

Winchendon Landfill Site Observation – September 28, 2021

TO: Brian Croteau, DPW Director
FROM: Aaron Sabbs, PE, Tighe & Bond
COPY: Tracy Murphy, Director of Planning and Development & Acting Planning Agent
Alex Fagnand, PE, Tighe & Bond
DATE: October 12, 2021

On September 28, 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 permit approval issued on September 23, 2020 and Corrective Action Design Plans 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. While on site, material was placed and spread by bulldozer in the general area of Section B-B of Sheet C-5 of the Corrective Action Design, within the limits designated for initial placement.

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 which had built up over the top of the rip rap in some locations. In their current condition, the rip rap swale will not effectively slow the velocity of water, and the ability of the temporary settling area to remove suspended solids may be reduced. Rip rap has been delivered to the site and the Operator indicated that they anticipate rebuilding the swale and settling area once the weather allows it.

Erosion control was present along the northern, southern, and western edges of the site. The silt fence, haybales, and wood chip berms that had been installed at the beginning of the project had been damaged by recent heavy rainfall. These erosion control measures have been removed and were in the process of being replaced, during the site visit. Vegetation in the area of the erosion control inside the limit of work had been removed to facilitate this work.

The northwest slope has exhibited erosion in the area of the monitoring well. The Operator has added fill and regraded this area. It will likely experience further erosion as the project continues and should be monitored to address future damage.

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 September, which details the total tonnage and number of loads of material received by the facility. As indicated in Table 1 below, a total of 32,160.64 tons of material was received in September, which results in 581,629.25 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 September was 16,926.65 cubic yards, which results in 306,120.66 cubic yards remaining.

Table 1 - Cumulative Material Received

<u>Month-Year</u>	<u>Material Received (tons)</u>	<u>Material Received (cubic yards)</u>
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
Aug-21	13,708.12	7,214.80
Sep-21	32,160.64	16,926.65
Total	206,870.75	108,879.34
Remaining	581,629.25	306,120.66

The DEP permit limits the number of loads received to 64 per day without special Town permission. There were no days in September 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 delivered to the Site and placed for grading and shaping.



Photo 3 – Temporary stormwater overflow catch basin.



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



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



Photo 6 - Check dam and sediment buildup between temporary stormwater basin and temporary rip rap settling area.



Photo 7 - Temporary rip rap settling area.



Photo 8 - Repaired erosion control at the western limits of the Site.



Photo 9 – Vegetation clearing at the western limits of the Site for erosion control replacement.



Photo 10 – Repairs and continued erosion in the subgrade slope adjacent to a monitoring well.

580 River Street, LLC

Gross/Tare/Net Daily Summary

Order: by Job Name Type: All
From 09/01/2021 to 09/30/2021

09/01/2021

Job Name	Loads	Net	Net Tons
250 Centre St JP (T21-0136-1-B)	12	828,960	414.48
AOTC Talcott Ave (T20-0345-1-B)	2	158,320	79.16
Belmont Street Sweepings (T19-0108-1-M)	1	67,820	33.91
BMS Devens (R21-014-1-M)	3	59,100	29.55
Depot Square II (T21-0138-1-M)	4	292,280	146.14
Feeney Eversrouce Prescott St Worcester (T21-0204-1-B)	2	95,420	47.71
Residences at 1800 Boylston (T21-0087-1-B)	4	310,040	155.02
09/01/2021 Totals	28	1,811,940	905.97

09/03/2021

Job Name	Loads	Net	Net Tons
465 William S. Canning Blvd, Fall River (T21-0225-1-M)	4	296,020	148.01
5 Washington Street (T20-0270-1-B)	6	302,660	151.33
761-769 Centre St., Jamaica Plain (T21-0108-1-M)	9	406,240	203.12
Arlington DPW Catch Basin Cleanings (T16-1263-1-M)	6	329,000	164.50
BMS Devens (R21-014-1-M)	12	427,700	213.85
Depot Square II (T21-0138-1-M)	4	314,160	157.08
Feeney Eversrouce Prescott St Worcester (T21-0204-1-B)	2	69,780	34.89
Lowell High School (C20-023-3-B)	9	517,060	258.53
Walpole Catch Basin Cleanings (T21-0132-1-M)	6	420,860	210.43
09/03/2021 Totals	58	3,083,480	1,541.74

09/07/2021

Job Name	Loads	Net	Net Tons
465 William S. Canning Blvd, Fall River (T21-0225-1-M)	4	302,280	151.14
761-769 Centre St., Jamaica Plain (T21-0108-1-M)	5	231,680	115.84
AOTC Talcott Ave (T20-0345-1-B)	2	155,760	77.88
Arlington DPW Catch Basin Cleanings (T16-1263-1-M)	3	184,700	92.35
BMS Devens (R21-014-1-M)	8	353,160	176.58
Braintree Catch Basin Cleanings (T21-0154-1-M)	8	558,140	279.07
Depot Square II (T21-0138-1-M)	4	296,840	148.42
Faneuil Library Brighton Topsoil (T21-0227-1-M)	4	159,660	79.83
Feeney Eversrouce Prescott St Worcester (T21-0204-1-B)	2	107,820	53.91
09/07/2021 Totals	40	2,350,040	1,175.02

