATION NYS PLANNING UNIT	TONS RECOVERED (out of facility)
Aluminum Foil / Trays						
Bulk Metal (from MSW)	Delaware County Solid Waste Management Center - Recycling Center	NY	Delaware County	Delaware County	953.06	953.06
Bulk Metal (from CD debris)						
Enameled Appliances / White Goods	Delaware County Solid Waste Management Center - Recycling Center	NY	Delaware County	Delaware County	13.7	13.7
Industrial Scrap Metal						
Tin & Aluminum Containers	Delaware County Solid Waste Management Center - Recycling Center	NY	Delaware County	Delaware County	98.99	98.99
Other Metal (specify)						
<b>TOTAL METAL RECOVERED (tons):</b>						1065.8

**SECTION 8 – LANDFILL RECYCLABLE & RECOVERED MATERIALS (continued)**

**B. Material Recovered**

PLASTIC RECOVERED						
RECOVERED MATERIAL	DESTINATION (Name & Address)	DESTINATION STATE OR COUNTRY	DESTINATION COUNTY OR PROVINCE	DESTINATION NYS PLANNING UNIT (See Attached List of NYS Planning Units)	TONS RECOVERED (out of facility)	
<b>Mixed Plastic (#1 - #7)</b>	Delaware County Solid Waste Management Center - Recycling Center	NY	Delaware County	Delaware County	197.48	
<b>PET (plastic #1)</b>	Delaware County Solid Waste Management Center - Recycling Center	NY	Delaware County	Delaware County	74.57	
<b>HDPE (plastic #2)</b>	Delaware County Solid Waste Management Center - Recycling Center	NY	Delaware County	Delaware County	91.39	
<b>Other Rigid Plastics (#3 - #7)</b>	Delaware County Solid Waste Management Center - Recycling Center	NY	Delaware County	Delaware County	21.26	
<b>Industrial Scrap Plastic</b>						
<b>Plastic Film &amp; Bags</b>	Delaware County Solid Waste Management Center - Recycling Center	NY	Delaware County	Delaware County	17.43	
<b>Other Plastics (specify)</b>						
<b>TOTAL PLASTIC RECOVERED (tons):</b>					<b>402.13</b>	

**SECTION 8 – LANDFILL RECYCLABLE & RECOVERED MATERIALS (continued)**  
**B. Material Recovered**

MIXED MATERIAL RECOVERED					
RECOVERED MATERIAL	DESTINATION (Name & Address)	DESTINATION STATE OR COUNTRY	DESTINATION COUNTY OR PROVINCE	DESTINATION NYS PLANNING UNIT (See Attached List of NYS Planning Units)	TONS RECOVERED (out of facility)
Commingled Containers (metal, glass, plastic)					
Commingled Paper & Containers					
Single Stream (total)					
Other (specify)					
<b>TOTAL MIXED MATERIAL RECOVERED (tons):</b>					



**SECTION 8 – LANDFILL RECYCLABLE & RECOVERED MATERIALS (continued)**  
**B. Material Recovered**

MISCELLANEOUS MATERIAL RECOVERED						
RECOVERED MATERIAL	DESTINATION (Name & Address)	DESTINATION STATE OR COUNTRY	DESTINATION COUNTY OR PROVINCE	DESTINATION NYS PLANNING UNIT (See Attached List of NYS Planning Units)	TONS RECOVERED (out of facility)	
Electronics	Delaware County Solid Waste Management Center - Recycling Center	NY	Delaware County	Delaware County	167.73	
Textiles	Delaware County Solid Waste Management Center - Recycling Center	NY	Delaware County	Delaware County	6.85	
Brush, Branches, Trees, & Stumps	Delaware County Solid Waste Management Center - Compost Facility	NY	Delaware County	Delaware County	69.38	
Food Scraps						
Yard Waste (curbside)						
Other (specify)						
MSW to compost	Delaware County Solid Waste Management Center - Compost Facility	NY	Delaware County	Delaware County	19,509.74	
WWTP biosolids to compost	Delaware County Solid Waste Management Center - Compost Facility	NY	Delaware County	Delaware County	3,565.15	
<b>TOTAL MISCELLANEOUS MATERIAL RECOVERED (tons):</b>						

**VOLUME TO WEIGHT CONVERSION FACTORS**

MATERIAL	EQUIVALENT	MATERIAL	EQUIVALENT	MATERIAL	EQUIVALENT
GLASS – whole bottles	1 cubic yard	GLASS - crushed mechanically	1 cubic yard	ALUMINIUM – cans – whole	1 cubic yard
GLASS - semi crushed	1 cubic yard	GLASS - uncrushed manually	55 gallon drum	ALUMINIUM – cans – flattened	1 cubic yard
PAPER - high grade loose	1 cubic yard	PLASTIC – PET – whole	1 cubic yard		
PAPER - high grade baled	1 cubic yard	PLASTIC – PET – flattened	1 cubic yard		
PAPER - mixed loose	1 cubic yard	PLASTIC – PET – baled	1 cubic yard	WHITE GOODS - uncompacted	1 cubic yard
NEWSPRINT - loose	1 cubic yard	PLASTIC – styrofoam	1 cubic yard	WHITE GOODS - compacted	1 cubic yard
NEWSPRINT - compacted	1 cubic yard	PLASTIC – HDPE – whole	1 cubic yard		
CORRUGATED – loose	1 cubic yard	PLASTIC – HDPE – flattened 1	1 cubic yard		
CORRUGATED - baled	1 cubic yard	PLASTIC – HDPE – baled	1 cubic yard	FERROUS METAL - cans whole	1 cubic yard
		PLASTIC – mixed (grocery bags)	45 gallon bag	FERROUS METAL - cans	1 cubic yard

## SECTION 9 – UNAUTHORIZED SOLID WASTE

Has unauthorized solid waste been received at the facility during the reporting period?

Yes  No If yes, give information below for each incident (attach additional sheets if necessary) :

Date Received	Type Received	Date Disposed	Disposal Method & Location

### Radiation Monitoring

Does your facility use a fixed radiation monitor?  Yes  No

Identify Manufacturer \_\_\_\_\_ and Model \_\_\_\_\_ of fixed unit.

Does your facility use a portable radiation monitor?  Yes  No

Identify Manufacturer \_\_\_\_\_ and Model \_\_\_\_\_ of portable unit.

If the radiation monitors have been triggered give information below for each incident:

Incident Number	Received		Hauler	Origin	Truck Number	Reading	Disposal Status	Removed	
	Date	Time						Date	Time



Waste Summary by Landfill Section

Provide waste in place information for all landfill sections.

Number of landfill sections: 6  
Original\* section used (years from 1977 to 1983 to 1987  
Section Footprint 6.5 acres  
Capped with approved final cover system Yes  No   
Percent capped 100  
Waste in Place: 133000 Tons 380000 Cubic Yards, if known  
Next\* section used (years from 1983 to 1987  
Section Footprint 4.6 acres  
Capped with approved final cover system Yes  No   
Percent capped 100  
Waste in Place: 94500 Tons 270000 Cubic Yards, if known

If there are additional landfill sections, phases or cells, please provide the same waste in place information on additional sheets and attach to form.

**SECTION 11 - LANDFILL GAS**

Does the landfill have a landfill gas collection control system?  
Yes  No  If Yes: Active  Passive

Number of gas wells: 12  
Total landfill footprint acreage 42.9  
Total landfill acreage from which gas is collected 24.7  
Landfill sections from which gas is collected 3, 4/4e, 5  
Landfill acreage from which gas is collected for energy recovery 0  
Measured Methane Generation Rate\*, k 0.04  
Measured Potential Methane Generation Capacity, L<sub>o</sub> 43 m<sup>3</sup>/Mg  
NMOC Concentration\* 600 ppmv as hexane  
Does the landfill require a Title V Permit? Yes  No

Name of Landfill Gas Recovery (gas to energy or other use) Facility: DCEC Waste to Energy (decommissioned)

Note: If Concentration NMOC, L<sub>o</sub> and k are not known or included, default values will be used to calculate the NMOCs emissions from the Landfill.

**Flare**

**Open and Enclosed Flares located at the Landfill and the Landfill Gas Recovery Facility:**

Number of Flares: 1

Type of Flare: Opened Flare 1 Enclosed Flare \_\_\_\_\_

Please report units in cubic feet

Quantity of Gas Collected and Flared Annually 676200 cubic feet

Flare Hours of Operation per Year 112.7 hours/year

Methane Percentage in Landfill Gas before flaring 50 %

Methane Destruction efficiency \_\_\_\_\_ %

**Candlestick Flares:**

Number of Candlestick Flares \_\_\_\_\_

Estimate of Gas Flared Candlestick Flare \_\_\_\_\_ cubic feet

**Gas To Energy**

Number of Internal Combustion Engines: \_\_\_\_\_

Please report units in cubic feet

Quantity of Gas collected for Internal Combustion Engine Annually \_\_\_\_\_ cubic feet

Methane Destruction efficiency \_\_\_\_\_ %

Methane Percentage in Landfill Gas before combustion \_\_\_\_\_ %

Utility Company Receiving Electricity \_\_\_\_\_

**Gas Processed for Use (Other than gas to electricity)**

Quantity of Gas Collected for Processing \_\_\_\_\_ cubic feet

Methane Percentage in Landfill Gas before processing \_\_\_\_\_ %

On-site or Off-site User of Gas \_\_\_\_\_

**Landfill Gas Recovery Facility/Landfill Data**

Facility Contact Tyson Robb Phone # ( 607 ) 832 - 5800

Contact e-mail address tyson.robb@co.delaware.ny.us Fax # ( 607 ) 746 - 7212

Operation and maintenance cost for calendar year: \$ 0.05/kwh

Does the LGRF experience shut downs:  Yes  No

If yes, indicate reasons for shut downs. List required submissions that have been attached to this form or the reasons for not attaching a required piece of information:

\_\_\_\_\_

\_\_\_\_\_

Landfill gas recovery facility was decommissioned in 2012 due to insufficient methane volumes

\_\_\_\_\_

\_\_\_\_\_

Year landfill opened: 1977 Anticipated landfill closure date: 2060

Reprinted 12/18)

**Results of Condensate Sampling**

Submit (attached to this form condensate quality monitoring results accomplished in accordance with condensate sampling. List submissions (required by this section) that have been attached to this form or the reasons for not attaching a required piece of information:

---

see attached leachate and groundwater monitoring EMSAP reports

---

**Landfill Gas Utilized For Energy Recovery**

Provide the following information for the landfill gas recovered for energy. **DO NOT INCLUDE THE GAS FLARED!**

	Landfill Gas Collected for Energy Recovery Cubic Feet)	Steam Generated (Cubic Feet	Total Electricity Generated for onsite and offsite use K.W.H.)	Total Gas Processed for use other than electricity generation Cubic Feet)	Condensate Generated Gallons	Facility Operation (Hours)
January						
February						
March						
April						
May						
June						
July						
August						
September						
October						
November						
December						
ANNUAL TOTAL						

Provide where applicable.

Normal Weekdays of Operation \_\_\_\_\_ Normal Hours of Operation \_\_\_\_\_

Electricity Generated and used/marketed offsite \_\_\_\_\_ KWH

Electricity Generated and used onsite \_\_\_\_\_ KWH

Gas Processed and used/marketed offsite \_\_\_\_\_ cubic feet

Gas Processed and used onsite \_\_\_\_\_ cubic feet

Describe the collection, storage, treatment and disposal techniques used in managing the condensate:

---



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Reprinted 12/18)

## SECTION 12 - COST ESTIMATES AND FINANCIAL ASSURANCE DOCUMENTS

Are there required cost estimates and financial assurance documents for closure and post-closure care?

