

Section 9. WETLAND FUNCTION ASSESSMENT

9.1. INTRODUCTION

In accordance with Chapter 310 (Wetland and Waterbodies Protection Rules), TRC completed a wetland functions and values assessment (FVA) in order to evaluate the loss of wetland functions as a result of the proposed wetland impacts associated with the Project. The purpose of this assessment was to perform a functions and values assessment on the wetlands that will be impacted by fill and from conversion of forested wetlands to shrub and herbaceous systems.

9.2. METHODOLOGY

The functions and values of the wetlands that are proposed to be impacted by the Project were assessed during November 2-3, 2016, April 24-26, 2017, September 9-13 and 16-20, 2019, October 16, 2019, November 18-22, 2019, July 14-15, 2020, October 8, 2020, November 3-5 and 9-13, 2020, and December 9-10, 2020. These wetlands were evaluated using the “Highway Methodology” developed by the USACE (1995).⁵ No direct measurements were made within or around the wetlands. Results and conclusions were based on best professional judgment, “Highway Methodology” criteria, and field observations.

Aerial photos and topographic maps were examined to obtain preliminary information about the physical and biological aspects of the Project Area. All wetlands identified during the preliminary desktop review were examined during the field wetland delineation. Data on soils, vegetation, and hydrology associated with these wetlands were collected. From this effort the methodology’s evaluation criteria were applied using professional judgment to make a determination regarding the presence and extent of the functions and values performed by the wetland in the proposed area of impact.

9.3. RESULTS

Emergent Wetlands: Emergent (herbaceous) wetland communities in the Project Area represented approximately 8.7% of all wetland cover types delineated and in some areas are associated with bog habitat, streams, and interspersed with shrub wetlands. Exhibit 9-1A provides an assessment of emergent wetland communities that are wetlands of special significance (WOSS), while Exhibit 9-1B provides an assessment of non-WOSS wetlands. Emergent wetland communities include a mixture of facultative wet, facultative, and upland species. All these areas can provide forage for moose, deer, and small mammals and perhaps ground nesting songbirds. These communities provide food chain support and some limited hunting opportunity. This assessment provides a basis to evaluate forested wetlands that are converted to herbaceous systems.

The emergent wetlands in the Project Area are generally comprised of common species such as gray willow (*Salix bebbiana*), common winterberry (*Ilex verticillata*), wild raisin (*Viburnum nudum*), rhodora (*Rhododendron canadense*), cottongrass bulrush (*Scirpus cyperinus*), steeplebush, three-way sedge (*Dulichium arundinaceum*), bluejoint (*Calamagrostis canadensis*), interrupted

⁵ USACE. *The Highway Methodology Workbook Supplement*. US Army Corps of Engineers New England Division. 32 pp. NAEPP-360-1-30a. 1999.

fern (*Osmunda claytoniana*), cinnamon fern (*Osmundastrum cinnamomeum*), sensitive fern (*Onoclea sensibilis*), sweetgale (*Myrica gale*), and fringed sedge (*Carex crinata*).

Scrub-Shrub Wetlands: In the Project Area, scrub-shrub wetlands represented approximately 15.6% of all wetland cover types. A Wetland Function-Value Evaluation Form for the scrub-shrub wetlands that are WOSS is provided in Exhibit 9-2A and [scrub-shrub wetlands that are non-WOSS](#) in Exhibit 9-2B. The primary function provided by these wetlands is wildlife habitat. Secondary functions include groundwater discharge and food chain functions (production export and nutrient removal). Recreation values that could be provided include hunting; otherwise given the remote locations of these wetlands, limited human activity or use is expected. This assessment is provided to demonstrate the functions forested wetlands would have after being converted to scrub-shrub wetlands.

The scrub-shrub wetlands in the Project Area are generally comprised of common species such as gray birch (*Betula populifolia*), yellow birch (*Betula alleghaniensis*), speckled alder (*Alnus incana*), highbush blueberry (*Vaccinium corymbosum*), common winterberry, broad-leaf meadowsweet (*Spiraea latifolia*), white meadowsweet (*Spiraea alba*), bluejoint, leatherleaf (*Chamaedaphne calyculata*), rhodora, cinnamon fern, sensitive fern, cottongrass bulrush, and sedge species (*Carex* spp.). The mast produced by these species provides a food source for avian species, small and medium sized mammals, moose, and white-tailed deer. Scrub-shrub species also provide breeding cover for passerines. Generally, the scrub-shrub communities provide food chain support such as production and export and nutrient removal. The production of mast and the growth and decomposition of vegetation supports the local food chain and nutrient cycling. Most of the food chain related functions are secondary functions, while the overall habitat value is a primary function.

Forested Wetlands: Forested wetland communities in the Project are the most common wetland community and represent approximately 73.1% of all wetland cover types. Some are classified as WOSS and a Wetland Function-Value Evaluation Form for WOSS forested wetlands is provided in Exhibit 9-3A. Other forested wetlands are higher in the watershed, often associated with groundwater seepage, and are not WOSS. The non-WOSS Wetland Function-Value Evaluation Form for forested wetlands is provided in Exhibit 9-3B. Mixed hardwood and softwood forested wetlands comprise the vast majority of forested wetlands communities that will be impacted by construction. Common species include red maple (*Acer rubrum*), Eastern white pine (*Pinus strobus*), Eastern hemlock (*Tsuga canadensis*), red spruce (*Picea rubens*), wild raisin, common winterberry, American witch-hazel (*Hamamelis virginiana*), speckled alder, catberry (*Nemopanthus mucronatus*), lowbush blueberry (*Vaccinium angustifolium*), cinnamon fern, interrupted fern, sensitive fern, sedge species, cottongrass bulrush, sheep-laurel (*Kalmia angustifolia*), and steeplebush (*Spiraea tomentosa*).

Biological production, decomposition, and nutrient cycling are reduced in forested communities as most of the biomass, i.e. carbon, is tied up in woody vegetation. The nutrient cycling process is much more pronounced in early successional communities where the cycling of growth and decay is necessary for the continued establishment of vegetation. Nutrient removal functions are only minimally provided by trees and woody shrubs; rather, nutrients are taken up by fast-growing herbaceous species. Forested communities can provide production export as it would relate to timber production and hard mast contribution to the food chain.

The construction of the Project will impact forested wetlands by conversion of these systems to scrub-shrub and emergent wetlands in collection line corridors and adjacent to access roads and

crane paths. Permanent fill is required for new access road and crane path construction and enhancement or improvement of existing roads. For clearing, the change of wetland functions is due to the conversion of forested wetlands to shrub and herbaceous systems, which alters habitat use. These changes can be beneficial or adverse depending on specific characteristics of the functions. Species that favor early successional habitat and the ecotone between habitats will gain suitable habitat while arboreal and forest dwelling animals will lose some habitat. Permanent shrub and herbaceous wetland communities are less common in the vicinity of the Project and, as such, the shrub/herbaceous wetland habitats created in the corridor increases habitat diversity. Food chain functions will be improved with increased vegetative growth, annual die back, and decomposition. Hydrologic values should stay relatively constant, although some wetland may have an increase in the depth and duration of inundation. Overall, there is a net increase in wetland functions from forested wetland clearing.

Unconsolidated Bottom Wetlands: Unconsolidated bottom wetland communities in the Downeast Wind Project represent approximately 2.6% of all wetland cover types. Common species include broad-leaf pondweed (*Potamogeton natans*), greater bladderwort (*Utricularia macrorhiza*), upright sedge (*Carex stricta*), speckled alder, gray birch, black spruce (*Picea mariana*), Eastern white pine, and cottongrass bulrush. Wetland Functions and Values Forms for unconsolidated bottom wetland communities are located in Exhibit 9-4. The primary functions that these wetlands provide include potential fish and shellfish habitat, other wildlife habitat values and groundwater recharge/discharge and floodflow alteration values.