09/08/2021

Job Name	Loads	Net	Net Tons
1833 Wilbur Ave, Somerset (T21-0207-1-B)	1	82,440	41.22
250 Centre St JP (T21-0136-1-B)	4	276,560	138.28
Faneuil Library Brighton Topsoil (T21-0227-1-M)	2	87,900	43.95
Feeney Eversrouce Prescott St Worcester (T21-0204-1-B)	1	14,620	7.31
Residences at 1800 Boylston (T21-0087-1-B)	4	304,080	152.04
09/08/2021 Totals	12	765,600	382.80

09/09/2021

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580 River Street, LLC

Gross/Tare/Net Daily Summary

Order: by Job Name Type: All
From 09/01/2021 to 09/30/2021

Job Name	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
GE Lynn Aug 2021 3 piles (T21-0220-1-B)	1	64,580	32.29
Holyoke Housing Authority (T21-0218-1-M)	10	679,140	339.57
Residences at 1800 Boylston (T21-0087-1-B)	2	138,180	69.09
09/09/2021 Totals	13	881,900	440.95

09/10/2021

Job Name	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
Holyoke Housing Authority (T21-0218-1-M)	8	538,340	269.17
Lowell High School (C20-023-3-B)	5	372,080	186.04
Puddingstone (C20-025-1-M)	18	1,227,600	613.80
09/10/2021 Totals	31	2,138,020	1,069.01

09/13/2021

Job Name	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
66 Galen St Watertown BOL Soil (T21-0114-1-B)	22	1,515,380	757.69
66 Galen St Watertown MSR soil (T21-0114-1-M)	2	131,040	65.52
Arlington DPW Catch Basin Cleanings (T16-1263-1-M)	3	214,080	107.04
Dot Block (C21-001-1-B)	3	218,800	109.40
Faneuil Library Brighton Topsoil (T21-0227-1-M)	2	95,520	47.76
Holyoke Housing Authority (T21-0218-1-M)	8	464,260	232.13
Puddingstone (C20-025-1-M)	23	1,579,940	789.97
09/13/2021 Totals	63	4,219,020	2,109.51

09/14/2021

Job Name	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
66 Galen St Watertown MSR soil (T21-0114-1-M)	26	1,995,540	997.77
Dot Block (C21-001-1-B)	10	699,080	349.54
Feeney Eversrouce Prescott St Worcester (T21-0204-1-B)	1	5,880	2.94
Puddingstone (C20-025-1-M)	1	63,320	31.66
09/14/2021 Totals	38	2,763,820	1,381.91

09/15/2021

Job Name	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
66 Galen St Watertown MSR soil (T21-0114-1-M)	22	1,587,860	793.93
Dot Block (C21-001-1-B)	4	269,940	134.97
Feeney Eversrouce Prescott St Worcester (T21-0204-1-B)	1	43,800	21.90
Holyoke Housing Authority (T21-0218-1-M)	8	560,700	280.35
Puddingstone (C20-025-1-M)	20	1,345,560	672.78
09/15/2021 Totals	55	3,807,860	1,903.93

09/16/2021

Job Name	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
66 Galen St Watertown MSR soil (T21-0114-1-M)	17	1,157,980	578.99
Feeney Eversrouce Prescott St Worcester (T21-0204-1-B)	2	66,780	33.39
Holyoke Housing Authority (T21-0218-1-M)	6	428,340	214.17

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Gross/Tare/Net Daily Summary

Order: by Job Name Type: All
From 09/01/2021 to 09/30/2021

Puddingstone (C20-025-1-M)	25	1,824,200	912.10
Ragon Inst Group II-1 (T21-0147-1-B)	12	859,580	429.79
09/16/2021 Totals	62	4,336,880	2,168.44

09/17/2021

Job Name	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
66 Galen St Watertown MSR soil (T21-0114-1-M)	12	799,300	399.65
Dot Block (C21-001-1-B)	8	576,320	288.16
Feeney Eversrouce Prescott St Worcester (T21-0204-1-B)	1	23,760	11.88
Puddingstone (C20-025-1-M)	20	1,457,080	728.54
Ragon Inst Group II-1 (T21-0147-1-B)	20	1,374,220	687.11
Walpole Catch Basin Cleanings (T21-0132-1-M)	2	147,920	73.96
09/17/2021 Totals	63	4,378,600	2,189.30

