SECTION 8.0

Wetland Classification & Impacts

WETLAND DELINEATION AND CLASSIFICATION

8.0 METHODS

The state and federal jurisdictional wetlands within the project area were delineated and flagged by New Hampshire Certified Wetland Scientist (CWS), Barry H. Keith, from May 2018 through July 2023. The core candidate lands evaluated for potential development, the "site", encompass approximately 400 acres. The subject lots of record (Map 406 Lots 2.1 and 3) total approximately 713 acres. Supplemental wetland delineation along Douglas Drive, Route 116 and in adjoining areas adjacent to the site were delineated between 2019-2023. The wetland mapping consisted of the following areas:

- All areas within the proposed limits of disturbance of the nine on-site alternatives (seven landfill footprint concepts and two access routes);
- Areas within the Alder Brook catchment adjacent to the proposed limits of disturbance;
- The area between the proposed landfill footprints and the confluences of the Alder Brook tributaries (west and downgradient of the proposed footprints);
- The areas between the proposed infrastructure area and the tributaries to Alder Brook; and
- The areas adjacent to the improvements of Douglas Drive and NH Route 116.

In total, site-specific wetlands mapping was performed over an approximately 600-acre area. Refer to Figure 8.1 for an overview of mapped areas.

Other wetlands and streams in an approximately 400-acre area outside of the core candidate land area on both subject and non-subject lots, were delineated and depicted using the Corps (1987) "Routine On-site Determination Method." This method utilizes existing topographic base plans, NWI maps, aerial photography and a reconnaissance level field review. Areas east of the Alder Brook/Forest Lake watershed boundary were initially screened through the Siting, Evaluation and Minimization Report (Section 7.3). The NWI, soils, groundwater and surface water drainage patterns and site topography were assessed to determine the general feasibility of this area to site the facility. Various limiting factors deemed this area as unsuitable for project development (refer to the site report in Section 7.3). Moreover, the property owner maintains a quarry along Douglas Drive and has retained development rights for a proposed future industrial park, thus precluding landfill development and the need for further field wetland evaluation of this area. Therefore, the Corps 1987 Method is considered appropriate for delineation of the portions of the subject lots not considered for landfill development. Of the portion of the approximately 713 acre subject property lots within the Alder Brook/Hatch Brook catchment, only approximately 50 acres southeast of the proposed infrastructure area and approximately 13 acres adjacent to Alder Brook were not field delineated. Neither of these areas included candidate land for project development. All other areas on the subject lots within the catchment were mapped by field delineation.

The delineation and wetland classifications were conducted in accordance with the following guidance documents:

- N.H. Code of Administrative Rules (Env-Wt 406.01(a) with the techniques outlined in the 1987 "U.S. Army Corps of Engineers Wetland Delineation Manual, Technical Report Y-87-1."
- U.S. Army Corps of Engineers 2012 "Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version2.0)." U.S. Army Corps of Engineers Research and Development Center, Environmental Laboratory.
- U.S. Army Corps of Engineers 2016 "National List of Plant Species that occur in wetlands: Northcentral and Northeast Region." Version 3.3, U.S. Army Corps of Engineers Research and Development Center, Environmental Laboratory."
- U.S. Fish and Wildlife Service Manual FWS/OBS-79/31 entitled "Classification of Wetlands and Deepwater Habitats of the United States, Cowardin et al, 1979."
- U.S. Federal Geological Data Committee. 2013. "Classification of Wetlands and Deepwater Habitats of the United States." Wetlands Subcommittee, Reston, VA.
- New England Hydric Soils Technical Committee, 2017. 4th Edition, "Field Indicators for Identifying Hydric Soils in New England." New England Interstate Water Pollution Control Commission, Lowell, Massachusetts.

• U.S. Department of Agriculture, Natural Resource Conservation Service, 2010. "Field Indicators of Hydric Soils in the United States, Version 7.0." USDA, NRCS in cooperation with the National Technical Committee for Hydric Soils.

Comprehensive on-site wetland determination employed an evaluation of hydric soils, wetland hydrology and vegetation to document existing wetland conditions. A series of Wetland Determination Data Forms were compiled to document existing wetland conditions within representative locations throughout the site. The limits of jurisdictional wetlands were flagged and numbered using pink and black striped surveyor's ribbon. Wetland and stream cover types were classified using the USFWS (Cowardin) wetland classification system. Previously disturbed areas include non-permitted post jurisdictional wetland fill areas associated with construction of portions of Douglas Drive (from Route 116 to the scale house) and wetland road fill areas identified for the construction of the haul road access to the northern and western gravel pit areas. These after-the-fact (ATF) fills are depicted in yellow on the Wetland Impact Plans.

Wetlands mapping was conducted by Horizons Engineering, Inc., New Hampshire Licensed land surveyors. Wetland flags were field surveyed using real-time Kinematic GPS methods in a base/rover configuration with a base position established with the on-line user positioning service or by sub-meter handheld GPS methods using a Trimble GEOXH unit and differentially corrected with post processing. All positions are based on the New Hampshire coordinate system, NAD83 (Grid North).

8.1 WETLAND DELINEATION & CLASSIFICATIONS – EXISTING CONDITIONS

The numbered wetland flag locations and wetland classification codes for the respective wetland areas are depicted on Sheet 1-36 in the accompanying 1"= 50' "Existing Wetlands Plans" dated November 2023 prepared by Horizons Engineering, Inc.

See Section 9.0 for the overall Wetland Cover Type map which depicts the general wetland classes mapped within the project area. These areas include: Palustrine Forested (PFO), Palustrine Scrub-Shrub (PSS), Palustrine Emergent/Scrub-Shrub (PEM/SS), and Palustrine

Emergent (PEM). Other features noted include riverine perennial (R3UBH) and intermittent (R4UBJ) habitats and the location of vernal pools (Section 10.3) within respective wetland areas. Detailed location and classifications are depicted on the Existing Wetland Plans.

The dominant wetland class is Palustrine Broad-leaved Deciduous Forested (PFO1). The principal species are red maple (*Acer rubrum*) and yellow birch (*Betula alleghaniensis*). As depicted, the majority of the forested wetlands are interconnected and serve as headwater wetlands to Alder Brook and its tributaries. The larger poorly to very poorly drained wetlands are positioned west of Douglas Drive. East of Douglas Drive the wetland areas are not as extensive due to the steeper topography. These wetlands are often associated with topographic drainageways or are isolated wetlands confined to poorly drained glacial till topographic depressions.

Palustrine Needle-leaved Forested (PFO4) wetlands are generally found in the low lying portions of the wetlands west of Douglas Drive while the PFO1 wetlands comprise the dominant wetland class east of Douglas Drive. The PFO4 areas often intermixed with the deciduous forested wetlands or are associated with the wetter components within the Lowland Spruce natural community. Red spruce (*Picea rubens*), Balsam fir (*Abies balsamea*), Larch (*Larix laricinia*), and Black spruce (*Picea mariana*) comprise the principal species. The red spruce and fir are generally found in the wetland areas underlain by poorly drained soils. The wetter portions of this wetland class typically support a higher component of Larch and Black Spruce. No stands of Northern white cedar (*Thuja occidentalis*) natural community were documented. However, individual specimens may be sporadically found within this forested wetland type.

Palustrine Scrub-Shrub (PSS) and Palustrine Emergent (PEM) comprise the other principal wetland cover types. Often these wetland classes are intermixed or can be found where the given wetland class is dominant. Principal species include: cattail (*Typha latifolia*), wool-grass (*Scirpus cyperinus*), various sedges (*Carex spp.*), willows (*Salix spp.*), speckled alder (*Alnus rugosa*), and various hardwood sapling wetland species.

The larger more contiguous wetland complex areas consisting of these cover types are located west of Douglas Drive, often found in association with the intermittent (R4UBJ) and perennial (R3UBH) riverine habitats. Former and active beaver colonies serve to influence water levels and correspondingly the wetland cover types. Portions of the perennial reaches of these streams support fish habitat. See the separate Section 401 application.

East of Douglas Drive, Palustrine Scrub-Shrub areas are positioned within slightly sloping shelf areas and along topographic drainageways.

Seven (7) vernal pools (VP-1 through VP-7) were documented and are depicted on the Overall Wetland Cover Type Map and Existing Wetland Plan sheets 10, 11, 21 and 22. See Vernal Pool Assessment (Section 10.3).

Other areas where emergent and scrub-shrub vegetation occur include man-made and/or altered wetlands associated with roadside ditches and excavated drainage features along the existing road network. These areas were classified as Palustrine Persistent Emergent/Broadleaved Deciduous Scrub-Shrub (PEM/SS1Exd) wetlands that are seasonally saturated/flooded, excavated and ditched. In some areas, the drainage ditches have been periodically excavated allowing emergent vegetation to become dominant. Other areas that have not been regularly maintained typically have a greater scrub-shrub component.

8.2 WETLAND IMPACTS

The total project wetland impact is approximately 11.5 acres. The project will permanently impact approximately 10.2 acres for landfill and associated infrastructure improvements, serve to retain approximately 0.85 acres of After-the-Fact (ATF) fills and temporarily impact approximately 0.5 acres of wetland within the Alder Brook catchment. Approximately 956 linear feet of intermittent stream (R4UBJ) and 910 linear feet of perennial (R3UBH) stream will be permanently impacted. Five (5) vernal pools (VP-3 through VP-7) will be directly impacted. Vernal pools VP-1 and VP-2 are located west of Douglas Drive and will not be impacted.

Wetland impacts are depicted on the accompanying "Wetland Impact Plans" prepared by Horizons Engineering, Inc. dated November 2023 and "Project Design Plans" prepared by CMA Engineers, Inc. dated November 2023.

Specific wetland impacts sorted by plan sheet number, impact classification, impact type (eg. Temporary, permanent, linear feet, and after-the-fact) are listed in Section 8.2.

Based on wetland category, class, and loss of functions and values for the cumulative wetland impacts, compensatory mitigation is proposed in accordance with State and Federal mitigation guidance. See Section 12.0 Compensatory Mitigation.



Figure 8.1

Overview of Mapped Wetland Extent

Wetland Permit Application

Granite State Landfill, LLC Dalton, New Hampshire

Drawn By: Designed By: Reviewed By: Project No: Date:	D. Heacock / E. Wright L. Corenthal / A. Matthews T. White 1003.24 November 2023
Date:	November 2023

Figure Narrative

This figure depicts the extent of wetlands delineated by B.H. Keith Associates of Freedom, New Hampshire in relation to property lines, proposed landfill extents, and landfill alternatives.

Notes

1. Wetlands and streams were provided by Horizons Engineering of Littleton, NH on November 8, 2023. Refer to Section 8 and the Existing Conditions Wetland Plan set for additional information.

2. The proposed landfill limits and alternatives were provided by CMA Engineers on October 23 and 25, 2023. Refer to Section 7 and the Solid Waste Permitting Plan set for additional information.

Legend

- Limit of Disturbance Concept 5.3
- Maximum Extent of Combined Limits of Disturbance (Concepts 1 to 4 and Concepts 5.1 to 5.3)
- Image: Second process of the only

 Im
- ---- Property line
- ---- Subject Property Line
 - Alder Brook / Hatch Brook Catchment
- Town line
- ---- Intermittent Stream
 - Perennial Stream
 - Field delineated wetland
 - Wetland (Routine On-site Determination Method)
- --- Wetland field delineation limit





	BETHLEHEM		
MATROUTE ISON OUGLASDAY MATROUTE ISON OUGLASDAY W. FOREST LAKE RI			
		LEGEND	
	SCALE IN FEET	WETLANDS WATERSHED BOUNDARY	DATE OF PRINT DECEMBER 03 2023 HORIZONS ENGINEERING
EXE	GRANITE STATE LANDFILL, LLC DALTON, NEW HAMPSHIRE EXISTING WETLANDS (NOVEMBER 2023)	horizons Engineering	PROJECT #: 19045 DATE: NOVEMBER 2023 SURVEYED BY: НЕІ ENGINEERED BY: ВНК
© 2023	OVERALL EXISTING WETLANDS WITH AERIAL UNDERLAY	Engineering - Land Surveying - Environmental MAINE • NEW HAMPSHIRE • VERMONT www.horizonsengineering.com	DRAWN BY: SJB/BDD/KRP CHECKED BY: ESP/BHK

Summary of Wetland Impacts by Cover Type and Town Granite State Landfill, LLC Dalton, New Hampshire

Impact -	Impact Classification	Impact	Town	Stre	am		Wetland	
Number		Classification		Intermittent	Perennial	Permanent	Temporary	Permanent
Number							(Courses Faist)	
		Туре		(R4UBJ)	(R3UBH)	(Square Feet)	(Square Feet)	After-the-Fact
				(Linear Feet)	(Linear Feet)			(Square Feet
1 -1	PFO1E	FO	Dalton	-	-	-	-	1,120
2 -1	PFM1F	FM	Dalton	_	_	-	-	1 448
2 1		EM	Dalton					2,200
2-2	PEIVILE	EIVI	Daiton	-	-	-	-	2,309
2 - 3	PFO1E	FO	Dalton	-	-	-	-	2,380
2 -4	P SS/FO 1E	SS	Dalton	-	-	-	-	2,775
8 -1	PSS1Ex	SS	Dalton	-	-	111	-	-
8 -2	PFO1E	FO	Dalton	-	-	44	-	-
8 - 3	PFO1F	FO	Dalton	_	_	_	122	_
0 5	DCC1Edv	22	Dalton				116	
<u> </u>	PSSIEux	33	Daiton	-	-	-	410	-
8 - 5	PSS1Edx	SS	Dalton	-	-	1,649	-	-
8 -6	PFO1E	FO	Dalton	-	-	124	-	-
8 -7	PFO1E	FO	Dalton	-	-	-	516	-
8 -8	P SS/FO 1E	SS	Dalton	-	-	-	48	-
8 -9	PSS1Fx	55	Dalton	_	_	-	65	_
0 J		22	Daltan				190	
8-10	PSSIEUX	55	Daiton	-	-	-	180	-
9-1	P SS/FO 1E	55	Dalton	-	-	-	24	-
9 -2	P SS/FO 1E	SS	Dalton	-	-	1,627	-	-
13 -1	PFO1E/R4UBJ	FO	Dalton	932	-	29,584	-	-
13 -3	PFO1E	FO	Dalton	-	-	7,686	_	-
13-4	PFO1F	FO	Dalton	-	-		_	331
19_1		FO	Dalton	_		1 176	_	-
10.2			Daltar	-		±,±20 600	-	_
19-2	PFUIE	FU		-	-	022	-	-
19 -2A	PFO1E	FO	Dalton	-	-	-	50	-
19 -3	PFO1E	FO	Dalton	-	-	92	-	-
19 -4	PFO1E	FO	Dalton	-	-	140	_	-
19 -5	PFO1F	FO	Dalton	-	-	2.441	-	-
19-6	DEO1E	F0	Dalton	_		2,111		
19-0	PFOIL	10	Daltan	-	-	2,111	-	-
19-7	PFUIE	FU	Daiton	-	-	116	-	-
20 -2	PFO1E	FO	Dalton	-	-	1,771	-	-
20 -3	PFO1E	FO	Dalton	-	-	359	-	-
20 -4	PFO1E	FO	Dalton	-	-	3,539	-	-
20 -5	PSS1F	SS	Dalton	-	-	3.443	_	-
20-6	DSS1F	55	Dalton	_	_	2 7/2	_	_
20-0		55	Daltan	_	_	2,742	_	_
20-7	PFUIE/4E	FU	Daiton	-	-	24,095	-	-
20 -8	PFO1E	FO	Dalton	-	-	1,717	-	-
20 -9	PFO1E	FO	Dalton	-	-	3,320	-	-
20 -10	PFO1E	FO	Dalton	-	-	798	-	-
20 -11	PFO1E	FO	Dalton	-	-	2.189	-	-
21 -1	PSS1Edx	55	Dalton	_	_	-	94	_
21 1		55	Dalton			1 / 5 1	54	
21-1A	PSSIEux	55	Daiton	-	-	1,451	-	-
21 -2	PFO1E	FO	Dalton	-	-	6,078	-	-
21 -3	PSS1E	SS	Dalton	-	-	995	-	-
21 -4	PFO1E	FO	Dalton	-	-	13,529	-	-
21 -5	PEM1Edx	EM	Dalton	-	-	204	-	-
21 -6	DITCH PEm1xd	FM	Dalton	_	_	1 048	-	_
21 0		E.()	Dalton			4 510		
21-/				-	-	4,51U	-	-
21 -8	P SS/FO 1E	55	Dalton	-	-	8,697	-	-
21 -9	PFO1/4E	FO	Dalton	-	-	4,840	-	-
21 -10	P EM/SS /FO 1/4E	EM	Dalton	-		6,411		
21 -11	P EM/SS 1E	EM	Dalton	-	-	7,634	-	-
21 -12	PFO1F	FO	Dalton	-	-	559	-	-
21_12		<u>د</u>	Dalton	_		1 //50	_	
21 13			Daltar			<u>דיי</u> י ריי		
21-14	2001-	33		-	-	2,524	-	-
21 - 15	PSS1E	SS	Dalton	-	-	3,768	-	-
21 -16	PFO1E	FO	Dalton	-	-	4,864	-	-
21 -17	PSS1E	SS	Dalton	-	-	1,312	-	-
21 -18	PFO1/4E	FO	Dalton	-	-	8,883	-	-
21 - 19	PFO1F	FO	Dalton	-	-	25 853	_	_
21 20		ENA	Dalton			12 /00		
21-20	r LIVI/33 / FU 1/4E			-	-	12,403	-	-
21-21	PFOIE	FU	Dalton	-	-	5/3	-	-
21 -22	PFO1E	FO	Dalton	-	-	7,730	-	-
21 -23	PFO1/4E	FO	Dalton	-	-	3,198	-	-
21 -24	PSS1E	SS	Dalton	-	-	17,153	-	-
21_25		FO	Dalton	-	-	2 810	-	_
21-23			Daltar	-		01020	-	_
21-20		FU	Daiton	-	-	1,832	-	-
21 - 27	P EM/SS 1E	EM	Dalton	-	-	5,626	-	-
21 -28	PSS1E	SS	Dalton	-	-	22,767	-	-
21 - 29	P SS/FO 1/4E	SS	Dalton	-	-	13,768	-	-
21 - 30	PSS1Edx	SS	Dalton	-	-	793	_	-
21 _21	DCC1Edv	<u> </u>	Dalton	_		-	204	
21 22		55	Daltar	-	-	0.001	204	-
21-32		EIVI	Daiton	-	-	3'33T	-	-
21 -33	PSS1E	SS	Dalton	-	-	834	-	-

