



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

NEW YORK STATE ROUTE 10  
TOWN OF WALTON DELAWARE COUNTY

**3<sup>RD</sup> & 4<sup>TH</sup> QUARTERLY REPORT 2017  
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 JULY 2017 TO 31 DECEMBER 2017  
1 JANUARY 2017 TO 31 DECEMBER 2017

Prepared By:

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

Wayne D. Reynolds, PE, Commissioner  
Susan McIntyre, Solid Waste Director

FEBRUARY 2018



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

WAYNE REYNOLDS, P.E.  
.COMMISSIONER OF PUBLIC WORKS  
.SUPERINTENDENT OF HIGHWAYS  
.COUNTY ENGINEER

Main Office and Yard  
Page Avenue, Delhi  
607/746-2128  
FAX 607/7446-7212

Dt: February 2018

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: Susan McIntyre  
Delaware County Solid Waste Director

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

31 July 2017 to 31 December 2017

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 stand alone 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 2017.
- B. Quarterly Report for:  Quarter 1  Quarter 2  Quarter 3  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	Anthony Vespro	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.

Susan McIntyre  
Solid Waste Director  
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. Summary and conclusions 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 G.

Type of Solid Waste -2017-	1st QT (tons)	2nd QT (tons)	3rd QT (tons)	4th QT (tons)	YTD (tons)	Daily Avg (tons)
Days Open to Public	65	129	194	264	264	
<b>LANDFILL WASTE INPUTS - CELL 6</b>						
Mixed MSW to Landfill (Residential & ICI) (01)	151.53	591.02	271.67	1,931.43	2,945.65	11.16
C & D Debris (buried as waste)	0.00	0.00	0.00	0.00	0.00	0.00
Friable Asbestos Waste (10)	0.00	7.80	7.23	1.74	16.77	0.06
Industrial Waste (Inc'l sludges)	0.00	0.00	0.00	0.00	0.00	0.00
Whey (16)	519.89	551.06	503.45	641.31	2,215.71	8.39
Compost Facility Residuals (001)	2,924.63	2,894.00	3,478.04	1,831.43	11,128.10	42.15
WWTP Sludge & Grit (4A)(14B)(21)	695.59	1,316.63	409.89	867.14	3,289.25	12.46
MRF Residuals (19)	0.00	0.00	0.00	0.00	0.00	0.00
<b>Landfill Waste Tons - Cell 6</b>	<b>4,291.64</b>	<b>5,360.51</b>	<b>4,670.28</b>	<b>5,273.05</b>	<b>19,595.48</b>	<b>74.23</b>
<b>LANDFILL ADCs</b>						
Mixed Glass Aggregate (ADC) (2BC)	122.08	102.85	143.66	65.50	434.09	1.64
Contaminated Soil (ADC) (8)	23.88	0.64	490.02	340.10	854.64	3.24
DCRRA Ash (ADC) (17)	24.17	0.00	342.19	141.72	508.08	1.92
<b>ADC Ton Received</b>	<b>170.13</b>	<b>103.49</b>	<b>975.87</b>	<b>547.32</b>	<b>1,796.81</b>	<b>6.81</b>
In-House Soil/C&D Blend ADC (17B)	1,503.17	2,802.38	506.52	2,131.10	6,943.17	26.30
<b>ADC Tons Used - Cell 6</b>	<b>1,503.17</b>	<b>2,802.38</b>	<b>506.52</b>	<b>2,131.10</b>	<b>6,943.17</b>	<b>26.30</b>
<b>COMPOST INPUTS</b>						
WWTP Sludge to Compost (4B)	967.52	427.16	844.67	669.87	2,909.22	11.02
Mixed MSW to Compost (1)(010)	4,764.61	4,997.76	5,581.81	3,302.47	18,646.65	70.63
MRF Residuals (MSW to compost #s)	0.00	0.00	0.00	0.00	0.00	0.00
Solids Amendment- Wood (5) (17A) (005)(05)	95.19	175.30	28.95	28.43	327.87	1.24
Industrial Liquids Amendment	0.00	0.00	0.00	0.00	0.00	0.00
<b>Gross Compost Inputs Received</b>	<b>5,827.32</b>	<b>5,600.22</b>	<b>6,455.43</b>	<b>4,000.77</b>	<b>21,883.74</b>	<b>82.89</b>
<b>Net Compost Outputs</b>	<b>2,902.69</b>	<b>2,706.22</b>	<b>2,977.39</b>	<b>2,169.34</b>	<b>10,755.64</b>	<b>40.74</b>
<b>CONSTRUCTION AND DEMOLITION DEBRIS (see also Exhibit A - Section 2)</b>						
Total C&D Receipts (6)(06)	673.01	1,659.43	1,570.09	1,216.70	5,119.23	19.39
<b>RECYCLABLE MATERIALS (see also Section 5)</b>						
Total Conventional Recyclables	700.18	900.21	1,052.27	942.01	3,594.67	13.62
<b>Total Tons - SW Program</b>	<b>8,737.65</b>	<b>10,729.86</b>	<b>11,245.90</b>	<b>10,148.42</b>	<b>40,861.83</b>	<b>154.78</b>
<b>Lbs/Capita/Day - Total Tons - SW Program</b> (47,980 population, operational days/yr)					<b>6.45</b>	
<b>Lbs/Capita/Day - Landfill Waste Inputs - Cell 6</b> (47,980 population, operational days/yr)					<b>3.09</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.