Yes  No If yes, attach additional sheets reflecting annual adjustments for inflation and any changes to the Closure Plan?

## SECTION 13 – PROBLEMS

Were any problems encountered during the reporting period (e.g., specific occurrences which have led to changes in facility procedures ?

Yes  No If yes, attach additional sheets identifying each problem and the methods for resolution of the problem.

## SECTION 14 – CHANGES

Were there any changes from approved reports, plans, specifications, and permit conditions?

Yes  No If yes, attach additional sheets identifying changes with a justification for each change.

## SECTION 15 - ANALYTICAL RESULTS

Submit (attached to this form tables showing the sample collection date, the analytical results [including all peaks even if below the Method Detection Limits (MDL)], designation of upgradient wells and location number for each environmental monitoring point sampled, applicable water quality standards, and groundwater protection standards if established, MDL's, and Chemical Abstracts Service (CAS numbers on all parameters. List submissions (required by this section) that have been attached to this form or the reasons for not attaching a required piece of information:

---

see attached leachate and groundwater monitoring EMSAP reports

---

## SECTION 16 - COMPARING DATA

Submit (attached to this form tables or graphical representations comparing current water quality with existing water quality and with upgradient water quality. These comparisons may include Piper diagrams, Stiff diagrams, tables, or other analyses. List submissions (required by this section) that have been attached to this form or the reasons for not attaching a required piece of information:

---

see attached leachate and groundwater monitoring EMSAP reports

---

## SECTION 17 - DISCUSSION OF RESULTS

Submit (attached to this form a summary of any contraventions of State water quality standards, significant increases in concentrations above existing water quality, any exceedances of groundwater protection standards, and discussion of results, and any proposed modifications to the sampling and analysis schedule necessary to meet the Existing, Operational and Contingency water quality monitoring requirements. List submissions (required by this section) that have been attached to this form or the reasons for not attaching a required piece of information:

---

see attached leachate and groundwater monitoring EMSAP reports

---

## SECTION 18 - DATA QUALITY ASSESSMENT

Submit (attached to this form any required data quality assessment reports. List submissions (required by this section) that have been attached to this form or the reasons for not attaching a required piece of information:

---

see attached leachate and groundwater monitoring EMSAP reports

---

## SECTION 19 - SUMMARIES OF MONITORING DATA

Submit (attached to this form a summary of the water quality information presented in Sections 16 and 17 for the year of operation for which the Annual Report is made, noting any changes in water quality which have occurred throughout the year. List submissions (required by this section) that have been attached to this form or the reasons for not attaching a required piece of information:

---

see attached leachate and groundwater monitoring EMSAP reports

---

## SECTION 20 - SURFACE IMPOUNDMENTS

Does this landfill have a surface impoundment?

Yes    No   If yes, repeat Sections 15 through 18 above for Quarterly Reports and Section 19 above for Annual report. Attach additional submissions required by this section.

## SECTION 21 - PERMIT/CONSENT ORDER REPORTING REQUIREMENTS

Are there any additional permit/consent order reporting requirements not covered by the previous sections of this form?

Yes    No   If yes, attach additional sheets identifying the reporting requirements with their respective responses.



**SECTION 22 - SIGNATURE AND DATE BY OWNER OR OPERATOR**

Owner or Operator must sign, date and submit one completed form to the appropriate Regional Office (See attachment for Regional Office addresses, email addresses and Materials Management Contacts).

The Owner or Operator must also submit one copy by email, fax or mail to:

**New York State Department of Environmental Conservation  
Division of Materials Management  
Bureau of Solid Waste Management  
625 Broadway  
Albany, New York 12233-7260  
Fax 518-402-9041  
Email address: SWMFannualreport@dec.ny.gov**

I certify, under penalty of law, that the data and other information identified in this report have been prepared under my direction and supervision in compliance with a system designed to ensure that qualified personnel properly and accurately gather and evaluate this information. I am aware that any false statement I make in such report is punishable pursuant to section 71-2703(2) of the Environmental Conservation Law and section 210.45 of the Penal Law.

*Tyson Robb*

2/25/18

Signature

Date

Tyson Robb

Solid Waste Coordinator

Name (Print or Type)

Title (Print or Type)

tyson.robbs@co.delaware.ny.us

Email (Print or Type)

PO Box 311

Delhi

Address

City

NY 13753

(607) 832-5800

State and Zip

Phone Number

ATTACHMENTS:  YES  NO  
Please check appropriate line)



**DELAWARE COUNTY SOLID WASTE MANAGEMENT CENTER  
& COMPOST FACILITY**

NEW YORK STATE ROUTE 10  
TOWN OF WALTON DELAWARE COUNTY

**1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, & 4<sup>th</sup> QUARTERLY REPORT 2018  
FINAL REPORT**

**FOR DELAWARE COUNTY  
SOLID WASTE MANAGEMENT CENTER  
INCLUDING:**

**C&D FACILITY  
COMPOST FACILITY  
LFG EXTRACTION  
MSW LANDFILL  
RECYCLING (MRF) CENTER  
SITE ANALYTICAL & ENVIRONMENTAL MONITORING**

**TOWN TRANSFER STATIONS**

FOR THE PERIOD FROM

1 January – 31 March 2018  
1 April – 30 June 2018  
1 July – 30 September 2018  
1 October – 31 December 2018

Prepared By:

**DELAWARE COUNTY DEPARTMENT OF PUBLIC WORKS  
SOLID WASTE DIVISION  
Page Avenue, PO Box 311  
Delhi, NY 13753**

Susan McIntyre, QEP, Commissioner  
Tyson Robb, Solid Waste Coordinator

FEBRUARY 2019

**DELAWARE COUNTY  
DEPARTMENT OF PUBLIC WORKS  
PO BOX 311 DELHI, NY 13753**

Susan McIntyre, QEP  
COMMISSIONER OF PUBLIC WORKS  
SUPERINTENDENT OF HIGHWAYS

Main office and Yard  
Page Avenue, Delhi  
Tel: 607-832-5800  
FAX: 607-746-7212

Dt: February 2019

To: Dawn Mirabile, DEC Central Office  
Vicky Schmitt, NYSDEC, DSW Region 4  
Martha Bellinger, NYSDEC, DEP, Region 4  
Brenda Drake, NYCDEP  
Sally Rowland, NYSDEC

Fr: Tyson Robb  
Delaware County Solid Waste Coordinator

Re: Quarterly Report / Annual Report  
Landfill Facility No. 13/-S-18  
DEC ID# 4-1256-00008/00007-1

C&D Facility No. 13-D-01  
DEC ID# 4-1256-0040/00004-0

Compost Facility No. 13-C-01  
DEC ID# 4-1256-00008/00011

Delaware County Solid Waste Management Center  
Delaware County Compost Facility

1 January 2018 to 31 December 2018

Attached, please find a copy of the Quarterly Reports and Environmental Monitoring Report for the above identified facility for the period.

Please note that the quarterly groundwater analytical results provided by Microbac Laboratories New York are incorporated into the Environmental Monitoring Section. Submission of the standalone groundwater monitoring data is submitted with the file attachments.

Dawn Mirabile NYSDEC  
Division of Materials Management  
Bureau of Permitting & Planning  
625 Broadway - 9<sup>th</sup> Floor  
Albany, NY 12233-7253

Vickie Schmitt & John Weidman  
NYSDEC Region 4  
Regional Solid Waste Engineer  
1150 North Westcott Road  
Schenectady, NY 12306-2014

Martha Bellinger  
NYSDEC Region 4  
Stamford Office  
Division of Environmental Permits  
65561 State Hwy 10, Suite 1  
Stamford, NY 12167-9503

Brenda K. Drake, P.E.  
NYCDEP - Bureau of Water Supply  
71 Smith Avenue  
Kingston, NY 12401

Sally Rowland  
NYSDEC  
Bureau of Waste Reduction and Recycling - Annual Report  
625 Broadway - 9<sup>th</sup> Floor  
Albany, NY 12233-7253

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## ATTACHMENTS

**ACTIVE LANDFILL**

**Division of Solid Waste  
New York State Department of Environmental Conservation**

**ACTIVE (SANITARY, INDUSTRIAL, OR ASH) LANDFILL  
(Subject to 6 NYCRR Part 360, Solid Waste Management Facilities,  
6 NYCRR Part 360-2, Solid Waste Landfills - Effective Date: November 26, 1996  
6 NYCRR Part 360-1, General Provisions - Effective Date: May 12, 2006)**

**QUARTERLY REPORT**

- A. Annual Report for the year of operation from 1 January to 31 December 2018.
- B. Quarterly Report for:  X  Quarter 1  X  Quarter 2  X  Quarter 3  X  Quarter 4

**Section 1  
Owner/Facility Information**

DEC Region 4, Town of Walton

Facility Name	Solid Waste Management Center	Compost Facility
DEC Facility Code #	13-S-18	13-C-01
DEC Permit #	4-1256-00008/00007-1	4-1256-00008/00011
DEC Permit Expiration	4 June 2019	24 April 2022
Facility Phone #	607.865.5805 x 216	607.865.4046 x 201
Facility Address	32230 State Hwy 10, Walton, NY 13856	32230 State Hwy 10, Walton, NY 13856
Facility Chief Operator	Andrew Tompkins	Andy Zuk

**Signature and Date**

Owner or operator must sign, date and submit one completed form with an original signature to:

New York State Department of Environmental Conservation  
Bureau of Solid Waste & Land Management  
Division of Solid & Hazardous Materials  
625 Broadway  
9<sup>th</sup> Floor  
Albany, NY 12233-7258

and one copy with an original signature to the appropriate Regional Solid Waste Engineer (RSWE).

I hereby swear or affirm that information provided on this form and attached statements and exhibits is true to the best of my knowledge and belief.

Tyson Robb   
Solid Waste Coordinator  
PO Box 311  
Delhi, NY 13753

Date: February 2018  
Tel: (607) 832-5800  
Fax: (607)746-7212

**DELAWARE COUNTY SOLID WASTE MANAGEMENT CENTER  
NEW YORK STATE ROUTE 10  
TOWN OF WALTON DELAWARE COUNTY**

**QUARTERLY REPORT**

**BACKGROUND**

This Report has been prepared in accordance with 6 NYCRR Part 360-1.4(c); 360-1.8 (e)(1)(ii); 360-1.14(e)(2), (i)(1); 360-2.9(j)(3); 360-2.11(c)(5)(iv), (d)5), (d)(6); 360-2.14(a)(2)(vi); 360-2.17(a), (t); 360-2.19(b)(1)(ii), (c)(1)(ii), (d)(1)(i) and 360-6.5(d). Part 360-8.1 does not pertain to Delaware County since Delaware County is not located on Long Island.

This Report also references the Environmental Monitoring Report and all other reporting requirements as specified by Operational Permit Condition No. 3 of the current Operating Permit dated June 4, 2014 and expiring on June 4, 2019. Groundwater quality monitoring data as required by the Site Analytical/Environmental Monitoring Plan is included under separate cover. A summary from this groundwater data is included in this Report. Sections 1 through 18 of the standard State form have been reproduced within this report. Sections 2 through 11 are not required for a quarterly report. Sections 11 through 15 are included within "Water Quality Data" and the Environmental Monitoring Report.