P:\1000s\1003.24\Source Files\Wetlands App\Draft App Files\8.0\files\ 20231129 Wetland Impacts by Town and Type.xlsx

Summary of Wetland Impacts by Cover Type and Town Granite State Landfill, LLC Dalton, New Hampshire

Impact -	Impact Classification	Impact	Town	Stream		Wetland		
Number		Classification		Intermittent	Perennial	Permanent	Temporary	Permanent
Number		Turne				(Squara East)	(Square East)	After the Fact
		туре		(каовј)		(Square Feet)	(Square Feet)	After-the-Fact
				(Linear Feet)	(Linear Feet)			(Square Feet
21 - 34	PFO1F	FO	Dalton	_	_	146	_	_
<u>22 -1Δ</u>	P FM/FO 1	FM	Dalton		_		109	_
22 IA 22 1D			Dalton				105	
22 - 1B	PSSIE dx	55	Daiton	-	-	-	123	-
22 -2	PSS1E dx	SS	Dalton	-	-	836	-	-
22 -4	PFO1E	FO	Dalton	-	-	3,663	-	-
22 -5	P SS/FO 1E	SS	Dalton	-	-	2,990	-	-
22 -6	PFO1F	FO	Dalton	_	_	3.223	_	_
22 -7	PSS1F	22	Dalton	_	_	13 297	_	_
22 -7	P SSIL	55	Dalton	_	_	13,237	_	_
22-8	PFUIE	FU	Daiton	-	-	1,302	-	-
22 -9	PFO1E	FO	Dalton	-	-	187	-	-
22 -10	PFO1E	FO	Dalton	-	-	204	-	-
22 -11	P EM/SS E	EM	Dalton	-	-	837	-	-
22 -12	PFO1E	FO	Dalton	-	-	19.479	-	-
22 -13	PSS1E dx	55	Dalton	_	_	642	_	_
22 13		55	Dalton			700		
22 - 14	P SS/FU IE	55	Daiton	-	-	/88	-	-
22 - 15	P SS/FO 1E	SS	Dalton	-	-	-	620	-
22 -16	PSS1E dx	SS	Dalton	-	-	3,510	-	-
22 -17	PSS1E	SS	Dalton	-	-	1,705	-	-
22 -18	PFO1E	FO	Dalton	-	-	300	-	-
22 -19	PF∩4/1F	FO	Dalton	-	_	1 367	_	_
22 10		E0	Daltan			1 702		
22-20				-	-	1,/33	-	-
22-21	PF01/4E	FO	Dalton	-	-	1,859	-	-
22 -22	PSS1E	SS	Dalton	-	-	8,515	-	-
22 -23	P SS/FO 1E	SS	Dalton	-	-	3,318	-	-
22 -24	P SS/FO 1E	SS	Dalton	-	-	1,303	-	-
22 - 25	PSS1F	55	Dalton	_	_	28.061	_	_
22 25			Dalton			1 056		
22 - 20	VP-3	VP	Daiton	-	-	1,030	-	-
22-27	VP-4	VP	Dalton	-	-	338	-	-
22 -28	VP-3	VP	Dalton	-	-	900	-	-
23 -1	P SS/FO 1E	SS	Dalton	-	-	-	423	-
23 -2	P SS/FO 1E	SS	Dalton	-	-	286	-	-
23-3	PSS1E dx	55	Dalton	-	-	806	-	-
22 -4	DSS1E dx	55 55	Dalton	_	_	108	_	_
23-4		55	Daltan	-	-	108	-	-
23-5	PSSIE UX	33	Daiton	-	-	-	430	-
23 -6	PFO1E	FO	Dalton	-	-	-	1099	-
23 -6A	R3UBH, PFO1E	FO	Dalton	-	34	89	-	-
23 -7	P EM/SS 1Exd/R3UBH	EM	Dalton	-	390	4,956	-	-
23 -7A	R3UBH, PFO1E	FO	Dalton	-	116	56	-	-
23 -8	P SS/FO1E	SS	Dalton	-	_	-	528	_
23 -9	P SS/FO 1/4F	SS	Dalton	-	-	-	661	-
22 -10		<u> </u>	Dalton			80		
23-10		33	Daiton	-	-	03	-	-
23 - 11	R3UBH, PFO1E	FO	Dalton	-	1/1	37	-	-
23 -12	PFO1E	FO	Dalton	-	-	806	-	-
23 -13	PFO1E	FO	Dalton	-	-	-	778	-
27 -1	PFO1E	FO	Dalton	-	-	13,908	-	-
27 -2	PFO1E	FO	Dalton	-	-	9,672	-	-
27 -3	P EM/SS 1E	EM	Dalton	-	-	2.129	-	-
27 -1	PF∩1F	FO	Dalton	-	-	368	-	-
21 -4			Daltar	-	-	500	165	-
21-1		33		-	-	-	601	-
31-2	P EIVI/SS 1EXD	EM		-	-	1,374	-	-
31 -3	PFO1E	FO	Dalton	-	-	-	177	-
31 -4	PFO1E	FO	Dalton	-		13		-
31 -5	PSS1Exd	SS	Dalton	-	-	328	-	-
31 -6	PSS1E	SS	Dalton	-	-	299	-	-
31 -7	PSS1F	SS	Dalton	-	_	-	66	_
21_2	D CC/EO 1/1E	<u> </u>	Dalton			67		
22.4			Daltar	-	-	700	-	-
32 -1	P SS/FU 4/1E	55	Daiton	-	-	/28	-	-
32 -2	P SS/FO 4/1E	SS	Dalton	-	-	-	863	-
32 -3	P SS/FO 4/1E	SS	Dalton	-	-	207	-	-
32 -4	P SS/FO 4/1E	SS	Dalton	-	-	904	-	-
32 -5	P SS/FO 4/1E	SS	Dalton	-	-	-	1,848	-
32 -6	P \$\$/FO 4/1F	55	Dalton	-	_	62	-	_
22 7		 cc	Dalton	_			170	
32-7		33		-	-	-	470	-
32 -8	P 55/FU 4/1E	55	Dalton	-	-	-	404	-
33 -2	PFO1/4E	FO	Dalton	-	-	178	-	-
33 -3	PFO1/4E	FO	Dalton	-	-	-	835	-
33 -4	P EM/SS 1E	EM	Dalton	-	-	411	-	-
33 -5	P EM/SS 1F	FM	Dalton	-	_	_	1.130	_
22_6	DEO1/4E	E0	Bethlehom				186	
33-0		F0	Dethielieli	-	-	-	100	-
33-/		FU	веннепет	-	-	11	-	-
33 -8	P SS/FO 1E	SS	Bethlehem	-	-	-	1,825	-
33 -9	P SS/FO 1E	SS	Bethlehem	-	-	1,343	-	-

P:\1000s\1003.24\Source Files\Wetlands App\Draft App Files\8.0\files\ 20231129 Wetland Impacts by Town and Type.xlsx

Summary of Wetland Impacts by Cover Type and Town Granite State Landfill, LLC Dalton, New Hampshire