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	78.87	118.36	126.87	75.36	20.98	44.48	47.49	34.01	26.90%
COLCHESTER	179.11	282.52	290.46	228.36	35.23	75.88	60.77	54.04	18.73%
DAVENPORT	309.06	419.23	375.68	359.72	55.96	43.64	49.18	38.44	11.34%
HANCOCK	380.72	572.43	734.53	432.57	35.45	39.90	67.90	42.54	8.06%
HARPERSFIELD	507.83	661.96	720.29	583.90	94.66	126.40	118.10	106.27	15.26%
MIDDLETOWN	233.43	280.57	305.67	268.35	65.79	105.01	121.42	82.24	25.60%
ROXBURY	315.02	437.99	473.47	408.03	44.61	49.69	71.21	61.62	12.20%

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:

LOCATION	MSW & BULKY ITEMS (tons)				RECYCLABLES (tons)				% REC
	1 QT	2 QT	3 QT	4 QT	1 QT	2QT	3 QT	4QT	
BOVINA	31.3	37.57	45.77	29.96	9.39	11.71	13.94	7.16	22.59%

LOCATION	RECYCLABLES (tons)			
	1 QT	2 QT	3 QT	4 QT
DELHI (paper only)	17.86	12.08	17.68	12.58





**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 (8 January 2018)	12,527	CY Airspace (period survey volume)
Volume Used as of period survey	232,491	CY Airspace (cumulative all previous)
Volume Used as Surveyed from Base Layer	232,491	CY Airspace (survey volume - base)
Volume Remaining as of 26 December 2017	110,509	CY Airspace (net design - cumulative)
1) Remaining life of the existing constructed landfill - Cell 6	2 Years At 40,000	9.2 Months CY/Year
1a) Remaining life of the existing constructed landfill - Cell 6	5 Years At 20,000	6.3 Months CY/Year
2) Projected life of entitled undeveloped landfill capacity. Cell 7 Capacity	12 Years At 40,000 487,000	2 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 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) Estimated landfill capacity utilized for the year.	25,684	CY of Airspace Cell 6

- 2017 -					FOR COMPARISON PURPOSES ONLY - UNOFFICIAL					Table E.
IN-PLACE WASTE DENSITY CELL 6	1qt	2qt	3qt	4qt	YTD					
Waste Compaction Rate (lbs/cy)	1,467		1,588		1,526					
Waste & ADC Compaction Rate (lbs/cy)	2,122		2,009		2,067					
Landfill Waste Tons - Cell 6	4,292	5,361	4,670	5,273	19,595					
ADC Tons - Cell 6	1,503	2,802	507	2,131	6,943					
Capacity Used For Period (cy)	13,157		12,527		25,684					
CY/Capita/Yr - Capacity Used (47,980 population)	365 days		0.54							

**Note:** Labeling errors incorrectly reported the CY/Capita/Yr as based upon Cf. Labels have been corrected to reflect the CY/Capita/Yr rate based upon cubic yards.



**Waste In Place**

DELAWARE COUNTY SOLID WASTE MANAGEMENT CENTER LANDFILL CELLS DESCRIPTIVE SUMMARY							TABLE P.
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	232,491 (8 Jan 2018)	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 2017**

TABLE U.	
WASTES TO CELL 6	CUMULATIVE
Mixed MSW to Landfill	12,116.33
C & D Debris (buried as waste)	0.00
Asbestos Waste	91.74
Industrial Waste (inc'l sludges)	1.88
Whey	19,555.18
MRF Residuals	1,612.85
Compost Residuals	117,363.35
WWTP Sludge	18,560.41
In-House ADC Blend	42,730.70