**Section 2 - Quantity of Solid Waste Received:**  
Table A.

Type of Solid Waste	1st QT (tons)	2nd QT (tons)	3rd QT (tons)	4th QT (tons)	YTD (tons)	Daily Avg (tons)
<b>-2018-</b>						
<b>Days Open to Public</b>	65	129	194	264	264	
<b>LANDFILL WASTE INPUTS - CELL 6</b>						
Mixed MSW to Landfill (Residential & ICI) (01)	218.83	383.15	457.65	1,381.34	2,440.97	11.16
C & D Debris (buried as waste)	0	0	0	0	0	0.00
Friable Asbestos Waste (10)	0	16.54	0.46	0	17.00	0.06
Industrial Waste (Inc'l sludges)	0	0	0	0	0	0.00
Whey (16)	545.74	566.29	442.45	194.55	1,749.03	6.63
Compost Facility Residuals (001)	2,645.08	3,049.58	3,400.82	2,335.20	11,430.68	43.30
WWTP Sludge & Grit (4A)(14B)(21)	494.47	606.96	414.41	971.91	2,487.75	9.42
MRF Residuals (19)	0.9	8.66	40.35	37.51	87.42	0.33
<b>Landfill Waste Tons - Cell 6</b>	<b>3,905.02</b>	<b>4,631.18</b>	<b>4,756.14</b>	<b>4,920.51</b>	<b>18,212.85</b>	<b>68.99</b>
<b>LANDFILL ADCs</b>						
Mixed Glass Aggregate (AOC) (2BC)	111.45	93.9	107.39	121.11	433.85	1.64
Contaminated Soil (AOC) (8)	24.95	110.7	16.15	351.32	503.12	1.91
DCRRA Ash (AOC) (17)	53.46	0	0	59.16	112.62	0.43
<b>AOC Ton Received</b>	<b>189.86</b>	<b>204.6</b>	<b>123.54</b>	<b>531.59</b>	<b>1,049.59</b>	<b>3.98</b>
In-House Soil/C&D Blend AOC (17B)	1,768.14	1,680.05	527.36	2,142.84	6,118.39	23.18
<b>AOC Tons Used - Cell 6</b>	<b>1,768.14</b>	<b>1,680.05</b>	<b>527.36</b>	<b>2,142.84</b>	<b>6,118.39</b>	<b>23.18</b>
<b>COMPOST INPUTS</b>						
WWTP Sludge to Compost (4B)	1,012.53	1027.93	880.54	644.15	3,565.15	13.50
Mixed MSW to Compost (1)(010)	4,574.11	5,102.95	5,750.18	4,082.50	19,509.74	73.90
MRF Residuals (MSW to compost #s)	0	0	0	0	0	0
Solids Amendment- Wood (5) (17A) (005)(05)	17.87	68.47	30.52	17.79	134.65	0.51
Industrial Liquids Amendment	0	0	0	0	0	0
<b>Gross Compost Inputs Received</b>	<b>5,604.51</b>	<b>6,199.35</b>	<b>6,661.24</b>	<b>4,744.44</b>	<b>23,209.54</b>	<b>87.91</b>
<b>Net Compost Outputs</b>	<b>2,959.43</b>	<b>3,149.77</b>	<b>3,260.42</b>	<b>2,409.24</b>	<b>11,778.86</b>	<b>44.62</b>
<b>CONSTRUCTION AND DEMOLITION DEBRIS (see also Exhibit A - Section 2)</b>						
Total C&D Receipts (6)(06)	777.26	1,659.43	1,570.09	1,587.10	5,593.88	21.19
<b>RECYCLABLE MATERIALS (see also Section 5)</b>						
Total Conventional Recyclables	734.30	973.52	1224.85	980.27	3,912.94	14.82
<b>Total Tons - SW Program</b>	<b>8,565.87</b>	<b>10,618.50</b>	<b>10,935.04</b>	<b>10,428.71</b>	<b>40,548.12</b>	<b>153.59</b>
<b>Lbs/Capita/Day - Total Tons - SW Program</b> (47,980 population, operational days/yr)						<b>6.40</b>
<b>Lbs/Capita/Day - Landfill Waste Inputs - Cell 6</b> (47,980 population, operational days/yr)						<b>2.88</b>
<b>Notes:</b> Labeling errors incorrectly reported the Lbs/Capita/Day as based upon 365 days. Labels have been corrected to reflect the Lbs/Capita/Day rate based upon <b>operational</b> days.						



**Quantity of Solid Waste Received**

Cell 6 was put into operation with first waste placement 27 December 2007. Initial waste placement is the select waste layer which is uncompacted waste. Cell 5 stopped waste receipts on 26 December 2007.

**Service Area**

The service area includes the entire County of Delaware and the northern one half of the Town of Hardenburgh in Ulster County, State of New York. The population of Delaware County is 47,980 per the 2010 census with the population of the portion of the Town of Hardenburgh we serve being 125. Delaware County consists of 19 townships and covers an area of 1460 square miles.

The Solid Waste Management Center (SWMC) is located 4 miles east of the Village of Walton along NYS Route 10 in the Town of Walton. There are seven transfer stations within the service area which serve nine towns. Hauling from the transfer stations to the SWMC is done by the County. These figures are based on actual MSW tonnages hauled on county trucks.

-2018- Transfer Station Quantities Table B.									
TRANSFER STATION	MSW & BULKY ITEMS (tons)				RECYCLABLES (tons)				
	1 QT	2 QT	3 QT	4 QT	1 QT	2 QT	3 QT	4 QT	% REC
ANDES	73.54	112.51	135.31	116.75	25.90	31.66	55.99	30.75	24.78%
COLCHESTER	173.38	266.05	305.76	251.06	44.65	52.24	72.35	118.72	22.42%
DAVENPORT	290.88	402.91	346.73	332.63	30.93	65.70	63.34	41.25	12.78%
HANCOCK	360.52	544.14	730.97	401.14	34.52	58.23	66.49	44.82	9.11%
HARPERSFIELD	464.85	606.91	635.09	595.78	97.10	126.68	107.92	105.78	15.97%
MIDDLETOWN	178.54	233.81	348.66	212.83	78.57	102.54	109.08	90.61	28.11%
ROXBURY	309.25	456.93	487.57	389.28	28.12	64.00	84.24	55.02	12.34%

The County supports several paper recycling drop-off boxes throughout the area, and a seasonal convenience station is also located in the Town of Bovina utilizing a private hauler to collect waste and recyclables. Tonnages for these facilities are follows:

-2018- Seasonal Convenience Station Table C.									
LOCATION	MSW & BULKY ITEMS (tons)				RECYCLABLES (tons)				
	1 QT	2 QT	3 QT	4 QT	1 QT	2QT	3 QT	4QT	% REC
BOVINA	27.35	40.43	43.77	29.69	25.61	20.41	11.47	14.97	33.91%

-2018- Recycling Boxes Table D.				
LOCATION	RECYCLABLES (tons)			
	1 QT	2 QT	3 QT	4 QT
DELHI (paper only)	15.72	8.92	16.95	14.63

**Section 3  
Unauthorized Solid Waste**

Has unauthorized waste ever been received at the landfill?    \_\_\_ Yes   x   No

**Section 4  
Landfill Airspace Capacity and Projected Site Life**

**Cell 6**

Original Design Volume (Cell 6)	343,000	CY Airspace
Volume Used This Period (2018)	23,255	CY Airspace (period survey volume)
Volume Used as of period survey	255,746	CY Airspace (cumulative all previous)
Volume Used as Surveyed from Base Layer	255,746	CY Airspace (survey volume - base)
Volume Remaining as of 1 January 2019	87,254	CY Airspace (net design cumulative)
1) Remaining life of the existing constructed landfill - Cell 6	2 Years At 40,000	2.2 Months CY/Year
1a) Remaining life of the existing constructed landfill - Cell 6	4 Years At 20,000	4.4 Months CY/Year
2) Projected life of entitled undeveloped landfill capacity. Cell 7 Capacity	12 Years At 40,000 487,000	2.1 Months CY/Year CY of Airspace
2a) Projected life of entitled undeveloped landfill capacity. Cell 7 Capacity	24 Years At 20,000 487,000	4.2 Months CY/Year CY of Airspace
3) Estimated landfill capacity of any potential expansion area not authorized under a permit (Cell 7).	487,000	CY of Airspace
4) Actual landfill capacity utilized for the year.	23,255	CY of Airspace Cell 6

-2018 - FOR COMPARISON PURPOSES ONLY - UNOFFICIAL					Table E.
<b>IN-PLACE WASTE DENSITY CELL 6</b>	<b>1qt</b>	<b>2qt</b>	<b>3qt</b>	<b>4qt</b>	<b>YTD</b>
Waste Compaction Rate (lbs/cy)	1,492		1,638		1,565
Waste & ADC Compaction Rate (lbs/cy)	2,095		2,090		2,093
Landfill Waste Tons - Cell 6	3,905	4,631	4,756	4,921	18,213
ADC Tons - Cell 6	1,768	1,680	527	2,143	6,118
Capacity Used For Period (cy)	11,440		11,815		23,255
CY/Capita/Yr - Capacity Used (47,980 population)	365 days		0.48		

**Waste In Place**

-2018		DELAWARE COUNTY SOLID WASTE MANAGEMENT CENTER					TABLE F.	
LANDFILL CELLS DESCRIPTIVE SUMMARY								
CELL	DATES OF OPERATION	CAP	CLOSURE STATUS	NYSDEC PERMIT NUMBER	TOTAL CAPACITY (cy)	CURRENT WASTE IN PLACE (cy)	LINER ACRES	
1	1977 to 1983	soil	approved	800	380,000	380,000	6.5	
2	1983 to 1987	VLDPE	approved	916	270,000	270,000	4.6	
3	1987 to 1993	VLDPE	approved	41-87-0171	420,000	420,000	7.1	
'4/4e	1993 to 2000	LLDPE	approved	4-1256-00008/00002-1 and 4-1256-00008/00004-1	400,000	400,000	7.9	
5	2000 to present	na	interim	4-1256-00008/00007-1	329,000	325,541* (27 June 2016)	9.7	
C&D	1991 to present	na	active	4-1256-00040/00004-1	69,950	55,696 (8 Jan 2014)	1.9	
6	2008 to present	na	active	4-1256-00008/00007-1	343,000	255,746 (4 Jan 2019)	3.5	
7	to be developed	na	na	na	487,000	na	na	

\*Note - Cell 5 survey of 27 June 2016 revealed 31,673.4 cy reduction of waste -in-place volume associated with consolidation over time.