NumberClassification TypeIntermittent (R4UB) (Linear Feet)Perennail (R3UBH) (Linear Feet)Permanent (R3UBH) (Linear Feet)Permanent (Square Feet)Permanent After-the-Fact (Square Feet)33 -10PSSIESSBethlehem6633-33 -11PSSIESSBethlehem-268833 -12PSS/F0 IESSBethlehem268-4,15033 -13PSSIESSBethlehem2492,27034 -1PSSIESSBethlehem24934 -14PSSIESSBethlehem7534 -14PSSIESSBethlehem7534 -14PSSIESSBethlehem21234 -15PSSIESSBethlehem93734 -2PSSIESSBethlehem1,07034 -3PSSIESSBethlehem1,07034 -4PSSIESSBethlehem1,07034 -5PSSIESSBethlehem1,07034 -6PSS/F04ESSBethlehem <th>Impact -</th> <th>Impact Classification</th> <th>Impact</th> <th>Town</th> <th>Stre</th> <th>eam</th> <th colspan="3">Wetland</th>	Impact -	Impact Classification	Impact	Town	Stre	eam	Wetland		
Type(R4UBJ) (Linear Feet)(R3UBH) (Linear Feet)(Square Feet)After-the-Fact (Square Feet)33 -10PSS1ESSBethlehem663-33 -11PSS1ESSBethlehem663-33 -12PSS/F01ESSDalton663-33 -13PSS1ESSBethlehem4,15033 -14PSS1ESSBethlehem24934 -14PSS1ESSBethlehem35734 -14PSS1ESSBethlehem7534 -2PSS1ESSBethlehem7534 -3PSS1ESSBethlehem21234 -4PSS1ESSBethlehem21234 -5PSS1ESSBethlehem1,07034 -6PSS/F04ESSBethlehem1,07034 -7PSS1ESSBethlehem1,68334 -8PFO4EFOBethlehem1,68334 -8PFO4EFOBethlehem	Number		Classification		Intermittent	Perennial	Permanent	Temporary	Permanent
Image: Constraint of the second sec			Туре		(R4UBJ)	(R3UBH)	(Square Feet)	(Square Feet)	After-the-Fact
33-10 PSSIE SS Bethlehem - - 663 - 33-11 PSSIE SS Bethlehem - - 268 - - 33-12 PSS/F0 IE SS Datton - - 4,150 33-13 PSSIE SS Bethlehem - - - 4,150 33-13 PSSIE SS Bethlehem - - 249 - - 34-1 PSSIE SS Bethlehem - - 357 - 34-1 PSSIE SS Bethlehem - - 357 - 34-1 PSSIE SS Bethlehem - - 1,584 - 34-3 PSSIE SS Bethlehem - - 1,584 - - 34-5 PSSIE SS Bethlehem - - 1,683 - - 34-6 PSS/F0 4E SS					(Linear Feet)	(Linear Feet)			(Square Feet
33-11 PSS1E SS Bethlehem - 268 - - 33-12 PSS/F01E SS Daton - - - 4,150 33-13 PSS1E SS Bethlehem - - 2,270 34-1 PSS1E SS Bethlehem - 249 - - 34-1A PSS1E SS Bethlehem - - 357 - 34-1A PSS1E SS Bethlehem - - 357 - 34-1 PSS1E SS Bethlehem - - 1,584 - 34-2 PSS1E SS Bethlehem - - 1,584 - - 34-5 PSS1E SS Bethlehem - - 937 - - 34-6 PSS/F04E SS Bethlehem - - 1,070 - - 34-9 PFO4E FO Bethlehem <td>33 -10</td> <td>PSS1E</td> <td>SS</td> <td>Bethlehem</td> <td>-</td> <td>-</td> <td>-</td> <td>663</td> <td>-</td>	33 -10	PSS1E	SS	Bethlehem	-	-	-	663	-
33-12 P SS/F0 1E SS Dalton - - - - 4,150 33 ·13 PSS1E SS Bethlehem - - 2,270 34 ·11 PSS1E SS Bethlehem - 249 - - 34 ·1A PSS1E SS Bethlehem - - 357 - 34 ·1 PSS1E SS Bethlehem - - 75 - - 34 ·12 PSS1E SS Bethlehem - - 75 - - 34 ·2 PSS1E SS Bethlehem - - 1,584 - - 34 ·5 PSS1E SS Bethlehem - - 1,070 - - - 34 ·5 PSS/F0 4E SS Bethlehem - - 1,070 - - - - - - - - - - - - -	33 -11	PSS1E	SS	Bethlehem	-	-	268	-	-
33-13 PSS1E SS Bethlehem - - - 2,270 34-1 PSS1E SS Bethlehem - - 249 - - 34-1A PSS1E SS Bethlehem - - 357 - 34-1A PSS1E SS Bethlehem - - 357 - 34-2 PSS1E SS Bethlehem - - 75 - - 34-3 PSS1E SS Bethlehem - - 1,584 - 34-4 PSS1E SS Bethlehem - - 212 - - 34-5 PSS1E SS Bethlehem - - 1,070 - - 34-6 PSS/F0 4E SS Bethlehem - - 1,070 - - 34-7 PS/F0 4E FO Bethlehem - - 1,070 - -	33 -12	P SS/FO 1E	SS	Dalton	-	-	-	-	4,150
34 ·1 PSS1E SS Bethlehem - 249 - - 34 ·1A PSS1E SS Bethlehem - - 357 - 34 ·2 PSS1E SS Bethlehem - - 75 - - 34 ·2 PSS1E SS Bethlehem - - 75 - - 34 ·2 PSS1E SS Bethlehem - - 1,584 - 34 ·4 PSS1E SS Bethlehem - - 937 - 34 ·5 PSS1E SS Bethlehem - - 937 - 34 ·6 PSS/F0 4E SS Bethlehem - - 1,070 - - 34 ·7 PSS/F0 4E SS Bethlehem - - 1,070 - - 34 ·10 PFO4E FO Bethlehem - - - 6,489 35 ·1 PEME	33 -13	PSS1E	SS	Bethlehem	-	-	-	-	2,270
34 -1A PSS1E SS Bethlehem - - 357 - 34 -2 PSS1E SS Bethlehem - - 75 - - 34 -3 PSS1E SS Bethlehem - - 1,584 - 34 -4 PSS1E SS Bethlehem - - 212 - - 34 -5 PSS1E SS Bethlehem - - 937 - 34 -6 PSS/F0 4E SS Bethlehem - - 1,070 - - 34 -6 PSS/F0 4E SS Bethlehem - - 1,070 - - 34 -7 PSS/F0 4E FO Bethlehem - - 1,070 - - 34 -9 PF04E FO Bethlehem - - 740 - - 34 -10 PSS1E SS Bethlehem - - - - -	34 -1	PSS1E	SS	Bethlehem	-	-	249	-	-
34-2 PSS1E SS Bethlehem - - 75 - - 34-3 PSS1E SS Bethlehem - - 1,584 - 34-4 PSS1E SS Bethlehem - - 212 - - 34-5 PSS1E SS Bethlehem - - 937 - 34-6 PSS/F04E SS Bethlehem - - 1,070 - - 34-7 PSS/F04E SS Bethlehem - - 1,070 - - 34-8 PF04E FO Bethlehem - - 1,683 - 34-9 PF04E FO Bethlehem - - 16,483 34-10 PSS1E SS Bethlehem - - - 12,857 34-11 PF04E FO Bethlehem - - - - - 35-1 PEM1Exd	34 -1A	PSS1E	SS	Bethlehem	-	-	-	357	-
34-3 PSS1E SS Bethlehem - - 1,584 - 34-4 PSS1E SS Bethlehem - - 212 - - 34-5 PSS1E SS Bethlehem - - 937 - 34-6 PSS/F04E SS Bethlehem - - 1,496 - 34-7 PSS/F04E SS Bethlehem - - 1,070 - - 34-8 PF04E FO Bethlehem - - 1,070 - - 34-9 PF04E FO Bethlehem - - 740 - - 34-9 PF04E FO Bethlehem - - 740 - - 34-10 PSS1E SS Bethlehem - - - 12,857 34-11 PF04E FO Bethlehem - - 78 - - 3	34 -2	PSS1E	SS	Bethlehem	-	-	75	-	-
34-4 PSS1E SS Bethlehem - - 212 - - 34-5 PSS1E SS Bethlehem - - 937 - 34-6 PSS/F0 4E SS Bethlehem - - 1,496 - 34-7 PSS/F0 4E SS Bethlehem - - 1,070 - - 34-8 PF04E FO Bethlehem - - 1,070 - - 34-9 PF04E FO Bethlehem - - 1,683 - 34-10 PSS1E SS Bethlehem - - 740 - - 34-11 PF04E FO Bethlehem - - - 6,489 35 -1 PEM1Exd EM Bethlehem - - 78 - - 35 -2 R4UBI, PF01E FO Bethlehem - - 1111 - -	34 -3	PSS1E	SS	Bethlehem	-	-	-	1,584	-
34-5 PSS1E SS Bethlehem - - 937 - 34-6 P SS/FO 4E SS Bethlehem - - 1,496 - 34-7 P SS/FO 4E SS Bethlehem - - 1,070 - - 34-8 PFO4E FO Bethlehem - - 1,070 - - 34-9 PFO4E FO Bethlehem - - 740 - - 34-10 PSS1E SS Bethlehem - - 740 - - 34-11 PFO4E FO Bethlehem - - - - 6,489 35 -1 PEM1Exd EM Bethlehem - - 78 - - 35 -2 R4UB, PFO1E FO Bethlehem 24 - 121 - - 35 -5 PFO4Ed FO Bethlehem - 109 - -	34 -4	PSS1E	SS	Bethlehem	-	-	212	-	-
34-6 P SS/FO 4E SS Bethlehem - - 1,496 - 34-7 P SS/FO 4E SS Bethlehem - 1,070 - - 34-8 PFO4E FO Bethlehem - - 1,683 - 34-9 PFO4E FO Bethlehem - - 740 - - 34-10 PSS1E SS Bethlehem - - 740 - - 34-11 PFO4E FO Bethlehem - - - 12,857 34-11 PFO4E FO Bethlehem - - - - 6,489 35-1 PEM1Exd EM Bethlehem - - 78 - - 35-2 R4UBJ, PFO1E FO Bethlehem - - 111 - - 35-4 PFO4Ed FO Bethlehem - - 109 - - <tr< td=""><td>34 -5</td><td>PSS1E</td><td>SS</td><td>Bethlehem</td><td>-</td><td>-</td><td>-</td><td>937</td><td>-</td></tr<>	34 -5	PSS1E	SS	Bethlehem	-	-	-	937	-
34-7 P SS/FO 4E SS Bethlehem - - 1,070 - - 34-8 PFO4E FO Bethlehem - - 1,683 - 34-9 PFO4E FO Bethlehem - - 740 - - 34-10 PSS1E SS Bethlehem - - - 12,857 34-11 PFO4E FO Bethlehem - - - 6,489 35-1 PEM1Exd EM Bethlehem - - 78 - - 35-2 R4UBJ, PFO1E FO Bethlehem 24 - 121 - - 35-4 PFO4Ed FO Bethlehem - - 111 - 35-5 PFO4Ed FO Bethlehem - - 109 - - 35-6 PSS1Ex SS Bethlehem - - 50 - -	34 -6	P SS/FO 4E	SS	Bethlehem	-	-	-	1,496	-
34-8 PFO4E FO Bethlehem - - 1,683 - 34-9 PFO4E FO Bethlehem - 740 - - 34-10 PSS1E SS Bethlehem - - - 12,857 34-11 PFO4E FO Bethlehem - - - 6,489 35-1 PEM1Exd EM Bethlehem - 78 - - 35-2 R4UBJ, PFO1E FO Bethlehem 24 - 121 - - 35-4 PFO4Ed FO Bethlehem 24 - 121 - - 35-4 PFO4Ed FO Bethlehem - - 111 - 35-4 PFO4Ed FO Bethlehem - - 109 - - 35-5 PFO4Ed FO Bethlehem - - 50 - - 35-6 PSS/FO 1E <td>34 -7</td> <td>P SS/FO 4E</td> <td>SS</td> <td>Bethlehem</td> <td>-</td> <td>-</td> <td>1,070</td> <td>-</td> <td>-</td>	34 -7	P SS/FO 4E	SS	Bethlehem	-	-	1,070	-	-
34-9 PFO4E FO Bethlehem - 740 - - 34-10 PSS1E SS Bethlehem - - - 12,857 34-11 PFO4E FO Bethlehem - - - 6,489 35-1 PEM1Exd EM Bethlehem - - 78 - - 35-2 R4UBJ, PFO1E FO Bethlehem 24 - 121 - - - 35-4 PFO4Ed FO Bethlehem - - 111 - - 35-5 PFO4Ed FO Bethlehem - - 109 - - - 35-6 PSS1Ex SS Bethlehem - - 50 - - - 35-6 PSS1Ex SS Bethlehem - - 2,367 - - 35-79 R3UBH, PSS/F0.4E SS Bethlehem - -	34 -8	PFO4E	FO	Bethlehem	-	-	-	1,683	-
34-10 PSS1E SS Bethlehem - - - 12,857 34-11 PFO4E FO Bethlehem - - - 6,489 35-1 PEM1Exd EM Bethlehem - - 78 - - 35-2 R4UBJ, PFO1E FO Bethlehem 24 - 121 - - 35-4 PFO4Ed FO Bethlehem 24 - 121 - - 35-4 PFO4Ed FO Bethlehem 24 - 121 - - 35-5 PFO4Ed FO Bethlehem - - 109 - - 35-6 PSS1Ex SS Bethlehem - - 50 - - 35-6 PSS/FO 1E SS Bethlehem - - 2,367 - - 35-9 R3UBH, P SS/FO 4E SS Bethlehem - - - -	34 -9	PFO4E	FO	Bethlehem	-	-	740	-	-
34-11 PFO4E FO Bethlehem - - - 6,489 35-1 PEM1Exd EM Bethlehem - 78 - - 35-2 R4UBJ, PFO1E FO Bethlehem 24 - 121 - - 35-4 PFO4Ed FO Bethlehem 24 - 121 - - 35-4 PFO4Ed FO Bethlehem - - 121 - - 35-5 PFO4Ed FO Bethlehem - - 109 - - 35-6 PSS1Ex SS Bethlehem - - 50 - - 35-6 PSS1Ex SS Bethlehem - - 50 - - 35-7 R3UBH, PSS/F0.1E SS Bethlehem - 198 - - - 35-9 R3UBH, PSS/F0.4E SS Bethlehem - - - -<	34 -10	PSS1E	SS	Bethlehem	-	-	-	-	12,857
35-1 PEM1Exd EM Bethlehem - 78 - - 35-2 R4UBJ, PFO1E FO Bethlehem 24 - 121 - - 35-4 PFO4Ed FO Bethlehem - - 111 - 35-4 PFO4Ed FO Bethlehem - - 111 - 35-5 PFO4Ed FO Bethlehem - - 109 - - 35-6 PSS1Ex SS Bethlehem - - 50 - - 35-8 P SS/FO 1E SS Bethlehem - - 2,367 - - 35-9 R3UBH, P SS/FO 4E SS Bethlehem - 198 - - - 35-3 PSS1E SS Bethlehem - - - - 767 36-1 P EM/FO 1E EM Bethlehem - - 290 - -<	34 -11	PFO4E	FO	Bethlehem	-	-	-	-	6,489
35 -2 R4UBJ, PF01E FO Bethlehem 24 - 121 - - 35 -4 PF04Ed FO Bethlehem - - - 111 - 35 -5 PF04Ed FO Bethlehem - - 109 - - 35 -5 PF04Ed FO Bethlehem - - 109 - - 35 -6 PSS1Ex SS Bethlehem - - 50 - - 35 -6 PSS/FO 1E SS Bethlehem - - 2,367 - - 35 -8 P SS/FO 1E SS Bethlehem - 198 - - - 35 -9 R3UBH, P SS/FO 4E SS Bethlehem - 198 - - - 35 -3 PSS1E SS Bethlehem - - - - 767 36 -1 P EM/FO 1E EM Bethlehem - - 290 - -	35 -1	PEM1Exd	EM	Bethlehem	-	-	78	-	-
35 -4 PFO4Ed FO Bethlehem - - 111 - 35 -5 PFO4Ed FO Bethlehem - - 109 - - 35 -6 PSS1Ex SS Bethlehem - - 50 - - 35 -6 PSS1Ex SS Bethlehem - - 50 - - 35 -8 P SS/FO 1E SS Bethlehem - - 2,367 - - 35 -9 R3UBH, P SS/FO 4E SS Bethlehem - 198 - - - 35 -3 PSS1E SS Bethlehem - - - - - 35 -3 PSS1E SS Bethlehem - - - - - 36 -1 P EM/FO 1E EM Bethlehem - - 290 - -	35 -2	R4UBJ, PFO1E	FO	Bethlehem	24	-	121	-	-
35 -5 PFO4Ed FO Bethlehem - 109 - - 35 -6 PSS1Ex SS Bethlehem - - 50 - - 35 -6 PSS1Ex SS Bethlehem - - 50 - - 35 -8 P SS/FO 1E SS Bethlehem - - 2,367 - - 35 -9 R3UBH, P SS/FO 4E SS Bethlehem - 198 - - - 35 -3 P SS1E SS Bethlehem - - - 767 36 -1 P EM/FO 1E EM Bethlehem - - 290 - -	35 -4	PFO4Ed	FO	Bethlehem	-	-	-	111	-
35-6 PSS1Ex SS Bethlehem - - 50 - - 35-8 P SS/F0 1E SS Bethlehem - - 2,367 - - 35-9 R3UBH, P SS/F0 4E SS Bethlehem - 198 - - 35-3 PSS1E SS Bethlehem - 198 - - 767 35-3 PSS1E SS Bethlehem - - 290 - -	35 -5	PFO4Ed	FO	Bethlehem	-	-	109	-	-
35 -8 P SS/FO 1E SS Bethlehem - 2,367 - - 35 -9 R3UBH, P SS/FO 4E SS Bethlehem - 198 - - - 35 -3 PSS1E SS Bethlehem - 198 - - - 35 -3 PSS1E SS Bethlehem - - - 767 36 -1 P EM/FO 1E EM Bethlehem - - 290 - -	35 -6	PSS1Ex	SS	Bethlehem	-	-	50	-	-
35 -9 R3UBH, P SS/FO 4E SS Bethlehem - 198 - 198 - - - - - - - - - 36 - - 36 - 767 36 - - - - - - 767 - - - - 290 - <td>35 -8</td> <td>P SS/FO 1E</td> <td>SS</td> <td>Bethlehem</td> <td>-</td> <td>-</td> <td>2,367</td> <td>-</td> <td>-</td>	35 -8	P SS/FO 1E	SS	Bethlehem	-	-	2,367	-	-
35 -3 PSS1E SS Bethlehem - - - 767 36 -1 P EM/FO 1E EM Bethlehem - - 290 - -	35 -9	R3UBH, P SS/FO 4E	SS	Bethlehem	-	198	-	-	-
36 -1 P EM/FO 1E EM Bethlehem 290	35 -3	PSS1E	SS	Bethlehem	-	-	-	-	767
	36 -1	P EM/FO 1E	EM	Bethlehem	-	-	290	-	-

			Totals by Type			
Туре	Town	Intermittent	Perennial	Permanent (sq.	Temporary (sq.	Permanent ATF
		(R4UBJ)	(R3UBH)	ft)	ft.)	(sq ft)
		(Linear Feet)	(Linear Feet)			
FO	Dalton	-		227,438	3,577	3,831
FO	Bethlehem			981	1,980	6,489
FO	Total	-	<u> </u>	228,419	5,557	10,320
SS	Dalton		· '	153,942	7,646	6,925
SS	Bethlehem	-		5,634	6,862	15,894
SS	Total	-		159,576	14,508	22,819
EM	Dalton	-		53,110	1,239	3,757
EM	Bethlehem		'	368	0	0
EM	Total	-	<u> </u>	53,478	1,239	3,757
VP	Dalton	-		2,294	0	0
VP	Bethlehem	-		0	0	0
VP	Total	-		2,294	0	0
Total - Daltor	1	932	711	436,784	12,462	14,513
Total - Bethle	hem	24	198	6,983	8,842	22,383
Total - By Typ)e	956	909	443,767	21,304	36,896
Total		1,8	365		501,967	

Notes:

1. Impact numbers refer to the sheets and impacts in the Wetland Impact Plans; refer to Wetland Impact Plans for additional information and notes.

2. Abbreviations: FO = Forested SS = Scrub-Shrub EM = Emergent VP = Vernal Pool

P:\1000s\1003.24\Source Files\Wetlands App\Draft App Files\8.0\files\ 20231129 Wetland Impacts by Town and Type.xlsx

Project/Site: Granite State Landfill, LLC	City/County: Coos		Samp	ling Date: 6/22	
Applicant/Owner: JW Chipping, Inc.		State:	NH	Sampling Point:	33-53
Investigator(s): BHK	Section, Township, Range: Daltor	<u>1</u>			
Landform (hillside, terrace, etc.): upper headwater	Local relief (concave, convex, none):	slightly slc	oping	Slope (%):	:0-8
Subregion (LRR or MLRA): LRR K, MLRA 90A Lat:	Long:			Datum:	
Soil Map Unit Name: <u>647 Pillsbury</u>		NWI class	sification:	PSS/FO	
Are climatic / hydrologic conditions on the site typical for this	time of year? Yes x No (I	f no, explai	in in Rema	arks.)	
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology s	significantly disturbed? Are "Normal Circun	nstances" p	present?	Yes <u>X</u> N	vه
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrologyr	naturally problematic? (If needed, explain	any answe	rs in Rem	ıarks.)	
SUMMARY OF FINDINGS – Attach site map sh	nowing sampling point locations, t	ransects	s, impo	rtant features	, etc.
		,	,	-	

Hydrophytic Vegetation Present?	Yes	x	No	Is the Sampled Area within a Wetland? If yes, optional Wetland Site ID: Sht 33-53
Hydric Soil Present?	Yes	x	No	
Wetland Hydrology Present?	Yes	x	No	
Remarks: (Explain alternative procedur	⇒s here or	r in a s	separate report.)	
After the fact road fill. Plot center is 30'	east of to	be of ro	ad fill.	

Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; c	heck all that apply)		Surface Soil Cracks (B6)
_x_Surface Water (A1)	Water-Stained Leaves (B9)		Drainage Patterns (B10)
x High Water Table (A2)	Aquatic Fauna (B13)		Moss Trim Lines (B16)
Saturation (A3)	Marl Deposits (B15)		Dry-Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)		Crayfish Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres on Livin	g Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4)		Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled	Soils (C6)	Geomorphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)		Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)		Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)			FAC-Neutral Test (D5)
Field Observations:			
Surface Water Present? Yes x No	x Depth (inches): 0-2"		
Water Table Present? Yes x No	Depth (inches): surface		
Saturation Present? Yes x No	Depth (inches): surface	Wetland Hy	vdrology Present? Yes X No
(includes capillary fringe)		•	
Describe Recorded Data (stream gauge, monitori	ng well, aerial photos, previous inspe	ections), if ava	ullable:
		,.	
Remarks:			
Fragipan layer perched wetland. Wetland was like	ly bisected by Douglas Drive. No cro	oss culvert pre	esent.

Sampling	Point [.]	33
Sampling	FOILT.	

	Absolute	Dominant	Indicator	
e Stratum (Plot size:30')	% Cover	Species?	Status	Dominance Test worksheet:
Nonea				
				Number of Dominant Species That Are OBL. FACW, or FAC: (A)
				Total Number of Dominant
				Percent of Dominant Species
				That Are OBL, FACW, or FAC:(AVI
				Prevalence Index worksheet:
		=Total Cover		Total % Cover of: Multiply by:
ling/Shrub Stratum (Plot size: 15')				OBL species x 1 =
Betula populifolia	3	No	FACW	FACW species x 2 =
Pinus resinosa	1	No	FAC	FAC species x 3 =
Picea rubens	2	No	FACU	FACU species x 4 =
Larix laricina	1	No	FACW	UPL species x 5 =
Alnus alutinosa	12	Yes	FACW	Column Totals: (A)
¥				Prevalence Index = B/A =
				Hydrophytic Vegetation Indicators:
	19	-Total Cover		 1 - Rapid Test for Hydrophytic Vegetation
h Stratum (Diateiza: 5')				2 Dominance Test is 50%
<u> </u>	40	Vaa		2 = Dominiative restriction 20070
Carex crinita	40	Yes		3 - Prevalence index is ≥5.0
sphagnum	40	Yes	ORL	4 - Morphological Adaptations (Provide suppor data in Remarks or on a separate sheet)
Scirpus cyperinus	10	No	OBL	
				Problematic Hydrophytic Vegetation' (Explain)
				¹ Indicators of hydric soil and wetland hydrology mus
				be present, unless disturbed or problematic.
				Definitions of Vegetation Strata:
				Tree – Woody plants 3 in. (7.6 cm) or more in diam
				at breast height (DBH), regardless of height.
				and greater than or equal to 3.28 ft (1 m) tall.
	90	-Total Cover		Herb – All herbaceous (non-woody) plants, regardle
(Plot size: 5)				UI SIZE, and woody plante loss than e.ze
<u>200 vine Stratum</u> (Flot 5126,	0			Woody vines – All woody vines greater than 3.28 f
<u>N/A</u>	0			height.
				Hydrophytic
				Vegetation
				Present? Yes X No x
		=Total Cover		

SO	
	_

Depth Matrix Redox Features (inches) Cold (most) % Cold (most) % Texture Remarks 022 10YR 2/2	Profile De	scription: (Descri	be to the de	epth needed to docu	ument th	e indicate	or or conf	firm the absence of	indicators.)		
(inches) Color (most) % Color (most) % Type Loc ² Texture Remarks 0-22 10YR 2/2	Depth	Matrix		Redo	x Featur	es					
0-22 10YR 2/2 ine muck and peat 22+ 10yr 2/1 ned/ file sandy muck 11yr 2/1 ned/ file sandy file sandy file sandy file sandy file sandy	(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Rer	narks	
22*+ 10yr 2/1 med/ fine sandy muck 22*+ 10yr 2/1 10yr 2/1 23* 10yr 2/1 10yr 2/1 20* 10yr 2/1 10yr 2/1 20* 10yr 2/1 10yr 2/1 20* 10yr 2/1 10yr 2/1	0-22	10YR 2/2							fine muc	k and pe	eat
"Type: CConcentration, Du-Depletion, RMu-Reduced Matrix, CS-Covered or Coated Sand Grains, "Location: PL-Pore Lining, M-Matrix, Midicators for Problematic Hydric Solis": * Histic Soli Indicators: Indicators for Problematic Hydric Solis": * Histics Old Indicators: Indicators for Problematic Hydric Solis": * Histics Old Indicators: Coasel Fraine Redox (A10) (LRR K, L) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 1498) Coasel Fraine Redox (A10) (LRR K, L) Sorm Mucky Mineral (F1) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Depleted below Dark Surface (S9) (LRR K, L) Thin Dark Surface (S1) (Lark K, L) Depleted below Dark Surface (S1) (LRR K, L) Thin Dark Surface (S1) Redox Dark Surface (F2) Sardy Gloved Matrix (S4) Depleted Dark Surface (F7) Sardy Redox (S5) Redox Depressions (F8) Dark Surface (S7) Mart (F10) (LRR K, L) "Indicators of hydrophytic vagetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type: Type: Hydric Soil Present? Yes_X_No Restrictive Layer (if observed): Yes_X_No Pathing Law (S1) Each Soli Present? Yes_X_No Restrictive Layer (if observed): Yes_X_No	22"+	10yr 2/1							med/ fine :	sandy m	nuck
Type: C=Concentration, D=Depletion, RIM=Reduced Matrix, CS=Covered or Costed Sand Grains. ² Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils ² : X Hidto Explores (S9) (LRR R, HLA149B) Bibloc Hidto (A3) Thin Dark Surface (S9) (LRR R, MLRA149B) Hidto Explores (A5) Loamy Gleyid Matrix (F2) Hydric Soil Mide (A4) High Chrom Sands (S11) (LRR K, L) Polyaled Bdow Dark Surface (A11) Loamy Gleyid Matrix (F2) Trick Dark Surface (A11) Loamy Gleyid Matrix (F2) Trick Dark Surface (S1) Redox Dark Surface (F7) Sandy Cleyed Matrix (S1) Redox Dark Surface (F7) Sandy Redox (S5) Redox Dark Surface (F7) Sandy Cleyed Matrix (S2) Matrix (F10) (LRR K, L) Dark Surface (37) Matri (F10) (LRR K, L) "Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problemalic. Restrictive Layer (If Observed): Type: Type: Loght (Inches): 22'+ Restrictive Layer (If Observed): Yes_X_No_ Type: Hydric Soil Present? Yes_X_No_ Remarks: Hydric Soil Present? Yes_X_No_											
"Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. *Location: PL=Pore Lining, M=Matrix. Hydric Soll Indicators: Indicators for Problematic Hydric Soils*: Y Histosi (A) Polyvalue Below Surface (SB) (LRR R, MLRA 149B) Black Heist (A3) Thin Dark Surface (SD) (LRR K, L) Branch Heist (A3) Thin Dark Surface (SD) (LRR K, L) Depleted Below Dark Surface (SD) (LRR K, L) Polyvalue Below Surface (SD) (LRR K, L, R) Branch Heist (A3) Thin Dark Surface (SD) (LRR K, L, R) Branch Heist (A3) Loamy Micky Mineral (F1) (LRR K, L) Strafted Layers (A5) Loamy Micky Mineral (F2) Thick Dark Surface (A12) Depleted Mark (F2) Sandy Mucky Mineral (S1) Redx Dark Surface (F6) Sandy Mucky Mineral (S1) Redx Dark Surface (F7) Sandy Mucky Mineral (S6) Mark (F10) (LRR K, L) Dark Surface (S7) Mark Surface (S7) *Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restricture Layer (If observed): Z2'+ Hydric Soil Present? Yes X No											
Type: CacConcentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. * Location: PL=Pore Lining, M=Matrix. Hydric Soll Indicators: Indicators for Problematic Hydric Solls*:											
Image: Section of the sectin of the section of the											
"Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. * Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators:											
"Type: C_Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. *Location: PL=Pare Lining, M=Matrix. Hydric Soll Indicators: Indicators for Problematic Hydric Solls*:											
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ¹ Location: PL=Pore Lining, M=Matrix. Hydric Soli Indicators: Indicators for Problematic Hydric Solis ¹ : Indicators for Problematic Hydric Solis ¹ : × Histosol (A1) Polyvalue Below Surface (S8) (LRR R, Hydric Soli Indicators for Problematic Hydric Solis ¹ : Indicators for Problematic Hydric Solis ¹ : × Histosol (A1) MLRA 1498) Coast Praine Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR R, L) Thin Dark Surface (S9) (LRR K, L) Phydrogen Suffice (A4) Learny Mucky Mineral (F1) (LRR K, L) Thin Dark Surface (S9) (LRR K, L, R) Depleted Below Dark Surface (A12) Depleted Dark Surface (F6) Mesic Spocie (TA6) (MLRA 144A, 145, 149B) Sandy Kledox (S5) Redox Dark Surface (F7) Red Parent Material (F21) Other (Explain in Remarks) Surface (S7) Mart (F10) (LRR K, L) Depleted Matrix (S8) Other (Explain in Remarks) * Type:Hydroic Soil Present? Yes_X No							·				
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils ² : 2 cm Muck (A10) (LRR K, L, MLRA 149B) Histic Epipedon (A2) MLRA 149B) Coast Prain Reduced (A10) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L) Depleted Below Dark Surface (A11) Loamy Mucky Mineral (F1) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L) Thick Dark Surface (A11) Loamy Mucky Mineral (F1) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L, R) Sandy Mucky Mineral (S1) Redox Dark Surface (F7) Mesic Spodic (TA6) (MLRA 1449B) Sandy Mucky Mineral (S1) Redox Dark Surface (F7) Red Parent Material (F2) (MLRA 149B) Sandy Gleyed Matrix (S6) Mari (F10) (LRR K, L) Other (Explain in Remarks) Dark Surface (S7) Sandy Redox (S5) Red Parent Material (F2) *** Hydric Soil Present? Yes											
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : 2 cm Muck (A10) (LRR K, L, R) Black Histic CA) MLRA 149B) Coast Praine Redox (A16) (LRR K, L, R) Black Histic CA) Thin Dark Surface (S9) (LRR K, L) Polyvalue Below Surface (S3) (LRR K, L, R) Phydrogen Sulfate (A4) High Chroma Sands (S11) (LRR K, L) Polyvalue Below Surface (S3) (LRR K, L, R) Depleted Below Dark Surface (A12) Depleted Matrix (F2) Polyvalue Below Surface (S9) (LRR K, L, R) Depleted Below Dark Surface (A12) Depleted Matrix (F3) Red Parent Material (P21) Sandy Mucky Mineral (S1) Redox Dark Surface (F7) Red Parent Material (P21) Sandy Redox (S5) Redox Depressions (F8) Veny Shallow Dark Surface (TF12) Singleped Matrix (S6) Ment (F10) (LRR K, L) Other (Explain in Remarks) Dark Surface (S7) 3 ⁻ andicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (If observed): 22 [*] + Hydric Soil Present? Yes_X No											
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators:											
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coaled Sand Grains. ² Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils ² : × Histoc (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 1498) 2 cm Muck (A10) (LRR K, L, R) Histic Epipedon (A2) MLRA 1498) 2 cm Muck (A10) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 1498) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Stratified Layers (A5) Loamy Mucky Mineral (F1) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L) Thick Dark Surface (A11) Loamy Mucky Mineral (F21) Toin Dark Surface (S9) (LRR K, L, R) Sandy Mucky Mineral (S1) Redox Dark Surface (F7) Redox Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Dark Surface (F7) Red Parent Material (F21) Sandy Mucky Mineral (S6) Marl (F10) (LRR K, L) Other (Explain in Remarks) Dark Surface (S7) Sandy Mark (S6) Marl (F10) (LRR K, L) Sandy Mucky Mineral (F10) (LRR K, L) Other (Explain in Remarks) Dark Surface (S7) Redrox Dark Surface (TF12) Stratified Markir (S6) Marl (F10) (LRR K, L) Other (Explain in Remarks) Depleted Dark Surface (S7) Poly Shallow Dark Surface (TF12) <td></td>											
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. *Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils?: 2 cm Muck (A10) (LRR K, L, MLRA 149B) Histic Epipedon (A2) MLRA 149B) Coast Praine Redox (A16) (LRR K, L, MLRA 149B) Black Histic CA3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Muck (A10) (LRR K, L, R) Hydrogen Sulfide (A4) High Chroma Sands (S11) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L, R) Stratified Layers (A5) Loamy Mucky Mineral (F1) Thin Dark Surface (S9) (LRR K, L) Thick Dark Surface (A12) Depleted Matrix (F2) Iron Park Surface (S9) (LRR K, L, R) Sandy Mucky Mineral (S1) Redox Dark Surface (F7) Redox Dark Surface (F7) Sandy Redox (S5) Redox Dark Surface (F7) Redox Nepressions (F8) Stripped Matrix (S6) Marl (F10) (LRR K, L) Other (Explain in Remarks) Dark Surface (S7) The dosentred): Type: IIII Type: IIII Depleted Matrix (S6) Marl (F10) (LRR K, L) Other (Explain in Remarks) Dark Surface (S7) The dosented): Yes _X_No											
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators:											
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : × Histics (A1) Polyvalue Below Surface (S8) (LRR R, Histic Eppedon (A2) Coast Problematic Hydric Soils ³ : Histic Eppedon (A2) MLRA 149B) Coast Problematic Hydric Soils ³ : Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) S cm Mucky (A10) (LRR K, L, R) Stratified Layers (A5) Loamy Mucky Mineral (F1) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L, R) Depleted Below Dark Surface (A11) Loamy Mucky Mineral (F1) (LRR K, L) Thin Dark Surface (S9) (LRR K, L, R) Sandy Gleyed Matrix (S4) Depleted Dark Surface (F7) Red Prent Material (F2) Sandy Gleyed Matrix (S4) Depleted Dark Surface (F7) Red Prent Material (F2) Stripped Matrix (S6) Mart (F10) (LRR K, L) Other (Explain in Remarks) Dark Surface (S7) 3 ¹ ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type: till Dept till Dept till Dept till Hydric Soil Present? Yes X No	¹ Type: C=	Concentration, D=D	epletion, RM	/I=Reduced Matrix, C	S=Cove	red or Coa	ated Sand	Grains. ² Locat	ion: PL=Pore Lir	ning, M=	Matrix.
x Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Stratified Layers (A5) Loamy Mucky Mineral (F1) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L) Depleted Below Dark Surface (A11) Loamy Mucky Mineral (F2) Thin Dark Surface (S9) (LRR K, L, R) Sandy Mucky Mineral (S1) Beloet Matrix (F2) Thon Thio Dark Surface (S12) (MLRA 149B) Sandy Redox (S5) Redox Dark Surface (F7) Red Parent Material (F21) Sandy Redox (S5) Redox Dark Surface (F7) Red Parent Material (F21) Stripped Matrix (S4) Depleted Dark Surface (F7) Red Parent Material (F21) Sandy Redox (S5) Redox Dark Surface (F7) Very Shallow Dark Surface (TF12) Stripped Matrix (S6) Mart (F10) (LRR K, L) Other (Explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Remarks: Remarks: Yes _X No	Hydric So	il Indicators:						Indicators for F	Problematic Hyd	ric Soil	s ³ :
Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) S cm Mucky Peat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) High Chroma Sands (S11) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L, R) Depleted Below Dark Surface (A11) Loamy Gleyed Matrix (F2) Iron-Manganese Masses (F12) (LRR K, L, R) Thick Dark Surface (A12) Depleted Dark Surface (F6) Mesic Spodic (TA6) (MLRA 1448B) Sandy Mucky Mineral (S1) Redox Dark Surface (F7) Red Parent Material (F21) Sandy Mucky Sist Redox Dark Surface (F7) Red Parent Material (F21) Stripped Matrix (S6) Matl (F10) (LRR K, L) Other (Explain in Remarks) Dark Surface (S7) Red Striface (S7) Red Striface (S7) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type: till Depth (inches): 22'+ Hydric Soil Present? Yes X No Remarks: Periodic Soil Present? Yes X No No No	x Histos	ol (A1)		Polyvalue Below	v Surface	e (S8) (LR	R R,	2 cm Muck	(A10) (LRR K, L ,	, MLRA	149B)
Black Histic (A3) Thin Dark Surface (S9) (LRR K, L) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Bytatified Layers (A5) Loamy Mucky Mineral (F1) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Thick Dark Surface (A11) Loamy Gleyed Matrix (F2) Iron-Manganese Masses (F12) (LRR K, L, R) Thick Dark Surface (A12) Depleted Matrix (F3) Piedmont Floodplain Solis (F19) (MLRA 1498) Sandy Mucky Mineral (S1) Redox Dark Surface (F6) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Sandy Redox (S5) Redox Dark Surface (F7) Red Parent Material (F21) Stripped Matrix (S4) Depleted Dark Surface (F7) Red Parent Material (F21) Dark Surface (S7) Marl (F10) (LRR K, L) Other (Explain in Remarks) Dark Surface (S7) Marl (F10) (LRR K, L) Other (Explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (If observed): Type: till Depth (inches): 22"+ No Remarks: Yes_X No	Histic	Epipedon (A2)		MLRA 149B)				Coast Prair	ie Redox (A16) (I	LRR K, I	L, R)
Hydrogen Sulfide (A4) High Chroma Sands (S11) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L) Stratified Layers (A5) Loamy Mucky Mineral (F1) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Depleted Below Dark Surface (A11) Loamy Mucky Mineral (F2) Iron-Manganese Masses (F12) (LRR K, L, R) Thick Dark Surface (A12) Depleted Matrix (F2) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Mucky Mineral (S1) Redox Dark Surface (F6) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Sandy Redox (S5) Redox Dark Surface (F7) Red Parent Material (F21) Stripped Matrix (S6) Marl (F10) (LRR K, L) Other (Explain in Remarks) Dark Surface (S7) Type: till Other (Explain in Remarks) 3 ¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type: till Depth (inches): 22"+ Hydric Soil Present? Yes X No Remarks: Vers No No	Black	Histic (A3)		Thin Dark Surfa	ice (S9)	(LRR R, M	LRA 149	B)5 cm Mucky	y Peat or Peat (S	3) (LRR	K, L, R)
Stratified Layers (A5) Loamy Mucky Mineral (F1) (LRR K, L) Thin Dark Surface (S9) (LRR K, L, C) Depleted Below Dark Surface (A11) Loamy Gleyed Matrix (F2) Iron-Manganese Masses (F12) (LRR K, L, R) Thick Dark Surface (A12) Depleted Matrix (F3) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Mucky Mineral (S1) Redox Dark Surface (F7) Red Parent Material (F21) Sandy Gleyed Matrix (S4) Depleted Dark Surface (F7) Red Parent Material (F21) Sandy Redox (S5) Redox Depressions (F8) Very Shallow Dark Surface (TF12) Stripped Matrix (S6) Mart (F10) (LRR K, L) Other (Explain in Remarks) Dark Surface (S7) 3 ¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type: till Depth (inches): 22*+ Hydric Soil Present? Yes X No Remarks:	Hydro	gen Sulfide (A4)		High Chroma S	ands (S1	1) (LRR M	K, L)	Polyvalue E	Below Surface (S8	8) (LRR	K, L)
Loamy Gleyed Matrix (F2) Trick Dark Surface (A12) Depleted Matrix (F3) Sandy Mucky Mineral (S1) Red Xo Dark Surface (F6) Mesic Spodic (TA6) (MLRA 1448, 145, 149B) Sandy Redox (S5) Redox Depressions (F8) Very Shallow Dark Surface (TF12) Stripped Matrix (S6) Marl (F10) (LRR K, L) Other (Explain in Remarks) definition of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type: till Depth (inches): 22*+ Hydric Soil Present? Yes X No	Stratif	ied Layers (A5)		Loamy Mucky N	/lineral (F	⁻ 1) (LRR 	(, L)	Thin Dark S	Surface (S9) (LRF	R K, L)	
Thick Dark Surface (A12) Depleted Matrix (F3) Piedmont Floodplain Soils (F19) (MLRA 1498) Sandy Mucky Mineral (S1) Redox Dark Surface (F6) Mesic Spodic (TA6) (MLRA 1498) Sandy Redox (S5) Redox Depressions (F8) Very Shallow Dark Surface (TF12) Stripped Matrix (S6) Marl (F10) (LRR K, L) Other (Explain in Remarks) Dark Surface (S7) and the intermediation of the intermediatin of th	Deplei	ted Below Dark Sur	face (A11)	Loamy Gleyed I	Matrix (F	2)		Iron-Manga	nese Masses (F1	12) (LR R	R K, L, R)
Sandy Mucky Mineral (S1) Redox Dark Sufface (F0) Mesic Spoole (1A6) (MLXR 144A, 145, 149B)	Thick	Dark Surface (A12)	`	Depleted Matrix	: (F3) - (F3)	A		Piedmont F	loodplain Soils (F	-19) (ML	RA 149B)
Sandy Gleyed Matrix (S4)	Sandy	Mucky Mineral (S1)	Redox Dark Sui	face (F6)		Mesic Spoo	Matarial (FO1)	144A, 14	45, 149B)
	Sandy	Gleyed Matrix (54)		Depleted Dark 3	Surrace (F7)		Red Parent	Waterial (F21)	TE10)	
	Stripp	ed Matrix (S6)		Marl (E10) (I BE				Other (Evol	ain in Remarks)	1612)	
³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type: till Depth (inches): 22"+ Hydric Soil Present? Yes X No Remarks:	Oark S	Surface (S7)			Υ Ν, Ε)						
³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type: till Depth (inches): 22"+ Hydric Soil Present? Yes X Remarks:	Daik (
Restrictive Layer (if observed): Type: <u>till</u> Depth (inches): 22"+ Hydric Soil Present? Yes X No	³ Indicators	of hydrophytic year	etation and v	vetland hvdrologv mu	ust be pro	esent. unle	ess disturb	ped or problematic.			
Type: till Depth (inches): 22"+ Remarks:	Restrictiv	e Laver (if observe	d):	· · · · · · · · · · · · · · · · · · ·		,					
Depth (inches): 22"+ Remarks:	Type: til	II	,								
Remarks:	Depth (ii	nches):	22"+					Hydric Soil Prese	ent? Yes	Х	No
	Remarks:	· .						-			
	rtemanto.										

