NECEC Natural Resources Protection Act Application

Central Maine Power Company

New England Clean Energy Connect (NECEC) Project
Project No. 99382

9/27/2017

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submitted to

Maine Department of Environmental Protection

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submitted by

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LIST OF ABBREVIATIONS

Abbreviation	**Term/Phrase/Name**
AC	Alternating current
APE	Area of Potential Effects
AT	Appalachian Trail
BIA	Bureau of Indian Affairs
BLM	Bureau of Land Management
BMPs	Best Management Practices
Burns & McDonnell	Burns & McDonnell Engineering Company, Inc.
CFR	Code of Federal Regulations
CMP	Central Maine Power
CWA	Clean Water Act
dB	decibels
dBA	Sound Pressure Level
DC	Direct current
Distribution Companies	Collectively Unitil, National Grid and Eversource
DPS	Distinct Population Segment
DWA	Deer Wintering Area
EFH	Essential fish habitat
Environmental Guidelines	Environmental Guidelines for Construction and Maintenance Activities on Transmission Line and Substation Projects
ESA	Endangered Species Act
ESC	Erosion and Sedimentation Control
Eversource	NSTAR Electric Company and Western Massachusetts Electric Company d/b/a Eversource

Abbreviation	**Term/Phrase/Name**
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FIRM	Flood Insurance Rate Map
FR	Federal Register
GHz	Gigahertz
GIS	Geographic Information System
gpm	Gallons-per-minute
GPS	Global Positioning Systems
HUC	Hydrological Unit Codes
HVDC	High Voltage Direct Current
ISO-NE	Independent System Operator- New England
kV	Kilovolt
Kwh	Kilowatt hour
LUPC	Maine Land Use Planning Commission
Maine DHHS	Maine Department of Health and Human Services
MESA	Maine Endangered Species Act
Massachusetts RFP	Request for Proposals for Long-Term Contracts for Clean Energy Projects
MBTA	Migratory Bird Treaty Act
MCBER	University of Maine’s Center for Business & Economic Research
MDEP	Maine Department of Environmental Protection
MDIFW	Maine Department of Inland Fisheries and Wildlife
MEGIS	Maine Office of Geographic Information Systems

Abbreviation	**Term/Phrase/Name**
MGS	Maine Geological Survey
MHPC	Maine Historic Preservation Commission
MNAP	Maine Natural Areas Program
MPRP	Maine Power Reliability Program
MPUC	Maine Public Utilities Commission
MVAR	Mega volt amps (reative)
MWh	Megawatt hour
National Grid	Nantucket Electric Company d/b/a National Grid
NECEC	New England Clean Energy Connect
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NRPA	Maine Natural Resource Protection Act
NWI	National Wetland Inventory
O&M	Operation and Maintenance
PEM	Palustrine Emergent Wetlands
PFO	Palustrine Forested Wetlands
Plt	Plantation
POI	Point of Interconnect
PPA	Power Purchase Agreement
PSS	Palustrine Scrub-Shrub Wetlands
RFP	Mass. Request for Proposals for Long-Term Contracts for Clean Energy Projects
ROW	Right of way

Abbreviation	**Term/Phrase/Name**
RPS	Renewable Portfolio Standard
RTO	Regional Transmission Organization
Site Law	Site Location of Development Act
SPCC	Spill Prevention, Control, and Countermeasure
STATCOM	Static Synchronous Compensator
TSA	Transmission Service Agreement
Twp	Township
Unitil	Fitchburg Gas & Electric Light Company d/b/a Unitil
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	United States Geological Survey
USGS-NHD	U.S. Geological Survey – National Hydrography Dataset
VIA	Visual Impact Assessment

1.0 PROJECT DESCRIPTION

For a complete description of the New England Clean Energy Connect (“NECEC”) Project, refer to **Section 1** of the Site Location of Development Act (“Site Law”) Application. The full Site Law Application is incorporated by reference into this NRPA Application.