**Cell 6 Waste-In-Place Cumulative Total Tons  
Beginning of 4<sup>th</sup> Quarter 2007 to End of 4<sup>th</sup> Quarter 2018**

TABLE G.	
WASTES TO CELL 6	CUMULATIVE
Mixed MSW to Landfill	14,557.30
C & D Debris (buried as waste)	0.00
Asbestos Waste	108.74
Industrial Waste (Inc'l sludges)	1.88
Whey	21,304.21
MRF Residuals	1,700.27
Compost Residuals	128,794.03
WWTP Sludge	21,048.16
In-House AOC Blend	48,849.09

**C&D Landfill Waste-In-Place Cumulative Total Tons**

From 1 October 1991 to End of 2nd Quarter 2012:

C&D Debris in-place (Oct 1991 to Dec 2001 @ 1,100 lbs/cy)	28,991 tons 52,711 cy
C&D Debris in-place (Jan 2002 to Nov 2011 @ 1,750 lbs/cy)	2,612 tons 2,985 cy
Total C&D Debris in-place	31,603 tons 55,696 cy
Net Balance Remaining Capacity (1,750 lbs/cy)	12,472 tons 14,254 cy

**Section 5  
Material Recovered & Marketed**

Type of Recyclables Marketed -2018-	Weight (wet tons)					Final Destination	Table H.
	1 QT	2 QT	3 QT	4 QT	YTD		
Tubs & Lids	20.77	21.55	19.12	136.04	197.48	Park Polymers	
Mixed Glass	111.45	93.90	107.39	121.11	433.85	Aggregate (Table G. - ADC)	
Ferrous Metal Cans	17.43	22.13	21.23	21.83	82.62	Conti Group, Kelman	
Aluminum Cans	4.70	3.69	3.79	4.19	16.37	Rt 206 Redemption	
Plastic, Natural HDPE	10.39	6.81	9.35	0.00	26.55	TABB, Empire Recyc, Hershmann	
Plastic, Mixed Color HDPE	10.39	13.56	40.89	0.00	64.84	Ensley, Graham	
UBCs	0.47	2.02	8.23	3.05	13.77	Rt 206 Redemption	
Ag/Film Plastic	17.43	0.00	0.00	0.00	17.43	Versatile Recycling	
High Molecular Weight HDPE	0.00	21.26	0.00	0.00	21.26	QRS	
Plastic, PETE	18.43	18.53	18.87	18.74	74.57	TABB, Conti Group, Graham	
Paper, OCC	124.17	149.46	198.62	128.46	600.71	RockTenn, Fox Run, Cascade	
Magazines, Junk, Office, ONP Mix	137.84	207.45	231.00	144.84	721.13	Cascade	
Electronics, CRTs, TVs	44.05	67.20	56.48	0.00	167.73	ERI	
Bulk Metal	117.69	205.58	379.57	250.22	953.06	Weitsman, Sims, Otsego Auto	
Antifreeze	1.08	1.27	0.98	1.89	5.22	Covanta REC Oil, eco-maxx, MXI	
Used Oil	3.06	2.49	5.08	2.59	13.21	Covanta REC Oil, eco-maxx, MXI	
Lead Acid Batteries	0.00	3.08	0.00	0.34	3.42	NAPA, Interstate	
Household Batteries	1.92	0.00	0.00	2.02	3.94	ALR, Call 2, RFI	
Clothing, Textiles, Accessories	1.20	3.00	1.70	0.95	6.85	Rock Solid Church	
Other HHW, AGP, & CESQG	0.00	0.00	0.00	55.38	55.38	MXI Env'l, CLEAN SWEEP	
Tires	90.01	124.51	119.35	85.98	419.85	Casings	
Freon Containing Items	1.83	6.03	3.20	2.65	13.70	JGS Recycling & Hauling	
Net Compost Output	2959.43	3149.77	3260.42	2409.24	11778.86	NatureCycle, DPW, Public	
Alternate Daily Cover Utilized	1768.14	1680.05	527.36	2142.84	6118.39	Ground C&D, PCS, AOC	
MRF Dual & Single Stream Materials	456.04	560.36	658.49	578.26	2253.15	Cans, Plastic, Glass, OCC	
Total Conventional Items (exc's: Compost, AOC)	734.30	973.52	1224.85	980.27	3912.94	Recycling rates are calculated as the TONNAGE OF RECYCLABLES divided by the TOTAL TONS MANAGED BY THE SOLID WASTE PROGRAM.	
Total All Materials	5461.87	5803.34	5012.63	5532.35	21810.19		
Recycle Rate Conventional Items (exc's: Compost, ADC)	8.57%	9.17%	11.20%	9.40%	9.65%		
Recycle Rate All Materials	63.76%	54.65%	45.84%	53.05%	53.79%		
UBC's estimated at 3 oz. per container. Based on antifreeze at 0.0049 tons/gallon. Based on waste oil at 0.0035 tons/gallon. Freon containing units at 50 lb. each				Based on lead acid batteries recycled at 40 lbs/battery. Car tire equals 20 lbs., light truck tire equals 40 lbs., tractor tire equals 75 lbs.			

**Section 6  
Total Leachate**

Monthly quantities (gallons) are indicated on the chart below:

- 2018 - TOTAL LEACHATE TABLE I.							
LEACHATE	JAN	FEB	MAR	APR	MAY	JUNE	TOTAL
COLLECTED	369,638	381,282	430,983	402,533	355,158	285,124	2,224,719
SHIPPED	<b>468,244</b>	<b>349,074</b>	<b>396,958</b>	<b>479,467</b>	<b>351,266</b>	<b>316,198</b>	2,361,207
DELHI	107,312	87,302	80,962	108,360	67,799	58,068	1,851,404
SIDNEY	0	0	0	0	0	0	0
WALTON	360932	261772	315996	371107	283467	258130	1,851,404

LEACHATE	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
COLLECTED	571,682	512,930	270,346	370,311	397,406	312,613	2,435,287
SHIPPED	<b>414,925</b>	<b>784,188</b>	<b>446,925</b>	<b>399,880</b>	<b>574,478</b>	<b>438,808</b>	<b>3,059,204</b>
DELHI	84,360	481,484	123,281	142,199	146,946	95,427	1,073,697
SIDNEY	0	0	0	0	0	0	0
WALTON	330565	302704	323644	257681	427532	343381	1,985,507

Note: correction of values are shown in **BOLD**.

Offsite leachate treatment facilities utilized are as follows:

- Village of Walton WWTP, South Street, Walton, NY 13856
- Village of Delhi WWTP, NY Rt 10, Delhi, NY 13753
- Village of Sidney WWTP, River St., Sidney, NY 13838

The county maintains a Part 364 hauling permit No. 4A-246 and hauled all of the leachate with DPW forces.

The facility has a constructed liner and leachate collection system. Total area of lined area from leachate collected is 34.7 acres (C&D landfill has 1.9 acres, Cell 2 has 4.6 acres of liner, Cell 3 has 7.1 acres, Cell 4/4e has 7.9 acres, Cell with 5 has 9.7 acres, and Cell 6 has 3.5 acres). A compilation of primary leachate quality data collected throughout the year including a summary comparing the data and a summary discussion of the results has been enclosed under separate cover with the **Environmental Monitoring Report**.

Primary leachate from the C&D cell is serviced by Pump Station #4. Primary leachate from Cell 2 is serviced by Pump Station #5. Primary and secondary leachate from Cell 3 is serviced by Pump Station #6 primary and secondary side riser pumping system. During January and February of 2001, Cell 5 primary leachate was pumped into a clean out serviced by Pump Station #3. Starting in March, 2001 Cell 5 primary leachate was pumped into Pump Station #7. Cell 5 secondary leachate is pumped directly through Pump Station #7. Cell 6 primary and secondary leachate is serviced by Pump Station #8.

**Section 7  
Secondary Leachate**

Cell 3 has a double liner system with a secondary leachate collection and removal system; Cell 4 & 4E have double composite liner systems with a secondary leachate collection and removal system. Cell 5 has a double composite liner system with a secondary leachate collection and removal system. Cell 6 has a double composite FML/GCL and FML/clay liner and primary and secondary leachate collection and removal system.

The monitoring system for Action Leakage Rate serves as the vehicle to determine secondary leachate volumes for Cell 3, Cell 4 & 4E, Cell 5, and Cell 6. Secondary leachate from Cell 4 & 4E is mixed with primary leachate in pump station 3 and conveyed to the tank storage farm from there. Cell 5 secondary leachate is mixed with Cell 5 primary leachate and is handled through Pump Station #7. Pump Station #1 was removed and replaced with Pump Station #6 to collect and convey primary and secondary leachate from Cell 3 to the tank storage farm. Cell 6 secondary leachate is serviced by Pump Station #8. Secondary leachate is mixed with primary leachate prior to shipment and treatment. The following chart only depicts the amount of secondary leachate collected.

2018 SECONDARY LEACHATE COLLECTED TABLE J.							
(gallons)							
	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
CELL 3	1155	912	799	1,977	2231	857	7,931
CELL 4	0	454	0	0	0	0	454
CELL 5	304	210	206	198	155	241	1,314
CELL 6	270	292	140	253	28	48	1,031
	JUL	AUG	SEPT	OCT	NOV	DEC	TOTAL
CELL 3	1594	2234	1897	4318	4737	1610	16,390
CELL 4	116	0	0	712	0	0	828
CELL 5	1621	912	513	733	1309	20	5,108
CELL 6	239	52	848	709	252	161	2,261

Acreage of the lined area from which secondary leachate is collected is 28.2 acres. Cell 3 encompasses 7.1 acres, Cell 4/4e has 7.9 acres, Cell 5 with 9.7 acres, and Cell 6 with 3.5 acres that combined total 28.2 acres of double lined area. The construction of Cell 6 included a direct joining of the primary and secondary liner systems for Cell 6 and adjacent Cell 5. Monitoring of the leachate quantity and quality in both Cells 5 & 6 indicate that the secondary leachate from Cell 5 is wicking into the Cell 6 secondary leachate collection system. Accordingly, ALRs reported for individual Cell 5 and Cell 6 is believed to under estimate Cell 5 secondary leachate and overestimate Cell 6 secondary leachate. Accordingly, the ALRs are also reported for the combined liner acreage of Cell 5 & Cell 6.

A compilation of any secondary leachate quality data collected throughout the year including a summary comparing data and a summary discussion of results has been enclosed under this same cover with the **Environmental Monitoring Report**. Action Leakage Rate data and a compilation of leachate generation from the various sources is included in with the Leachate System Data.

**Section 8  
Tipping Fee/Leachate Treatment Cost**

The following depicts tipping fees for special wastes, effective date 1 July 2010:

MSW Tipping Fee:	\$0 per ton
Contaminated Soils	\$30.00 per ton
Construction & Demolition Debris	\$87.00 per ton
NYC Upgrade Sludge	\$80.00 per ton
Clean Wood & Brush	\$25.00 per ton
Friable Asbestos	\$200.00 per ton

Cost of leachate disposal fees and contractor transportation fees for the year to date as recorded in Departmental budgetary audits.

**Section 9  
Cost Estimates and Financial Assurance Documents**

Required cost estimates and financial assurance documents for closure, post-closure care, and applicable corrective measures, all reflecting adjustments for inflation to indicated updated dollars for the current year of operation have been submitted to the NYSDEC Region 4 office.

Financial assurance for this liability is provided through a combination of a dedicated percentage of the sales tax income for the County and municipal guarantees as accepted under the Local Government Financial Test and Guarantee provisions of the federal rule (40 CFR Part 258) and as accepted by the NYSDEC in March 1998 letter from John Cahill, Acting Commissioner of NYSDEC. Delaware County is in sound fiscal position to provide the financial guarantees required by the state.

The most recent annual financial assurance report will be submitted immediately after audit services completed by the County's contracted auditors.

**Section 10  
Changes**

This section will also be used to offer narrative on the daily operation of the SWMC (items 1 - 8).

1. Roadways are in good condition and suitable for all traffic. Directional signs are in necessary areas.
2. A drop off station for residential waste brought in by residential users is in operation and is monitored during landfill operating hours by a gate attendant. An area is also provided for recyclable material, with separate closed rolloff containers being provided for ONP and for electronic items. Magazines & junk mail, and office paper are placed in hoppers in the three sided structure near the attendant's station. Receptacles for used motor oil, antifreeze, oil filters, and lead acid batteries are located adjacent to the paper drop off area.
3. Commingled recyclables are tipped in the Material Recovery Facility by our commercial haulers. Commercial haulers also tip their OCC in the MRF. Residential users use the convenience area. Recyclables are separated by container type, are baled or otherwise consolidated for shipment to various markets.
4. White goods and metals, tires, MSW, wood and C&D debris are currently placed in rolloff containers located in the convenience area for the self-haulers. Wood and C&D are transported by SWMC personnel to the appropriate area of the site. White goods and bulk metal are transported to Weitsman & Son, Inc. in Owego, NY and Sims Metal Management in Middletown, NY. Utilizing a USEPA Certified Refrigeration Recovery Technician, refrigerators are purged at the SWMC under contract services, collecting refrigerant from white goods prior to scrap disposal.
5. Wastewater treatment plant sludges and food processing filter wastes are composted with MSW.