Project/Site: Granite State Landfill, LLC	City/County: Coos	Sampling Date: 6/22
Applicant/Owner: JW Chipping, Inc.	State	e: NH Sampling Point: <u>33-54</u>
Investigator(s): BHK	Section, Township, Range: Dalton	
Landform (hillside, terrace, etc.): upper headwater	Local relief (concave, convex, none): slightly	sloping Slope (%): 0-8
Subregion (LRR or MLRA): LRR K, MLRA 90A Lat:	Long:	Datum:
Soil Map Unit Name: 647 Pillsbury	NWI cl	assification: PSS/FO
Are climatic / hydrologic conditions on the site typical for the	his time of year? Yes x No (If no, exp	plain in Remarks.)
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology	significantly disturbed? Are "Normal Circumstance	s" present? Yes X No
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology	naturally problematic? (If needed, explain any ans	wers in Remarks.)
SUMMARY OF FINDINGS – Attach site map	showing sampling point locations, transe	cts, important features, etc.
Hydrophytic Vegetation Present? Yes x Hydric Soil Present? Yes x	No Is the Sampled Area No within a Wetland? Yes	X No

Wetland Hydrology Present?	Yes <u>x</u>	No	If yes, optional Wetland Site ID:	Plot center @ Flag 54-9
Remarks: (Explain alternative procedure	s here or in a	separate report.)		
After the fact road fill. Plot center is in we	etland. Plot ra	adius 75% upland	and 25% wetland.	

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of one is required; check all that apply)		Surface Soil Cracks (B6)		
Surface Water (A1) Water-Stained Leaves (B9)		Drainage Patterns (B10)		
x High Water Table (A2) Aquatic Fauna (B13)		Moss Trim Lines (B16)		
Saturation (A3) Marl Deposits (B15)		Dry-Season Water Table (C2)		
Water Marks (B1) Hydrogen Sulfide Odor (C1)		Crayfish Burrows (C8)		
Sediment Deposits (B2) Oxidized Rhizospheres on Livir	ng Roots (C3)	Saturation Visible on Aerial Imagery (C9)		
Drift Deposits (B3) Presence of Reduced Iron (C4))	Stunted or Stressed Plants (D1)		
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled	l Soils (C6)	Geomorphic Position (D2)		
Iron Deposits (B5) Thin Muck Surface (C7)		Shallow Aquitard (D3)		
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)		Microtopographic Relief (D4)		
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)		
Field Observations:				
Surface Water Present? Yes No x Depth (inches):				
Water Table Present? Yes x No Depth (inches): 0-12"				
Saturation Present? Yes x No Depth (inches): 0-12"	Wetland Hyd	nd Hydrology Present? Yes X No		
(includes capillary fringe)				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp	ections), if avail	lable:		
Remarks:				

Sampling Point: 33-54

	Absolute	Dominant	Indicator		
Tree Stratum (Plot size: <u>30'</u>)	% Cover	Species?	Status	Dominance Test worksheet:	
1. Abies balsamea	76	Yes	FAC	Number of Dominant Species	
2. Larix laricina	8	No	FACW	That Are OBL, FACW, or FAC:	(A)
3. <u>Picea rubens</u>	8	No	FACU	Total Number of Dominant	
4. Pinus strobus	8	No	FACU	Species Across All Strata:	(B)
5				Percent of Dominant Species	
6				That Are OBL, FACW, or FAC:	(A/B)
7				Prevalence Index worksheet:	
	100	=Total Cover		Total % Cover of: Multiply by:	
Sapling/Shrub Stratum (Plot size:15')				OBL species 25 x 1 = 25	
1. Acer rubrum	23	Yes	FACW	FACW species 77 x 2 = 154	
2. Abies balsamea	17	No	FAC	FAC species 143 x 3 = 429	
3. Betula alleghaniensis	3	No	FACU	FACU species 29 x 4 = 116	
4 Alnus alutinosa	46	Yes	FACW	UPL species $0 \times 5 = 0$	
5 Prunus pensylvanica	10	No	FACU	$\begin{array}{c} c_1 = c_2 \\ c_2 \\ c_3 \\ c_4 \\ c_5 \\ c_6 \\$	(B)
	10		TACO	$\frac{1}{2} \frac{1}{2} \frac{1}$	_(D)
7					_
1.		Tatal Causer		Hydrophytic Vegetation indicators:	
	99	= I otal Cover		x 1 - Rapid Test for Hydrophytic Vegetation	
Herb Stratum (Plot size: 5')				2 - Dominance Test is >50%	
1. Cornus canadensis	50	Yes	FAC	X 3 - Prevalence Index is ≤3.0'	
2. Coptis trifolia	25	Yes	OBL	4 - Morphological Adaptations' (Provide supp	porting
3. Osmunda cinnanome	25	Yes	8	data in Remarks of on a separate sneet)	
4				Problematic Hydrophytic Vegetation ¹ (Explain	n)
5				¹ Indicators of hydric soil and wetland hydrology m	nust
6				be present, unless disturbed or problematic.	
7				Definitions of Vegetation Strata:	
8				Tree – Woody plants 3 in (7.6 cm) or more in dia	motor
9.				at breast height (DBH), regardless of height.	ineter
10.				Continue Mande plants loss than 2 in DC	
11.				and greater than or equal to 3.28 ft (1 m) tall.	эп
12					
	100	-Total Cover		Herb – All herbaceous (non-woody) plants, regard of size, and woody plants less than 3.28 ft tall	dless
Woody Vino Stratum (Plot size: 5)	100				
				Woody vines – All woody vines greater than 3.28	8 ft in
1. <u>N/A</u>	0			neight.	
2			<u> </u>	Hydrophytic	
3.				Vegetation	
4				Present? Yes X No x	
		=Total Cover			
Remarks: (Include photo numbers here or on a sepa	rate sheet.)				
Road fill to depths of 4"+/					

Profile De	escription: (Describ	e to the de	pth needed to docu	ment th	e indicate	or or con	firm the absence of	indicators.)	
Depth	Matrix		Redo	x Feature	es				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-3"	10YR 2/2						Mucky Sand	organic mat	
2 0"	10VP 4/1	· ·							
3-0	101K 4/1	· ·							
		• <u> </u>							
		· ·							
		· ·							
		· ·							
		· ·							
		· ·							
¹ Type: C=	Concentration, D=D	epletion, RM	A=Reduced Matrix, C	S=Cover	red or Coa	ated Sand	l Grains. ² Locati	ion: PL=Pore Lining, M=	Matrix.
Hydric So	oil Indicators:						Indicators for P	Problematic Hydric Soil	s ³ :
Histos	sol (A1)		Polyvalue Below	v Surface	e (S8) (LR	R R,	2 cm Muck	(A10) (LRR K, L, MLRA	149B)
<u>x</u> Histic	Epipedon (A2)		MLRA 149B)				Coast Prairi	ie Redox (A16) (LRR K, I	L, R)
Black	HISTIC (A3)		I nin Dark Surfa	ce (59) (ando (61		ILRA 149	B)5 cm Mucky	/ Peat or Peat (S3) (LRR	K, L, K)
 Stratit	fied Lavers (A5)		Loamy Mucky M	lineral (F	1) (LKK r 1) (I RR 4	(, L) ()	Thin Dark S	Surface (S9) (IRR K I)	r , L)
 Deple	eted Below Dark Surf	ace (A11)	Loamy Gleved N	Matrix (F2	7) (EIXIX 7 2)	、、 μ)	Iron-Manga	nese Masses (F12) (I RF	KIR)
Dopic	Dark Surface (A12)		Depleted Matrix	(F3)	-)		Piedmont F	loodolain Soils (F19) (MI	RA 149B)
Sandy	v Mucky Mineral (S1)		Bedox Dark Sur	(FO) face (F6))		Mesic Spod	lic (TA6) (MI RA 144A , 1	45, 149B)
Sand	y Gleved Matrix (S4)		Depleted Dark S	Surface (I	, F7)		Red Parent	Material (F21)	40, 140D)
Sand	y Redox (S5)		Redox Depressi	ons (F8)	()		Very Shallor	w Dark Surface (TE12)	
Stripp	y Redox (03)		Marl (F10) (I RR				Other (Evol	ain in Remarks)	
Onipp Dark	Surface (S7)			((, ∟)					
Dain									
³ Indicators	s of hydrophytic vege	tation and v	vetland hydrology mu	ist be pre	esent, unle	ess disturl	bed or problematic.		
Restrictiv	e Layer (if observed	d):			,				
Type: E	Bouldery Glacial Till-F	Refusal							
Depth (i	inches):	8"+					Hydric Soil Prese	ent? Yes x	No
Remarks:									
Small dep	ression adjacent to u	pland. Upla	and soil 10YR 4/6 Da	ırk yelowi	ish brown	fine sand	lky loam.		