**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 -2017-	Weight (wet tons)					Final Destination Table C.
	1 QT	2 QT	3 QT	4 QT	YTD	
3-7 Plastics	21.78	66.63	0.00	0.00	88.41	Canusa, Revolution
Mixed Glass	122.08	102.85	143.66	65.50	434.09	Aggregate (Table G. - ADC)
Ferrous Metal Cans	22.55	21.44	41.53	22.56	108.08	Conti Group, Kelman
Aluminum Cans	2.80	3.15	4.03	3.24	13.22	Rt 206 Redemption
Plastic, Natural HDPE	9.99	9.88	9.54	9.93	39.33	TABB, Empire Recyc, Hershmann
Plastic, Mixed Color HDPE	10.00	9.88	9.54	9.93	39.35	Fox Run, Ensley, Graham
UBCs	2.38	3.81	2.86	2.86	11.91	Rt 206 Redemption
Ag/Film Plastic	0.00	21.54	0.00	0.00	21.54	Versatile Recycling
High Molecular Weight HDPE	0.00	19.02	19.62	0.00	38.64	Canusa, Kelman, Revolution
Plastic, PETE	19.38	19.26	16.88	34.75	90.27	TABB, Conti Group, Graham
Paper, OCC	120.77	110.02	178.38	147.01	556.18	RockTenn, Fox Run, Cascade
Paper, ONP	0.00	0.00	0.00	0.00	0.00	Cascade
Magazines, Junk, Office, ONP Mix	93.05	84.10	126.43	157.23	460.81	Cascade
Electronics, CRTs, TVs	31.77	64.17	77.27	45.95	219.16	ERI
Bulk Metal	108.88	226.53	316.55	109.49	761.45	Weitsman, Sims, Otsego Auto
Antifreeze	0.00	1.76	0.74	3.09	5.59	Covanta REC Oil, MXI
Used Oil	2.28	2.49	2.28	7.82	14.85	Covanta REC Oil
Lead Acid Batteries	0.06	2.36	1.64	1.27	5.33	NAPA, Interstate
Household Batteries	2.14	0.00	0.00	4.43	6.56	ALR, Call 2, RFI
Clothing, Textiles, Accessories	2.28	2.42	2.56	0.95	8.21	Rock Solid Church
Other HHW, AGP, & CESQG	0.00	0.00	0.00	9.64	9.64	MXI Env'l, CLEAN SWEEP
Tires	126.05	121.75	92.78	300.17	640.75	Casings
Freon Containing Items	1.95	7.15	6.00	6.20	21.30	JGS Recycling & Hauling
Net Compost Output	2,902.69	2,706.22	2,977.39	2,169.34	10,755.64	NatureCycle, DPW, Public
Alternate Daily Cover Utilized	1,503.17	2,802.38	506.52	2,131.10	6,943.17	Ground C&D, PCS, ADM
<b>MRF Dual &amp; Single Stream Materials</b>	<b>424.78</b>	<b>471.58</b>	<b>552.46</b>	<b>453.01</b>	<b>1,901.83</b>	Cans, Plastic, Glass, OCC
<b>Total Conventional Items (exc's: Compost, ADC)</b>	<b>700.18</b>	<b>900.21</b>	<b>1,052.27</b>	<b>942.01</b>	<b>3,594.67</b>	Recycling rates are calculated as the TONNAGE OF RECYCLABLES divided by the TOTAL TONS MANAGED BY THE SOLID WASTE PROGRAM.
<b>Total All Materials</b>	<b>5,106.04</b>	<b>6,408.81</b>	<b>4,536.18</b>	<b>5,242.45</b>	<b>21,293.48</b>	
<b>Recycle Rate Conventional Items (exc's: Compost, ADC)</b>	8.01%	8.39%	9.36%	9.28%	8.80%	
<b>Recycle Rate All Materials</b>	58.44%	59.73%	40.34%	51.66%	52.11%	
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:

- 2017 -								TOTAL LEACHATE								TABLE H.	
LEACHATE	JAN	FEB	MAR	APR	MAY	JUNE	TOTAL										
<b>COLLECTED</b>	439,604	452,438	527,048	711,728	474,352	366,395	2,971,565										
<b>SHIPPED</b>	<b>469,724</b>	<b>429,040</b>	<b>534,191</b>	<b>647,779</b>	<b>583,021</b>	<b>711,123</b>	<b>3,374,878</b>										
<b>DELHI</b>	13,487	0	0	105,823	34,141	69,099	222,550										
<b>SIDNEY</b>	0	0	0	0	0	0	0										
<b>WALTON</b>	456,237	429,040	534,191	541,956	548,880	642,024	3,152,328										

LEACHATE	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
<b>COLLECTED</b>	501,775	434,884	28,312	299,209	199,058	188,317	4,623,120
<b>SHIPPED</b>	<b>426,600</b>	<b>469,381</b>	<b>322,271</b>	<b>340,748</b>	<b>279,171</b>	<b>120,221</b>	<b>5,333,270</b>
<b>DELHI</b>	171,925	165,735	82,253	68,185	68,182	20,092	798,922
<b>SIDNEY</b>	0	0	0	0	0	0	0
<b>WALTON</b>	254,675	303,646	240,018	272,563	210,989	100,129	4,534,348

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

Off site 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.

2017							TABLE F.
SECONDARY LEACHATE COLLECTED (gallons)							
	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
CELL 3	388	482	497	1,169	993	541	4,070
CELL 4	258	0	329	0	910	0	1,497
CELL 5	226	451	476	379	532	324	2,388
CELL 6	219	191	293	451	208	150	1,512
	JUL	AUG	SEPT	OCT	NOV	DEC	TOTAL
CELL 3	188	353	194	148	334	92	5,379
CELL 4	406	0	0	0	315	0	2,218
CELL 5	476	304	226	292	201	511	4,398
CELL 6	134	257	193	60	165	70	2,391

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 over estimate 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 was 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>e as verified thru modeling using EPA LandGEM 3.02.