6. Incoming tires are placed in van trailers supplied by contract companies. They are chipped and marketed as TDF tire derived fuel and TDA tire derived aggregate.
7. Operation of the landfill cell proceeded in an orderly manner. Noise, odors and blowing papers were properly controlled as necessary.
8. Stockpiled clean C&D is periodically shredded and used as alternate daily cover on the landfill. Excess C&D debris is exported under contract to alternate landfill.
9. Consistent with NYS producer responsibility laws, electronic wastes are mandated for recycling (landfill ban applies). Electronics are actively collected for recycling at the SWMC and all eight of the municipal transfer stations serviced by the SWMC. Electronics recycling is provided at zero tip fee.
10. Landfill gas is destroyed via utility flare serviced by the active gas extraction system. SWMC landfill GHG emissions are below the EPA annual reporting threshold of 25,000 MTCO<sub>2</sub>eq as verified thru modeling using EPA LandGEM 3.02.

### Highlights

6. Truck scales were certified by Weights and Measures on August 23, 2018.
7. We utilized Precision Industrial Services to perform an inline camera inspection of our leachate collection system.
8. Applied for permit modification allowing moderate lateral expansion lending to substantial vertical gains.
9. We hired a new operator Andrew Tompkins replacing Tony Vespro.
10. Although rain fall levels were quite high this year leachate levels were relatively low. This speaks to the ability of geomembrane rain cover stormwater diversions to limit the effects of weather on leachate collection systems.



**Sections 11, 12, 13 14 and 15  
Ground Water Quality and Analysis**

Information requested in these sections is included with the "Water Quality Data" and also submitted under this same cover with the **Environmental Monitoring Report**.

**Section 16  
Surface Impoundments**

Monitoring wells 1-S, 1-D, 5, 6-S and 6-D are sufficient to meet the requirements of 6 NYCRR Part 360-6.5(d), (1996). Ground water quality requirements are included with the, "Water Quality Data", and also submitted under this same cover with the **Environmental Monitoring Report**. An additional impoundment exists in the form of a lined containment area for the tank farm where leachate is currently managed.

**Section 17  
Permit/Consent Order Reporting Requirements  
Air Emissions**

Operational records verifying actual emissions, in accordance with 6 NYCRR Part 201-4.1(5) and Section 201-2.1(b)(2) are maintained at the central archive for Delaware County DPW-Solid Waste Division, DPW Main Office, One Page Avenue, Delhi, NY. The operational records address air emissions from the three emission points covered under the County's Air Facility Registration. These emission points are: one (2) landfill gas flare, and one (1) compost facility biofilter. The combined Potential To Emit (PTE) for these four sources is below the 50% Cap By Rule threshold and accordingly are not subject to the Cap By Rule standards and are fully compliant with the standards as Minor Air Emission sources. Hours of operation, maintenance records, and modification records are maintained for these registered air emission sources.

A separate single gas-to-energy generator, owned and operated under separate permit by the Delaware County Electric Coop, has been taken out of service and is no longer on-site. Registration and records for the generator were maintained by the registered DCEC. The applicable registration has been discontinued with the removal of the generator in 2012.

**Section 18  
Landfill Gas**

Does the landfill have a landfill gas collection & control system?

Yes - active landfill gas collection network installed during 2008 that provides gas extraction from landfill cells 2, 3, 4, 4e, and 5. Landfill gas extraction system is permitted under the site wide NYSDEC facility permit, as per permit modification date May 5, 2008.

Number of flares: 1 – active	Type of flare: open utility flare
Number of internal combustion engines:	none
Quantity of gas collected and treated annually:	see Table V.
Does the landfill require a Title V permit?	No - facility qualifies under Minor Facility Registration
Name of Landfill Gas Recovery Facility:	Delaware County SWMC - Landfill Gas Recovery System.

Descriptive Overview:

The County retains ownership of the landfill gas recovery network and stationary flare. The existing LFG network at the SWMC was expanded with the installation of ten (10) new vertical wells, tying into a new lateral and manifold system. The existing large LFG flare was relocated to a site adjacent to the DCEC power island. With the removal of the DCEC owned landfill gas generator and discontinuation of the DCEC air registration, the County assumed ownership of the LFG recovery network ends and the remaining assets of the power island. Currently, all actively collected landfill gas is destroyed by the stationary flare.

Greenhouse Gas Monitoring Plan

SWMC landfill GHG emissions are below the EPA annual reporting threshold of 25,000 MTCO<sub>2</sub>eq (equivalent to 1000 Mg CH<sub>4</sub>) as verified thru modeling using EPA LandGEM 3.02, and additionally field validated. Pursuant to requirements of the Code of Federal Regulations (CFR), Title 40, Part 98.3(g)(5), a Greenhouse Gas Monitoring Plan has been prepared and is available from the DPW Main Office, Delhi, NY.

Landfill gas generation continues to steadily decline, as demonstrated by the inability of the current flare system to sustain continuous vacuum and flame. Recorded annual cumulative CF of current landfill gas production is a small fraction of total annual cumulative CF for 2010. Landfill Cell 6 is the burial site for compost residuals and by-pass material. As a function of MSW and biosolids being composted, the remaining MSW and compost residual fraction has insufficient organic content to generate significant quantities of methane and other landfill gases necessary to support a flame. Accordingly, the landfill gas collection network has not been extended into Cell 6 at this time.

TABLE I.				
LFG Extraction Network Flare Station Activity - 2018				
- 2017 -	1 <sup>ST</sup> QT	2 <sup>ND</sup> QT	3 <sup>RD</sup> QT	4 <sup>TH</sup> QT
Total Period Hours	2160	2184	2208	2208
Blower Operational Hours	44	32.7	28.2	7.8
Cumulative CF (average 100 cfm x flare operational hrs x 60)	264,000	196,200	169,200	46,800
Condensate Gallons	4,998	4,116	12,348	16,168
CH <sub>4</sub> Destruction (Mg) <i>(cf x 0.0000192 x 50%CH<sub>4</sub>)</i>	2.5344	1.88352	1.62432	0.44928
CH <sub>4</sub> Destruction (Mg CO <sub>2</sub> eq) <i>(Mg CH<sub>4</sub> x 25)</i>	63.36	47.088	40.608	11.232
GWP (Greenhouse Warming Potential) conversion for CH <sub>4</sub> = 21 (previous standard)				
GWP (Greenhouse Warming Potential) conversion for CH <sub>4</sub> = 25 (current standard)				

<p><b>EXHIBIT A</b>  <b>CONSTRUCTION &amp; DEMOLITION DEBRIS CELL</b></p>
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Division of Solid Waste  
 New York State Department of Environmental Conservation

**ACTIVE CONSTRUCTION & DEMOLITION DEBRIS LANDFILL**  
**(Subject to 6 NYCRR Part 360-7, Construction and Demolition Debris Facilities,**  
**Effective Date: November 24, 1999)**  
**QUARTERLY REPORT**

A. Annual Report for the year of operation from 1 January to 31 December 2018

B. Quarterly Report for:  Quarter 1  Quarter 2  Quarter 3  Quarter 4

**Section 1**  
**Owner/Facility Information**

Facility Name - Delaware County Solid Waste Management Center  
 DEC Facility Code # 13-D-01 DEC Region IV Town of Walton  
 County of Delaware Part 360 Permit 4-1256-00040/00004  
 Date of Issue - 10 June 1999 Date of Permit Expiration - 1 June 2019  
 DEC Registration # 13R22 (Construction and Demolition Debris Transfer Station)  
 Phone Number - (607) 746-2128 FAX - (607) 746-7212  
 Mailing Address - PO Box 311, Page Avenue, Delhi, NY 13753  
 Operator Name – Andrew Tompkins, Phone Number - (607) 865-5805  
 Mailing Address - PO Box 311, Page Avenue, Delhi, NY 13753

**Section 17**  
**Signature and Date by Owner or Operator**

Owner or operator must sign, date and submit one completed form with an original signature to:

**New York State Department of Environmental Conservation**  
 Bureau of Solid Waste & Land Management  
 Division of Solid & Hazardous Materials  
 625 Broadway  
 9<sup>th</sup> Floor  
 Albany, NY 12233-7258

and one copy with an original signature to the appropriate Regional Solid Waste Engineer (RSWE).

I hereby swear or affirm that information provided on this form and attached statements and exhibits is true to the best of my knowledge and belief.

Tyson Robb \_\_\_\_\_  
 Solid Waste Coordinator  
 PO Box 31  
 Delhi, NY 13753

Date: February 2018  
 Tel: (607) 832-5800  
 Fax: (607) 746-7212

**Section 2  
Quantity of C & D Debris Received**

Report the tonnages of solid waste received.

Tonnages were obtained by:  Scale Weight  Truck Count  Estimated  Other: \_\_\_\_\_

-2018-	Table A.
Construction & Demolition (C&D) Debris Receipts	Weight (tons)
Quarter 1	777.26
Quarter 2	1,659.43
Quarter 3	1,570.09
Quarter 4	1,587.10
<b>Year to Date Total Received</b>	5,593.88

Has the landfill received pulverized C&D debris?  Yes  No  
 If yes, what is the percentage of pulverized C&D debris received? \_\_\_\_\_%  
 What is the percentage of remaining approved design volume? \_\_\_\_\_%

Original Design Volume 69,950 CY  
 Volume Used from 1 Oct 1991 to 8 July 2013 55,696 CY  
 Volume Remaining 14,254 CY  
 Estimated Remaining Life of Cell, 9,000 CY/Year 1 years 6 months

- 2018-	1 <sup>ST</sup>	2 <sup>ND</sup>	3 <sup>RD</sup>	4 <sup>th</sup>	YTD Total
Quarterly C&D Receipts	777.26	1659.43	1570.09	1587.10	5,593.88
In-House Soil/C&D Blend AOC - Cell 6	1768.14	1680.05	527.36	2142.84	6,118.39
C&D buried in Cell 6	0.00	0.00	0.00	0.00	0
C&D buried in C&D landfill	0.00	0.00	0.00	0.00	0
C&D exported by Tweedie Enterprises to IESI Seneca Meadows, Canadaigua, NY	0.00	0.00	0.00	0.00	0
C&D exported by Tweedie Enterprises to Hakes Landfill, Painted Post, NY	0.00	0.00	19.61	0.00	19.61
Casella Waste Management of NY Ontario County Landfill, Seneca, NY	330.71	328.82	559.57	674.06	1,893.16
Casella Waste Management of NY Hakes Landfill, Painted Post, NY	0.00	0.00	0.00	0.00	0
C&D temporarily stockpiled on C&D landfill	-1321.59	-349.44	463.55	-1229.80	-2,437.28
Quarterly Total Managed	777.26	1659.43	1570.09	1587.10	5,593.88
Total Export Tonnage	330.71	328.82	579.18	674.06	1,912.77

Note: Tonnages reported for C&D receipts are from the Delaware County Solid Waste Management Center truck scale records. Tonnages of C&D exports are from truck scale records of the other facilities. Slight deviations in from weight records reported from exports and by the receiving landfills may occur. Tonnages for C&D associated with FEMA related activities are excluded from this figures.

**Section 3  
Unauthorized Solid Waste**

No unauthorized solid waste has ever been received at the C & D landfill.

**Section 4  
Material Recovered**

Information on any materials recovered is reported in Section 5 of the main text.