Project/Site: Granite State Landfill, LLC	City/County: Coos	Sampling Date: 6/22
Applicant/Owner: JW Chipping, Inc.	s	State: NH Sampling Point: <u>33-56</u>
Investigator(s): BHK	Section, Township, Range: Dalton	
Landform (hillside, terrace, etc.): upper headwater	Local relief (concave, convex, none): slig	htly sloping Slope (%): 0-3
Subregion (LRR or MLRA): LRR K, MLRA 90A Lat	::Long:	Datum:
Soil Map Unit Name: 647 Pillsbury	NV	/I classification: PSS1E
Are climatic / hydrologic conditions on the site typical f	for this time of year? Yes x No (If no	, explain in Remarks.)
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology	significantly disturbed? Are "Normal Circumsta	nces" present? Yes X No
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology	naturally problematic? (If needed, explain any	answers in Remarks.)
SUMMARY OF FINDINGS – Attach site m	ap showing sampling point locations, tran	sects, important features, etc.
Hydrophytic Vegetation Present? Yes x	No Is the Sampled Area	
Hydric Soil Present? Yes x	No within a Wetland? Y	es <u>X</u> No
Wetland Hydrology Present? Yes x	No If yes, optional Wetland Site ID:	
Remarks: (Explain alternative procedures here or in	a separate report.)	

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)			
Primary Indicators (minimum of one is required; of	Primary Indicators (minimum of one is required; check all that apply)				
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10)			
x High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B16)			
x Saturation (A3)	Marl Deposits (B15)	Dry-Season Water Table (C2)			
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)			
Sediment Deposits (B2)	Oxidized Rhizospheres on Living Ro	coots (C3) Saturation Visible on Aerial Imagery (C9)			
Drift Deposits (B3)	Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)			
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soil	lls (C6) Geomorphic Position (D2)			
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)			
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)			
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)			
Field Observations:					
Surface Water Present? Yes No	x Depth (inches):				
Water Table Present? Yes x No	Depth (inches): 2"				
Saturation Present? Yes x No	Depth (inches): 2" W	Vetland Hydrology Present? Yes X No			
(includes capillary fringe)					
Describe Recorded Data (stream gauge, monitor	ing well, aerial photos, previous inspectio	ons), if available:			
Remarks:					
Plot center is 30'+/- from edge of ATF road fill. F	ill appears to be 3-4' in depth. Re-proces	ssed asphalt and aggregate road bed. No culvert observed.			

Compling	Daint	20
Sampling	FOIL.	33

	Absolute	Dominant	Indicator	
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Test worksheet:
I. Pinus resinosa	100	Yes	FACU	Number of Desciont Chapter
,	·			That Are OBL_EACW_or EAC ² (A)
3				
				Total Number of Dominant
				Species Across All Strata. (B)
).				Percent of Dominant Species
)				That Are OBL, FACW, or FAC:(A/B)
·				Prevalence Index worksheet:
	100	=Total Cover		Total % Cover of: Multiply by:
apling/Shrub Stratum (Plot size: 15')				OBL species x 1 =
. Populus tremula	5	No	FACU	FACW species x 2 =
. Ilex verticillata	13	No	FAC	FAC species x 3 =
. Spiraea tomentosa	82	Yes	FACU	FACU species x 4 =
	-			
·				
				Prevalence Index = B/A =
				Hydrophytic Vegetation Indicators:
	100	=Total Cover		x 1 - Rapid Test for Hydrophytic Vegetation
lerb Stratum (Plot size: 5')				2 - Dominance Test is >50%
. Sparganium	50	Yes	OBL	3 - Prevalence Index is ≤3.0 ¹
. Scirpus cyperinus	30	Yes	OBL	4 - Morphological Adaptations ¹ (Provide supporting
. Carex lurida	20	Yes		data in Remarks or on a separate sheet)
				Problematic Hydrophytic Vegetation ¹ (Explain)
				Indicators of hydric soil and wetland hydrology must
				Definitions of Vegetation Strata:
·				Demittons of Vegetation Strata.
				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
				at breast height (DBH), regardless of height.
0				Sapling/shrub – Woody plants less than 3 in. DBH
1				and greater than or equal to 3.28 ft (1 m) tall.
2				Herb – All herbaceous (non-woody) plants, regardless
	100	=Total Cover		of size, and woody plants less than 3.28 ft tall.
Voody Vine Stratum (Plot size: 5)				Woody vines – All woody vines greater than 3.28 ft in
. N/A	0			height.
· · · · · · · · · · · · · · · · · · ·				Hydrophytic
·				Vegetation
		= I otal Cover		

Profile Des	scription: (Describe	e to the dep	th needed to docu	ument th	e indicat	or or con	firm the absence of indic	ators.)
Depth	Matrix		Redo	x Feature	es			
(inches)	Color (moist)	%	Color (moist)	%	Type'	Loc ²	Texture	Remarks
0-4"	10YR 2/1						Mucky Sand	
·								
·							·	
·								
·								
							·	
1					<u> </u>		2	
'Type: C=0	Concentration, D=De	pletion, RM	=Reduced Matrix, C	S=Cove	red or Coa	ated Sand	Grains. ² Location: F	² L=Pore Lining, M=Matrix.
Hydric Soi	I Indicators:			. <i>.</i>			Indicators for Proble	ematic Hydric Soils":
Histos	ol (A1)	-	Polyvalue Belov	v Surface	e (S8) (LR	RR,	2 cm Muck (A10)	(LRR K, L, MLRA 149B)
<u>x</u> Histic I	Epipedon (A2)		MLRA 149B)				Coast Prairie Rec	dox (A16) (LRR K, L, R)
Black I	Histic (A3)	-	Thin Dark Surfa	ce (S9) (LRR R, N	ILRA 149	B)5 cm Mucky Pea	t or Peat (S3) (LRR K, L, R)
Hydrog	gen Sulfide (A4)	_	High Chroma Sa	ands (S1	1) (LRR k	(, L)	Polyvalue Below	Surface (S8) (LRR K, L)
Stratifi	ed Layers (A5)	_	Loamy Mucky M	/lineral (F	1) (LRR I	(, L)	Thin Dark Surfac	e (S9) (LRR K, L)
Deplet	ed Below Dark Surfa	ce (A11)	Loamy Gleyed I	Matrix (F2	2)		Iron-Manganese	Masses (F12) (LRR K, L, R)
Thick I	Dark Surface (A12)	_	Depleted Matrix	(F3)			Piedmont Floodp	lain Soils (F19) (MLRA 149B)
Sandy	Mucky Mineral (S1)	_	Redox Dark Sur	face (F6))		Mesic Spodic (TA	6) (MLRA 144A, 145, 149B)
Sandy	Gleyed Matrix (S4)	_	Depleted Dark S	Surface (F7)		Red Parent Mate	rial (F21)
Sandy	Redox (S5)		Redox Depressi	ions (F8)			Very Shallow Da	k Surface (TF12)
Strippe	ed Matrix (S6)		Marl (F10) (LRF	R K, L)			Other (Explain in	Remarks)
Dark S	Surface (S7)							
³ Indicators	of hydrophytic vegeta	ation and we	etland hydrology mu	ust be pre	esent, unle	ess disturb	bed or problematic.	
Restrictive	Layer (if observed):						
Type: St	oney glacial till with f	ragipan						
Depth (in	iches):	4"					Hydric Soil Present?	Yes x No
Domorkov	, <u> </u>						,	
Hummocky	with scalltered sufa	na houldars	Wetland likely par	tially non	ded in de	nression	areas periodically	
Traininooky	with soundered sold		Welland intery par	tiony poin		pressione	areas periodically.	

Project/Site: Granite State Landfill, LLC		City/County: Coos	Sampling Date: 6/22			
Applicant/Owner: JW Chipping, Inc.			State:	NH	Sampling Point:	34-59
Investigator(s): BHK		Section, Township, Range: Da	alton			
Landform (hillside, terrace, etc.): upper headw	ater Lo	ocal relief (concave, convex, non	ne): slightly slo	ping	Slope (%):	0-3
Subregion (LRR or MLRA): LRR K, MLRA 90A	Lat:	Long:			Datum:	
Soil Map Unit Name: 647 Pillsbury			NWI class	ification:	PSS1E	
Are climatic / hydrologic conditions on the site ty	vpical for this time of ye	ar? Yes <u>x</u> No	(If no, explai	n in Rem	arks.)	
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrole	ogy significantly	y disturbed? Are "Normal Cire	cumstances" p	oresent?	Yes <u>X</u> N	10
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrole	ogynaturally pr	oblematic? (If needed, expla	ain any answei	rs in Rem	arks.)	
SUMMARY OF FINDINGS – Attach s	ite map showing s	sampling point locations	s, transects	s, impo	rtant features,	, etc.
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes	<u>x</u> No <u>x</u> No	Is the Sampled Area within a Wetland?	Yes_X	<u>No</u>		

Hydric Soil Present?	Yes <u>x</u>	No	within a Wetland?	Yes_	X	No	_	
Netland Hydrology Present?	Yes x	No	If yes, optional Wetland Site ID:					
Remarks: (Explain alternative procedu	res here or in a	a separate report.)						
Plot center +/= 30' from utility pole.								

Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; of	check all that apply)		Surface Soil Cracks (B6)
_x_Surface Water (A1)	_x_Water-Stained Leaves (B9)		Drainage Patterns (B10)
x High Water Table (A2)	Aquatic Fauna (B13)		Moss Trim Lines (B16)
x Saturation (A3)	Marl Deposits (B15)		Dry-Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)		Crayfish Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres on Livir	ng Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4))	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled	l Soils (C6)	Geomorphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)		Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)		Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)			FAC-Neutral Test (D5)
Field Observations:			
Surface Water Present? Yes x No	Depth (inches): 1"		
Water Table Present? Yes x No	Depth (inches): 6"		
Saturation Present? Yes x No	Depth (inches): surface	Wetland Hy	drology Present? Yes X No
(includes capillary fringe)			
Describe Recorded Data (stream gauge, monitor	ing well, aerial photos, previous inspe	ections), if ava	ilable:
Remarks:			
Hummocky glacial till with scattered boulders. N	o culvert observed. After the fact roa	ad fill +/- 4' in d	epth.

Sampling Point:	34-59

Tree Streture (Distaire) 201	Absolute	Dominant	Indicator	Deminence Test werkeheet:
<u>Iree Stratum</u> (Plot size: <u>30</u>)	<u>% Cover</u>	Species		Dominance lest worksneet:
1. ADres parsarriea	100	162	FAU	Number of Dominant Species
3				
4				Total Number of Dominant Species Across All Strata: (B)
5				
6.				Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
7.				Prevalence Index worksheet:
	100	=Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				OBL species 10 x 1 = 10
1. Larix laricina	8	No	FACU	FACW species 43 x 2 = 86
2. <u>Betula populifolia</u>	46	Yes	FAC	FAC species 180 x 3 = 540
3. Abies balsamea	3	No	FACU	FACU species 11 x 4 = 44
4. Viburnum lentago	19	No	FAC	UPL species 0 x 5 = 0
5. Ilex verticillata	24	Yes	FACW	Column Totals: 244 (A) 680 (B)
6. 1				Prevalence Index = B/A = 2.79
7				Hydrophytic Vegetation Indicators:
	100	=Total Cover		x 1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5')				2 - Dominance Test is >50%
1. Spagnum	10	No	OBL	X 3 - Prevalence Index is $\leq 3.0^1$
2. Carex crinita	19	No	FACW	4 - Morphological Adaptations ¹ (Provide supporting
3. Cornus canadensis	56	Yes	FAC-	data in Remarks or on a separate sheet)
4. Spirea latifolia	15	No	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
5			FAC	¹ Indicators of hydric soil and wetland hydrology must
6				be present, unless disturbed or problematic.
7				Definitions of Vegetation Strata:
8				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
9				at breast height (DBH), regardless of height.
10				Sapling/shrub – Woody plants less than 3 in. DBH
11				and greater than or equal to 3.28 ft (1 m) tall.
12				Herb – All herbaceous (non-woody) plants, regardless
	100 =	=Total Cover		of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size: 5)				Woody vines – All woody vines greater than 3.28 ft in
1. <u>N/A</u>	0			height.
2				Hudronhusia
3				Vegetation
4.				Present? Yes X No
		=Total Cover		
Remarks: (Include photo numbers here or on a sepa	rate sheet.)			
Plot adjacent to road fill edge.				

SOI	L
301	

Profile D	escription: (De	escribe to the de	epth needed to docu	ument th	e indicat	or or con	firm the absence	of indicators.)
Depth	Ma	atrix	Redo	x Featur	es			
(inches)	Color (moi	st) %	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-12"	10YR 2/1	1					Muck	Refusal
		·						
¹ Type: C:	=Concentration,	D=Depletion, RI	M=Reduced Matrix, C	S=Cove	red or Co	ated Sand	Grains. ² Loo	cation: PL=Pore Lining, M=Matrix.
Hydric So	oil Indicators:						Indicators fo	or Problematic Hydric Soils ³ :
Histo	sol (A1)		Polyvalue Below	v Surface	e (S8) (LF	RR,	2 cm Mu	ck (A10) (LRR K, L, MLRA 149B)
Histic	Epipedon (A2)		MLRA 149B)				Coast Pr	airie Redox (A16) (LRR K, L, R)
x Black	(Histic (A3)		Thin Dark Surfa	ice (S9) (LRR R. N	ILRA 149	B) 5 cm Mu	cky Peat or Peat (S3) (LRR K, L, R)
Hvdro	oaen Sulfide (A	4)	High Chroma S	ands (S1	1) (LRR I	(. L)	Polvvalue	e Below Surface (S8) (LRR K. L)
Strati	ified Lavers (A5)	Loamy Mucky N	/lineral (F		κ. L)	Thin Dar	k Surface (S9) (LRR K. L)
Deple	eted Below Dark	, Surface (A11)	Loamy Gleved I	Matrix (F	2)	-, _,	Iron-Man	ganese Masses (F12) (I BR K. I. R)
Thick	Dark Surface (A12)	Depleted Matrix	· (F3)	_/		Piedmon	t Eloodolain Soils (E19) (MI RA 149B)
Sand	ly Mucky Minera	(S1)	Bedox Dark Su	rface (F6)		Mesic Sr	odic (TA6) (MIRA 144A 145 149B)
Cand	ly Gloved Matrix	(C1) (C1)	Doploted Dark 9	Surface (/ E7)		Bod Par	ant Material (E21)
Sand		(04)	Depieted Dark (ione (EQ)				allow Dark Surface (TE12)
Sanu	ly Redux (SS)							allow Dark Sullace (TFT2)
Supp				(r , L)				xplain in Remarks)
Dark	Surface (S7)							
3								
Indicator	s of hydrophytic	vegetation and v	vetland hydrology mu	ust be pre	esent, unl	ess disturt	bed or problematic	
Restrictiv	ve Layer (if obs	served):						
Type: I	Bouldery glacial	till (refusal)						
Depth ((inches):	12" +/- to refusal					Hydric Soil Pre	esent? Yes <u>x</u> No
Remarks:								
Saturated	to surface.							