9.4. SUMMARY

The Downeast Wind Project will have both permanent and clearing impacts to wetlands and indirect impacts to water resources. Permanent fill impacts for access roads and crane paths involve grading, and enhancements and widening of existing access roads. Clearing impacts include clearing or conversion of forested wetland areas. Within the Project Area, a total of 59 unique wetlands are proposed to be impacted by the Project. Table 9-1 provides a summary of these impacts, and Table 9-2 provides habitat details of the impacted wetlands and lists the corresponding Exhibits for the Functions and Values Forms. Overall, there will be 89,733 square feet (2.06 acres) of wetland forest conversion, and there will be 59,153 square feet (1.36 acres) of fill impacts, for a total of 148,886 square feet (3.42 acres). WOSS found within the Project Area consist of:

- one wetland in a flood zone;
- four wetlands that contain aquatic vegetation or open water areas larger than 20,000 square feet;
- sixteen wetlands are in critical wildlife habitats;
- three wetlands associated with a Significant Vernal Pool;
- ten wetlands within Inland Waterfowl and Wading Bird Habitat; and
- three wetlands associated with Atlantic salmon habitat.

WOSS status for each wetland can be found in Table 9-2.

Conversion of forested wetlands will alter habitat functions with benefits to some species and loss of habitat for others. There will be some loss of habitat for arboreal species; conversely, habitat for species that prefer early successional communities will increase. The expansion of shrub and herbaceous communities will improve food chain production and functions. In general shrub and herbaceous wetlands are less common in the area than forested wetlands. The placement of construction mats in areas where construction access is needed (25,172 square feet or 0.58 acres) will prevent and minimize ground and vegetation disturbance. Temporary alteration of wetland functions includes those provided for habitat, but this will not affect hydrologic functions. Conversion of forested to herbaceous and shrub communities represents the majority of wetland impacts and will not have any adverse effects on hydrologic functions. As supported by the functions and values assessment, those functions relating to food chain production and support will be improved and local habitat conditions diversified. Habitat values will be improved for species that use early successional habitat, while habitat values for arboreal species will be reduced.

Table 9-1. Wetland Resources Impacted within the Project Area

Wetland ID	Covertime	Location (Lat. – Long.)	Impact Type	Avoidance and Minimization	Clearing Impact (sq ft)	Clearing Impact (acres)	Temporary Construction Mat Impact (sq ft) ¹	Permanent Impact (sq ft)	Permanent Impact (acres)	WOSS Clearing Impact (sq ft) ²	WOSS Clearing Impact (acres) ²	WOSS Construction Mat Impact (acres) ²	WOSS Permanent Impacts (sq ft) ²	WOSS Permanent Impacts (acres) ²
01CFD	PFO	44.734933, -67.908484	Collection	Narrow Corridor Width	5078	0.1165746	2539	0	0	5,078	0.1165746	2539	0	0
01CFF	PFO	44.733923, -67.90527	Collection	Narrow Corridor Width	936	0.0214876	269	0	0	537	0.0123278	269	0	0
W-CWF-02	PFO	44.783484, -67.873093	Existing Road Widening for Crane Path	Co-located With Existing Road	678	0.0155647	0	787	0.018067	Not WOSS	Not WOSS	Not WOSS	Not WOSS	Not WOSS
W-CWF-10	PFO	44.792612, -67.881711	New Crane Path Associated with Existing Irrigation Line	Co-located With Existing Cleared Area	2385	0.05475207	0	5374	0.1233701	2385	0.05475207	0	5374	0.1233701
W-CWF-11	PFO	44.794282, -67.879416	New Crane Path Associated with Existing Irrigation Line	Co-located With Existing Cleared Area	2139	0.0491046	0	1761	0.0404269	2139	0.0491046	0	1761	0.0404269
W-CWF-12	PSS	44.794803, -67.880029	New Crane Path Associated with Existing Irrigation Line	Co-located With Existing Cleared Area	177	0.0040634	0	440	0.010101	177	0.0040634	0	440	0.010101
W-CWF-13	PFO	44.795183, -67.879326	New Crane Path Associated with Existing Irrigation Line	Co-located With Existing Cleared Area	592	0.0135904	0	721	0.0165519	592	0.0135904	0	721	0.0165519
W-CWF-16	PFO	44.792614, -67.873422	Existing Road Widening for Crane Path	Co-located With Existing Road	585	0.0134297	0	1325	0.0304178	Not WOSS	Not WOSS	Not WOSS	Not WOSS	Not WOSS
W-CWF-17	PFO	44.792385, -67.87307	Existing Road Widening for Crane Path and Collection	Co-located With Existing Road	895	0.0205463	0	784	0.0179981	Not WOSS	Not WOSS	Not WOSS	Not WOSS	Not WOSS
W-CWF-18	PFO	44.792212, -67.873701	Existing Road Widening for Crane Path	Co-located With Existing Road	434	0.0099633	0	477	0.0109504	Not WOSS	Not WOSS	Not WOSS	Not WOSS	Not WOSS
W-CWF-19	PUB	44.791557, -67.873202	Existing Road Widening Collection	Co-located With Existing Road	463	0.010629	0	0	0	Not WOSS	Not WOSS	Not WOSS	Not WOSS	Not WOSS
W-CWF-20	PEM	44.791169, -67.873322	Existing Road Widening for Collection	Co-located With Existing Road	3772	0.086593	0	4291	0.0985076	0	0	0	65	0.0014922
W-CWF-21	PFO	44.791175, -67.873722	Existing Road Widening for Crane Path	Co-located With Existing Road	1344	0.0308539	0	3167	0.0727042	659	0.0151285	0	1695	0.0389118
W-CWF-22	PEM	44.789919, -67.873558	Existing Road Widening for Crane Path and Collection	Co-located With Existing Road	9	0.0002066	0	148	0.0033976	9	0.0002066	0	148	0.0033976
W-CWF-23	PEM	44.789848, -67.873948	Existing Road Widening for Crane Path	Co-located With Existing Road	80	0.0018365	0	268	0.0061524	80	0.0018365	0	268	0.0061524
W-CWF-24	PFO	44.787027, -67.874032	Existing Road Widening for Crane Path and Collection	Co-located With Existing Road	3404	0.0781449	0	1715	0.0393709	Not WOSS	Not WOSS	Not WOSS	Not WOSS	Not WOSS
W-CWF-25	PEM	44.786283, -67.873429	Existing Road Widening for Crane Path	Co-located With Existing Road	358	0.0082185	0	131	0.0030073	Not WOSS	Not WOSS	Not WOSS	Not WOSS	Not WOSS
W-CWF-58	PEM	44.800413, -67.925687	Existing Road Widening for Access Road	Co-located With Existing Road	0	0	0	914	0.0209825	0	0	0	914	0.0209825