### Highlights

11. Truck scales were certified by Weights and Measures on June 1, 2017.
12. Trial run application of compost using field manure spreader was performed on May 4, 2017. Trial run to determine the precision which compost can be field applied using existing farm equipment.
13. Compost test results indicated elevated lead levels for material produced during October 2017. Supplemental and exploratory test results have delineated the affected material, which is sequestered and slated for landfill disposal. An estimated 200 cy of material have been earmarked for disposal.
14. Extreme winds resulted in uplift and damage to the geomembrane temporary rain cover on the northwest corner of Cell 5. Repairs to raincover were completed 11-13 October 2017 and consisted of redirecting the stormwater diversion dam along the north side of Cell 5, discharging clean stormwater to the perimeter swale with ultimate conveyance to the existing stormwater basin located on the western side of Cell 6. The stormwater diversion dams originally installed with the north side Cell 6 side liner have been fully removed and all stormwater on the north side Cell 6 side liner now being collected as leachate.
15. Following high spring rainfall, the leachate pump servicing the C&D cell was overwhelmed and subsequently the pump started failing. From March 28, 2017 thru April 11, 2017 Leachate was contained in the pump station vault and manually pumped out of the vault into tanker trailer for disposal. Approximately, 19,600 gallons of C&D cell leachate have been manually pumped to tanker trailer. The replacement pump was installed on June 12, 2017 and the pump station inlet line shutoff valve has been modified to include an extension on the valve stem to facilitate valve actuation without the need for permit restricted confined space entry.
16. NYSDEC conducted an unannounced facility inspection on 30 August 2017. A copy of the inspection report is included with this report.
17. NYSDEC visited the facility on 20 September 2017 collecting samples of biosolids and compost for PFC (perfluorochemical) testing. NYSDEC visited the facility again the week of 11-14 December 2017 collecting groundwater samples for PFC (perfluorochemical) testing.
18. NYSDOL-PESH conducted an unannounced inspection of the MRF Recycling Center on 25 April 2017. The inspection resulted in two NOV and Order to Comply issued on 16 August 2017 for physical safety items and 20 September 2017 for health inspection items. PESH identified physical safety items have been addressed with revisions to the Lock Out-Tag Out procedures, PPE, and equipment shrouds and guards within the facility. The physical safety revisions were inspected by PESH for closeout on 7 November 2017. PESH identified health safety items have been addressed with revisions to the Bloodborne Pathogens & Needlestick Prevention Exposure Control Plan and Emergency Action Plan. The health safety revisions were inspected by PESH for closeout on 26 January 2018.



**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 (1) landfill gas flare, one (1) compost facility biofilter, and one (1) portable diesel engine servicing the C&D shredder. 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 V.				
LFG Extraction Network Flare Station Activity - 2017				
- 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	74.2	55.1	150.6	48.4
Cumulative CF (average 100 cfm x flare operational hrs x 60)	445,200	330,600	903,600	290,400
Condensate Gallons	5,712	6,636	2,562	8,442
CH <sub>4</sub> Destruction (Mg) <i>(cf x 0.0000192 x 50%CH<sub>4</sub>)</i>	4.27	3.17	8.67	2.79
CH <sub>4</sub> Destruction (Mg CO <sub>2</sub> eq) <i>(Mg CH<sub>4</sub> x 25)</i>	106.85	79.34	216.86	69.70
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)				



**EXHIBIT A  
CONSTRUCTION & DEMOLITION DEBRIS CELL**

**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 2017

B. Quarterly Report for: \_\_\_\_\_ Quarter 1 \_\_\_\_\_ Quarter 2  X  Quarter 3  X  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 No 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 - Anthony Vespro 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.

Susan McIntyre \_\_\_\_\_  
Solid Waste Director  
PO Box 311  
Delhi, NY 13753



Date: February 2017  
Tel: (607)746-2128  
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: \_\_\_\_\_

-2017-	Table A.
Construction & Demolition (C&D) Debris Receipts	Weight (tons)
Quarter 1	673.01
Quarter 2	1,659.43
Quarter 3	1,570.09
Quarter 4	1,216.70
<b>Year to Date Total Received</b>	<b>5,119.23</b>

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

- 2017 -	1 <sup>ST</sup>	2 <sup>ND</sup>	3 <sup>RD</sup>	4 <sup>th</sup>	YTD Total
Quarterly C&D Receipts	673.01	1,659.43	1,570.09	1,216.70	5,119.23
In-House Soil/C&D Blend ADC - Cell 6	1,503.17	2,802.38	506.52	2,131.10	6,943.17
C&D buried in Cell 6	0.00	0.00	0.00	0.00	0.00
C&D buried in C&D landfill	0.00	0.00	0.00	0.00	0.00
C&D exported by Tweedie Enterprises to IESI Seneca Meadows, Canadaigua, NY	209.13	421.53	0.00	0.00	630.66
C&D exported by Tweedie Enterprises to Hakes Landfill, Painted Post, NY	425.33	0.00	0.00	0.00	425.33
Casella Waste Management of NY Ontario County Landfill, Seneca, NY	0.00	0.00	1,092.03	1,732.12	2,824.15
Casella Waste Management of NY Hakes Landfill, Painted Post, NY	0.00	0.00	0.00	0.00	0.00
C&D temporarily stockpiled on C&D landfill	(1,464.62)	(1,564.48)	(28.46)	(2,646.52)	(5,704.08)
Quarterly Total Managed	673.01	1,659.43	1,570.09	1,216.70	5,119.23
Total Export Tonnage	634.46	421.53	1,092.03	1,732.12	3,880.14