**Section 5  
Leachate**

All leachate collected in the C&D debris landfill cell is conveyed to the same storage facility as all leachates from all other sources at the site. These quantities are combined and are included in the totals as reported in Section 6 of the main text. Generation figures are reported below for the C&D debris cell:

<b>-2018- TABLE C.</b>		<b>C&amp;D LEACHATE</b>					
<b>(gallons)</b>							
	<b>JAN</b>	<b>FEB</b>	<b>MAR</b>	<b>APR</b>	<b>MAY</b>	<b>JUN</b>	<b>TOTAL</b>
<b>C&amp;D (gallons)</b>	17,970	25,560	27,990	18,750	11,520	3,870	105,660

<b>TABLE D.</b>		<b>C&amp;D LEACHATE</b>					
<b>(gallons)</b>							
	<b>JUL</b>	<b>AUG</b>	<b>SEPT</b>	<b>OCT</b>	<b>NOV</b>	<b>DEC</b>	<b>TOTAL</b>
<b>C&amp;D (gallons)</b>	16,050	59,070	29,040	57,120	73,830	58,410	293,520

This is a 1.9 acre cell that has a constructed clay liner and leachate collection system.

Additional leachate data is included in Section 6 of the main text and the **Environmental Monitoring Report**.

**Section 6  
Tipping Fee**

Tipping fees for C&D debris are as follows:

C&D Debris	\$87.00 per ton
Clean Wood	\$25.00 per ton

**Section 7  
Cost Estimates and Financial Assurance Documents**

This information is reported in Section 9 of the main text.

**Section 8  
Problems**

Details are reported in Section 10 of the Main Text. No operational problems currently exist at the C&D cell.

**Section 9  
Changes**

This section is reported in Section 10 of the main text.

**Sections 10, 11, 12, 13, & 14  
Water Quality Monitoring**

This data can be found with the, "Water Quality Data" in the **Environmental Monitoring Report**.

**Section 15  
Surface Impoundments**

There are no surface impoundments at this site.

**Section 16  
Permit/Consent Order Reporting Requirements**

There are no Permit/Consent Order reporting requirements.

**EXHIBIT B  
WATER QUALITY DATA / ENVIRONMENTAL MONITORING REPORT**

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**Leachate System Data  
Groundwater Elevations for Monitoring Wells  
Executive Summary: Groundwater Pollutant Overlimit Parameters**

**WATER QUALITY MONITORING**

**DELAWARE COUNTY SOLID WASTE MANAGEMENT CENTER**

Water Quality Data reports for the previous 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> quarters are compiled from Microbac Laboratories, Inc., Cortland, NY, and submitted attached to this report.

All testing and analyses are performed in accordance to the guidelines and requirements of 6 NYCRR Part 360-2.11 and as outlined in the *Environmental Monitoring & Site Analytical Plan for the Delaware County Solid Waste Management Center, revised January 2014*, and any special conditions as required by the Regional Office.

All hydrogeologic data is currently on file in the Regional Office.

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**ENVIRONMENTAL MONITORING REPORT  
DELAWARE COUNTY SOLID WASTE MANAGEMENT CENTER**

**Leachate Collection System**

See Section 10 of the main text for details. Daily recorded leachate generation data are attached.

**Leachate Generation and Rain Water**

Year to date, a total of 4,660,006 gallons of leachate were handled the leachate collection system. During this same time period, there was an estimated 57,693,587.87 gallons of rain water falling on the total of 34.7 acres handled by the leachate collection system. In 2018 rainfall amounts were up 37% over the year and up 78.6% in the 3<sup>rd</sup> quarter compared to the NOAA 20-year average from 1981 to 2010. The monthly average throughout this year of overall rain water becoming leachate ranges from a low of 4% in September 2018 to a high of 12% in March 2018.

Use of long term temporary geomembrane rain covers and diversion dams has demonstrated a measurable decrease in leachate generation. November 2016 was the installation date for the rain cover placed on the north west end of Cell 6. As reported in the 2015 annual report, the SWMC experienced a 28% decrease in leachate generation over 2014 comparable weather condition year. Comparing the ratio of leachate generation to rainfall annually from 2012 to 2014, the SWMC experienced a 45% decrease in leachate generation in 2016, attributable to rain diversion. October 2017 the original diversion storm water along the northern side liner of Cell 6 has been fully removed. New diversion dam upstream located on Cell 5 northern waste edge was installed at that time. The relative volume of rainwater diversion is anticipated to lessen with this work. Comparison of the ratio of leachate generation to rainfall from 2016 to 2017 for Cell 5 and Cell 6 showed a 10-point decrease in rainwater to leachate generation. Further evidence of the significant value in long term temporary geomembrane rain covers. Savings to Delaware County associated with leachate prevention from rainwater diversion are estimated at 2,000,000 gallons at a \$60,000 direct disposal cost savings and an additional \$60,000 in labor and trucking annually.

Leachate generation and rainfall data, including data for each pump station, is shown in the attachment titled LEACHATE GENERATION: RAINFALL.

### **Action Leakage Rates- Operational Cells**

The 30-day average ALR for Cell 6 for the year ranged from a low of 0.27 g/a/d in May 2017 to a high of 8.08 g/a/d in September 2018. The 30-day average ALR for Cell 5 for the period ranged from a low of 0.07 g/a/d in December 2018 to a high of 5.57 g/a/d in July 2017. Previous analytical comparative testing of secondary leachate for Cell 5 and Cell 6 suggest that the respectively joined liner systems for the two cells is allowing flow of leachate from Cell 5 secondary system in Cell 6 secondary system. Combined Cell 5 & Cell 6 ALRs range from a low of 0.80 g/a/d in March of 2018 to a high of 9.84 g/a/d in September 2017.

### **Ground Water Monitoring**

Groundwater continues to be monitored on a quarterly basis as is the quality of the upgradient wells in comparison to the down gradient wells. Sampling events occur consistent with annual scheduling identified in the facility Environmental Monitoring & Site Analytical Plan 2014.

### **Upgradient Water Quality**

Seven wells are regularly monitored for upgradient water quality. For the 2, 3, and 4 quarter 2018 sampling of upgradient water quality continues to be characterized by elevated sodium levels, low pH values, along with intermittently elevated iron, and manganese levels. The 3<sup>rd</sup> and 4<sup>th</sup> quarters showed the most activity with elevated levels of COD, phenols, and turbidity. This is consistent with historic upgradient water quality at the site. The 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> quarters show elevated REDOX values. All other parameters tested below state and the Site EWQV Trigger levels.

### **Operational Water Quality Downgradient of Cell 6 (Operational in 4<sup>th</sup> Quarter 2007)**

Four wells monitor downgradient of active Cell 6. For the 3<sup>rd</sup>, and 4<sup>th</sup> quarters 2017 monitoring wells 7, 7i, and 17i showed the most activity with elevated levels of sodium, iron, phenols, alkalinity, REDOX, COD, and turbidity levels as well as low pH values. Consistent with the upgradient water sampling results. the 2<sup>nd</sup> and 3<sup>rd</sup> quarters showed activity with elevated levels of chromium, nickel, and aluminum. All other parameters tested below state and the Site EWQV Trigger levels.

### **Operational Water Quality Downgradient - Cell 5 (Intermediate Closure)**

Five wells monitor downgradient of active Cell 5. For the 3<sup>rd</sup>, and 4<sup>th</sup> quarters 2018 monitoring wells 6i and 6s showed the most activity with elevated levels of turbidity, iron, phenols, REDOX, sodium and alkalinity levels, and low pH values. Consistent with the upgradient water sampling result. The 3<sup>rd</sup> and 4<sup>th</sup> quarters showed the most activity with elevated levels of sodium, chromium, nickel, TOC, and alkalinity. All other parameters tested below state and the Site EWQV Trigger levels.

### **Closed Cell Downgradient - Cell 4/4e**

Three wells monitor downgradient of closed Cell 4/4e, they are analyzed once a year. For the 2018 monitoring well 10 showed the most activity with elevated levels of iron, sodium, manganese, COD, and low pH values. Also, monitoring well 11 showed elevated levels of alkalinity and low pH values. These values are consistent with the upgradient water sampling result. Monitoring well 10 also showed elevated levels of lead and acetone. All other parameters tested below state and the Site EWQV Trigger levels.

### **Closed Cell Downgradient - Cell 1, 2, 3**

Five wells monitor downgradient of closed Cell 1, 2, & 3. Monitoring well number 5 was not sampled due to the baler breaking. Monitoring wells 4s and 5i showed activity with elevated sodium, REDOX, iron, magnesium, and low pH. These values are consistent with the upgradient water sampling result. These wells also showed elevated levels of potassium, alkalinity, ammonia, arsenic, acetone, benzene, barium, chlorobenzene, 1,1 Dichloroethene, and cis-1,2-Dichloroethene. All other parameters tested below state and the Site EWQV Trigger levels. As elevated levels could be due to the elevated rainfall amounts we are looking forward to the next monitoring report scheduled for the 2<sup>nd</sup> quarter of 2019.

### **Downgradient of Future Airspace**

For the year of 2018 monitoring well 8 showed one instance of exceedance with a low pH in the 4<sup>th</sup> quarter. All other parameters are within both the NYS Groundwater Effluent Standard and the EWQV trigger.

### **Surface Water Monitoring**

For the 3<sup>rd</sup>, and 4<sup>th</sup> quarters 2018 both the River Upstream and River Downstream monitoring points showed elevated REDOX levels. In the 4<sup>th</sup> quarter Upstream samples showed elevated phenols and Downstream showed elevated turbidity. All other parameters for both the downstream and the upstream portions are within both the NYS Groundwater Effluent Standard and the EWQV trigger.



OVERLIMIT PARAMETERS - ROUTINE ANALYSIS								TABLE A	
Well	1st Quarter 2018		2nd Quarter 2018		3rd Quarter 2018		4th Quarter 2018		
	NYS Ground Water	Site EWQV Triqer	NYS Ground Water	Site EWQV Triqer	NYS Ground Water	Site EWQV Triqer	NYS Ground Water	Site EWQV Triqer	
<b>Surface Water</b>									
River Up	does not exceed	does not exceed	does not exceed	does not exceed	does not exceed	REDOX = 325.8 mV	phenols = 0.00377 ppm	does not exceed	
River Down	does not exceed	does not exceed	does not exceed	does not exceed	does not exceed	REDOX = 329.3 mV	Turbidity = 6.23 NTU	REDOX = 325.8 mV	
<b>Up gradient Wells</b>									
1d	sample only as needed		sample only as needed		sample only as needed		sample only as needed		
1s		COD = 16.1 ppm	pH = 6.38	COD = 30.1 ppm	pH = 5.89	REDOX = 240 mV	pH = 6.28	COD = 21.9 ppm	
				REDOX = 207.2 mV			Fe = 107 ppm		
	Na = 87.6 ppm		Na = 89.3 ppm		Na = 110 ppm		Turbidity = 24.5 NTU	Turbidity = 24.5 NTU	
2	pH = 6.2		pH = 6.27	REDOX = 220.1 mV	pH = 6.04	REDOX = 214 mV	pH = 5.95		
	Mn = 2.22 ppm	Mn = 2.22 ppm	Mn = 2.54 ppm	Mn = 2.54 ppm	Fe = 0.858 ppm	Ni = 0.0063	Turbidity = 6.21 NTU		
	Na = 56.9 ppm		Na = 48.6 ppm		Na = 49.1 ppm		Mn = 3.18 ppm	Mn = 3.18 ppm	
12		COD = 16.1 ppm	pH = 6.26	REDOX = 220.4 mV	pH = 6.24	REDOX = 232 mV		COD = 54.1 ppm	
	Na = 62.7 ppm		Na = 54.1 ppm		Na = 51.1 ppm		Turbidity = 19.6 NTU	Turbidity = 19.6 NTU	
13		does not exceed	pH = 6.47	does not exceed	pH = 6.35	does not exceed	pH = 6.38	REDOX = 239 mV	
	Na = 79.6 ppm		Na = 54.9 ppm		Na = 53.0 ppm		Na = 46.3 ppm		
14		does not exceed			pH = 6.43	does not exceed	pH = 6.42	does not exceed	
			Turbidity = 195.4 NTU	Turbidity = 195.4 NTU			Turbidity = 7.38 NTU		
	Na = 53.3 ppm		Na = 52.6 ppm		Na = 43.8 ppm		Na = 62.2 ppm		
15d				does not exceed	Phenols = 0.064 ppm	does not exceed	Turbidity = 212 NTU	Turbidity = 212 NTU	
		COD = 18.5 ppm	pH = 6.23		pH = 6.21			COD = 20.1 ppm	
	Na = 94.2 ppm		Na = 93.2 ppm		Na = 81.8 ppm		Na = 88.7 ppm	REDOX = 220 mV	
15s		does not exceed		does not exceed	pH = 5.85	REDOX = 213 mV	pH = 6.24	does not exceed	
	Na = 112 ppm		Na = 93.7 ppm		Na = 118 ppm		Na = 93.5 ppm		
<b>Down gradient of Future Airspace</b>									
8	does not exceed	does not exceed	does not exceed	does not exceed	does not exceed	does not exceed	pH = 6.36	does not exceed	