2.0 ALTERNATIVES ANALYSIS

2.1 Introduction

Under Chapter 310 (Wetlands and Waterbodies Protection Rules), pursuant to the Maine Natural Resources Protection Act (NRPA), as well as 40 C.F.R. § 230.10(a) (the 404(b)(1) Guidelines), pursuant to Section 404 of the Federal Clean Water Act, a permit applicant must document that a proposed project will avoid and minimize impacts to protected natural resources to the maximum extent practicable. Under NRPA, the applicant must demonstrate that there is no "practicable alternative to the activity that would be less damaging to the environment (DEP Reg. 310.5(A)). A project will not be permitted if there are practicable alternatives that would meet the project purpose and have less environmental impact. As defined by Chapter 310 of the DEP's rules, "practicable" means "[a]vailable and feasible considering cost, existing technology and logistics based on the overall purpose of the project" (06-096 CMR § 310(3)(R)). Similarly, pursuant to the 404(b)(1) Guidelines, "[a]n alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes" (40 C.F.R. § 230.10(a)(2)).

The discussion included in this section of the NRPA application describes the process by which alternatives were developed and evaluated to identify a technically and economically sound solution that avoids and minimizes environmental impacts to achieve the least environmentally damaging practicable alternative. Ownership, landscape, location, design constraints on the transmission system, cost and potential environmental impacts of alternatives are compared against the proposed route.

2.2 NECEC Purpose and Need

The purpose of the NECEC Project is to deliver up to 1,200 MW of Clean Energy Generation from Québec to the New England Control Area[1] via a High Voltage Direct Current (HVDC) transmission line, at the lowest cost to ratepayers. This Project is proposed in response to the Request for Proposals for Long-Term Contracts for Clean Energy Projects dated March 31, 2017 (RFP) issued by the electric distribution companies of the Commonwealth of Massachusetts[2] and the Massachusetts Department of Energy Resources. However, if the NECEC Project is not awarded through this RFP, the Project will still

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[1] The New England Control Area includes the transmission system administered by ISO-New England, the regional transmission organization (RTO), located in Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont, but does not include the transmission system in northern Maine (i.e., Aroostook County and parts of Penobscot and Washington counties).

[2] National Grid, NStar Electric d/b/a Eversource Energy, Fitchburg Gas & Electric Light Company d/b/a Unitil, and Western Massachusetts Electric Company d/b/a Eversource Energy.

fulfill the purpose and need of delivering renewable energy from Canada to New England, which has a continuing need for such power.

The NECEC project is expected to reduce regional CO_2 (greenhouse gas) emissions by over one million metric tons per year in Massachusetts, which is a direct benefit to neighboring states, including Maine. This amount would help achieve the stated goals of the Regional Greenhouse Gas Initiative (RGGI) by reducing the total amount of CO_2 emissions from the power sector of the six New England states, and Delaware, Maryland, and New York. The NECEC's ability to deliver reliable, renewably-generated electricity from Québec will help alleviate the need to build new non-renewable generation plants, and may allow retirement of older, less efficient fossil fueled power plants.

2.3 NECEC Alternatives

The alternative routes considered in this analysis are limited to the HVDC line component, from the Canadian border to the interconnection point with the grid at Larrabee Road Substation (Segments 1, 2 and 3), and associated substation upgrades; with all other components (i.e., Section 62/64 115kV rebuilds (Segment 4) and the new Section 3027 345kV line (Segment 5)) assumed to remain as proposed in all three scenarios. These latter line sections are being proposed in existing CMP corridors and, as such, the alternatives to these line sections would be to site these sections in new corridors, which would not meet the intended objectives of the least environmental impact on the environment. Thus, route alternatives for these project components are not discussed in detail in this narrative.

2.3.1 No-Action Alternative

Not constructing the NECEC project is the no-action alternative. The no-action alternative, however, would not meet the NECEC Project's purpose of allowing CMP to deliver 1,200 MW of the clean energy generation from Quebec to the New England Control Area at the lowest cost to ratepayers. In addition, even if a non-CMP project could be permitted elsewhere and could economically deliver 1,200 MW of clean energy generation from Quebec to the New England Control Area, such a project would not meet CMP's need to deliver that energy, and such a project would have unknown environmental impacts.