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W-CWF-58	PFO	44.799551, -67.923741	Existing Road Widening for Access Road and Collection	Co-located With Existing Road	1475	0.03386134	0	2784	0.0639117	1475	0.03386134	0	2784	0.0639117
W-CWF-59	PFO	44.794819, -67.924532	Existing Road Widening for Access Road	Co-located With Existing Road	32	0.0007346	0	0	0	Not WOSS	Not WOSS	Not WOSS	Not WOSS	Not WOSS
W-CWF-60	PFO	44.79179, -67.924666	Existing Road Widening for Access Road	Co-located With Existing Road	1641	0.0376721	0	4225	0.0969925	Not WOSS	Not WOSS	Not WOSS	Not WOSS	Not WOSS
W-CWF-61	PSS	44.785812, -67.925215	Existing Road Widening for Access Road	Co-located With Existing Road	579	0.013292	0	3	6.887E-05	Not WOSS	Not WOSS	Not WOSS	Not WOSS	Not WOSS
W-DBV-15	PFO	44.794787, -67.902626	Collection	Narrow Corridor Width	210	0.0048209	0	0	0	Not WOSS	Not WOSS	Not WOSS	Not WOSS	Not WOSS
W-DC-04	PFO	44.787193, -67.873635	Existing Road Widening for Crane Path	Co-located With Existing Road	296	0.0067952	0	33	0.0007576	Not WOSS	Not WOSS	Not WOSS	Not WOSS	Not WOSS
W-DMC-60	PFO	44.784517, -67.915821	Collection	Narrow Corridor Width	957	0.0219697	0	0	0	Not WOSS	Not WOSS	Not WOSS	Not WOSS	Not WOSS
W-GAR-02	PFO	44.8068, -67.925091	New Access Road	Sited at Narrowest Part of Delineated Wetland	678	0.0155647	0	1651	0.0379017	Not WOSS	Not WOSS	Not WOSS	Not WOSS	Not WOSS
W-GAR-04	PFO	44.805836, -67.929356	Collection	Narrow Corridor Width	1153	0.0264692	577	0	0	Not WOSS	Not WOSS	Not WOSS	Not WOSS	Not WOSS
W-GAR-05	PFO	44.805111, -67.929525	Collection	Narrow Corridor Width	7891	0.1811521	3946	0	0	3048	0.06997245	1524	0	0
W-GAR-06	PFO	44.80355, -67.929788	Collection	Narrow Corridor Width	1369	0.0314279	685	0	0	Not WOSS	Not WOSS	Not WOSS	Not WOSS	Not WOSS
W-GAR-07	PEM	44.743515, -67.914717	Existing Road Widening for Access Road	Co-located With Existing Road	0	0	0	26	0.0005969	0	0	0	26	0.0005969
W-GAR-07	PFO	44.743237, -67.91395	Existing Road Widening for Access Road and Collection	Co-located With Existing Road	478	0.0109734	0	671	0.015404	478	0.0109734	0	671	0.015404
W-GAR-07	PSS	44.743296, -67.913558	Existing Road Widening for Access Road and Collection	Co-located With Existing Road	0	0	0	340	0.0078053	0	0	0	340	0.0078053
W-GAR-08	PSS	44.744408, -67.914275	Existing Road Widening for Access Road	Co-located With Existing Road	113	0.0025941	0	525	0.0120523	113	0.0025941	0	525	0.0120523
W-GAR-09	PEM	44.745697, -67.915006	Existing Road Widening for Access Road	Co-located With Existing Road	0	0	0	269	0.0061754	Not WOSS	Not WOSS	Not WOSS	Not WOSS	Not WOSS
W-GAR-11	PEM	44.747511, -67.913958	Existing Road Widening for Access Road	Co-located With Existing Road	0	0	0	197	0.0045225	Not WOSS	Not WOSS	Not WOSS	Not WOSS	Not WOSS
W-JMR-11	PEM	44.76681, -67.928752	Existing Road Widening for Access Road	Co-located With Existing Road	1549	0.0355601	0	776	0.0178145	1549	0.0355601	0	776	0.0178145
W-JMR-11	PFO	44.767016, -67.928402	Existing Road Widening for Access Road	Co-located With Existing Road	2267	0.0520431	0	2346	0.0538567	2267	0.0520431	0	2346	0.0538567
W-JMR-12	PSS	44.776059, -67.929688	Existing Road Widening for Access Road	Co-located With Existing Road	868	0.0199265	0	1745	0.04005969	639	0.0146694	0	1486	0.03411387



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W-JMR-13	PSS	44.772857, -67.916838	Existing Road Widening for Access Road	Co-located With Existing Road	1	2.296E-05	0	0	0	Not WOSS	Not WOSS	Not WOSS	Not WOSS	Not WOSS
W-JMR-17	PFO	44.771197, -67.869079	New Crane Path and Collection	Sited at Narrow Part of Delineated Wetland	1161	0.0266528	0	3473	0.079729	576	0.0132231	0	646	0.0148301
W-JMR-23	PSS	44.771378, -67.862883	New Crane Path and Collection	Sited at Edge of Delineated Wetland	4892	0.1123047	0	5676	0.1303028	381	0.0087465	0	1892	0.0434343
W-JMR-24	PFO	44.7717, -67.861128	New Crane Path and Collection	Crane Path Width Minimized	68	0.0015611	0	1340	0.0307621	68	0.0015611	0	1250	0.028696
W-JMR-27	PFO	44.772059, -67.860465	New Crane Path and Collection	Crane Path Width Minimized	687	0.0157713	0	765	0.017562	Not WOSS	Not WOSS	Not WOSS	Not WOSS	Not WOSS
W-MJR-11	PSS	44.771666, -67.866757	Existing Road Widening for Crane Path	Co-located With Existing Road	30	0.0006887	0	1376	0.0315886	Not WOSS	Not WOSS	Not WOSS	Not WOSS	Not WOSS
W-MJR-19	PSS	44.783388, -67.872464	Existing Road Widening for Crane Path	Co-located With Existing Road	7	0.0001607	0	0	0	Not WOSS	Not WOSS	Not WOSS	Not WOSS	Not WOSS
W-MJR-23	PFO	44.78461, -67.869304	Collection	Narrow Corridor Width	5	0.0001148	0	0	0	Not WOSS	Not WOSS	Not WOSS	Not WOSS	Not WOSS
W-MJR-25	PSS	44.808311, -67.929015	Collection	Narrow Corridor Width	5056	0.1160696	2528	0	0	Not WOSS	Not WOSS	Not WOSS	Not WOSS	Not WOSS
W-MJT-01	PFO	44.634418, -67.773219	O&M Facility	Use of Existing Developed Lot	50	0.0011478	0	2460	0.05647383	Not WOSS	Not WOSS	Not WOSS	Not WOSS	Not WOSS
W-NSD-03	PFO	44.774629, -67.857111	New Crane Path and Collection	Crane Path Width Minimized	2478	0.056887	0	5305	0.1217858	Not WOSS	Not WOSS	Not WOSS	Not WOSS	Not WOSS
W-NSD-05	PFO	44.786991, -67.885812	Collection	Narrow Corridor Width	19624	0.4505042	9812	0	0	Not WOSS	Not WOSS	Not WOSS	Not WOSS	Not WOSS
W-NSD-08	PFO	44.785726, -67.879617	Collection	Narrow Corridor Width	173	0.0039715	0	0	0	Not WOSS	Not WOSS	Not WOSS	Not WOSS	Not WOSS
W-NSD-09	PFO	44.785423, -67.87884	Collection	Narrow Corridor Width	5987	0.1374424	2994	0	0	Not WOSS	Not WOSS	Not WOSS	Not WOSS	Not WOSS
W-NSD-10	PFO	44.785261, -67.874941	Existing Road Widening for Crane Path	Co-located With Existing Road	12	0.0002755	0	486	0.011157	Not WOSS	Not WOSS	Not WOSS	Not WOSS	Not WOSS
W-NSD-16	PUB	44.79988, -67.918211	Collection	Narrow Corridor Width	3434	0.0788337	1717	0	0	Not WOSS	Not WOSS	Not WOSS	Not WOSS	Not WOSS
W-NSD-17	PEM	44.716745, -67.912424	Existing Road Widening for Crane Path	Co-located With Existing Road	138	0.003168	0	0	0	138	0.003168	0	0	0
W-SLG-09	PSS	44.742698, -67.915418	Existing Road Widening for Access Road	Co-located With Existing Road	765	0.017562	0	199	0.0045684	765	0.017562	0	199	0.0045684
W-SLG-10	PFO	44.716479, -67.905233	New Crane Path	Sited at Edge of Delineated Wetland	71	0.0016299	0	0	0	Not WOSS	Not WOSS	Not WOSS	Not WOSS	Not WOSS
W-THE-21	PSS	44.802027, -67.932353	Collection	Narrow Corridor Width	209	0.004798	105	0	0	Not WOSS	Not WOSS	Not WOSS	Not WOSS	Not WOSS
W-THE-23	PSS	44.749676, -67.915084	Existing Road Widening for Access Road	Co-located With Existing Road	0	0	0	179	0.0041093	Not WOSS	Not WOSS	Not WOSS	Not WOSS	Not WOSS
TOTAL CLEARING IMPACTS (sq ft and acres)					89,733 sq ft	2.05998622 acres								
TOTAL CONSTRUCTION MAT IMPACT (sq ft)							25,172 sq ft							



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TOTAL PERMANENT IMPACTS (sq ft and acres)								59,153 sq ft	1.35796602 acres					
SUBSET CLEARING WOSS IMPACTS (sq ft and acres)										23,153 sq ft	0.5315197429 acres			
SUBSET WOSS CONSTRUCTION MAT IMPACT (sq ft)												4,332 sq ft		
SUBSET PERMANENT WOSS IMPACTS (sq ft and acres)													24,327 sq ft	0.5584710744 acres

¹ Construction mats are temporary and do not adversely impact functions and values. Pursuant to the NRPA, construction mats that are temporary do not require compensation. Impacts from construction mats are included in this table to provide Clean Water Act impacts for Army Corps review. Construction mat impacts were calculated assuming 50 percent of construction corridor width.