OVERLIMIT PARAMETERS - ROUTINE ANALYSIS								TABLE B	
Down gradient of Cell 5 (intermediate closure)									
	1st Quarter 2018		2nd Quarter 2018		3rd Quarter 2018		4th Quarter 2018		
Well	NYS Ground Water	Site EWQV Trigger	NYS Ground Water	Site EWQV Trigger	NYS Ground Water	Site EWQV Trigger	NYS Ground Water	Site EWQV Trigger	
5xi	Turbidity = 5.54 NTU	does not exceed	Fe = 2.00	does not exceed	Fe = 3.01ppm	Cr = 0.0034 ppm Ni = 0.0051ppm	turbidity = 40.3 NTU Fe = 169 ppm phenols = 0.330 ppm	does not exceed	
5xs	does not exceed	does not exceed	pH = 6.39	does not exceed	pH = 6.41	does not exceed	pH = 6.4 turbidity = 6.33 NTU P henols = 0.046 ppm	Alkalinity = 138 ppm	
6d	sampled only as needed		sampled only as needed		sampled only as needed		sampled only as needed		
6i	pH = 6.41	does not exceed	pH = 6.28	does not exceed	pH = 6.30	does not exceed	pH = 6.48	COD = 26.6 ppm	
	Fe = 143 ppm							REDOX = 226 mV	
	Na = 33.9 ppm		Na = 38.8 ppm		Na = 39.6 ppm		Na = 47.2 ppm		
	Turbidity = 6.86 NTU		Turbidity = 5.15 NTU		Turbidity = 5.37 NTU		turbidity = 17.6 NTU	Turbidity = 17.6 NTU	
6s	pH = 6.30	COD = 18.5 ppm	pH = 6.2	REDOX = 213.3 mV Alkalinity = 126 ppm	pH = 6.25	REDOX = 227 mV Alkalinity = 134 ppm Cr = 0.0036 ppm Ni = 0.0058 ppm TOC = 5.12 ppm	pH = 6.46	COD = 26.9 ppm Alkalinity = 143 ppm	
					Al = 2.24 ppm Fe = 3.71ppm		Fe = 171ppm		
			Na = 47.8 ppm		Na = 44.2 ppm		Turbidity = 12.1NTU	Turbidity = 12.1NTU	
	Na = 40.0 ppm						Na = 46.4 ppm		
Down gradient of Cell 6 (operational 4th QT 2007)									
	1st Quarter 2018		2nd Quarter 2018		3rd Quarter 2018		4th Quarter 2018		
Well	NYS Ground Water	Site EWQV Trigger	NYS Ground Water	Site EWQV Trigger	NYS Ground Water	Site EWQV Trigger	NYS Ground Water	Site EWQV Trigger	
7		COD = 20.8 ppm	pH = 6.47	REDOX = 218.6	pH = 6.32	REDOX = 238 mV	pH = 6.48	Redox = 237.0 mV	
	Na = 36.8 ppm	Ni = 0.014 ppm	Na = 32.2 ppm		Na = 39.3 ppm	Ni = 0.0053 ppm	Na = 43.9 ppm	COD = 37.4 ppm	
	Fe = 9.14 ppm	Fe = 9.14 ppm	Fe = 0.796 ppm		Fe = 11ppm	Alkalinity = 124 ppm		Alkalinity = 119 ppm	
	Al = 6.79 ppm	Al = 6.79 ppm	Turbidity = 6.93 ppm	Pb = 0.0223 ppm	Turbidity = 9.65 NTU				
7i	pH = 6.49	does not exceed	pH = 6.36	REDOX = 209.7 mV	pH = 6.37	REDOX = 233 mV	pH = 6.38	Redox = 268 mV	
					Fe = 0.716 ppm		Fe = 132 ppm		
					Phenols = 0.67 ppm		Phenols = 0.036 ppm		
					Turbidity = 11.6 NTU		Na = 24.8 ppm Turbidity = 14.3 NTU	Turbidity = 14.3 NTU	
17i			Turbidity = 36.3 NTU	Turbidity = 36.3 NTU	turbidity = 965 NTU		turbidity = 547 NTU	turbidity = 547 NTU	
						REDOX = 278 mV Ni = 0.0159 ppm	pH = 6.32	REDOX = 223 mV	
	Al = 5.33 ppm	COD = 18.5 ppm			Al = 7.61ppm	Al = 7.61ppm	Al = 8.37 ppm	Al = 8.37 ppm	
		Ni = 0.0105 ppm	Fe = 3.07 ppm		Fe = 12.6 ppm	Fe = 12.6 ppm	Phenols = 0.078 ppm	Cr = 0.00897 ppm	
17s			pH = 6.48		pH = 6.43	REDOX = 258 mV		REDOX = 208 mV	
	does not exceed	does not exceed		does not exceed	turbidity = 8.83 NTU Fe = 0.662 ppm		turbidity = 24.3 NTU Fe = 1.4 ppm	turbidity = 24.3 NTU	

OVERLIMIT PARAMETERS - MODIFIED ANALYSIS			TABLE C	
1st Quarter 2018			2nd, 3rd, 4th Quarters 2018	
Well	NYS Ground Water	Site EWQV Trigger	NYS Ground Water	Site EWQV Trigger
Down gradient of Closed Cells 1, 2, 3			Down gradient of Closed Cells 1, 2, 3	
4d	sample only as needed	sample only as needed	No samples were scheduled for the remainder of the year.	
4i	pH = 6.46	does not exceed		
	turbidity = 6.06			
	Fe = 0.98			
4s	pH = 6.33	K = 116 ppm		
	Na = 24.6 ppm	Ammonia = 16.3 ppm		
	Redox = -34.7 mV	Alkalinity = 350 ppm		
		COD = 63.1		
	Fe = 516 ppm	Fe = 516 ppm		
	Mn = 219 ppm	Mn = 219 ppm		
	As = 0.0631 ppm	As = 0.0631 ppm		
	Acetone = 3.59 ppb	Acetone = 3.59 ppb		
	Benzene = 154 ppb	Benzene = 154 ppb		
	Chlorobenzene = 0.79 ppb	Chlorobenzene = 0.79 ppb		
1,1-Dichloroethane = 0.541 ppb	1,1-Dichloroethane = 0.541 ppb			
cis-1,2-Dichloroethene = 0.615 ppb	cis-1,2-Dichloroethene = 0.615 ppb			
5	Due to technical difficulties no sample was received (bailer broke).			
5i	Fe = 5.36 ppm	COD = 32.6 ppm		
	Na = 27.5 ppm	Ba = 0.208		
		Alkalinity = 238 ppm		
	Mn = 16.1 ppm	Mn = 16.1 ppm		
	1,1-Dichloroethane = 152 ppb	1,1-Dichloroethane = 152 ppb		
	cis-1,2-Dichloroethene = 129 ppb	cis-1,2-Dichloroethene = 129 ppb		
	As = 0.223 ppb	As = 0.223 ppb		
Down gradient of Closed Cell 4/4e				
10	pH = 6.18 ppm	COD = 122 ppm	No samples were scheduled for the remainder of the year.	
	Al = 3.24 ppm	Lead = 0.0181 ppm		
	Fe = 5.9 ppm			
	Acetone = 26.8 ppb	Acetone = 26.8 ppb		
11	pH = 6.25	Alkalinity = 144 ppm		
	Mn = 1.01 ppm	Mn = 1.01 ppm		
16	pH = 6.44	Alkalinity = 128 ppm		
	Fe = 0.97 ppm			

<p><b>EXHIBIT C</b>  <b>COMPOST FACILITY REPORT</b>          Organic Inputs Data          Finished Product Quality Analyses          Operational Performance Achievements</p>
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**Division of Solid Waste**  
**New York State Department of Environmental Conservation**  
**ACTIVE MIXED WASTE COMPOST FACILITY**  
**(Pursuant to 6 NYCRR Part 360-5, Compost Facilities,**  
**Effective Date: March 10, 2003)**

**QUARTERLY REPORT**

A. Annual Report for the year of operation from 1 January to 31 December 2018.

B. Quarterly Report for:  Quarter 1  Quarter 2  Quarter 3  Quarter 4

**Owner/Facility Information**

Facility Name - Delaware County Solid Waste Management Center  
 DEC Facility Code # 13-C-01 DEC Region IV Town of Walton  
 County of Delaware Part 360 Permit \_4-1256-00008 /00011  
 Date of Issue - 15 August 2016 Date of Permit Expiration - 24 April 2022  
 Phone Number - (607) 832-5800 FAX - (607) 746-7212  
 Mailing Address - PO Box 311, Page Avenue, Delhi, NY 13753  
 Operator Name - Andy Zuk, Phone Number - (607) 865-4046 x201  
 Mailing Address - PO Box 311, Page Avenue, Delhi, NY 13753

**Signature and Date by Owner or Operator**

Owner or operator must sign, date and submit one completed form with an original signature to NYSDEC Central Office and one copy with an original signature to the appropriate Regional Solid Waste Engineer (RSWE).

**New York State Department of Environmental Conservation**

Bureau of Solid Waste & Land Management  
 Division of Solid & Hazardous Materials  
 625 Broadway - 9<sup>th</sup> Floor  
 Albany, NY 12233-7258

I certify, under penalty of law, that the information that will be used to determine compliance with the requirements in Subpart 361-3 of 6 NYCRR Part 361 has been prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that false statements made herein are punishable pursuant to section 210.45 of the penal law.

I hereby swear or affirm that information provided on this form and attached statements and exhibits is true to the best of my knowledge and belief.

Tyson Robb   
 Solid Waste Coordinator  
 PO Box 311  
 Delhi, NY 13753

Date: February 2018  
 Tel: (607) 832-5800  
 Fax: (607) 746-7212

### Facility Overview Description

The compost facility is a two stage composting configuration, with aggressive mechanical screening for both input and finished product, and with oversized retention and storage / curing capacity. The first stage consists of an in-vessel bioreactor rotating drum receiving select MSW and providing for three days aerated and moisture controlled gentle tumbling of material within a biologically active area.