Further, the no-action alternative, if no alternative projects are built, would not reduce greenhouse gas emissions, would not reduce the wholesale cost of electricity for the benefit of retail customers across the region, and would not enhance electric reliability, particularly in winter months when natural gas supply and transfer constraints have occurred in recent years.

Thus, the no action alternative would not meet the project purpose and need.

2.3.2 Transmission Alternatives

The three HVDC transmission line routes, which have been considered as part of this analysis, would all meet the purpose and need to deliver clean energy generation from Québec to the New England Control Area. However, as discussed below, the two potential alternatives would result in more environmental impact than the proposed route for the NECEC corridor, and are not practicable.

2.3.2.1 Criteria for Assessment of Route Alternatives

The HVDC transmission line route alternatives were first identified through a geospatial desktop analysis, utilizing publicly available Geographic Information System (GIS) data. Alternatives were then evaluated and compared based on several parameters (points of comparison). CMP quantified and evaluated the following comparison criteria, listed in order of generally decreasing priority with respect to transmission line route selection:

- Conserved Lands
- Undeveloped Right of Way
- Clearing
- Stream Crossings
- Transmission Line Length
- National Wetlands Inventory (NWI) Mapped Wetlands
- Deer Wintering Areas
- Inland Waterfowl and Wading Bird Habitat
- Public Water Supplies
- Significant Sand and Gravel Aquifers
- Parcel Count Total

Each of these parameters is described in more detail below.

2.3.2.1.1 Conserved Lands

CMP's analysis identified the number of distinct parcels in federal, state, municipal, or non-profit ownership that would be crossed, some of which may be subject to conservation-related land use restrictions, and the acreage of conserved lands directly impacted (i.e., acreage cleared or otherwise altered) by the NECEC. Conserved lands include (i) parcels whose rights are partially or entirely owned or controlled by the National Park Service (NPS) (i.e., the Appalachian Trail, for which CMP granted NPS an easement) and the Maine Bureau of Parks and Lands and (ii) lands subject to conservation easements that restrict development or other alteration of the land. These lands are often of high ecological, recreational, and/or aesthetic value. To preserve these values, CMP considered and favored transmission line routes that minimized crossings of conserved lands.

2.3.2.1.2 Undeveloped Right of Way

CMP's analysis identified the total length, in miles, of previously-undeveloped transmission line corridor to be developed and considered. To minimize wildlife habitat conversion, loss, or fragmentation, the analysis favored transmission line routes that minimized previously undeveloped land requiring clearing and development as a transmission line corridor.

2.3.2.1.3 Clearing

CMP's analysis identified the acreage of tree clearing required within the transmission line corridor and considered and favored transmission line routes that minimized tree clearing, to minimize habitat conversion-related impacts.

2.3.2.1.4 Stream Crossings

CMP's analysis identified the number of mapped features listed in the USGS - National Hydrography Dataset (USGS NHD) that would be crossed by the transmission line. CMP considered and favored transmission line routes that minimized stream crossings, in order to minimize unavoidable temporary (e.g., construction mat crossings) and permanent (e.g., increased insolation) impacts to these resources.

2.3.2.1.5 Transmission Line Length

CMP's analysis identified the total length, in miles, of new transmission line required and CMP considered and favored transmission line routes that minimized total transmission line length in order to reduce overall environmental impacts.

2.3.2.1.6 NWI Mapped Wetlands

CMP's analysis identified wetlands and water bodies (generally one acre and larger), listed in the National Wetlands Inventory (NWI) maps developed by the United States Fish and Wildlife Service (USFWS), which would be crossed by the transmission line. CMP considered and favored transmission line routes that minimized crossings of wetlands and water bodies, in order to minimize unavoidable temporary (construction mat crossings) and permanent (habitat conversion, filling) impacts to these resources.

2.3.2.1.7 Deer Wintering Areas

CMP's analysis identified the number of deer wintering areas listed by the Maine Office of GIS that are crossed by the transmission line, and the acreage of deer wintering areas directly impacted (i.e., acreage cleared or otherwise altered). CMP considered and favored transmission line routes that minimize intersections with DWAs, to minimize the need for clearing of woody vegetation within DWAs as a result of construction and maintenance activities.