² WOSS impact areas are a subset of the total impacts for each wetland and are included in the total square footage of impacts for each wetland. Pursuant to Chapter 310.5, impacts to WOSS are limited but allowed for roads and utility (collection) lines. "Non WOSS" denotes the wetland impacts do not occur within a Wetland of Special Significance, and therefore WOSS impacts are zero.

Table 9-2. Functions and Values for Wetland Resources Impacted within the Project Area

Wetland ID	Dominant Covertypes	Soil Map Unit	Dominant Vegetation	Hydrologic Indicators	Hydric Soil Indicator	WOSS Qualifier (Y/N)	F&V Form
01CFD	PFO					Y (Wetland contains IWWH)	9.3A
01CFF	PFO					Y (Wetland within 25' of a stream)	9.3A
W-CWF-02	PFO	Skerry-Colonel association, 0 to 8 percent slopes, very stony	Eastern white pine (<i>Pinus strobus</i>), Eastern hemlock (<i>Tsuga canadensis</i>)	Saturation (A3)	Histosol (A1)	N	9.3B
W-CWF-10	PFO-2	Wonsqueak and Bucksport mucks, 0 to 2 percent slopes, frequently flooded	Red spruce, Northern white-cedar (<i>Thuja occidentalis</i>), Bunchberry (<i>Cornus canadensis</i>), Three-Seed sedge (<i>Carex trisperma</i>)	Saturation (A3), FAC-Neutral Test (D5)	Histosol (A1)	Y (Wetland contains IWWH, within flood zone and within 25' of stream)	9.3A
W-CWF-11	PFO	Colton-Adams complex, 3 to 15 percent slopes	Northern white-cedar, Speckled alder, Cinnamon fern	Saturation (A3), FAC-Neutral Test (D5)	Histosol (A1)	Y (Wetland contains IWWH and within 25' of stream)	9.3A
W-CWF-12	PSS	Colton-Adams complex, 3 to 15 percent slopes	Northern white-cedar, Speckled alder, Bluejoint	Saturation (A3), FAC-Neutral Test (D5)	Sandy Redox (S5)	Y (Wetland contains IWWH and within 25' of stream)	9.2A
W-CWF-13	PFO	Colton-Adams complex, 3 to 15 percent slopes	Northern white-cedar, Creeping yellow wood-sorrel (<i>Oxalis corniculata</i>)	Saturation (A3)	Histosol (A1)	Y (Wetland contains IWWH)	9.3A
W-CWF-16	PFO	Skerry-Colonel association, 0 to 8 percent slopes, very stony	Red maple, Fowl manna grass (<i>Glyceria striata</i>)	High Water Table (A2), Saturation (A3), Surface Water (A1), FAC-Neutral Test (D5)	Depleted Matrix (F3)	N	9.3B
W-CWF-17	PFO	Skerry-Colonel association, 0 to 8 percent slopes, very stony	Red maple, Quaking aspen (<i>Populus tremuloides</i>), Cottongrass bulrush	High Water Table (A2), Saturation (A3), Surface Water (A1), FAC-Neutral Test (D5)	Histic Epipedon (A2), Sandy Redox (S5)	N	9.3B
W-CWF-18	PFO	Skerry-Colonel association, 0 to 8 percent slopes, very stony	Red maple, Balsam fir, Striped maple, Interrupted fern (<i>Osmunda claytoniana</i>)	High Water Table (A2), Saturation (A3), Water-Stained Leaves (B9)	Sandy Redox (S5)	N	9.3B
W-CWF-19	PUB	Skerry-Colonel association, 0 to 8 percent slopes, very stony	Broad-Leaf pondweed (<i>Potamogeton natans</i>)	High Water Table (A2), Saturation (A3), Surface Water (A1), Geomorphic Position (D2), FAC-Neutral Test (D5)	Sandy Gleyed Matrix (S4)	N	9.5B
W-CWF-20	PEM	Skerry-Colonel association, 0 to 8 percent slopes, very stony	Steeplebush (<i>Spiraea tomentosa</i>), Three-Way sedge (<i>Dulichium arundinaceum</i>)	High Water Table (A2), Saturation (A3), Surface Water (A1), Geomorphic Position (D2), FAC-Neutral Test (D5)	Histosol (A1)	Y (Wetland contains Large Marsh, within 25' of a stream)	9.1A
W-CWF-21	PFO	Skerry-Colonel association, 0 to 8 percent slopes, very stony	Balsam fir (<i>Abies balsamea</i>), Speckled alder, Cut-Leaf water-horehound (<i>Lycopus americanus</i>)	High Water Table (A2), Saturation (A3), FAC-Neutral Test (D5)	Histosol (A1)	Y (Wetland within 25' of a stream)	9.3A
W-CWF-22	PEM	Skerry-Colonel association, 0 to 8 percent slopes, very stony	Common winterberry, Red-Tinge bulrush (<i>Scirpus microcarpus</i>)	High Water Table (A2), Saturation (A3), Water-Stained Leaves (B9), FAC-Neutral Test (D5)	Sandy Redox (S5)	Y (Wetland contains SVP V-DC-190430-02)	9.4A
W-CWF-23	PEM	Skerry-Becket association, 0 to 15 percent slopes, very stony	Cinnamon fern	Saturation (A3), Water-Stained Leaves (B9), FAC-Neutral Test (D5)	Sandy Redox (S5)	Y (Wetland located within 250' buffer of SVP V-DC-190430-02)	9.1A
W-CWF-24	PFO	Skerry-Becket association, 0 to 15 percent slopes, very stony	Red maple, Wild Raisin, Common winterberry, Cottongrass bulrush	High Water Table (A2), Saturation (A3), Surface Water (A1), Water-Stained Leaves (B9), FAC-Neutral Test (D5)	Sandy Redox (S5)	N	9.3B
W-CWF-25	PEM	Skerry-Becket association, 0 to 15 percent slopes, very stony	Sweetgale (<i>Myrica gale</i>), Cottongrass bulrush	High Water Table (A2), Saturation (A3), Surface Water (A1), Water-Stained Leaves (B9), FAC-Neutral Test (D5)	Sandy Redox (S5)	N	9.1B
W-CWF-58	PEM-3	Brayton-Colonel association, 0 to 8 percent slopes, very stony	Red maple, Bluejoint	High Water Table (A2), Saturation (A3), FAC-Neutral Test (D5)	Histic Epipedon (A2), Sandy Redox (S5)	Y (Wetland within 25' of a stream and contains Atlantic salmon habitat)	9.1A
W-CWF-58	PFO-1	Adams-Croghan association, 0 to 8 percent slopes	Red maple, Steeplebush, Bluejoint	High Water Table (A2), Saturation (A3), FAC-Neutral Test (D5)	Histosol (A1)	Y (Wetland within 25' of a stream and contains Atlantic salmon habitat)	9.3A