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>-2017-</b>		<b>C&amp;D LEACHATE (gallons)</b>					<b>TABLE M.</b>	
	<b>JAN</b>	<b>FEB</b>	<b>MAR</b>	<b>APR</b>	<b>MAY</b>	<b>JUN</b>	<b>TOTAL (ytd)</b>	
<b>C&amp;D (gallons)</b>	70,596	66,647	75,936	154,773	116,130	90,552	574,634	

		<b>C&amp;D LEACHATE (gallons)</b>					<b>TABLE N.</b>	
	<b>JUL</b>	<b>AUG</b>	<b>SEPT</b>	<b>OCT</b>	<b>NOV</b>	<b>DEC</b>	<b>TOTAL (ytd)</b>	
<b>C&amp;D (gallons)</b>	20,340	31,290	14,970	4,050	4,020	2,670	651,974	

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 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> quarters are compiled by Microbac Laboratories, Inc., Cortland, NY, and submitted attached to this report.

During baseline / expanded sampling events, data validation by qualified independent third party was provided by James Baldwin, DATAVAL Inc, Environmental Data Validation, Fayetteville, NY and is submitted as attachment 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.

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

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**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 5,333,270 gallons of leachate were handled the leachate collection system. During this same time period, there was an estimated 49,345,308 gallons of rain water falling on the total of 34.7 acres handled by the leachate collection system. The monthly average throughout this year of overall rain water becoming leachate ranges from a low of 6% in October 2017 to a high of 14% in September 2017.

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 0.55 g/a/d in October 2017 to a high of 4.30 g/a/d in



April 2017. The 30 day average ALR for Cell 5 for the period ranged from a low of 0.69 g/a/d in November 2017 to a high of 1.83 g/a/d in May 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 0.86 g/a/d in October 2017 to a high of 1.88 g/a/d in March 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 2017 sampling of upgradient water quality continues to be characterized by elevated sodium levels, low pH values, along with intermittently elevated aluminum, iron and manganese levels. The 2<sup>nd</sup> and 3<sup>rd</sup> quarters showed the most activity with elevated levels of phenols, sulfate, TKN, TOC, and turbidity. This is consistent with historic upgradient water quality at the site. 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 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> quarters 2017 monitoring wells 7 and 17i showed the most activity with elevated levels of sodium, turbidity, and nitrate levels. Consistent with the upgradient water sampling results, the 2<sup>nd</sup> and 3<sup>rd</sup> quarters showed the most activity with elevated levels of sodium, iron, aluminum, low pH levels, and intermittently elevated nitrate, alkalinity, turbidity, BOD, and TOC levels. 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 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> quarters 2017 monitoring wells 6i and 6s showed the most activity with elevated levels of sodium and alkalinity levels, and low pH values. Consistent with the upgradient water sampling results, the 2<sup>nd</sup> and 3<sup>rd</sup> quarters showed the most activity with elevated levels of sodium, low pH levels, and intermittently elevated nitrate, TOC, manganese, and BOD levels. 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. Sampling schedule specified in the EM/SAP calls for annual analysis. The annual analysis originally scheduled for the 4th quarter of 2017 was missed by laboratory oversight. The missed sampling was discovered and samples taken during the 1<sup>st</sup> quarter 2018. There are no sampling results for these wells at the time of this report.

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

Five wells monitor downgradient of closed Cell 1, 2, & 3. Sampling schedule specified in the EM/SAP calls for annual analysis. The annual analysis originally scheduled for the 4th quarter of 2017 was missed by laboratory oversight. The missed sampling was discovered and samples taken during the 1<sup>st</sup> quarter 2018. There are no sampling results for these wells at the time of this report.

### **Downgradient of Future Airspace**

For the 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> quarters 2017 monitoring well 8 showed one instance of exceedance with elevated TOC during the 3<sup>rd</sup> quarter 2017. All other parameters are within both the NYS Groundwater Effluent Standard and the EWQV trigger.