2.3.2.1.8 Inland Waterfowl and Wading Bird Habitat

CMP's analysis identified the number of distinct waterfowl and wading bird habitats, and the total acreage listed by the Maine Office of GIS, crossed by the transmission line. Inland waterfowl and wading bird habitats include breeding, feeding, roosting, loafing, and migration stopover areas. Waterfowl habitats are divided behaviorally and seasonally into three categories: breeding habitats, migration and staging habitats, and wintering habitats (Maine Department of Inland Fisheries & Wildlife 2005b). CMP considered and favored transmission line routes that minimized intersections with IWWHs, in order to avoid and minimize clearing of vegetation within IWWHs required for transmission line construction and maintenance.

2.3.2.1.9 Public Water Supplies

CMP's analysis identified the number of public water supplies listed by the Maine Office of GIS and within 500 feet of the transmission line corridor. CMP considered and favored transmission line routes that minimized crossing of public water supplies in order to minimize the potential for any construction-related impacts to these resources.

2.3.2.1.10 Significant Sand and Gravel Aquifers

CMP's analysis identified the number of significant sand and gravel aquifers identified by the Maine Office of GIS that would be crossed by the transmission line. CMP considered and favored transmission line routes that minimized crossing of significant sand and gravel aquifers, which are, or may be, used as private or public water supplies, to minimize the potential for any construction-related impacts to these resources.

2.3.2.1.11 Parcel Count Total

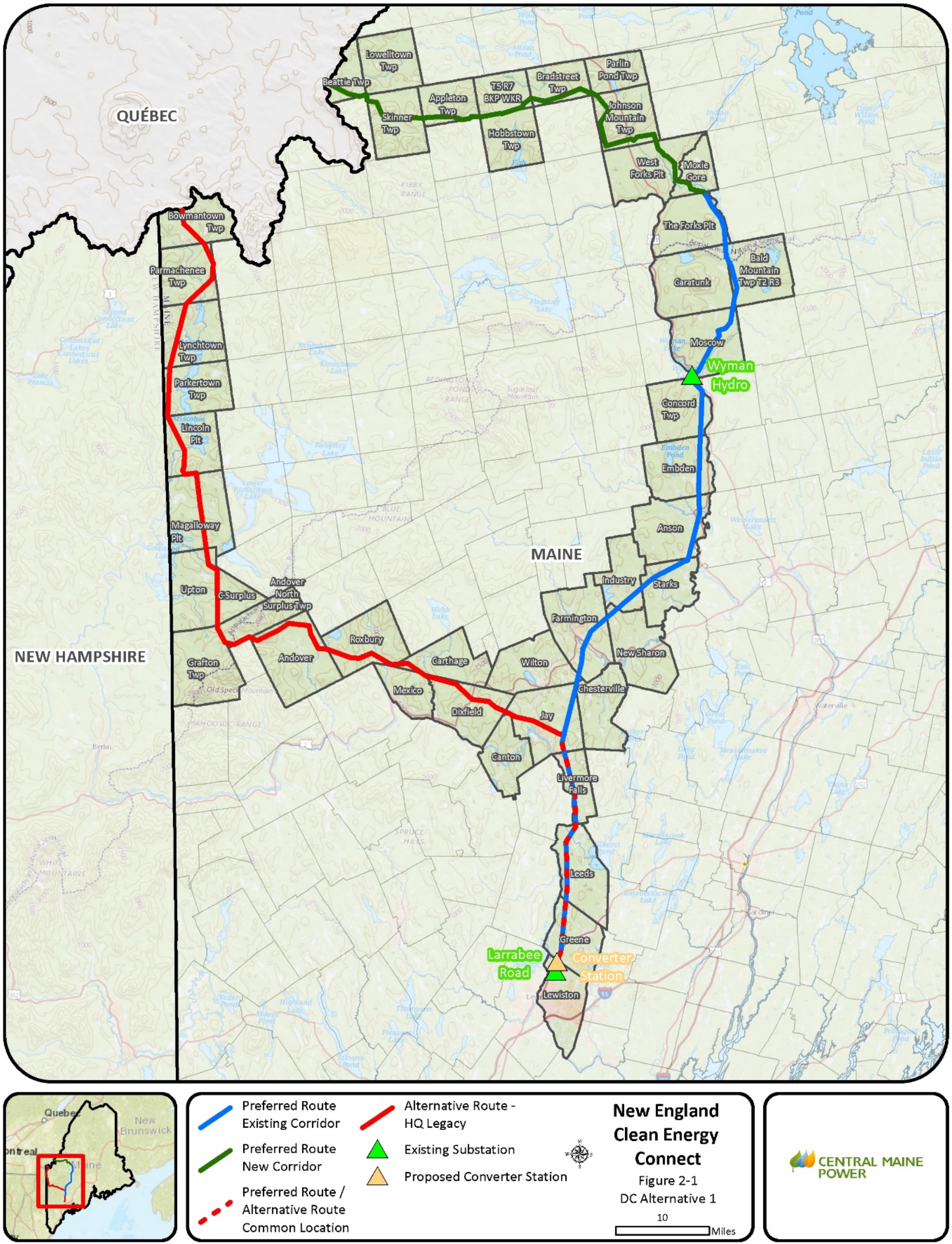
CMP's analysis identified the number of land parcels for which CMP would require the acquisition of title, right, or interest. CMP considered and favored transmission line routes with the highest likelihood of successful land rights acquisition, and utilized the number of parcels for which it would need title, right, or interest as one indicator of this.