Wetland ID	Dominant Covertypes	Soil Map Unit	Dominant Vegetation	Hydrologic Indicators	Hydric Soil Indicator	WOSS Qualifier (Y/N)	F&V Form
W-CWF-59	PFO	Nicholville-Croghan complex, 0 to 5 percent slopes	Red maple, Wild Raisin, Mountain-Lauel (<i>Kalmia latifolia</i>)	High Water Table (A2), Saturation (A3), Surface Water (A1), Water-Stained Leaves (B9), FAC-Neutral Test (D5)	Sandy Redox (S5)	N	9.3B
W-CWF-60	PFO	Nicholville-Croghan complex, 0 to 5 percent slopes	Gray birch, Red milkweed (<i>Asclepias rubra</i>), Speckled alder, Bluejoint	High Water Table (A2), Saturation (A3), Surface Water (A1), Water-Stained Leaves (B9), FAC-Neutral Test (D5)	Sandy Redox (S5), Stratified Layers (A5)	N	9.3B
W-CWF-61	PSS	Bucksport and Wonsqueak mucks, 0 to 2 percent slopes	Leatherleaf (<i>Chamaedaphne calyculata</i>), Rhodora, Sheep-Laurel	High Water Table (A2), Saturation (A3), Geomorphic Position (D2), FAC-Neutral Test (D5)	Histosol (A1)	N	9.2B
W-DBV-15	PFO		Red maple, Speckled alder, Sensitive fern, Cinnamon fern, Canada reed grass	Surface Water (A1), High Water Table (A2), Saturation (A3), Drainage Patterns (B10), Geomorphic Position (D2), FAC-Neutral Test (D5)	Sandy Redox (S5)	N	9.3B
W-DC-04	PFO	Skerry-Becket association, 0 to 15 percent slopes, very stony	Balsam fir, Red spruce, Red maple, Paper birch, Cinnamon fern	Saturation (A3), Drainage Patterns (B10)	Depleted Matrix (F3)	N	9.3B
W-DMC-60	PFO	Skerry-Becket association, 0 to 15 percent slopes, very stony	Red maple, Speckled alder, Cinnamon fern	Saturation (A3), Water-Stained Leaves (B9), Shallow Aquitard (D3))	Depleted Matrix (F3)	N	9.3B
W-GAR-02	PFO	Hermon-Monadnock-Skerry complex, 0 to 15 percent slopes, very bouldery	Red maple, Red spruce, Cinnamon fern	High Water Table (A2), Saturation (A3), Thin Muck Surface (C7), Water Marks (B1), Water-Stained Leaves (B9), Microtopographic Relief (D4), Moss Trim Lines (B16)	Histic Epipedon (A2)	N	9.3B
W-GAR-04	PFO	Brayton-Colonel association, 0 to 8 percent slopes, very stony	Red maple, Cinnamon fern	Saturation (A3), Water-Stained Leaves (B9), Microtopographic Relief (D4), Moss Trim Lines (B16)	Depleted Matrix (F3)	N	9.3B
W-GAR-05	PFO	Wonsqueak and Bucksport mucks, 0 to 2 percent slopes, frequently flooded	Black spruce, Speckled alder, Bristly dewberry, Northern long sedge (<i>Carex folliculata</i>)	Saturation (A3), Thin Muck Surface (C7), Water-Stained Leaves (B9), Microtopographic Relief (D4), Moss Trim Lines (B16), FAC-Neutral Test (D5)	Histosol (A1)	Y (Wetland within flood zone)	9.3A
W-GAR-06	PFO	Brayton-Colonel association, 0 to 8 percent slopes, very stony	Red maple, Black chokeberry (<i>Aronia melanocarpa</i>), Lowbush blueberry), Black chokeberry	High Water Table (A2), Saturation (A3), Geomorphic Position (D2)	Histic Epipedon (A2)	N	9.3B
W-GAR-07	PEM-2	Medaka and Won squeak soils, frequently flooded	Balsam fir, Gray birch, Speckled alder, Bluejoint	Saturation (A3), Drainage Patterns (B10), Geomorphic Position (D2), Microtopographic Relief (D4), FAC-Neutral Test (D5)	Depleted Below Dark Surface (A11)	Y (Wetland contains IWWH)	9.1A
W-GAR-07	PFO-3	Medomak and Wonsqueak soils, frequently flooded	American fly-honeysuckle (<i>Lonicera canadensis</i>), New York fern (<i>Parathelypteris noveboracensis</i>)	Saturation (A3), Water-Stained Leaves (B9), Microtopographic Relief (D4), Moss Trim Lines (B16)	Histosol (A1)	Y (Wetland contains IWWH)	9.3A
W-GAR-07	PSS-1	Sheepscot-Croghan-Kinsman complex, 0 to 8 percent slopes	Speckled alder, Wrinkle-Leaf goldenrod (<i>Solidago rugosa</i>)	Saturation (A3), Water-Stained Leaves (B9), Microtopographic Relief (D4), Moss Trim Lines (B16), FAC-Neutral Test (D5)	Depleted Matrix (F3)	Y (Wetland within 25' of a stream and contains IWWH)	9.2A
W-GAR-08	PSS	Sheepscot-Croghan-Kinsman complex, 0 to 8 percent slopes	Speckled alder, Nodding sedge (<i>Carex gynandra</i>)	Saturation (A3), Water-Stained Leaves (B9), Microtopographic Relief (D4), Moss Trim Lines (B16), FAC-Neutral Test (D5)	Depleted Below Dark Surface (A11)	Y (Wetland contains IWWH)	9.2A
W-GAR-09	PEM	Sheepscot-Croghan-Kinsman complex, 0 to 8 percent slopes	Gray birch, Bog-Laurel (<i>Kalmia polifolia</i>), Tawny cotton-grass (<i>Eriophorum virginicum</i>), Cottongrass bulrush	Saturation (A3), Water-Stained Leaves (B9), Microtopographic Relief (D4), Moss Trim Lines (B16), Stunted or Stressed Plants (D1), FAC-Neutral Test (D5)	Histosol (A1)	N	9.1B
W-GAR-11	PEM	Sheepscot-Croghan-Kinsman complex, 0 to 8 percent slopes	Red maple, Tawny cotton-grass	Saturation (A3), Microtopographic Relief (D4), Moss Trim Lines (B16), FAC-Neutral Test (D5)	Histosol (A1)	N	9.1B
W-JMR-11	PEM-1	Kinsman-Wonsqueak association, 0 to 3 percent slopes	Leatherleaf	Water-Stained Leaves (B9), Geomorphic Position (D2), FAC-Neutral Test (D5)	Histic Epipedon (A2)	Y (Wetland contains Large Marsh and within 250' of Great Pond)	9.1A
W-JMR-11	PFO-1	Kinsman-Wonsqueak association, 0 to 3 percent slopes	Red maple, Speckled alder, Bluejoint	High Water Table (A2), Saturation (A3), Water-Stained Leaves (B9), Drainage Patterns (B10), Geomorphic Position (D2), Microtopographic Relief (D4), FAC-Neutral Test (D5)	Histic Epipedon (A2)	Y (Wetland contains Large Marsh and within 250' of Great Pond)	9.3A
W-JMR-12	PSS-3	Colton gravelly sandy loam, 0 to 3 percent slopes	Speckled alder, Bluejoint, Segde species (<i>Carex spp.</i>)	Saturation (A3), Drainage Patterns (B10), Geomorphic Position (D2), FAC-Neutral Test (D5)	Depleted Matrix (F3)	Y (Wetland within 25' of a stream)	9.2A



