

Winchendon Landfill Site Observation – July 22, 2021

To: Brian Croteau, DPW Director
FROM: Aaron Sabbs, PE, Tighe & Bond
COPY: Alison Manugian, Conservation & Planning Agent
Alex Fagnand, PE, Tighe & Bond
DATE: August 16, 2021

On July 22, 2021, Aaron Sabbs from Tighe & Bond visited the Winchendon Landfill (hereby referred to as the "Site") to monitor the grading and shaping activities of the Landfill Closure Project. The Site, which is located at 580 River Street, is the former Mabardy Landfill. It is owned and operated by W.L. French Corporation (Operator) as the Winchendon Landfill. As part of the Landfill Closure Project, the Massachusetts Department of Environmental Protection (MassDEP) has permitted the acceptance of up to 415,000 cubic yards of COMM 97-001 material as defined by MassDEP Policy. In accordance with Condition 13 of the Landfill Closure Agreement between the Town and the Operator, the Site was reviewed for compliance with the following documents:

- Corrective Action Design, prepared by Langdon Environmental, LLC, dated June 2019 and revised October 2019.
- Initial Operations Plan, by Langdon Environmental, LLC, dated January 2021, revised to include temporary rip rap settling area.

Landfill Operations

General landfill operations appeared to comply with best practices and the Corrective Action Design. W.L. French was not on site at the time of the site visit. Material placed since the previous site visit is in the general area of Section C-C of Sheet C-5 of the Corrective Action Design, within the limits designated for initial placement.

Small amounts of construction debris, including brick, rebar, concrete, and plastic sheeting, as well as general household waste were observed in the soils imported to the site. This waste was generally observed in the northern section of the site in the soils which appear to have been imported since the last site visit. These may be diminimus, and the recent rain may have exposed this material, but this should be monitored going forward to be sure that the material being imported complies with the COMM 97-001 requirements.

Stormwater and Erosion

Stormwater conveyances have been constructed per the Initial Operations Plan as revised to include a temporary rip rap settling area. This plan was submitted to MassDEP under a Major Permit Modification (BWP SQ 11). A swale, including check dams, has been constructed from the temporary stormwater basin to the temporary settling area. Overflow from the temporary stormwater basin runs to the settling area with a PVC culvert running beneath the access road. The swale from the northern section of the site to the temporary stormwater basin has not yet been constructed.

Recent heavy rainfall has caused significant buildup of sediment within the stormwater management systems. The swale and settling area were laden with sediment and had standing water.

Erosion control was present along the northern, southern, and western edges of the site. The recent heavy rainfall has caused sediment to build up along the haybales and wood chip berms. In several locations, the sediment had overtopped the erosion controls.

In several areas, the sloped subgrade has experienced significant erosion. The northwest slope exhibited erosion in the area of the monitoring well. Continued erosion at this location could potentially impact the well's stability.

The access road at the southeastern toe of the slope has exhibited erosion and appears to have been stabilized with the addition of crushed stone.

The Operator maintains a water truck on site for dust control. Water from a basin in the adjacent southerly site has been periodically collected and sprayed on site to reduce dust.

Material Accepted

Tighe & Bond reviewed the attached Net Daily Summary Report received for the month of July, which details the total tonnage and number of loads of material received by the facility. As indicated in Table 1 below, a total of 16,002.93 tons of material was received in July, which results in 627,498.01 tons remaining of the total 788,500 tons permitted. Based on a utilization factor of 1.9 tons per cubic yard of soil, the total volume received in July was 8,422.59 cubic yards, which results in 330,262.11 cubic yards remaining.

Table 1 - Cumulative Material Received

Month-Year	Material Received (tons)	Material Received (cubic yards)
Before Feb-21	12,764.15	6,717.97
Feb-21	32,224.28	16,960.15
Mar-21	26,702.78	14,054.09
Apr-21	22,376.79	11,777.26
May-21	26,096.58	13,735.04
Jun-21	24,834.48	13,070.78
Jul-21	16,002.93	8,422.59
Total	161,001.99	84,737.89
Remaining	627,498.01	330,262.11

The DEP permit limits the number of loads received to 64 per day without special Town permission. There were no days in July in which the number of loads received was greater than 64.

Enclosed are photographs summarizing the items observed during the site visit.



Photo 1 – Eastern slope and existing access road.



Photo 2 – Material placed and shaped on the northern section of the site.



Photo 3 – Temporary stormwater overflow catch basin.