2.3.2.2 HVDC Alternative 1

2.3.2.2.1 1980’s Quebec Corridor Description

DC Alternative 1 (Alternative 1) is based on CMP’s attempt to acquire and permit a transmission line project from Québec to the Lewiston, Maine area in the late 1980s. At that time, CMP had acquired title, right, or interest, primarily through real estate option agreements, on a significant portion of this corridor. However, the Maine Public Utilities Commission did not approve this project and these real estate option agreements have since expired. The Alternative 1 corridor would extend from the Canadian border in western Maine approximately 119.3 miles to an interconnection point in Lewiston, Maine (see **Figure 2-1**). Alternative 1 would be located primarily in a new corridor and partially in undeveloped width in existing corridors.

Figure 2-1: HVDC Alternative 1



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Alternative 1 begins in Bowmantown Township, Oxford County, Maine at a point on the Maine/Québec border about 0.75 mile east of the Maine/New Hampshire line. The corridor extends southerly through Bowmantown Township, Parmachenee Township, Lynchtown Township, Parkertown Township and Lincoln Plantation, all in Oxford County. The corridor is west of Parmachenee Lake and Aziscohos Lake. In Lincoln Plantation, the corridor crosses Route 16 approximately 0.75 mile west of the bridge across the Magalloway River and then crosses the Magalloway River. At the south line of Lincoln Plantation, the corridor turns east for about 1.25 miles and then south across Magalloway Plantation, Oxford County, following the west property boundary of an industrial forest landowner to the south line of Magalloway Plantation. The entire eight miles across Magalloway Plantation is now subject to a conservation easement held by the New England Forestry Foundation, so a realignment to cross other properties would be necessary in this area.

From Magalloway Plantation the corridor continues south across the Town of Upton, Oxford County, crossing the Rapid River about 0.5 mile south of the outlet of Pond-in-the-River. In the 1980s the land along the Rapid River was owned by an affiliate of CMP. That land and additional land on each side of the river is now controlled by the Rangeley Lakes Heritage Trust and the MDIFW and is subject to a conservation easement. Obtaining rights for a transmission line through this conservation easement is highly unlikely.

South of the Rapid River the corridor runs southeast to C Surplus Township, Oxford County, and then turns south following the west line of C Surplus Township to the southerly line of the township. C Surplus Township is now subject to a conservation easement held by the New England Forestry Foundation; therefore, the alignment would need to be moved to the east line of Upton Township. From C Surplus, the route follows the westerly line of Andover North Surplus or the east line of Grafton Township, both in Oxford County, for about two miles before turning east to the southerly line of Andover North Surplus and the west line of the Appalachian Trail Corridor. No records could be located to determine how CMP planned to cross the Appalachian Trail corridor on the circa 1985 project.