Wetland ID	Dominant Covertypes	Soil Map Unit	Dominant Vegetation	Hydrologic Indicators	Hydric Soil Indicator	WOSS Qualifier (Y/N)	F&V Form
W-JMR-13	PSS-1	Kinsman-Wonsqueak association, 0 to 3 percent slopes	Bigtooth aspen (<i>Populus grandidentata</i>), Bristly dewberry	High Water Table (A2), Saturation (A3), Microtopographic	Black Histic (A3)	N	9.2B
W-JMR-17	PFO-2	Skerry-Colonel association, 0 to 8 percent slopes, very stony	Red maple, Common winterberry, Bluejoint	High Water Table (A2), Saturation (A3), Surface Water (A1), Water-Stained Leaves (B9), Geomorphic Position (D2), Microtopographic Relief (D4), FAC-Neutral Test (D5)	Histosol (A1)	Y (Wetland within 25' of a stream)	9.3A
W-JMR-23	PSS	Skerry-Colonel association, 0 to 8 percent slopes, very stony	Red maple, Common winterberry, Interrupted fern	High Water Table (A2), Saturation (A3), Surface Water (A1), Water-Stained Leaves (B9), Drainage Patterns (B10), Geomorphic Position (D2), Microtopographic Relief (D4), FAC-Neutral Test (D5)	Histosol (A1)	Y (Wetland within 25' of a stream)	9.2A
W-JMR-24	PFO	Skerry-Colonel association, 0 to 8 percent slopes, very stony	Red maple, Common winterberry, Interrupted fern	Saturation (A3), Drainage Patterns (B10), Geomorphic Position (D2), FAC-Neutral Test (D5)	Histosol (A1)	Y (Wetland within 25' of a stream)	9.3A
W-JMR-27	PFO	Skerry-Becket association, 0 to 15 percent slopes, very stony	Red maple, Cinnamon fern	High Water Table (A2), Saturation (A3), Water-Stained Leaves (B9), Drainage Patterns (B10), Geomorphic Position (D2), Microtopographic Relief (D4), FAC-Neutral Test (D5)	Histic Epipedon (A2)	N	9.3B
W-MJR-11	PSS	Skerry-Beckett association 0-15 % slopes very stony	Red maple, Gray birch, Speckled alder, Wild Raisin, Cinnamon fern, Lowbush blueberry	Geomorphic Position (D2), FAC-Neutral Test (D5)	Depleted Below Dark Surface (A11), Depleted Matrix (F3)	N	9.2B
W-MJR-19	PSS	Skerry-Colonel association, 0 to 8 percent slopes, very stony	Red maple, Red chokeberry (<i>Aronia arbutifolia</i>), Cinnamon fern	High Water Table (A2), Saturation (A3), Geomorphic Position (D2), FAC-Neutral Test (D5)	Histosol (A1)	N	9.2B
W-MJR-23	PFO	Skerry-Colonel association, 0 to 8 percent slopes, very stony	Red maple, Red chokeberry, Lowbush blueberry, Sheep-Laurel	High Water Table (A2), Saturation (A3), Geomorphic Position (D2), Microtopographic Relief (D4), FAC-Neutral Test (D5)	Histosol (A1)	N	9.3B
W-MJR-25	PSS	Skerry-Beckett association, 0 to 15 percent slopes, very stony	Red maple, Red chokeberry, Royal fern	High Water Table (A2), Saturation (A3), Surface Water (A1), Geomorphic Position (D2), Microtopographic Relief (D4), FAC-Neutral Test (D5)	Histosol (A1)	N	9.2B
W-MJT-01	PFO	Lamoine-Rawsonville-Scantic complex, 0 to 8 percent slopes, very stony	Red maple, Balsam fir, Gray birch, Red spruce, Fringed sedge, White meadowsweet	High Water Table (A2), Saturation (A3), Drainage Patterns (B10), Geomorphic Position (D2), FAC-Neutral Test (D5)	Depleted Below Dark Surface (A11)	N	9.3B
W-NSD-03	PFO	Skerry-Becket association, 0 to 15 percent slopes, very stony	Red maple	High Water Table (A2), Saturation (A3), Drainage Patterns (B10), Geomorphic Position (D2), Microtopographic Relief (D4), Shallow Aquitard (D3)	Histosol (A1)	N	9.3B
W-NSD-05	PFO	Skerry-Becket association, 0 to 15 percent slopes, very stony	Eastern white pine, Gray birch, Speckled alder, Sheep-Laurel	High Water Table (A2), Saturation (A3), Geomorphic Position (D2), Microtopographic Relief (D4), Saturation Visible on Aerial Imagery (C9), Shallow Aquitard (D3)	Histosol (A1)	N	9.3B
W-NSD-08	PFO	Brayton-Colonel association, 0 to 8 percent slopes, very stony	Yellow birch, Red spruce, Cinnamon fern	High Water Table (A2), Saturation (A3), Drainage Patterns (B10), Geomorphic Position (D2), Microtopographic Relief (D4), Shallow Aquitard (D3)	Histosol (A1)	N	9.3B
W-NSD-09	PFO	Skerry-Colonel association, 0 to 8 percent slopes, very stony	Red baneberry (<i>Actaea rubra</i>), Northern red oak, Cinnamon fern	High Water Table (A2), Saturation (A3), Drainage Patterns (B10), Geomorphic Position (D2), Microtopographic Relief (D4), Shallow Aquitard (D3)	Histosol (A1)	N	9.3B
W-NSD-10	PFO	Skerry-Becket association, 0 to 15 percent slopes, very stony	Balsam fir, Cinnamon fern	High Water Table (A2), Saturation (A3), Drainage Patterns (B10), Geomorphic Position (D2), Microtopographic Relief (D4), Shallow Aquitard (D3)	Histosol (A1)	N	9.3B
W-NSD-16	PUB	Sheepscot-Croghan-Kinsman complex, 0 to 8 percent slopes	Cottongrass bulrush	High Water Table (A2), Inundation Visible on Aerial Imagery (B7), Saturation (A3), Surface Water (A1), Geomorphic Position (D2), Saturation Visible on Aerial Imagery (C9), FAC-Neutral Test (D5)	Problematic due to inundation	N	9.5B
W-NSD-17	PEM	Wonsqueak and Bucksport mucks, 0 to 2 percent slopes, frequently flooded	Eastern white pine, Leatherleaf	High Water Table (A2), Saturation (A3), Geomorphic Position (D2), Saturation Visible on Aerial Imagery (C9)	Histosol (A1)	Y (Wetland contains Large Marsh and within 250' of Great Pond)	9.1A

Wetland ID	Dominant Covertypes	Soil Map Unit	Dominant Vegetation	Hydrologic Indicators	Hydric Soil Indicator	WOSS Qualifier (Y/N)	F&V Form
W-SLG-09	PSS	Masardis fine sandy loam, 8 to 15 percent slopes	Gray birch, Paper birch, Speckled alder, Red raspberry, Common wrinkle-leaved goldenrod, Bracken fern	Saturation (A3), Water-Stained Leaves (B9), Oxidized Rhizospheres on Living Roots (C3), Drainage Patterns (B10), Geomorphic Position (D2)	Depleted Matrix (F3)	Y (Wetland contains IWWH)	9.2A
W-SLG-10	PFO		Red maple, American larch, Balsam fir, Red spruce, Black chokeberry, Eastern White pine, Swamp dewberry, Cinnamon fern	High Water Table (A2), Saturation (A3), Water-Stained Leaves (B9), Geomorphic Position (D2), Microtopographic Relief (D4), FAC-Neutral Test (D5)	Histic Epipedon (A2), Black Histic (A3)	N	9.3B
W-THE-21	PSS	Brayton-Colonel association, 0 to 8 percent slopes, very stony	Balsam fir, Interrupted fern	High Water Table (A2), Saturation (A3), Geomorphic Position (D2)	Depleted Matrix (F3), Loamy Gleyed Matrix (F2)	N	9.2B
W-THE-23	PSS	Sheepscot fine sandy loam, 0 to 8 percent slopes	Southern arrow-wood, Cottongrass bulrush	High Water Table (A2), Saturation (A3), Drainage Patterns (B10), Geomorphic Position (D2), FAC-Neutral Test (D5)	Histosol (A1)	N	9.2B



EXHIBITS 9-1A & B: WETLAND FUNCTION-VALUE EVALUATION FORM FOR EMERGENT WETLANDS

Exhibit 9-1A: Wetland Function-Value Evaluation Form- Emergent Wetlands (WOSS)

Human made? **No** Is wetland part of a wildlife corridor? **No** or a "habitat island"? **No** Wetland ID **See Table 9-2** Adjacent land use: **Forestland clearings, roadway, agriculture** Distance to nearest roadway or other development? **In some areas adjacent to gravel roads, in most areas the line is >1/4 mile from any roadway.** Dominant wetland systems present **PEM.** Contiguous undeveloped buffer zone present: **Yes upland/wetland forest in some areas and in others the wetlands.** Prepared by TRC **Date: February 2021.** Is the wetland a separate hydraulic system? **No** If not, where does the wetland lie in the drainage basin. **Generally, seepage wetlands associated with drainages and streams.** Impact: Type: Minimal **fill for structure installation and temporary access.**

How many tributaries contribute to the wetland? **One in some areas** Wildlife & vegetation diversity/abundance **(see Routine Form) Field Evaluation with Delineation Completed**

Wetland Impact: **Type:** Clearing 1,776 sqft **Type:** Permanent 2,197 sqft **Combined Total:** 3,973 sqft