Photo 4 – Stormwater culvert under access road and sediment in swale



Photo 5 - Swale and check dams between temporary stormwater basin and temporary rip rap settling area.



Photo 6 - Temporary rip rap settling area with sediment and standing water.



Photo 7 – Sediment overtopping the erosion control on the western limits of the Site.



Photo 8 – Sediment overtopping the erosion control on the western limits of the Site.



Photo 9 – Erosion control on the western limits of the Site with sediment buildup.



Photo 10 – Erosion in the subgrade slope adjacent to a monitoring well.



Photo 11 – Sediment observed in standing water beyond the erosion control on the eastern edge of the site.

580 River Street, LLC

Gross/Tare/Net Daily Summary

Order: by Job Name Type: All
From 07/01/2021 to 07/31/2021

07/01/2021

Job Name	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
5 Washington Street (T20-0270-1-B)	15	1,079,320	539.66
Brookline Catch Basin Cleanings (T20-0169-1-M)	4	260,260	130.13
Camb Housing Auth Roosevelt Towers (T20-0258-1-B)	5	250,560	125.28
Cambridgeside Galleria minipile spoils (T21-0042-1-M)	2	19,460	9.73
Fan Pier Parcel E (T21-0017-1-M)	2	147,860	73.93
Stow Catch Basin Cleanings (T21-0180-1-M)	4	272,700	136.35
07/01/2021 Totals	32	2,030,160	1,015.08

07/02/2021

Job Name	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
5 Washington Street (T20-0270-1-B)	7	494,160	247.08
Birmie Ave, Springfield (T20-0198-1-M)	6	394,260	197.13
Cambridgeside Galleria minipile spoils (T21-0042-1-M)	2	23,160	11.58
Lower Basin Police Barracks (C21-007-1-M)	1	47,380	23.69
07/02/2021 Totals	16	958,960	479.48

07/06/2021

Job Name	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
Cambridgeside Galleria minipile spoils (T21-0042-1-M)	2	25,220	12.61
Fan Pier Parcel E (T21-0017-1-M)	2	127,660	63.83
Logan Terminal E - GEI (T19-0353-2-M)	10	723,900	361.95
Lowell High School (C20-023-3-B)	3	225,060	112.53
07/06/2021 Totals	17	1,101,840	550.92

07/07/2021

Job Name	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
Cambridgeside Galleria minipile spoils (T21-0042-1-M)	1	18,480	9.24
Logan Terminal E - GEI (T19-0353-2-M)	12	898,960	449.48
07/07/2021 Totals	13	917,440	458.72

07/08/2021

Job Name	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
Birmie Ave, Springfield (T20-0198-1-M)	3	158,380	79.19
Logan Terminal E - GEI (T19-0353-2-M)	13	967,800	483.90
07/08/2021 Totals	16	1,126,180	563.09

07/12/2021

Report Date 8/2/2021 2:12:11 PM

580 River Street, LLC

Gross/Tare/Net Daily Summary

Order: by Job Name Type: All
From 07/01/2021 to 07/31/2021

Job Name	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
Logan Terminal E - GEI (T19-0353-2-M)	6	421,640	210.82
07/12/2021 Totals	6	421,640	210.82

07/13/2021

Job Name	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
5 Washington Street (T20-0270-1-B)	11	666,220	333.11
Logan Terminal E - GEI (T19-0353-2-M)	12	841,860	420.93
07/13/2021 Totals	23	1,508,080	754.04

07/14/2021

Job Name	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
Logan Terminal E - GEI (T19-0353-2-M)	7	498,060	249.03
Worcester SS&CB Disposal (T21-0090-1-M)	19	1,254,320	627.16
07/14/2021 Totals	26	1,752,380	876.19

07/15/2021

Job Name	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
Logan Terminal E - GEI (T19-0353-2-M)	11	782,680	391.34
Worcester SS&CB Disposal (T21-0090-1-M)	27	1,752,660	876.33
07/15/2021 Totals	38	2,535,340	1,267.67

07/16/2021

Job Name	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
Alta River's Edge (T21-0028-2-B)	27	1,854,780	927.39
Dot Block (C21-001-1-B)	2	135,740	67.87
Logan Terminal E - GEI (T19-0353-2-M)	12	843,100	421.55
Worcester SS&CB Disposal (T21-0090-1-M)	16	1,051,680	525.84
07/16/2021 Totals	57	3,885,300	1,942.65