### **Surface Water Monitoring**

For the 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> quarters 2017 both the River Upstream and River Downstream monitoring points showed elevated TOC levels. 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 & MODIFIED ANALYSIS			TABLE Y.a.		
2nd Quarter - 2017			2nd Quarter - 2017		
Well	NYS Ground Water	Site EWQV Trigger	Well	NYS Ground Water	Site EWQV Trigger
<b>Upgradient Wells</b>			<b>Downgradient of Closed Cells 1, 2, 3</b>		
1d	sample only as needed	sample only as needed	4d	sample only as needed	sample only as needed
1s	pH = 6.11 Fe = 1.47 ppm Na = 89.2 ppm	does not exceed	4i	scheduled for 4 <sup>th</sup> QT 2017	scheduled for 4 <sup>th</sup> QT 2017
2	pH = 6.11 Phenols = 0.0389 ppm Mn = 1.99 ppm Na = 48.6 ppm	Phenols = 0.0389 ppm Mn = 1.99 ppm	4s	scheduled for 4 <sup>th</sup> QT 2017	scheduled for 4 <sup>th</sup> QT 2017
12	Turbidity = 1020 NTUs Fe = 0.851 ppm Na = 49.9 ppm	Turbidity = 1020 NTUs TKN = 1.02 ppm Sulfate = 34.3 ppm	5	scheduled for 4 <sup>th</sup> QT 2017	scheduled for 4 <sup>th</sup> QT 2017
13	Na = 53.4 ppm	does not exceed	5i	scheduled for 4 <sup>th</sup> QT 2017	scheduled for 4 <sup>th</sup> QT 2017
14	pH = 6.49 Na = 55.6 ppm	does not exceed	<b>Downgradient of Cell 5 (intermediate closure)</b>		
15d	pH = 6.27 Na = 87.6 ppm	does not exceed	5xi	does not exceed	does not exceed
15s	pH = 6.02 Na = 105 ppm	does not exceed	5xs	pH = 6.26 Mn = 1.71 ppm	Mn = 1.71 ppm
<b>Downgradient of Closed Cell 4/4e</b>			6d	sample only as needed	sample only as needed
10	scheduled for 4 <sup>th</sup> QT 2017	scheduled for 4 <sup>th</sup> QT 2017	6i	pH = 6.32 Na = 37.7 ppm	Nitrate = 4.04 ppm TOC = 1.47 ppm
11	scheduled for 4 <sup>th</sup> QT 2017	scheduled for 4 <sup>th</sup> QT 2017	6s	pH = 6.30 Na = 44.5 ppm	Alkalinity = 140 ppm
16	scheduled for 4 <sup>th</sup> QT 2017	scheduled for 4 <sup>th</sup> QT 2017	<b>Downgradient of Cell 6 (operational 4<sup>th</sup> QT 2007)</b>		
<b>Surface Water</b>			7	Turbidity = 13.3 NTUs Na = 25.3 ppm	Nitrate = 5.25 ppm Alkalinity = 104 ppm
River Upstream	does not exceed	TOC = 2.25 ppm	7i	pH = 6.48	does not exceed
River Down	does not exceed	TOC = 1.89 ppm	17i	Al = 4.57 ppm Fe = 7.90 ppm	Al = 4.57 ppm Fe = 7.90 ppm
<b>Downgradient of Future Airspace</b>			17s	does not exceed	does not exceed
8	does not exceed	does not exceed			





OVERLIMIT PARAMETERS - ROUTINE & MODIFIED ANALYSIS			TABLE Y.b.		
3rd Quarter - 2017					
Well	NYS Ground Water	Site EWQV Trigger	Well	NYS Ground Water	Site EWQV Trigger
<b>Upgradient Wells</b>			<b>Downgradient of Closed Cells 1, 2, 3</b>		
1d	sample only as needed	sample only as needed	4d	sample only as needed	sample only as needed
1s	pH = 6.00	does not exceed	4i	scheduled for 4 <sup>th</sup> QT 2017	scheduled for 4 <sup>th</sup> QT 2017
2	pH = 6.06 Mn = 1.03 ppm Na = 44.4 ppm	TOC = 2.02 ppm Mn = 1.03 ppm	4s	scheduled for 4 <sup>th</sup> QT 2017	scheduled for 4 <sup>th</sup> QT 2017
12	pH = 6.24 Turbidity = 14.7 NTUs Al = 2.61 ppm Fe = 5.18 ppm Na = 52.4 ppm	TOC = 1.83 ppm Al = 2.61 ppm Fe = 5.18 ppm	5	scheduled for 4 <sup>th</sup> QT 2017	scheduled for 4 <sup>th</sup> QT 2017
13	pH = 6.44 Na = 45.4 ppm	does not exceed	5i	scheduled for 4 <sup>th</sup> QT 2017	scheduled for 4 <sup>th</sup> QT 2017
14	Na = 74.0 ppm	TOC = 1.97 ppm	<b>Downgradient of Cell 5 (intermediate closure)</b>		
15d	pH = 6.34 Mn = 0.763 ppm Na = 83.6 ppm	TOC = 3.63 ppm Mn = 0.763 ppm	5xi	does not exceed	does not exceed
15s	pH = 5.93 Na = 114 ppm	TOC = 2.17 ppm	5xs	pH = 6.27 Mn = 0.722 ppm	TOC = 1.82 ppm Mn = 0.722 ppm
<b>Downgradient of Closed Cell 4/4e</b>			6d	sample only as needed	sample only as needed
10	scheduled for 4 <sup>th</sup> QT 2017	scheduled for 4 <sup>th</sup> QT 2017	6i	pH = 6.33 Na = 37.3 ppm	TOC = 4.54 ppm
11	scheduled for 4 <sup>th</sup> QT 2017	scheduled for 4 <sup>th</sup> QT 2017	6s	pH = 6.24 Fe = 1.28 ppm Na = 26.9 ppm	Alkalinity = 130 ppm TOC = 2.92 ppm
16	scheduled for 4 <sup>th</sup> QT 2017	scheduled for 4 <sup>th</sup> QT 2017	<b>Downgradient of Cell 6 (operational 4<sup>th</sup> QT 2007)</b>		
<b>Surface Water</b>			7	pH = 6.36 Na = 30.6 ppm	Nitrate = 7.71 ppm TOC = 2.70 ppm
River Upstream	does not exceed	TOC = 2.42 ppm	7i	pH = 6.38 Turbidity = 5.80 NTUs	Nitrate = 4.76 ppm TOC = 1.50 ppm
River Down	does not exceed	TOC = 2.47 ppm	17i	Turbidity = 60.6 NTUs Al = 2.67 ppm Fe = 4.46 ppm	TOC = 1.54 ppm Al = 2.67 ppm Fe = 4.46 ppm
<b>Downgradient of Future Airspace</b>			17s	pH = 6.47 Fe = 0.662 ppm	does not exceed
8	does not exceed	TOC = 2.23 ppm			