09/20/2021

Job Name	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
Annisquam River Bridge (T20-0006-1-M)	1	48,520	24.26
Arlington DPW Catch Basin Cleanings (T16-1263-1-M)	2	138,940	69.47
Douglas MA CB Cleanings 2021 (T21-0231-1-M)	4	253,100	126.55
MOB Phase 2B (T20-0030-4-B)	12	848,780	424.39
Puddingstone (C20-025-1-M)	16	1,081,320	540.66
Ragon Inst Group II-1 (T21-0147-1-B)	18	1,258,640	629.32
09/20/2021 Totals	53	3,629,300	1,814.65

09/21/2021

Job Name	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
66 Galen St Watertown MSR soil (T21-0114-1-M)	19	1,262,340	631.17
Faneuil Library Brighton Topsoil (T21-0227-1-M)	2	95,800	47.90
MOB Phase 2B (T20-0030-4-B)	20	1,515,020	757.51
Puddingstone (C20-025-1-M)	16	1,129,320	564.66
Ragon Inst Group II-1 (T21-0147-1-B)	3	187,500	93.75
09/21/2021 Totals	60	4,189,980	2,094.99

09/22/2021

Job Name	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
Medford Cemetery Excavate (T21-0233-1-M)	22	1,562,400	781.20
Medford Cemetery Excavate LRA (T21-0233-1-B)	1	89,080	44.54
MOB Phase 2B (T20-0030-4-B)	8	600,940	300.47
Puddingstone (C20-025-1-M)	1	69,260	34.63
Ragon Inst Group II-1 (T21-0147-1-B)	1	65,380	32.69
09/22/2021 Totals	33	2,387,060	1,193.53

09/23/2021

Job Name	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
87 Union Street, New Haven, CT (T21-0099-1-M)	4	199,680	99.84
Lowell High School (C20-023-3-B)	3	217,580	108.79

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From 09/01/2021 to 09/30/2021

Medford Cemetery Excavate (T21-0233-1-M)	33	2,298,580	1,149.29
MOB Phase 2B (T20-0030-4-B)	8	599,460	299.73
09/23/2021 Totals	48	3,315,300	1,657.65

09/24/2021

Job Name	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
15 Bennett St, Somerville, MA (T21-0018-1-B)	2	142,460	71.23
66 Galen St Watertown MSR soil (T21-0114-1-M)	7	528,100	264.05
87 Union Street, New Haven, CT (T21-0099-1-M)	9	436,120	218.06
Medford Cemetery Excavate (T21-0233-1-M)	40	2,848,160	1,424.08
MOB Phase 2B (T20-0030-4-B)	4	287,860	143.93
09/24/2021 Totals	62	4,242,700	2,121.35

09/27/2021

Job Name	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
15 Bennett St, Somerville, MA (T21-0018-1-B)	2	148,280	74.14
725-729 Morrissey Blvd, Dorchester (T21-0041-1-B)	8	575,340	287.67
87 Union Street, New Haven, CT (T21-0099-1-M)	1	50,260	25.13
Arlington DPW Catch Basin Cleanings (T16-1263-1-M)	2	136,100	68.05
Feeney Eversrouce Prescott St Worcester (T21-0204-1-B)	1	14,920	7.46
Medford Cemetery Excavate (T21-0233-1-M)	38	2,685,600	1,342.80
Puddingstone (C20-025-1-M)	10	664,980	332.49
09/27/2021 Totals	62	4,275,480	2,137.74

09/28/2021

Job Name	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
725-729 Morrissey Blvd, Dorchester (T21-0041-1-B)	14	1,022,180	511.09
Medford Cemetery Excavate (T21-0233-1-M)	40	2,821,320	1,410.66
Puddingstone (C20-025-1-M)	9	591,560	295.78
09/28/2021 Totals	63	4,435,060	2,217.53

09/29/2021

Job Name	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
15 Bennett St, Somerville, MA (T21-0018-1-B)	5	331,860	165.93
725-729 Morrissey Blvd, Dorchester (T21-0041-1-B)	8	597,120	298.56
CHA Truman Apts Cambridge (T20-0312-1-M)	8	348,360	174.18
Medford Cemetery Excavate (T21-0233-1-M)	3	203,400	101.70
Puddingstone (C20-025-1-M)	24	1,587,800	793.90
09/29/2021 Totals	48	3,068,540	1,534.27

09/30/2021

Job Name	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
15 Bennett St, Somerville, MA (T21-0018-1-B)	6	398,620	199.31
66 Galen St Watertown MSR soil (T21-0114-1-M)	12	822,800	411.40
CHA Truman Apts Cambridge (T20-0312-1-M)	2	97,920	48.96
Faneuil Library Brighton Topsoil (T21-0227-1-M)	1	44,220	22.11

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Order: by Job Name Type: All
From 09/01/2021 to 09/30/2021

Logan Term E Gen Pad Water Main (T19-0353-3-M)	12	825,760	412.88
Puddingstone (C20-025-1-M)	30	2,051,380	1,025.69
09/30/2021 Totals	63	4,240,700	2,120.35

	<u>Loads</u>	<u>Net</u>	<u>Net Tons</u>
Grand Total	955	64,321,280	32,160.64