From the easterly line of the Appalachian Trail corridor the Alternative 1 corridor follows the southerly line of Andover North Surplus for about a mile before turning east and crossing into the Town of Andover, Oxford County where the corridor roughly follows the north and then east town lines before crossing into the town of Roxbury, Oxford County. The corridor crosses Route 120, the Swift River and Route 17 in the southeast part of the town and then exits Oxford County, entering Franklin County for about three miles in the town of Carthage before reentering Oxford County on the north line of the town of Mexico. In less than 0.75 mile, the Alternative 1 corridor crosses the Webb River and into the Town of

Dixfield, Oxford County where the corridor continues southeasterly across Dixfield, crossing U.S. Route 2 before crossing the east line of the town into the Town of Jay, Franklin County. Continuing southeasterly across the town of Jay and the very northern tip of the Town of Canton, Oxford County, the corridor crosses Route 4 and then Route 133 before connecting with the Section 278 corridor about 2.25 miles north of the Livermore Falls Substation. From the point of intersection with Section 278 south to Larrabee Road Substation, a distance of approximately 26 miles, Alternative 1 is the same as the Preferred Alternative.

2.3.2.2.2 HVDC Alternative 1 Comparison

Table 2-1, below, compares the NECEC Preferred Alternative to Alternative 1.

Table 2-1: Comparison of NECEC Preferred Alternative to Alternative 1

Point of Comparison	Unit	Preferred Alternative	Alternative 1
Conserved lands	no./acres	6 parcels/42 acres	8 parcels/275.3 acres
Undeveloped ROW	miles	53.5	93.1
Clearing	acres	1,823	1,934
Parcel count total	no.	7	120
Stream crossings	no.	115	88
Transmission line length	miles	146.5	119.3
NWI mapped wetlands	no./acres	263 wetlands/76.3 acres	238 wetlands/118.3 acres
Deer wintering areas	no./acres	8 DWAs/44.3 acres	8 DWAs/71.3 acres
Inland waterfowl and wading bird habitat	no./acres	12 IWWH/22.7 acres	9 IWWH/23.1 acres
Public water supplies within 500 feet	no.	1	1
Significant sand and gravel aquifers	no.	12	7

Conserved Lands

The Preferred Alternative crosses fewer conserved land parcels, and significantly less conserved lands acreage than Alternative 1, indicating that the Preferred Alternative would cause less habitat fragmentation than Alternative 1.

A crossing of the Appalachian Trail would be required by both routes. An overhead crossing of the Appalachian Trail for Alternative 1 would require the acquisition of an easement and a 150-foot wide swath of tree clearing across the trail corridor where no transmission line corridor currently exists. In comparison, the Preferred Route crosses the Appalachian Trail in an existing transmission line corridor and is next to an existing gravel road. CMP owns the Appalachian Trail on Section 222. CMP acquired the rights in fee circa 1950. It later conveyed an easement to the NPS, but kept the fee ownership and specifically the right to construct overhead electric transmission and communication lines for the entire 300-foot wide corridor when the NPS purchased the trail corridor. CMP would only require an additional 75 feet of tree clearing for the installation of the overhead transmission line for the Preferred Alternative.

Undeveloped Right of Way

Alternative 1 would require 93.1 miles of new corridor, compared to 53.5 miles of new corridor for the Preferred Alternative, an increase in 39.6 miles of currently undeveloped ROW.

Clearing

Although Alternative 1 is shorter in overall length than the Preferred Route, Alternative 1 would require an additional 111 acres of tree clearing compared to the Preferred Alternative.

Parcel Count Total

The Alternative 1 corridor would require CMP to acquire title, right, or interest in 120 parcels of land. In contrast, the Preferred Alternative requires the acquisition of rights in only seven parcels. CMP has acquired rights for all seven parcels.