Function/Value	Suitability Y/N	Rational Reference #'s	Principal or Secondary Function	Comments
Groundwater Recharge/Discharge	Y	2; 4; 6, 15	Secondary	Seepage discharge during the spring and summer. High water table.
Floodflow Alteration	N			Generally not connected to floodplains, but if so they are small insignificant floodplain areas
Fish and Shellfish Habitat	Y	7;8	Secondary	Provided shading and food chain functions for streams
Production Export	Y	1;4;7	Secondary	Food chain related values. No commercial value.
Sediment/Toxicant Retention	Y	2	Secondary	Potential toxicants from nearby agricultural practices
Nutrient Removal	Y	4; 5; 9; 11	Secondary	Agricultural runoff may present additional nutrient load to some wetlands.
Sediment/Shoreline Stabilization	Y	6; 7; 9; 15	Secondary	Some wetlands contain small streams and flood in the spring
Wildlife Habitat	Y	3; 4; 5; 6; 7; 8; 13 ;17; 20	Primary	General habitat values
Educational/Scientific Value	N			Limited potential for educational values
Recreation	Y	3	Secondary	Potential for hunting
Uniqueness/Heritage	Y	24		Wetland is, or contains, a WOSS
Visual Quality/Aesthetics	N			Not a visually or aesthetically pleasing wetland
Endangered Species Habitat	2		Secondary	Wetlands associated with the Pleasant River may contain critical spawning and nursery areas for Atlantic salmon
Other				

Exhibit 9-1B: Wetland Function-Value Evaluation Form- Emergent Wetlands (NON-WOSS)

Human made? **No** Is wetland part of a wildlife corridor? **No** or a "habitat island"? **No** Wetland ID **See Table 9-2** Adjacent land use **Forestland, clearings, roadway, agriculture** Distance to nearest roadway or other development? **In some areas adjacent to gravel roads in most areas the line is >1/4 mile from any roadway.** Dominant wetland systems present **PEM.** Contiguous undeveloped buffer zone present **Yes upland/wetland forest in some areas and in others the wetlands.** Prepared by TRC **Date: February 2021** Is the wetland a separate hydraulic system? **No** If not, where does the wetland lie in the drainage basin. **Generally seepage wetlands associated with drainages and streams.** Impact: Type: **Minimal fill for structure installation and temporary access**

How many tributaries contribute to the wetland? **One in some areas** Wildlife & vegetation diversity/abundance **(see Routine Form) Field Evaluation with Delineation Completed**

Wetland Impact: **Type:** Clearing 4,130 sqft **Type:** Permanent 4,823 sqft **Combined Total:** 8,953 sqft

Function/Value	Suitability Y/N	Rational Reference #'s	Principal or Secondary Function	Comments
Groundwater Recharge/Discharge	Y	2; 4; 6, 15	Secondary	Seepage discharge during the spring and summer. High water table.
Floodflow Alteration	N			Generally not connected to floodplains, but if so they are small insignificant floodplain areas
Fish and Shellfish Habitat	N	7;8	Secondary	Provided shading and food chain functions for streams
Production Export	Y	1;4;7	Secondary	Food chain related values. No commercial value.
Sediment/Toxicant Retention	N	2	Secondary	Potential toxicants from nearby agricultural practices
Nutrient Removal	Y	4; 5; 9; 11	Secondary	Agricultural runoff may present additional nutrient load to some wetlands.
Sediment/Shoreline Stabilization	N	6; 7; 9; 15		Some wetlands contain small streams and flood in the spring
Wildlife Habitat	Y	7;8;13	Primary	General habitat values
Educational/Scientific Value	N			Limited potential for educational values
Recreation	Y	3	Secondary	Potential for hunting
Uniqueness/Heritage	N			Common wetland community
Visual Quality/Aesthetics	N			Not a visually or aesthetically pleasing wetland
Endangered Species Habitat	N			None present
Other				



EXHIBITS 9-2A & B: WETLAND FUNCTION-VALUE EVALUATION FORM FOR SCRUB-SHRUB WETLANDS

Exhibit 9-2A: Wetland Function-Value Evaluation Form- Scrub-Shrub Wetlands (WOSS)

Human made? **No** Is wetland part of a wildlife corridor? **No** or a "habitat island"? **No** Wetland ID **See Table 9-2** Adjacent land use **Forestland, clearings, roadway, agriculture** Distance to nearest roadway or other development? **In some areas adjacent to gravel roads in most areas the line is >1/4 mile from any roadway.** Dominant wetland systems present **PSS.** Contiguous undeveloped buffer zone present: **Yes upland/wetland forests, shrub, and herbaceous communities.** Prepared by TRC **Date: February 2021** Is the wetland a separate hydraulic system? **No** If not, where does the wetland lie in the drainage basin? **Generally associated with seepage and some with streams** Impact: Type **Minimal fill for structure replacement and temporary access**

How many tributaries contribute to the wetland? **One in some areas** Wildlife & vegetation diversity/abundance **(see Routine Form)** **Field Evaluation with Delineation Completed**

Wetland Impact: **Type:** Clearing 2,075 sqft **Type:** Permanent 4,882 sqft **Combined Total:** 6,957 sqft

Function/Value	Suitability Y/N	Rational Reference #'s	Principal or Secondary Function	Comments
Groundwater Recharge/Discharge	Y	2; 4; 6; 7; 9; 13	Primary	Some shrub wetlands provide seepage discharge into streams. High ground water table. Some shrub wetland underlain by bedrock and/or contain springs
Floodflow Alteration	Y	2; 3; 5; 7; 9; 10; 13	Secondary	Some shrub wetlands contain small streams.
Fish and Shellfish Habitat	Y	1; 7; 8; 12; 14	Secondary	Provided shading and food chain functions when streams present
Production Export	Y	1;4;7;14	Secondary	Vegetation production and decomposition. No commercial value.
Sediment/Toxicant Retention	Y	2	Secondary	Potential toxicants from nearby agricultural practices
Nutrient Removal	Y	5; 7; 9; 10; 11	Secondary	Indirect contribution to food chain production
Sediment/Shoreline Stabilization	N			Not part of a shoreline
Wildlife Habitat	Y	1; 3; 4; 7; 8; 15	Primary	General habitat values
Educational/Scientific Value	N			Limited potential for educational values
Recreation	Y	3	Secondary	Potential for hunting
Uniqueness/Heritage	Y	24		Wetland is, or contains, a WOSS
Visual Quality/Aesthetics	N			Not a visually or aesthetically pleasing wetland
Endangered Species Habitat	2		Secondary	Wetlands associated with the Pleasant River may contain critical spawning and nursery areas for Atlantic salmon
Other				

Exhibit 9-2B: Wetland Function-Value Evaluation Form- Scrub-Shrub Wetlands (Non-WOSS)

Human made? **No** Is wetland part of a wildlife corridor? **No** or a "habitat island"? **No** Wetland ID: **See Table 9-2** Adjacent land use **forestland, clearings, roadway, agriculture** Distance to nearest roadway or other development? **In some areas adjacent to gravel roads in most areas the line is >1/4 mile from any roadway.** Dominant wetland systems present **PSS.** Contiguous undeveloped buffer zone present **Yes upland/wetland forests, shrub, and herbaceous communities.** Prepared by TRC **Date: February 2021** Is the wetland a separate hydraulic system? **No** If not, where does the wetland lie in the drainage basin? **Generally associated with seepage and some with streams** Impact: Type **Minimal fill for structure replacement and temporary access**

How many tributaries contribute to the wetland? **One in some areas** Wildlife & vegetation diversity/abundance (see Routine Form) **Field Evaluation with Delineation Completed**

Wetland Impact: **Type:** Clearing 10,622 sqft **Type:** Permanent 5,601 sqft **Combined Total:** 16,223 sqft

Function/Value	Suitability Y/N	Rational Reference #'s	Principal or Secondary Function	Comments
Groundwater Recharge/Discharge	Y	2; 4; 6; 7; 9; 13	Primary	Some shrub wetlands provide seepage discharge into streams. High ground water table. Some shrub wetland underlain by bedrock and/or contain springs
Floodflow Alteration	Y	2; 3; 5; 7; 9; 10; 13	Secondary	Some shrub wetlands contain small streams.
Fish and Shellfish Habitat	Y	1; 7; 8; 12; 14	Secondary	Provided shading and food chain functions when streams present
Production Export	Y	1;4;7;14	Secondary	Vegetation production and decomposition. No commercial value.
Sediment/Toxicant Retention	Y	2	Secondary	Potential toxicants from nearby agricultural practices
Nutrient Removal	Y	5; 7; 9; 10; 11	Secondary	Indirect contribution to food chain production
Sediment/Shoreline Stabilization	N			Not part of a shoreline
Wildlife Habitat	Y	1; 3; 4; 7; 8; 15	Primary	General habitat values
Educational/Scientific Value	N			Limited potential for educational values
Recreation	Y	3	Secondary	Potential for hunting
Uniqueness/Heritage	N			Common wetland community
Visual Quality/Aesthetics	N			Not a visually or aesthetically pleasing wetland
Endangered Species Habitat	N			None present
Other				



