Winchendon Landfill Site Observation - May 20, 2021

To: Brian Croteau, DPW Director

FROM: Aaron Sabbs, PE, Tighe & Bond

COPY: Alison Manugian, Conservation & Planning Agent

Alex Fagnand, PE, Tighe & Bond

DATE: July 6, 2021

On May 20, 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. While on site, material was placed in the northern corner of the site, and spread by a bulldozer in the general area of Section C-C 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, however, the berms and overflow for the temporary stormwater basin have not yet been built. The swale from the northern section of the site to the temporary stormwater basin has also not yet been constructed.

Erosion control was present along the northern, southern, and western edges of the site. There were no noted deficiencies in the erosion control.

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

TECHNICAL MEMORANDUM Tighe&Bond

Material Accepted

Tighe & Bond reviewed the attached Net Daily Summary Report received for the month of May, which details the total tonnage and number of loads of material received by the facility. As indicated in Table 1 below, a total of 26,096.58 tons of material was received in May, which results in 668,335.42 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 May was 13,735.04 cubic yards, which results in 351,755.48 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
Total	120,164.58	63,244.52
Remaining	668,335.42	351,755.48

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

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

TECHNICAL MEMORANDUM

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Photo 1 – Eastern slope and existing access road.



Photo 2 – Temporary Stormwater Basin. 4' high berm with rip rap overflow not yet constructed.

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Photo 3 - Swale and check dams between temporary stormwater basin and temporary rip rap settling area.



Photo 4 - Temporary rip rap settling area.

Technical Memorandum Tighe&Bond



Photo 5 - Representative view of erosion control on the western limits of the Site.



Photo 6 – Existing slope and erosion control at the southern limits of the Site.

TECHNICAL MEMORANDUM

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Photo 7 – Material delivered to site and placed for grading and shaping.



Photo 8 – Water truck collecting water from adjacent site for dust control.

Gross/Tare/Net Daily Summary

Order: by Job Name Type: All From 05/01/2021 to 05/31/2021

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Job Name	Loads	Net	Net Tons
945 Belmont Street, Brockton (T21-0092-1-B)	19	1,422,860	711.43
Bartlett Place Building A (T20-0397-1-B)	17	1,242,880	621.44
Cambridgeside Galleria minipile spoils (T21-0042-1-M)	2	31,420	15.71
Dot Block (C21-001-1-B)	8		265.74
·		531,480	
Worcester SS&CB Disposal (T21-0090-1-M)	16	1,066,440	533.22
05/03/2021 Totals	62	4,295,080	2,147.54
05/04/2021			
Job Name	<u>Loads</u>	Net	Net Tons
5 Washington Street (T20-0270-2-M)	6	413,940	206.97
87 Union Street, New Haven, CT (T21-0099-1-M)	10	485,520	242.76
945 Belmont Street, Brockton (T21-0092-1-B)	9	662,800	331.40
Bartlett Place Building A (T20-0397-1-B)	30	2,159,160	1,079.58
Dot Block (C21-001-1-B)	9	584,880	292.44
05/04/2021 Totals	64	4,306,300	2,153.15
05/05/2021			
Job Name	Loads	Net	Net Tons
87 Union Street, New Haven, CT (T21-0099-1-M)	9	431,540	215.77
945 Belmont Street, Brockton (T21-0092-1-B)	11	799,440	399.72
Bartlett Place Building A (T20-0397-1-B)	22	1,589,260	794.63
Broadway Apartments (T20-0375-1-M)	14	939,620	469.81
Cambridgeside Galleria minipile spoils (T21-0042-1-M)	2	26,740	13.37
05/05/2021 Totals	58	3,786,600	1,893.30
05/06/2021			
Job Name	Loads	Net	Net Tons
87 Union Street, New Haven, CT (T21-0099-1-M)	10	487,580	243.79
Bartlett Place Building A (T20-0397-1-B)	25	1,789,540	894.77
Broadway Apartments (T20-0375-1-M)	9	602,220	301.11
05/06/2021 Totals	44	2,879,340	1,439.67
05/07/2021			
Job Name	Loads	Net	Net Tons
5 Washington Street (T20-0270-1-B)	24	1,720,740	860.37
87 Union Street, New Haven, CT (T21-0099-1-M)	10	491,740	245.87
945 Belmont Street, Brockton (T21-0092-1-B)	5	350,940	175.47
Bartlett Place Building A (T20-0397-1-B)	20	1,445,120	722.56
Cambridgeside Galleria minipile spoils (T21-0042-1-M)	2	28,600	14.30
Fan Pier Parcel E (T21-0017-1-M)	2	148,440	74.22
05/07/2021 Totals	63	4,185,580	2,092.79
05/10/2021			
Job Name	<u>Loads</u>	Net	Net Tons
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Gross/Tare/Net Daily Summary