Project/Site: Granite State Landfill, LLC	City/County: Coos		Samp	ling Date: 9/22		
Applicant/Owner: JW Chipping, Inc.		State:	NH	Sampling Point: 34-	-60	
Investigator(s): BHK	Section, Township, Range: Daltor	'n				
Landform (hillside, terrace, etc.): upper headwater Lo	ocal relief (concave, convex, none):	slightly slo	ping	Slope (%): 0-	-3	
Subregion (LRR or MLRA): LRR K, MLRA 90A Lat:	Long:			Datum:		
Soil Map Unit Name: 647 Pillsbury		NWI classi	ification:	PSS1/FO4		
Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No (If no, explain in Remarks.)						
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology significantly	y disturbed? Are "Normal Circur	nstances" pr	resent?	Yes X No		
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrologynaturally pr	oblematic? (If needed, explain	any answer	s in Rem	arks.)		
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.						
Hydrophytic Vegetation Present? Yes <u>x</u> No Hydric Soil Present? Yes <u>x</u> No	Is the Sampled Area within a Wetland?	Yes X	No			
Wetland Hydrology Present? Yes x No	If yes, optional Wetland Site If	D:				
Remarks: (Explain alternative procedures here or in a separate report Plot center at wetland-upland edge west of after-the-fact road fill. App) roximately 50% wetland and 50% f	forested upla	and.			

Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of one is required; c	heck all that apply)		Surface Soil Cracks (B6)		
_x_Surface Water (A1)	x Water-Stained Leaves (B9)		Drainage Patterns (B10)		
x High Water Table (A2)	Aquatic Fauna (B13)		Moss Trim Lines (B16)		
x Saturation (A3)	Marl Deposits (B15)		Dry-Season Water Table (C2)		
Water Marks (B1)	Hydrogen Sulfide Odor (C1)		Crayfish Burrows (C8)		
Sediment Deposits (B2)	Oxidized Rhizospheres on Livin	ig Roots (C3)	Saturation Visible on Aerial Imagery (C9)		
Drift Deposits (B3)	Presence of Reduced Iron (C4)		Stunted or Stressed Plants (D1)		
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled	Soils (C6)	Geomorphic Position (D2)		
Iron Deposits (B5)	Thin Muck Surface (C7)		Shallow Aquitard (D3)		
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)		Microtopographic Relief (D4)		
Sparsely Vegetated Concave Surface (B8)			FAC-Neutral Test (D5)		
Field Observations:					
Surface Water Present? Yes x No	Depth (inches): 3"				
Water Table Present? Yes x No	Depth (inches): 3"				
Saturation Present? Yes x No	Depth (inches): surface	Wetland Hy	drology Present? Yes X No		
(includes capillary fringe)					
Describe Recorded Data (stream gauge, monitoring	ng well, aerial photos, previous inspe	ections), if avai	lable:		
Remarks:					

Sampling Point: 34-60

	Absolute	Dominant	Indicator	
Tree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Test worksheet:
1. Abies balsamea	42	Yes	FAC	Number of Dominant Species
2. Larix laricina	21	Yes	FACW	That Are OBL, FACW, or FAC:(A)
3. Acer rubrum	25	Yes	FAC	Total Number of Dominant
4. Betula populifolia	8	No	FAC	Species Across All Strata: (B)
5. <u>Betula papyrifera</u> 6.	4	No	FACU	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
7.				Prevalence Index worksheet:
	100	=Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15')				$\frac{1}{\text{OBL species}} 50 \qquad \text{x1} = 50$
1. Acer rubrum	15	No		FACW species 21 $x 2 = 42$
2. Betula populifolia	8	No	FAC	FAC species 83 x 3 = 249
3 Abies balsamea	77	Yes	FACU	FACU species $81 \times 4 = 324$
4			17100	$\frac{1111}{1111} = \frac{1111}{1111}$
				Column Totals: 235 (A) 665 (B)
5		·		Column Totals. 235 (A) <u>605</u> (B)
0. <u>1</u>		·		Prevalence index = b/A =
/				Hydrophytic vegetation indicators:
	100	= I otal Cover		x 1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5')				2 - Dominance Test is >50%
1. Spagnum	50	Yes	OBL	X 3 - Prevalence Index is ≤3.0'
 No groundcover - upland 3. 	50	Yes		4 - Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)
4.				Problematic Hydrophytic Vegetation ¹ (Explain)
5				¹ Indicators of hydric soil and wetland hydrology must
7		·		Definitions of Vegetation Strata:
·				Demittons of Vegetation Strata.
9.		·		Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
10.				Conting to bruch Weathy places the 2 in DDU
11				and greater than or equal to 3.28 ft (1 m) tall.
12				Herb – All berbaceous (non-woody) plants, regardless
	100	=Total Cover		of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size: 5)				Weady vince All weady vince greater than 2.29 ft in
1. <i>N/A</i>	0			height.
2.				
3.		·		Hydrophytic
4				Vegetation Present? Yes x No
		-Total Cover		
Remarks: (Include photo numbers here or on a sena	rate sheet)			
One half of plot is upland and one-half wetland.				

SO	
	_

SOIL							Sam	pling Point:	34-60
Profile De	escription: (Describe	to the de	epth needed to docu	ment the indicat	or or con	firm the absence of	indicator	s.)	
Depth	Matrix		Redo	x Features					
(inches)	Color (moist)	%	Color (moist)	% Type ¹	Loc ²	Texture		Remark	(S
0-5"	10YR 2/1					Muck			
5-15"	5Y 5/1				·	Mucky Sand			
_									
¹ Type: C=	Concentration, D=Dep	oletion, RI	M=Reduced Matrix, C	S=Covered or Co	ated Sand	d Grains. ² Locat	tion: PL=F	Pore Lining,	M=Matrix.
Hydric So	il Indicators:					Indicators for I	Problemat	tic Hydric S	Soils ³ :
Histos	sol (A1)		Polyvalue Below	/ Surface (S8) (LF	RR R,	2 cm Muck	(A10) (LR	RR K, L, ML	.RA 149B)
x Histic	Epipedon (A2)		MLRA 149B)			Coast Prair	ie Redox ((A16) (LRR	K, L, R)
x Black	Histic (A3)		Thin Dark Surface	ce (S9) (LRR R, I	MLRA 149	B) 5 cm Muck	y Peat or F	Peat (S3) (L	_RR K, L, R)
Hydro	gen Sulfide (A4)		High Chroma Sa	ands (S11) (LRR	K, L)	Polyvalue E	3elow Surf	face (S8) (L	.RR K, L)
Stratif	fied Layers (A5)		Loamy Mucky M	lineral (F1) (LRR	K, L)	Thin Dark S	Surface (S	9) (LRR K,	L)
Deple	ted Below Dark Surfac	e (A11)	Loamy Gleyed N	/latrix (F2)		Iron-Manga	anese Mas	ses (F12) (LRR K, L, R)
Thick	Dark Surface (A12)		Depleted Matrix	(F3)		Piedmont F	loodplain	Soils (F19)	(MLRA 149B)
Sandy	/ Mucky Mineral (S1)		Redox Dark Sur	face (F6)		Mesic Spoo	dic (TA6) (MLRA 144	A, 145, 149B)
Sandy	y Gleyed Matrix (S4)		Depleted Dark S	Surface (F7)		Red Parent	t Material ((F21)	
Sandy	/ Redox (S5)		Redox Depressi	ons (F8)		Very Shallo	ow Dark Si	urface (TF1)	2)
Stripp	ed Matrix (S6)		Marl (F10) (LRR	K.L)		Other (Exp	lain in Rer	narks)	,
Dark S	Surface (S7)		() (=					,	
³ Indiantara	of hydrophytic ycasta	tion and y	untland budralagu mu	at he present up	ooo diatur	thad as problematic			
Restrictiv	e Layer (if observed)		wettand hydrology mu	ist be present, un		bed of problematic.			
Type: B	Bouldery glacial till (refu	usal)							
Depth (i	nches): Bouldery	v glacial til	I <u> </u>			Hydric Soil Prese	ent?	Yes <u>x</u>	No
Remarks:									
15" to refu	isal.								

Project/Site: Granite State Landfill, LLC	City/County: Coos		Sampli	ng Date: 9/22	
Applicant/Owner: JW Chipping, Inc.		State:	NH S	Sampling Point:	34-61
Investigator(s): BHK	Section, Township, Range: [Dalton			
Landform (hillside, terrace, etc.): upper headwater	Local relief (concave, convex, no	one): slightly slo	ping	Slope (%)	: 0-3
Subregion (LRR or MLRA): LRR K, MLRA 90A Lat:	Long:			Datum:	
Soil Map Unit Name: 647 Pillsbury		NWI classi	ification:	PFO4	
Are climatic / hydrologic conditions on the site typical for t	this time of year? Yes x No	(If no, explair	n in Rema	ırks.)	
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology	significantly disturbed? Are "Normal C	ircumstances" pr	resent?	Yes X	No
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology	naturally problematic? (If needed, exp	plain any answer	s in Rema	arks.)	
SUMMARY OF FINDINGS – Attach site map	showing sampling point location	ns, transects	, impor	tant features	s, etc.
Hydrophytic Vegetation Present? Ves v	No. Is the Sampled Area				

Hydrophytic Vegetation Present?	Yes_	х	No	Is the Sampled Area		
Hydric Soil Present?	Yes	х	No	within a Wetland?	Yes X	No
Wetland Hydrology Present?	Yes	х	No	If yes, optional Wetland Site ID:		
Remarks: (Explain alternative procedur Plot center +/- 30' from edge of after-the	es here o ⊢fact roa	or in a : ad fill eo	separate report.) Ige.			

Wetland Hydrology Indicators:	<u>Se</u>	econdary Indicators (minimum of two required)		
Primary Indicators (minimum of one is required; check all that apply)		Surface Soil Cracks (B6)		
Surface Water (A1)X Water-Stained	Leaves (B9)	Drainage Patterns (B10)		
x High Water Table (A2) Aquatic Fauna	(B13)	Moss Trim Lines (B16)		
x Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)		
Water Marks (B1) Hydrogen Sulfic	de Odor (C1)	Crayfish Burrows (C8)		
Sediment Deposits (B2) Oxidized Rhizos	spheres on Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)		
Drift Deposits (B3) Presence of Re	educed Iron (C4)	Stunted or Stressed Plants (D1)		
Algal Mat or Crust (B4) Recent Iron Re	duction in Tilled Soils (C6)	Geomorphic Position (D2)		
Iron Deposits (B5) Thin Muck Surf	ace (C7)	Shallow Aquitard (D3)		
Inundation Visible on Aerial Imagery (B7) Other (Explain	in Remarks)	Microtopographic Relief (D4)		
Sparsely Vegetated Concave Surface (B8)		FAC-Neutral Test (D5)		
Field Observations:				
Surface Water Present? Yes No x Depth (inches	b):			
Water Table Present? Yes x No Depth (inches	s): <u>0</u>			
Saturation Present? Yes x No Depth (inches	s): surface Wetland Hydro	ology Present? Yes X No		
(includes capillary fringe)				
Describe Recorded Data (stream gauge, monitoring well, aerial photos	s, previous inspections), if availab	le:		
Remarks:				

Sampling Point: 34-61

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet
1 Ahies halsamea	3	No	FAC	
2 Larix laricina	97	Yes	FACW	Number of Dominant Species
3			17.01.	
з. 				Total Number of Dominant
4		·		
6.				Percent of Dominant Species That Are OBL. FACW. or FAC: (A/B)
7.				Prevalence Index worksheet:
	100	=Total Cover		Total % Cover of: Multiply by:
Saplin <u>q/Shrub Stratum</u> (Plot size: 15')		•		OBL species 100 x 1 = 100
1. Larix laricina	28	Yes		FACW species 97 $x 2 = 194$
2. Betula populifolia (Dead)			FAC	FAC species $3 \times 3 = 9$
3. Abies balsamea	72	Yes	FACU	FACU species 72 x 4 = 288
4.				UPL species $0 \times 5 = 0$
5.				Column Totals: 272 (A) 591 (B)
6. \				Prevalence Index = B/A = 2.17
7.			·	Hydrophytic Vegetation Indicators:
	100	=Total Cover		x 1 - Rapid Test for Hydrophytic Vegetation
Herb Stratum (Plot size: 5')				2 - Dominance Test is >50%
1. Spagnum	100	Yes	OBL	X 3 - Prevalence Index is $\leq 3.0^1$
2.				4 - Morphological Adaptations ¹ (Provide supporting
3.				data in Remarks or on a separate sheet)
4.				Problematic Hvdrophytic Vegetation ¹ (Explain)
5				
6				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
7				Definitions of Vegetation Strata:
8				Definitions of Pogetation estata.
a				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
10		·		at broadt height (BEH), regardiede et neight
10				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
12				
12.	100	=Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size: 5)				Woody vines – All woody vines greater than 3.28 ft in
1. <u>N/A</u>	0			height.
2		<u> </u>		
3				Hydropnytic Vegetation
4				Present? Yes x No
		=Total Cover		
Remarks: (Include photo numbers here or on a sepa	arate sheet.)			
Dense forested wetland.				

SO	
	_

Profile Description: (Describe to the de	epth needed to docu	ument the	e indicate	or or conf	irm the absence of i	indicators.)	
Depth Matrix	Redo	x Feature	es	<u>_</u> _			
(inches) Color (moist) %	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	;
0-3 10YR 2/1					Muck		
3+						Boulders - Re	fusal
¹ Type: C=Concentration, D=Depletion, RI	M=Reduced Matrix, C	S=Cover	ed or Coa	ated Sand	Grains. ² Locati	on: PL=Pore Lining,	M=Matrix.
Hydric Soil Indicators:					Indicators for P	Problematic Hydric S	oils³:
Histosol (A1)	Polyvalue Below	v Surface	(S8) (LR	R R,	2 cm Muck	(A10) (LRR K, L, ML	RA 149B)
x Histic Epipedon (A2)	MLRA 149B)				Coast Prairi	e Redox (A16) (LRR	K, L, R)
x Black Histic (A3)	Thin Dark Surfa	ce (S9) (LRR R, M	LRA 149	B)5 cm Mucky	Peat or Peat (S3) (L	RR K, L, R)
Hydrogen Sulfide (A4)	High Chroma Sa	ands (S1	1) (LRR Þ	K, L)	Polyvalue B	elow Surface (S8) (LF	RR K, L)
Stratified Layers (A5)	Loamy Mucky M	/lineral (F	1) (LRR k	K, L)	Thin Dark S	urface (S9) (LRR K, I	_)
Depleted Below Dark Surface (A11)	Loamy Gleyed N	Matrix (F2	2)		Iron-Manga	nese Masses (F12) (L	RR K, L, R)
Thick Dark Surface (A12)	Depleted Matrix	(F3)			Piedmont F	loodplain Soils (F19)	MLRA 149B)
Sandy Mucky Mineral (S1)	Redox Dark Sur	face (F6)			Mesic Spod	ic (TA6) (MLRA 144A	, 145, 149B)
Sandy Gleyed Matrix (S4)	Depleted Dark S	Surface (I	-7)		Red Parent	Material (F21)	、
Sandy Redox (S5)	Redox Depressi				Very Shallo	w Dark Surface (TF12	.)
Stripped Matrix (S6)	Mari (F10) (LKR	(K , L)			Other (Expla	ain in Remarks)	
³ Indicators of hydrophytic vegetation and y	wetland hydrology mu	ist be pre	sent. unle	ess disturk	ed or problematic.		
Restrictive Laver (if observed):	renaria nyarenegy ma						
Type: Bouldery glacial till (refusal)							
Depth (inches): Bouldery glacial ti					Hvdric Soil Prese	nt? Yes x	No
Pomarka:							
Dense sphagnum mat over excessively be	oulderv glacial till. AT	F road fi	approxir	natelv 5-6	' in depth.		
	·····) g						