07/19/2021

Job Name	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
5 Washington Street (T20-0270-1-B)	6	317,060	158.53
Alta River's Edge (T21-0028-2-B)	13	921,400	460.70
Depot Square II (T21-0138-1-M)	2	132,960	66.48
Logan Terminal E - GEI (T19-0353-2-M)	12	844,680	422.34
Lower Basin Police Barracks (C21-007-1-M)	1	37,720	18.86
Residences at 1800 Boylston (T21-0087-1-B)	16	1,158,860	579.43
Worcester SS&CB Disposal (T21-0090-1-M)	14	909,520	454.76
07/19/2021 Totals	64	4,322,200	2,161.10

07/20/2021

Report Date 8/2/2021 2:12:11 PM

580 River Street, LLC

Gross/Tare/Net Daily Summary

Order: by Job Name Type: All
From 07/01/2021 to 07/31/2021

Job Name	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
5 Washington Street (T20-0270-1-B)	4	220,280	110.14
Alta River's Edge (T21-0028-2-B)	5	326,700	163.35
AOTC Talcott Ave (T20-0345-1-B)	1	64,200	32.10
Depot Square II (T21-0138-1-M)	2	140,340	70.17
Logan Terminal E - GEI (T19-0353-2-M)	12	823,680	411.84
Lower Basin Police Barracks (C21-007-1-M)	2	99,120	49.56
Residences at 1800 Boylston (T21-0087-1-B)	4	286,680	143.34
Worcester SS&CB Disposal (T21-0090-1-M)	13	915,160	457.58
07/20/2021 Totals	43	2,876,160	1,438.08

07/21/2021

Job Name	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
Depot Square II (T21-0138-1-M)	4	277,400	138.70
Logan Terminal E - GEI (T19-0353-2-M)	8	549,020	274.51
Residences at 1800 Boylston (T21-0087-1-B)	8	564,760	282.38
07/21/2021 Totals	20	1,391,180	695.59

07/23/2021

Job Name	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
Lower Basin Police Barracks (C21-007-1-M)	1	50,160	25.08
07/23/2021 Totals	1	50,160	25.08

07/26/2021

Job Name	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
Dot Block (C21-001-1-B)	8	541,580	270.79
Indigo Block Soil (T21-0135-1-M)	8	387,700	193.85
07/26/2021 Totals	16	929,280	464.64

07/27/2021

Job Name	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
1833 Wilbur Ave, Somerset (T21-0207-1-B)	10	729,780	364.89
Dot Block (C21-001-1-B)	4	277,340	138.67
Lowell High School (C20-023-3-B)	10	681,840	340.92
07/27/2021 Totals	24	1,688,960	844.48

07/28/2021

Job Name	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
1833 Wilbur Ave, Somerset (T21-0207-1-B)	8	537,740	268.87

Report Date 8/2/2021 2:12:11 PM

580 River Street, LLC

Gross/Tare/Net Daily Summary

Order: by Job Name Type: All
From 07/01/2021 to 07/31/2021

20 and 150 Salem Turnpike (T21-0091-1-B)	6	420,660	210.33
Dot Block (C21-001-1-B)	2	130,600	65.30
07/28/2021 Totals	16	1,089,000	544.50

07/29/2021

Job Name	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
15 Bennett St, Somerville, MA (T21-0018-1-B)	2	160,660	80.33
20 and 150 Salem Turnpike (T21-0091-1-B)	10	666,620	333.31
761-769 Centre St., Jamaica Plain (T21-0108-1-M)	4	200,620	100.31
92 Grand St, Worcester (T21-0032-1-B)	9	613,020	306.51
Dot Block (C21-001-1-B)	5	362,360	181.18
Indigo Block Soil (T21-0135-1-M)	4	198,420	99.21
07/29/2021 Totals	34	2,201,700	1,100.85

07/30/2021

Job Name	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
15 Bennett St, Somerville, MA (T21-0018-1-B)	2	148,500	74.25
20 and 150 Salem Turnpike (T21-0091-1-B)	7	425,620	212.81
761-769 Centre St., Jamaica Plain (T21-0108-1-M)	2	93,040	46.52
Depot Square II (T21-0138-1-M)	4	303,620	151.81
Indigo Block Soil (T21-0135-1-M)	4	178,680	89.34
Residences at 1800 Boylston (T21-0087-1-B)	1	70,440	35.22
07/30/2021 Totals	20	1,219,900	609.95

	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
Grand Total	174	32,005,860	16,002.93