Order: by Job Name Type: All From 05/01/2021 to 05/31/2021

5 Washington Street (T20-0270-1-B) 87 Union Street, New Haven, CT (T21-0099-1-M) Bartlett Place Building A (T20-0397-1-B) Belmont Street Sweepings (T19-0108-1-M) Cambridgeside Galleria minipile spoils (T21-0042-1-M) Dot Block (C21-001-1-B)	15 10 11 4 2 8	1,114,580 496,760 774,190 238,120 24,420	557.29 248.38 387.10 119.06
Bartlett Place Building A (T20-0397-1-B) Belmont Street Sweepings (T19-0108-1-M) Cambridgeside Galleria minipile spoils (T21-0042-1-M)	11 4 2	774,190 238,120	387.10
Belmont Street Sweepings (T19-0108-1-M) Cambridgeside Galleria minipile spoils (T21-0042-1-M)	4 2	238,120	
Cambridgeside Galleria minipile spoils (T21-0042-1-M)	2		119.06
		24,420	
Dot Block (C21-001-1-B)	8		12.21
((+)		567,200	283.60
05/10/2021 Totals	50	3,215,270	1,607.64
05/11/2021			
Job Name	Loads	Net	Net Tons
21 Madison St, Malden (T21-0047-1-M)	2	108,160	54.08
4 Birnie Ave, Springfield, MA (T20-0198-1-B)	8	531,580	265.79
725-729 Morrissey Blvd, Dorchester (T21-0041-1-B)	20	1,392,100	696.05
87 Union Street, New Haven, CT (T21-0099-1-M)	10	480,560	240.28
Cambridgeside Galleria minipile spoils (T21-0042-1-M)	2	28,900	14.45
Dot Block (C21-001-1-B)	7	477,320	238.66
05/11/2021 Totals	49	3,018,620	1,509.31
05/12/2021			
Job Name	Loads	Net	Net Tons
21 Madison St, Malden (T21-0047-1-M)	1	45,420	22.71
4 Birnie Ave, Springfield, MA (T20-0198-1-B)	1	16,600	8.30
5 Washington Street (T20-0270-2-M)	2	157,520	78.76
Cambridgeside Galleria minipile spoils (T21-0042-1-M)	1	13,020	6.51
Dot Block (C21-001-1-B)	6	412,420	206.21
Fan Pier Parcel E (T21-0017-1-M)	2	157,440	78.72
Lowell High School (C20-023-3-B)	15	1,074,940	537.47
MassDOT District 3 Catch Basin Cleanings (T17-0135-1-M)	6	435,300	217.65
05/12/2021 Totals	34	2,312,660	1,156.33
05/13/2021			
Job Name	<u>Loads</u>	Net	Net Tons
725-729 Morrissey Blvd, Dorchester (T21-0041-1-B)	16	1,117,340	558.67
Cambridge Park Drive (T20-0056-1-B)	4	279,920	139.96
Cambridgeside Galleria minipile spoils (T21-0042-1-M)	2	23,420	11.71
Framingham DPW (T19-0153-1-M)	9	547,180	273.59
05/13/2021 Totals	31	1,967,860	983.93
05/14/2021			
Job Name	Loads	Net	Net Tons
Cambridgeside Galleria minipile spoils (T21-0042-1-M)	2	26,320	13.16
Fan Pier Parcel E (T21-0017-1-M)	4	270,240	135.12
Framingham DPW (T19-0153-1-M)	10	664,680	332.34
Tyngsborough Catch Basin Cleanings (T21-0102-1-M)	3	198,360	99.18
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Gross/Tare/Net Daily Summary