Pre-compost material generated in this first stage routinely achieves temperatures in excess of 131 degrees F and thus achieves some pathogen destruction. Temperatures are measured continuously with analogue display probes permanently mounted in the bioreactor drum wall.

Upon discharge from the bioreactor, the MSW pre-compost from this first stage is screened of oversized materials to produce a 1" minus pre-compost bulking agent that is conveyed to the front-end of the second stage maturation area.

In stage two, the MSW pre-compost is combined with dewatered biosolids and conveyed into aerated turned windrows of an IPS/Siemens automated system. Material has a minimum 56-day retention time in the maturation area, being turned every three days, with sufficient water and aeration additions to maintain optimal composting conditions.

Temperatures within the windrows are monitored both manually and automatically. Temperature probes within the concrete windrow walls provide continuous digital readout. Further, manual probe readings are recorded to insure proper operation and calibration of the automatic temperature monitoring systems. Temperatures routinely rise to 131 degrees F and are maintained for a minimum of three consecutive days to achieve pathogen destruction consistent with NYSDEC and USEPA regulatory standards. Elevated temperatures are maintained throughout the 56-day retention time in the windrows.

Following the 56-day maturation period, compost is again screened to remove remaining metal, glass, plastics, sharps, and oversized particles before being conveyed into the storage / curing area. Upon satisfactory analytical test results for metals and pathogen content, compost is considered "finished" at this point and storage and curing is provided for enhanced compost product marketability rather than regulatory compliance.

**Section 2  
Compost Inputs - Quantity of Materials Received & Marketed**

Report the tonnages of solid waste received.

Tonnages were obtained by:  Scale Weight  Truck Count  Estimated  Other: \_\_\_\_\_

2011 Wet Tons		Table A.				
Type of Solid Waste (Wet Weight Tons)	1st QT (tons)	2nd QT (tons)	3rd QT (tons)	4th QT (tons)	YTD (tons)	Daily Avg (tons)
Operational Days (365 days/year processing time)	90	181	273	365	365	
<b>COMPOST INPUTS - Wet Tons</b>						
<b>WWTP Sludge to Compost (sub-total all sources)</b>	<b>1012.53</b>	<b>1027.93</b>	<b>880.54</b>	<b>644.15</b>	<b>3,565.15</b>	<b>9.77</b>
Andes	0	0	0	0	0	0.00
Delhi	314.23	217.81	280.89	190.97	1,003.90	2.75
Deposit	26.93	42.37	19.31	10.2	98.81	0.27
Hancock	0	0	0	0	0	0.00
Hobart	10.17	15.08	21.29	14.69	61.23	0.17
Margaretville	0	63.86	14.73	0	78.59	0.22
Sidney	10.46	0	0	0	10.46	0.03
Stamford	98.9	121.29	71.81	40.86	332.86	0.91
Walton	551.84	567.52	472.51	387.43	1,979.30	5.42
<b>Mixed MSW to Compost</b>	<b>4,574.11</b>	<b>5,102.95</b>	<b>5,750.18</b>	<b>4,082.50</b>	<b>19,509.74</b>	<b>53.45</b>
<b>Amendments - Solids (SubTotal All Sources)</b>	<b>17.87</b>	<b>68.47</b>	<b>30.52</b>	<b>17.79</b>	<b>134.65</b>	<b>0.37</b>
MRF Residuals	0	0	0	0	0	0
Woodchips	17.87	68.47	30.52	17.79	134.65	0.37
<b>Amendments - Liquids (SubTotal All Sources)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.00</b>
<b>Compost Facility Residuals</b>	<b>2,645.08</b>	<b>3,049.58</b>	<b>3,400.82</b>	<b>2,335.20</b>	<b>11,430.68</b>	<b>31.32</b>
<b>GROSS COMPOST INPUTS</b>	<b>5,604.51</b>	<b>6,199.35</b>	<b>6,661.24</b>	<b>4,744.44</b>	<b>23,209.54</b>	<b>63.59</b>
<b>NET COMPOST OUTPUTS *</b>	<b>2,959.43</b>	<b>3,149.77</b>	<b>3,260.42</b>	<b>2,409.24</b>	<b>11,778.86</b>	<b>32.27</b>
<b>COMPOST MARKETED (CY) ~</b>	<b>65</b>	<b>1,320</b>	<b>805</b>	<b>65</b>	<b>2,255</b>	<b>6.18</b>
<p>* Note: net output figures based upon gross inputs less residuals. No adjustment made for loss of mass, or evaporation due to composting.</p> <p>~ Compost marketed quantities include in-house project as reported in cubic yards.</p>						

**Section 3  
Biosolids Analysis & MSW Pre-Compost Analysis**

Copies of original laboratory results are attached. All results, except for pH and total solids, are reported on a dry weight basis.

**Section 4  
Finished Compost Analyses**

Copies of original laboratory results are attached. All results, except for pH and total solids, are reported on a dry weight basis.

**Section 5  
Pathogen Reductions / Vector Attraction Reduction**

Pathogen reduction methods include:                      Windrow Composting                      In-Vessel Composting

Vector attraction reduction methods include:                      Aerobic process for minimum of 14 days, at 45 deg C average

**Section 6  
Sample Management**

Source Inputs - Sampling is required for both input materials and finished compost. Suppliers of biosolids and select solid and/or liquid amendments are required to provide analytical testing consistent with NYCRR Part 360-5.5 requirements.

MSW Inputs - MSW pre-compost generated within the Compost Facility. Material tested is that MSW pre-compost that has been through the in-vessel bioreactor for the 3-day retention time, primary trommel screening, and magnetic metal removal. Grab samples are taken from the 601 conveyor, immediately downstream of the magnetic head pulley. Testing is at the same frequency and for the same parameters as required for other inputs.

Finished Compost - Compost grab samples are taken from 800 stockpile, immediately after contaminant removal through the secondary screening process. Testing is at the same frequency and for the same parameters as required by NYCRR Part 360-5.5.

Process Detention Time	Detention time is 56 days within the maturation area. Compost is retained an additional 90 days within the storage area, providing for moisture controlled and aerated curing. Final compost product finishing with outside storage is provided as market demands require. Outside storage does not exceed 24 months, as specified under NYCRR Part 360-5 regulation.
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**Section 7  
Annual Compost Production**

2018 COMPOST INPUTS - Dry Tons							Table B.
WWTP Biosolids	% Solids	Quantity (Dry Tons)				YTD Total (Dry Tons)	
		1 <sup>st</sup> QT	2 <sup>nd</sup> QT	3 <sup>rd</sup> QT	4 <sup>th</sup> QT		
<b>Operational Days</b>		90	91	92	92	365	
Andes	30%	0	0	0	0	0	
Delhi	11%	34.57	23.96	30.90	21.01	110.43	
Deposit	15%	2.96	4.66	2.12	1.12	10.87	
Hancock	50%	0.00	0.00	0.00	0.00	0.00	
Hobart	22%	1.12	1.66	2.34	1.62	6.74	
Margaretville	50%	0.00	7.02	1.62	0.00	8.64	
Sidney	27%	1.15	0.00	0.00	0.00	1.15	
Stamford	15%	10.88	13.34	7.90	4.49	36.61	
Walton	12%	60.70	62.43	51.98	42.62	217.72	
Mixed MSW Organics (Net Output)	50%	2,287.06	2,551.48	2,875.09	2,041.25	9754.87	
<b>Amendments - Solids</b>							
MRF Residuals	50%	0	0	0	0	0	
Wood	65%	11.62	44.51	19.84	11.56	87.52	
<b>Amendments - Liquid</b>							
		0	0	0	0	0	
		0	0	0	0	0	
<b>COMPOST PRODUCTION - (Total of all net inputs)</b>							
Dry Tons Compost Produced (Total Dry Tons w/o Loss of Mass Factor)	tons	2,410	2,709	2,992	2,124	10,235	
	ton/day	27	30	33	23	28	
CY Compost Produced (field measured density = 32 lb/cf) [1] (Without Loss of Mass Factor)	cy/yr	5,579	6,271	6,925	4,916	23,691	
	cy/day	62	69	75	53	65	
CY COMPOST PRODUCED (Factoring 40% Loss of Mass During Composting & Curing[2])	LOM cy/y	3,347	3,763	4,155	2,950	14,215	
	LOM cyd	37	41	45	32	39	

**Section 10**



**Compost Distribution and Marketing**

With every load of compost distributed to market, the Department distributes an informational flyer that includes the source of organics, the analytical average data for the finished compost, recommendations for compost use, and activities for which the compost product is not intended.

<b>Compost Distribution &amp; Marketing</b>	<b>Quantity (32 lbs/cf)</b>	<b>Table D.</b>
<b>Compost User (YTD - 4<sup>th</sup> QT 2018)</b>	<b>YTD Cum. Total CY</b>	<b>Actual Use of Compost</b>
Delaware County DPW (CY)	0	Landscaping / FEMA
Private Sale Direct (CY)	752	Landscaping
Brokered Sale (CY)	2,255	Landscaping / Soil Blending
Delaware County SWMC (CY)	0	
Subtotal Compost Marketed (CY)	3,007	
Compost currently stockpiled on site (CY)	11,208	Curing and Storage
Age of oldest compost stockpiled (CY)	18 months	Material being aged for unrestricted use applications

**Section 11  
Unauthorized Solid Waste**

No unauthorized solid waste has ever been received at the Compost Facility.

**Material Recovered**

Information on any materials recovered is reported in Section 5 of the main text.

**Tipping Fee**

Tipping fees for the Compost Facility are as the same as the Solid Waste Management Center generally. See main text.

**Cost Estimates and Financial Assurance Documents**

This information is reported in Section 9 of the main text.

**Changes**

This section is reported in Section 10 of the main text.

**Input and Product Quality Monitoring**

Attached with this report are sludge analyses provided by individual waste water treatment facilities. Test results for both interim and finished compost are also included. A summary of compost test data is presented in the attachments to this document.

**Operational Performance Records**

Temperature and holding time data are provided in demonstration of compliance with operational standards to achieve pathogen reduction. Compost test data is presented in the attachments to this document. The compost process at the facility has a combined minimum retention time of 59 days from the day of acceptance of input material in the receiving pit to completion of secondary refining prior to in-house storage. The storage / curing period is variable, with an anticipated minimum average retention of 3 additional months. Additional storage / curing retention time is possible when the plant operates at less than maximum capacity. Time and temperature data collected for the period is presented in the attachment tables.

**Permit/Consent Order Reporting Requirements**

There are no Permit/Consent Order reporting requirements.

**SWMC & COMPOST FACILITY ATTACHMENTS:**

Leachate and Rainfall Reports

Leachate Line Cleaning and Inspection Work Reports

Groundwater Analysis Environmental Monitoring:

*Microbac Report – 1<sup>st</sup> QT 2018*

*Microbac Report - 2<sup>nd</sup> QT 2018*

*Microbac Report - 3<sup>rd</sup> QT 2018*

*Microbac Report - 4<sup>th</sup> QT 2018*

Cell 6 Volume Survey - Cross Sections and Plan View (2<sup>nd</sup> and 4<sup>th</sup> quarters only)

Compost Inputs Analytical Test Data

Finished Compost Analytical Test Data

Compost Facility Operational Temperature Data

Financial Assurance Worksheet

**ANNUAL REPORTING DOCUMENTS:**

Beneficial Use Determination Annual Reports  
BUD No. 1312-4-13

Electronics Recycling Report - 2018

Planning Unit Annual Recycling Report - 2018

New NYSDEC Facility Reporting Forms

**TOWN TRANSFER STATION ANNUAL REPORTS - 2018**

Andes

Bovina

Colchester

Davenport

Hancock

Harpersfield

Middletown

Roxbury