Project/Site: Granite State Landfill, LLC	City/County: Coos	Sampling Date: 9/22
Applicant/Owner: JW Chipping, Inc.	s	State: NH Sampling Point: <u>35-62</u>
Investigator(s): BHK	Section, Township, Range: Dalton	
Landform (hillside, terrace, etc.): upper headwater	Local relief (concave, convex, none): slig	htly sloping Slope (%): 0-3
Subregion (LRR or MLRA): LRR K, MLRA 90A Lat:	Long:	Datum:
Soil Map Unit Name: 647 Pillsbury	NW	/I classification: PSS1E
Are climatic / hydrologic conditions on the site typical for	this time of year? Yes x No (If no	, explain in Remarks.)
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology	significantly disturbed? Are "Normal Circumsta	nces" present? Yes X No
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology	naturally problematic? (If needed, explain any	answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map	showing sampling point locations, tran	sects, important features, etc.
Hydrophytic Vegetation Present? Yes x	No Is the Sampled Area	
Hydric Soil Present? Yes x	No within a Wetland? Y	es <u>X</u> No
Wetland Hydrology Present? Yes x	No If yes, optional Wetland Site ID:	
Remarks: (Explain alternative procedures here or in a s	separate report.)	
Plot center 10' north of after-the-fact fill for sign access r	road. Approximately 50% of plot is upland/50% wetla	nd.

wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) x Water-Stained Leaves (B9)	Drainage Patterns (B10)
High Water Table (A2) Aquatic Fauna (B13)	Moss Trim Lines (B16)
x Saturation (A3) Marl Deposits (B15)	Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2) Oxidized Rhizospheres on Living	Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled S	Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface (C7)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No x Depth (inches):	
Water Table Present? Yes x No Depth (inches): 6	
Saturation Present? Yes x No Depth (inches): surface	Wetland Hydrology Present? Yes X No
(includes capillary fringe)	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	tions), if available:
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	tions), if available:
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	tions), if available:
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	tions), if available:
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective) Remarks: Wooded wetland/ upland area periodically bush hogged.	ctions), if available:
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: Wooded wetland/ upland area periodically bush hogged.	ctions), if available:
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: Wooded wetland/ upland area periodically bush hogged.	tions), if available:
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective) Remarks: Wooded wetland/ upland area periodically bush hogged.	tions), if available:
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: Wooded wetland/ upland area periodically bush hogged.	tions), if available:
Cincludes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: Wooded wetland/ upland area periodically bush hogged.	ctions), if available:
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: Wooded wetland/ upland area periodically bush hogged.	etions), if available:
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: Wooded wetland/ upland area periodically bush hogged.	etions), if available:

Sampling	Point [.]	35
Sampling	i onit.	00

	Absolute	Dominant	Indicator		
ree Stratum (Plot size: 30')	% Cover	Species?	Status	Dominance Test worksheet:	
None				Number of Dominant Species	
	_			That Are OBL, FACW, or FAC:	(A)
				Total Number of Dominant	
	•			Species Across All Strata:	(B)
	-				
				Percent of Dominant Species	(A/I
		·		Prevalence Index worksheet:	
·		-Total Cover		Total % Cover of: Mult	tiply by:
anling/Shrub Stratum (Diat aiza) 15'	、 <u> </u>				40
Detute negretite in)	Ma a	540		40
	68	Yes	FAC	FACW species 0 x 2 =	0
Acer rubrum	13	No	FAC	FAC species $101 \times 3 =$	303
Rhus typhina	19	No		FACU species 0 x 4 =	0
				UPL species 0 x 5 =	0
				Column Totals: 141 (A)	343 (
1				Prevalence Index = B/A =	2.43
				Hydrophytic Vegetation Indicators:	
	100	=Total Cover		_x_1 - Rapid Test for Hydrophytic Veg	etation
lerb Stratum (Plot size: 5')				2 - Dominance Test is >50%	
Onoclea sensibilis	40	Yes	OBL	X 3 - Prevalence Index is ≤3.0 ¹	
Betula populifolia	20	Yes	FAC	4 - Morphological Adaptations ¹ (Pro	ovide support
Abies balsamea	- <u></u> 15	No		data in Remarks or on a separate	e sheet)
		Vee		Droblemetic Lludrophutic Veretetic	n ¹ (Evalain)
		res			n (Explain)
. Other- no dominants	5	No		¹ Indicators of hydric soil and wetland hy	drology must
		·		be present, unless disturbed or problem	natic.
				Definitions of Vegetation Strata:	
·		·		Tree – Woody plants 3 in. (7.6 cm) or n	nore in diame
				at breast height (DBH), regardless of he	eight.
0				Sapling/shrub – Woody plants less the	an 3 in DBH
1				and greater than or equal to 3.28 ft (1 m	n) tall.
2.				Herb All berbesseurs (pop woods) pla	nto rogardio
	100	=Total Cover		of size, and woody plants less than 3.28	B ft tall.
/oodv Vine Stratum (Plot size: 5)				
N/A	, 0			Woody vines – All woody vines greater	r than 3.28 ft
		·		hoight	
·		·		Hydrophytic	
·				Vegetation	
·				Present? Yes <u>×</u> No	
		=Total Cover			

SO	
	_

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)											
Depth Matrix R				x Feature	es						
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks			
0-5	10YR 2/1						Sandy				
5-12	10YR 2/2							loamy sandy till			
								i			
¹ Type: C	=Concentration, D=De	pletion, RM	=Reduced Matrix, C	S=Cover	red or Coa		Grains. ² Lo	cation: PI =Pore Lining, M=Matrix			
Hvdric Sc	oil Indicators:	protion, ran		0 0010	04 0. 000		Indicators for	or Problematic Hydric Soils ³ :			
Histo	sol (A1)		Polyvalue Belov	v Surface	e (S8) (LR	RR,	2 cm Mu	uck (A10) (LRR K, L, MLRA 149B)			
x Histic	Epipedon (A2)	-	MLRA 149B)		()(,	Coast P	rairie Redox (A16) (LRR K. L. R)			
Black	Histic (A3)		Thin Dark Surfa	(02) (-6000000000000000000000000000000000000	icky Peat or Peat (S3) (IRR K I R)			
	ann Sulfida (A4)	-	Ligh Chromo S	ondo (81			19B) 5 cm Mucky Pear of Pear (S3) (LRR K, L, R)				
		-				(, L)					
Strati	fied Layers (A5)	-	Loamy Mucky N	/lineral (F	1) (LRR P	(, L)	Thin Dark Surface (S9) (LRR K, L)				
Deple	eted Below Dark Surfa	ice (A11)	Loamy Gleyed I	Matrix (F2	2)		Iron-Manganese Masses (F12) (LRR K, L, R)				
Thick	Dark Surface (A12)	_	Depleted Matrix	Depleted Matrix (F3) Piedmont Floodplain Soils (F19) (MLI							
Sand	y Mucky Mineral (S1)	-	Redox Dark Surface (F6) Mesic Spodic (TA6) (MLRA 144A,					podic (TA6) (MLRA 144A, 145, 149B)			
Sand	v Gleved Matrix (S4)	=	Depleted Dark S	Surface (I	ent Material (F21)						
Sand	v Redox (S5)	-	Redox Depress	ions (F8)	,		Very Sh	allow Dark Surface (TE12)			
Ourior	and Matrix (S6)	-	Mort (E10) (LBE				Other (F				
Supp		-		(n , L)				cxplain in Remarks)			
Dark	Surface (S7)										
³ Indicators	s of hydrophytic veget	ation and w	etland hydrology mu	ust be pre	esent, unle	ess distur	bed or problemation	2.			
Restrictiv	/e Layer (if observed):									
Type: E	Bouldery glacial till (re	fusal)									
Depth (inches):	12"+					Hydric Soil Pr	esent? Yes <u>x</u> No			
Remarks:	a conttored boulders										
very large	e scallered boulders.										

Project/Site: Granite State Landfill, LLC	City/County: Coos	Sampling Date: 6/22			
Applicant/Owner: JW Chipping, Inc.		State:	NH	Sampling Point:	33-53
Investigator(s): BHK	Section, Township, Range: Dalton				
Landform (hillside, terrace, etc.): upper headwater	Local relief (concave, convex, none):	lightly slo	ping	Slope (%):	0-8
Subregion (LRR or MLRA): LRR K, MLRA 90A Lat:	Long:			Datum:	
Soil Map Unit Name: 647 Pillsbury	1	WI classi	ification:	PFO4	
Are climatic / hydrologic conditions on the site typical for	this time of year? Yes x No (If	no, explair	n in Rema	arks.)	
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology	significantly disturbed? Are "Normal Circums	stances" p	resent?	Yes <u>X</u>	٥v
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology	naturally problematic? (If needed, explain a	ny answer	s in Rema	arks.)	
SUMMARY OF FINDINGS – Attach site map	showing sampling point locations, tra	ansects	, impor	tant features	, etc.

Hydrophytic Vegetation Present?	Yes	No <u>x</u>	Is the Sampled Area within a Wetland? If yes, optional Wetland Site ID: Sht 33-52
Hydric Soil Present?	Yes	No <u>x</u>	
Wetland Hydrology Present?	Yes	No <u>x</u>	
Remarks: (Explain alternative procedur After the fact road fill. Plot center is 15	es here or in a west of road e	separate report.)	

Wetland Hydrology Indicato	ors:				Secondary Indicators (minimum of two required)					
Primary Indicators (minimum	of one is requir	Surface Soil Cracks (B6)								
Surface Water (A1)		Drainage Patterns (B10)								
High Water Table (A2)			Aquatic Fauna (B13)		Moss Trim Lines (B16)					
Saturation (A3)			Marl Deposits (B15)		Dry-Season Water Table (C2)					
Water Marks (B1)			Hydrogen Sulfide Odor (C1)		Crayfish Burrows (C8)					
Sediment Deposits (B2)			Oxidized Rhizospheres on Livi	ing Roots (C3)	Saturation Visible on Aerial Imagery (C9)					
Drift Deposits (B3)			Presence of Reduced Iron (C4	1)	Stunted or Stressed Plants (D1)					
Algal Mat or Crust (B4)			Recent Iron Reduction in Tilled	d Soils (C6)	Geomorphic Position (D2)					
Iron Deposits (B5)			Thin Muck Surface (C7)		Shallow Aquitard (D3)					
Inundation Visible on Aer	ial Imagery (B7	7)	Other (Explain in Remarks)		Microtopographic Relief (D4)					
Sparsely Vegetated Cond	ave Surface (E	38)	-		FAC-Neutral Test (D5)					
Field Observations:										
Surface Water Present?	YesI	No <u>x</u>	Depth (inches):							
Water Table Present?	Yes x	No	Depth (inches): 12"							
Saturation Present? Yes x No			Depth (inches): 12"	Wetland Hy	ydrology Present? Yes <u>No X</u>					
(includes capillary fringe)										
Describe Recorded Data (stre	am gauge, mo	onitoring	well, aerial photos, previous insp	pections), if ava	lilable:					
Remarks:										
Plot is +/- 50% upland and 50	% wetland.									

Sampling Point: 33-53

	Absolute	Dominant	Indicator	Demoissing Test workshoot				
<u>Iree Stratum</u> (Plot size: <u>30</u>)	% Cover	Species	Status	Dominance Test worksneet:				
1. Pinus resinosa	40	res		Number of Dominant Species				
2. Acer rubrum	<u>18</u>	NO		That Are OBL, FACW, or FAC:(A)				
3. Picea rubens	32	Yes	FACU	Total Number of Dominant				
4. Abies balsamea	2	No	FAC	Species Across All Strata: <u>6</u> (B)				
5 6				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33.3%</u> (A/B)				
7.				Prevalence Index worksheet:				
	92	=Total Cover		Total % Cover of: Multiply by:				
Sapling/Shrub Stratum (Plot size: 15')				OBL species 0 x 1 = 0				
1. Betula populifolia	5	No	FACW	FACW species 5 x 2 = 10				
2. Abies balsamea	32	Yes	FAC	FAC species 127 x 3 = 381				
3. Picea rubens	36	Yes	FACU	FACU species 130 x 4 = 520				
4. Acer rubrum	5	No	FAC	UPL species 0 x 5 = 0				
5. Betula papyrifera	22	Yes	FACU	Column Totals: 262 (A) 911 (B)				
6				Prevalence Index = B/A = 3.48				
7.				Hydrophytic Vegetation Indicators:				
	100	=Total Cover		1 - Rapid Test for Hydrophytic Vegetation				
Herb Stratum (Plot size:5')				2 - Dominance Test is >50%				
1. Cornus canadensis	70	Yes	FAC	3 - Prevalence Index is ≤3.0 ¹				
2. Scant groundcover				4 - Morphological Adaptations ¹ (Provide supporting				
3.				data in Remarks or on a separate sheet)				
4.				Problematic Hydrophytic Vegetation ¹ (Explain)				
5				¹ Indicators of hydric soil and wetland hydrology must				
7				Definitions of Venetation Strata:				
ρ				Definitions of vegetation of ata.				
9.				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.				
10				Sapling/shrub – Woody plants less than 3 in. DBH				
11				and greater than or equal to 3.28 ft (1 m) tall.				
12				Herb – All herbaceous (non-woody) plants, regardless				
	70	=Total Cover		of size, and woody plants less than 3.28 ft tall.				
Woody Vine Stratum (Plot size: 5)				Woody vines – All woody vines greater than 3.28 ft in				
1. <u>N/A</u>	0			height.				
2								
3				Hydrophytic Vegetation				
4.				Present? Yes No x				
		=Total Cover						
Remarks: (Include photo numbers here or on a separate sheet.)								
Road fill to depths of 4"+/								

SOL	L
001	_

33-53

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth Matrix	Redo	x Feature	S							
(inches) Color (moist) %	Color (moist)	%	Type ¹	Loc ²	Texture	Re	emarks			
0-1"						organic	: mat/lea	ves		
1-6"10YR 3/2						very dark g	ray sand	dy loam		
6-16+ 10YR 2/1						fine s	andy loa	m		
						fine s	andy loa	m		
<u> </u>				<u> </u>						
<u> </u>				·						
				<u> </u>	<u> </u>					
								•••		
Type: C=Concentration, D=Depletion	n, RM=Reduced Matrix, C	S=Covere	ed or Coa	ted Sand	Grains. ² Locat	ion: PL=Pore L	ining, M	=Matrix.		
Hydric Soil Indicators:	Debushes Debu	0(Indicators for F	roblematic Hy	dric Soi			
		v Surrace	(58) (L R	кк,	2 CM IVIUCK (A10) (LRR K, L, MLRA 149B)					
Histic Epipedon (A2)	MLRA 149B)	MLRA 149B)								
Black Histic (A3)	Thin Dark Surfa	ice (S9) (L	.RR R, M	LRA 1498	B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)					
Hydrogen Sulfide (A4)	High Chroma S	ands (S11) (LRR K	., L)	Polyvalue Below Surface (S8) (LRR K, L)					
Stratified Layers (A5)	Loamy Mucky N	/lineral (F1) (LRR K	Χ, L)	Thin Dark S	Surface (S9) (LF	RR K, L)			
Depleted Below Dark Surface (A	1) Loamy Gleyed	Matrix (F2))		Iron-Manganese Masses (F12) (LRR K, L, R)					
Thick Dark Surface (A12)	Depleted Matrix	(F3)	·		Piedmont Floodplain Soils (F19) (MLRA 149B)					
Sandy Mucky Mineral (S1)	Redox Dark Su	rface (F6)			Mesic Spod		144A	145 149B)		
Sandy Cloved Metrix (S4)	Depleted Dark 9	Surface (F	· 7)		Red Parent Material (F21)					
			()		Very Shallow Dark Surface (TE12)					
Sandy Redox (S5)	Redox Depress	ions (F8)								
Stripped Matrix (S6)	Marl (F10) (LRF	R K, L)			Other (Explain in Remarks)					
Dark Surface (S7)										
³ Indicators of hydrophytic vegetation a	and wetland hydrology mu	ust be pres	sent, unle	ess disturb	bed or problematic.					
Restrictive Layer (if observed):										
Type: <u>none</u>										
Depth (inches):					Hydric Soil Prese	ent? Yes	Х	No		
Remarks:										