OVERLIMIT PARAMETERS - ROUTINE & MODIFIED ANALYSIS			TABLE Y.c.		
4th Quarter - 2017					
Well	NYS Ground Water	Site EWQV Trigger	Well	NYS Ground Water	Site EWQV Trigger
<b>Upgradient Wells</b>			<b>Downgradient of Closed Cells 1, 2, 3</b>		
1d	sample only as needed	sample only as needed	4d	sample only as needed	sample only as needed
1s	pH = 6.10 Turbidity = 7.28 NTU's Al = 3.29 ppm Fe = 3.78 ppm Na = 79.8 ppm	Al = 3.29 ppm	4i	scheduled for 4 <sup>th</sup> QT 2017	scheduled for 4 <sup>th</sup> QT 2017
2	pH = 6.25 Mn = 0.997 ppm Na = 40.6 ppm	Alkalinity = 132 ppm Mn = 0.997 ppm	4s	scheduled for 4 <sup>th</sup> QT 2017	scheduled for 4 <sup>th</sup> QT 2017
12	Al = 2.01 ppm Fe = 2.88 ppm Na = 54.9 ppm	BOD = 48.8 Al = 2.01 ppm Sulfate = 33.6 ppm	5	scheduled for 4 <sup>th</sup> QT 2017	scheduled for 4 <sup>th</sup> QT 2017
13			5i	scheduled for 4 <sup>th</sup> QT 2017	scheduled for 4 <sup>th</sup> QT 2017
14			<b>Downgradient of Cell 5 (intermediate closure)</b>		
15d	pH = 6.47 Na = 81.5		5xi	does not exceed	Fe = 1.69 ppm
15s			5xs	Mn = 1.20 ppm	Mn = 1.20 pm BOD = 3.53 ppm
<b>Downgradient of Closed Cell 4/4e</b>			6d	sample only as needed	sample only as needed
10	scheduled for 4 <sup>th</sup> QT 2017	scheduled for 4 <sup>th</sup> QT 2017	6i	pH = 6.37 Na = 29.4 ppm	BOD = 14.4 ppm
11	scheduled for 4 <sup>th</sup> QT 2017	scheduled for 4 <sup>th</sup> QT 2017	6s	pH = 6.26 Fe = 2.14 ppm Na = 37.2 ppm	Alkalinity = 108 ppm BOD = 26.9 ppm
16	scheduled for 4 <sup>th</sup> QT 2017	scheduled for 4 <sup>th</sup> QT 2017	<b>Downgradient of Cell 6 (operational 4<sup>th</sup> QT 2007)</b>		
<b>Surface Water</b>			7	pH = 6.32 Al = 2.08 ppm Fe = 1.48 ppm Na = 36.4 ppm	Alkalinity = 100 ppm TOC = 1.78 ppm Al = 2.08 ppm BOD = 26.1 ppm
River Upstream	does not exceed	TOC = 1.51ppm	7i	pH = 6.41	Nitrate = 6.30 ppm BOD = 14.1 ppm
River Down	does not exceed	TOC = 1.45 ppm	17i	Turbidity = 7.97 NTUs Al = 5.80 ppm Fe = 8.32 ppm	Al = 5.80 ppm Fe = 8.32 ppm
<b>Downgradient of Future Airspace</b>			17s	does not exceed	does not exceed
8	does not exceed	does not exceed			



**EXHIBIT C**  
**COMPOST FACILITY REPORT**  


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**Organic Inputs Data**  
**Finished Product Quality Analyses**  
**Operational Performance Achievements**

**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 2017.
- 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) 746-2128 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.

Susan McIntyre \_\_\_\_\_  \_\_\_\_\_  
 Solid Waste Director  
 PO Box 311  
 Delhi, NY 13753

Date: February 2017  
 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 over sized 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:

2017 Wet Tons						Table I.
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>967.52</b>	<b>427.16</b>	<b>844.67</b>	<b>669.87</b>	<b>2,909.22</b>	<b>7.97</b>
Andes	0.00	0.00	0.00	0.00	0.00	0.00
Delhi	360.99	126.46	328.67	214.66	1,030.78	2.82
Deposit	8.00	10.20	15.83	0.00	34.03	0.09
Hancock	0.00	0.00	0.00	0.00	0.00	0.00
Hobart	18.43	12.22	17.71	4.52	52.88	0.14
Margaretville	12.79	47.99	12.42	0.00	73.20	0.20
Sidney	0.00	0.00	0.00	0.00	0.00	0.00
Stamford	60.36	28.98	91.50	30.31	211.15	0.58
Walton	506.95	201.31	378.54	420.38	1,507.18	4.13
<b>Mixed MSW to Compost</b>	<b>4,764.61</b>	<b>4,997.76</b>	<b>5,581.81</b>	<b>3,302.47</b>	<b>18,646.65</b>	<b>51.09</b>
<b>Amendments - Solids (SubTotal All Sources)</b>	<b>95.19</b>	<b>175.30</b>	<b>28.95</b>	<b>28.43</b>	<b>327.87</b>	<b>0.90</b>
MRF Residuals	0.00	0.00	0.00	0.00	0.00	0.00
Woodchips	95.19	175.30	28.95	28.43	327.87	0.90
<b>Amendments - Liquids (SubTotal All Sources)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00
<b>Compost Facility Residuals</b>	<b>2,924.63</b>	<b>2,894.00</b>	<b>3,478.04</b>	<b>1,831.43</b>	<b>11,128.10</b>	<b>30.49</b>
<b>GROSS COMPOST INPUTS</b>	<b>5,827.32</b>	<b>5,600.22</b>	<b>6,455.43</b>	<b>4,000.77</b>	<b>21,883.74</b>	<b>59.96</b>
<b>NET COMPOST OUTPUTS *</b>	<b>2,902.69</b>	<b>2,706.22</b>	<b>2,977.39</b>	<b>2,169.34</b>	<b>10,755.64</b>	<b>29.47</b>
<b>COMPOST MARKETED (CY) ~</b>	<b>0.00</b>	<b>790.00</b>	<b>1,134.00</b>	<b>449.00</b>	<b>2,373.00</b>	<b>6.50</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 stroage 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**

2017 COMPOST INPUTS - Dry Tons						Table S.
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%	0.00	0.00	0.00	0.00	0.00
Delhi	11%	39.71	13.91	36.15	23.61	113.39
Deposit	15%	1.20	1.53	2.37	0.00	5.10
Hancock	50%	0.00	0.00	0.00	0.00	0.00
Hobart	22%	4.05	2.69	3.90	0.99	11.63
Margaretville	50%	6.40	24.00	6.21	0.00	36.60
Sidney	27%	0.00	0.00	0.00	0.00	0.00
Stamford	15%	9.05	4.35	13.73	4.55	31.67
Walton	12%	60.83	24.16	45.42	50.45	180.86
Mixed MSW Organics (NetOutput)	50%	1,451.35	1,353.11	1,488.70	1,084.67	5,377.82
<b>Amendments - Solids</b>						
MRF Residuals	50%	0.00	0.00	0.00	0.00	0.00
Wood	65%	61.87	113.95	18.82	18.48	213.12
<b>Amendments - Liquid</b>						
		0.00	0.00	0.00	0.00	0.00
		0.00	0.00	0.00	0.00	0.00
<b>COMPOST PRODUCTION - (Total of all net inputs)</b>						
Dry Tons Compost Produced (Total Dry Tons w/o Loss of Mass Factor)	tons	1,634	1,538	1,615	1,183	5,970
	ton/day	18	17	18	13	16
CY Compost Produced (field measured density = 32 lb/cf) <sup>1</sup> (Without Loss of Mass Factor)	cy/yr	3,783	3,559	3,739	2,738	13,820
	cy/day	42	39	41	30	38
CY COMPOST PRODUCED (Factoring 40% Loss of Mass During Composting & Curing <sup>2</sup> )	LOM cy/y	2,270	2,136	2,243	1,643	8,292
	LOM cyd	25	23	24	18	23

<sup>1</sup>Field measured compost density based upon actual truck scale weights and yardage capacity averages 32 lb/cf, representing fully dried material at 30% moisture. Density of material during production is much higher at 50%+ moisture. For reporting purposes, 32 lb/cf is used as the marketed density and the fully dried material.

<sup>2</sup>Mass loss of carbon during composting adjusted to 40% based upon engineering mass balance equations and as supported by compost research literature, and ultimately verified by compost sales and transport records.



**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 Compost User (YTD - 2<sup>nd</sup> QT 2017)</b>	<b>Quantity (32 lbs/cf) YTD Cum. Total CY</b>	<b>Actual Use of Compost</b> <span style="float:right">Table T.</span>
Delaware County DPW (CY)	130	Landscaping / FEMA
Private Sale Direct (CY)	557.58	Landscaping
Brokered Sale (CY)	1779.33	Landscaping / Soil Blending
Delaware County SWMC (CY)	82	Insufficient quality- elevated Pb - used as ADC
SubTotal Compost Marketed (CY)	2,549	
Compost currently stockpiled on site (CY)	5,743	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 - 2<sup>nd</sup> QT 2017*

*Microbac Report - 3<sup>rd</sup> QT 2017*

*Microbac Report - 4<sup>th</sup> QT 2017*

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. 685-4-13

BUD No. 751-4-13

BUD No. 1312-4-13

Electronics Recycling Report - 2017

Planning Unit Annual Recycling Report - 2017

New NYSDEC Facility Reporting Forms

**TOWN TRANSFER STATION ANNUAL REPORTS - 2017**

Andes

Bovina

Colchester

Davenport

Hancock

Harpersfield

Middletown

Roxbury