Order: by Job Name Type: All From 05/01/2021 to 05/31/2021

05/14/2021 Totals	19	1,159,600	579.80
05/17/2021			
Job Name	Loads	Net	Net Tons
2 Mill Street, Lawrence (T21-0116-1-B)	18	1,290,760	645.38
Belmont Street Sweepings (T19-0108-1-M)	4	193,300	96.65
Marblehead Catch Basin Cleanings (T19-0118-1-M)	5	349,140	174.57
05/17/2021 Totals	27	1,833,200	916.60
05/18/2021			
Job Name	<u>Loads</u>	Net	Net Tons
2 Mill Street, Lawrence (T21-0116-1-M)	13	952,120	476.06
725-729 Morrissey Blvd, Dorchester (T21-0041-1-B)	12	827,640	413.82
Cambridgeside Galleria minipile spoils (T21-0042-1-M)	2	26,820	13.41
Marblehead Catch Basin Cleanings (T19-0118-1-M)	2	155,060	77.53
05/18/2021 Totals	29	1,961,640	980.82
05/19/2021			
Job Name	Loads	<u>Net</u>	Net Tons
15 Bennett St, Somerville, MA (T21-0018-1-B)	2	127,320	63.66
2 Mill Street, Lawrence (T21-0116-1-M)	21	1,564,880	782.44
Cambridgeside Galleria minipile spoils (T21-0042-1-M)	2	20,260	10.13
Dot Block (C21-001-1-B)	7	453,340	226.67
05/19/2021 Totals	32	2,165,800	1,082.90
05/20/2021			
Job Name	<u>Loads</u>	<u>Net</u>	Net Tons
15 Bennett St, Somerville, MA (T21-0018-1-B)	2	127,940	63.97
2 Mill Street, Lawrence (T21-0116-1-M)	21	1,532,200	766.10
5 Washington Street (T20-0270-1-B)	20	1,445,500	722.75
99 Washington Street, Melrose (T21-0112-1-M)	4	268,660	134.33
Cambridgeside Galleria minipile spoils (T21-0042-1-M)	2	26,900	13.45
Fan Pier Parcel E (T21-0017-1-M)	2	144,360	72.18
05/20/2021 Totals	51	3,545,560	1,772.78
05/21/2021			
Job Name	<u>Loads</u>	<u>Net</u>	Net Tons
15 Bennett St, Somerville, MA (T21-0018-1-B)	2	129,240	64.62
945 Belmont Street, Brockton (T21-0092-1-B)	10	690,640	345.32
99 Washington Street, Melrose (T21-0112-1-M)	2	130,500	65.25
Boynton Yards Phase 1B Utilities (C20-016-1-B)	10	714,760	357.38

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Gross/Tare/Net Daily Summary

Order: by Job Name Type: All From 05/01/2021 to 05/31/2021

05/21/2021 Totals	24	1,665,140	832.57
05/24/2021			
Job Name	<u>Loads</u>	<u>Net</u>	Net Tons
Boynton Yards Phase 1B Utilities (C20-016-1-B)	10	692,780	346.39
Cambridgeside Galleria minipile spoils (T21-0042-1-M)	2	27,560	13.78
Longwood Towers II (C19-016-1-M)	1	49,540	24.77
Residences of South Brookline (C20-001)	2	136,240	68.12
05/24/2021 Totals	15	906,120	453.06
05/25/2021			
Job Name	Loads	<u>Net</u>	Net Tons
Boynton Yards Phase 1B Utilities (C20-016-1-B)	6	401,840	200.92
Medway Catch Basin Cleanings (T21-0088-1-M)	5	306,540	153.27
Revere DPW (T18-0177-1-M)	14	995,220	497.61
05/25/2021 Totals	25	1,703,600	851.80
05/26/2021			
Job Name	<u>Loads</u>	<u>Net</u>	Net Tons
15 Bennett St, Somerville, MA (T21-0018-1-B)	4	276,900	138.45
Bond Logan Term B Gate 32 ductbank (T20-0217-1-M)	1	9,200	4.60
Cambridge Park Drive (T20-0056-1-B)	6	404,640	202.32
Cambridgeside Galleria minipile spoils (T21-0042-1-M)	2	26,980	13.49
Dot Block (C21-001-1-B)	7	457,180	228.59
St Mark School Addition (T21-0043-1-M)	18	1,261,240	630.62
05/26/2021 Totals	38	2,436,140	1,218.07
05/27/2021			
Job Name	<u>Loads</u>	<u>Net</u>	Net Tons
AOTC Talcott Ave (T20-0345-1-B)	6	411,900	205.95
Cambridgeside Galleria minipile spoils (T21-0042-1-M)	2	23,420	11.71
Dot Block (C21-001-1-B)	6	398,380	199.19
St Mark School Addition (T21-0043-1-M)	18	1,239,960	619.98
05/27/2021 Totals	32	2,073,660	1,036.83
05/28/2021			
Job Name	<u>Loads</u>	Net	Net Tons
599 Columbus Ave, Boston, MA (T21-0120-1-M)	6	280,880	140.44

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Gross/Tare/Net Daily Summary

Order: by Job Name Type: All From 05/01/2021 to 05/31/2021

05/28/2021 Totals	44	2,775,380	1,387.69
Grand Total	<u>Loads</u>	Net	Net Tons
	791	52,193,150	26,096.58

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