EXHIBITS 9-3A & B: WETLAND FUNCTION-VALUE EVALUATION FORM FOR FORESTED WETLANDS

Exhibit 9-3A: Wetland Function-Value Evaluation Form- Forested Wetlands (WOSS)

Human made? **No** Is wetland part of a wildlife corridor? **No** or a "habitat island"? **No** Wetland ID See **Table 9-2** Adjacent land use **Transmission line, clearings, roadway, agriculture** Distance to nearest roadway or other development? **In some areas adjacent to gravel roads in most areas the line is >1/4 mile from any roadway.** Dominant wetland systems present **PFO.** Contiguous undeveloped buffer zone present **Yes upland/wetland forest in some areas and in others the wetlands.** Prepared by TRC **Date: February 2021** Is the wetland a separate hydraulic system? **No** If not, where does the wetland lie in the drainage basin. **Generally seepage wetlands associated with drainages and streams.** Impact: Type: **Conversion to shrub and/or herbaceous communities** How many tributaries contribute to the wetland? **Various** Wildlife & vegetation diversity/abundance **(see Routine Form) Field Evaluation with Delineation Completed**

Wetland Impact: **Type:** Clearing 19,302 sqft **Type:** Permanent 17,248 sqft **Combined Total:** 36,550 sqft

Function/Value	Suitability Y/N	Rational Reference #'s	Principal or Secondary Function	Comments
Groundwater Recharge/Discharge	Y	2; 4; 6; 7; 9; 13	Primary	Some forested wetlands discharge into streams. High ground water table. Some forested wetland underlain by bedrock and/or contain springs
Floodflow Alteration	Y	2; 3; 5; 7; 9; 10; 13	Secondary	Some forested wetlands contain small streams.
Fish and Shellfish Habitat	Y	1; 7; 8; 12; 14; 17	Secondary	Provided shading and food chain functions when streams present
Production Export	Y	1;4;7;14	Secondary	Vegetation production and decomposition. No commercial value.
Sediment/Toxicant Retention	Y	2; 4	Secondary	Potential toxicants from nearby agricultural practices
Nutrient Removal	Y	5; 7;	Secondary	Indirect contribution to food chain production
Sediment/Shoreline Stabilization	N			Not part of a shoreline
Wildlife Habitat	Y	1; 3; 4; 7; 8; 15	Primary	General habitat values
Educational/Scientific Value	N			Limited potential for educational values
Recreation	Y	3	Secondary	Potential for hunting
Uniqueness/Heritage	Y	24		Wetland is, or contains, a WOSS
Visual Quality/Aesthetics	N			Not a visually or aesthetically pleasing wetland
Endangered Species Habitat	2		Secondary	Wetlands associated with the Pleasant River may contain critical spawning and nursery areas for Atlantic salmon
Other				

Exhibit 9-3B: Wetland Function-Value Evaluation Form- Forested Wetlands (NON-WOSS)

Human made? **No** Is wetland part of a wildlife corridor? **No** or a "habitat island"? **No** Wetland ID **See Table 9-2** Adjacent land use **Forestland clearings, roadway, agriculture** Distance to nearest roadway or other development? **In some areas gravel roads are adjacent to the line, otherwise most of the line is > ¼ mile from any roadway.** Dominant wetland systems present **PFO.** Contiguous undeveloped buffer zone present **Yes upland/wetland forest in some areas and in others the wetlands.** Prepared by TRC **Date: February 2021** Is the wetland a separate hydraulic system? **No** If not, where does the wetland lie in the drainage basin. **Generally, part of a drainage system in the middle of the watershed associated with mid-sized streams.** Impact: Type: **Conversion to shrub and/or herbaceous communities.** How many tributaries contribute to the wetland? **One in some areas** Wildlife & vegetation diversity/abundance **(see Routine Form) Field Evaluation with Delineation Completed**

Wetland Impact: **Type:** Clearing 47,931 sqft **Type:** Permanent 24,402 sqft **Combined Total:** 72,333 sqft

Function/Value	Suitability Y/N	Rational Reference #'s	Principal or Secondary Function	Comments
Groundwater Recharge/Discharge	Y	2; 4; 6; 7; 9; 13	Primary	Some forested wetlands discharge into streams. High ground water table. Some forested wetland underlain by bedrock and/or contain springs
Floodflow Alteration	Y	2; 3; 5; 7; 9; 10; 13	Secondary	Some forested wetlands contain small streams.
Fish and Shellfish Habitat	Y	1; 7; 8; 12; 14; 17	Secondary	Provided shading and food chain functions when streams present
Production Export	Y	1;4;7;14	Secondary	Vegetation production and decomposition. No commercial value.
Sediment/Toxicant Retention	Y	2; 4	Secondary	Potential toxicants from nearby agricultural practices
Nutrient Removal	Y	5; 7	Secondary	Indirect contribution to food chain production
Sediment/Shoreline Stabilization	N			Not part of a shoreline
Wildlife Habitat	Y	1; 3; 4; 7; 8; 15	Primary	General habitat values
Educational/Scientific Value	N			Limited potential for educational values
Recreation	Y	3	Secondary	Potential for hunting
Uniqueness/Heritage	N			Common wetland community
Visual Quality/Aesthetics	N			Not a visually or aesthetically pleasing wetland
Endangered Species Habitat	N			None present
Other				



**EXHIBIT 9-4: WETLAND FUNCTION-VALUE EVALUATION FORM FOR
UNCONSOLIDATED BOTTOM WETLANDS**

Exhibit 9-4: Wetland Function-Value Evaluation Form- Unconsolidated Bottom Wetlands (NON-WOSS)

Human made? **No** Is wetland part of a wildlife corridor? **No** or a "habitat island"? **No** Wetland ID **See Table 9-2** Adjacent land use **forestland, roadway, agriculture** Distance to nearest roadway or other development? **In some areas adjacent to gravel roads in most areas the wetlands are >1/4 mile from any roadway.** Dominant wetland systems present **PUB.** Contiguous undeveloped buffer zone present **Yes upland/wetland forest in some areas and in others the wetlands.** Prepared by TRC **Date: February 2021** Is the wetland a separate hydraulic system? **No** If not, where does the wetland lie in the drainage basin. **Generally, in the lower reaches of the drainage associated with large drainages and streams.** Impact: Type: **Minimal fill for structure installation and temporary access.** How many tributaries contribute to the wetland? **Various** Wildlife & vegetation diversity/abundance **(see Routine Form) Field Evaluation with Delineation Completed**

Wetland Impact: Type: Clearing 3,897 sqft Type: Permanent 0 sqft **Combined Total: 3,897 sqft**

Function/Value	Suitability Y/N	Rational Reference #'s	Principal or Secondary Function	Comments
Groundwater Recharge/Discharge	Y	2;7;9, 12;13	Secondary	Marsh and shoreline systems prone to flooding. High water table.
Floodflow Alteration	N	3; 5, 7, 9, 10	Secondary	Flood storage capacity in open marshlands
Fish and Shellfish Habitat	Y	3; 4; 5; 7; 10; 13; 14	Secondary	Provided shading and food chain functions for streams. Often associated with Great Ponds
Production Export	Y	1; 2; 4; 6 ;7; 12	Secondary	Food chain related values. Low quality timber value.
Sediment/Toxicant Retention	Y	4,5,9,11	Secondary	Potential for agricultural sources of nutrients nearby
Nutrient Removal	Y	2; 4; 7; 9; 11	Secondary	Minimal growth and decomposition of vegetation.
Sediment/Shoreline Stabilization	Y	6, 7	Secondary	Shoreline stabilization for low energy pond or marsh systems with no boat traffic
Wildlife Habitat	Y	1;3;4;5;6;7;8; 11	Primary	General habitat values
Educational/Scientific Value	N			Common wetland community
Recreation	Y	2, 3, 6	Secondary	Potential for hunting and fishing, though access is limited
Uniqueness/Heritage	N			Common wetland community
Visual Quality/Aesthetics	N			Not a visually or aesthetically pleasing wetland
Endangered Species Habitat	N			None present
Other				