Stream Crossings

The USGS NHD identified more stream crossings along the Preferred Alternative than Alternative 1, likely a function of transmission line corridor length. CMP standard construction practice is to install temporary equipment spans over streams and to avoid all in-stream activities. Consequently, the primary potential impacts to stream habitat are sedimentation and insolation. CMP mitigates the potential for these impacts by installing erosion and sedimentation controls, by routine cleaning of temporary crossing (construction mats) spans, and by maintaining riparian buffers during operations and maintenance of the line. As a result, temporary and permanent impacts to streams on either route would be insignificant.

Transmission Line Length

The Alternative 1 transmission line corridor is 119.3 miles in length; about 27.2 miles shorter than the Preferred Alternative. Alternative 1, in comparison to the Preferred Alternative, would require 93.1 miles of new corridor, an increase in 39.6 miles of new corridor.

NWI Mapped Wetlands

A comparison of mapped NWI wetlands along Alternative 1 and the Preferred Alternative identified 25 more wetlands along the Preferred Route. However, construction in the Alternative 1 corridor would result in an additional 42 acres of wetland impact when compared to the Preferred Route. The primary impact to wetlands from construction of the project will be the conversion of forested wetland to early successional scrub-shrub and meadow cover types. As a result, other than a minor amount of permanent fill associated with structures placed in wetlands where no siting alternatives are available, the permanent loss of wetlands from construction of the project on either route is negligible.

Deer Wintering Areas

The Preferred Route would cross eight deer wintering areas (DWAs) and would require the conversion of 44.3 acres of DWA habitat. In comparison, Alternative 1 would also cross eight DWAs, but would require the conversion of 27 more acres of DWA habitat than the Preferred Route.

Inland Waterfowl and Wading Bird Habitat

The Preferred Alternative would cross 12 IWWHs and require the conversion of 22.7 acres of IWWH habitat, while Alternative 1 would cross nine IWWHs and would require the conversion of 23.1 acres of IWWH.

Public Water Supplies within 500 Feet

One public water supply is located within 500 feet of both the Preferred Alternative and Alternative 1.

Significant Sand and Gravel Aquifers

Impacts from the construction and operation of a transmission line are unlikely to impact aquifers due to the short duration of equipment operation and the implementation of environmental controls, and spill reporting and cleanup procedures utilized by CMP and its contractors during construction.

Preferred Alternative vs. Alternative 1 Summary

A comparison of the environmental resources traversed by both routes does not substantively differentiate the two routes in terms of overall number of resources impacted. However, when assessing the extent of impact, the conversion of habitat is much greater along the Alternative 1 route than the Preferred Route.

Alternative 1 transmission structures would be visible from Black Mountain Ski Area in the Town of Rumford, Maine, Rapid River in Upton, and Aziscohos Mountain in Lincoln Plantation as well as from the Appalachian Trail. The Preferred Route is comparatively advantageous in that it would cross the Appalachian Trail in a location with an existing overhead transmission line corridor.

Alternative 1 would require the acquisition of 120 parcels of private land in addition to rights needed to cross conservation lands. Additionally, 93.1 miles of Alternative 1 consists of a new corridor with no land rights under agreement, controlled or owned by CMP.

For these reasons, Alternative 1 is more environmentally damaging than the Preferred Route, and it is not a practicable alternative.

2.3.2.3 HVDC Alternative 2

2.3.2.3.1 Bigelow Corridor Description

DC Alternative 2 (Alternative 2) would extend from the Canadian border in western Maine approximately 138.5 miles to an interconnection point in Lewiston, Maine (see **Figure 2-2**). The line would be located partially in a new corridor and partially in undeveloped width in existing corridors.

The Alternative 2 corridor begins in western Maine in Beattie Township, Franklin County, Maine at a point on the Canadian border approximately 2.5 miles north of the southwest corner of the township. The alternative corridor extends southeast along the Preferred Alternative for approximately 7.75 miles across Beattie Township, the southwest corner of Lowelltown Township and southerly across Skinner Township to a point where the Preferred Alternative turns east. The Preferred Alternative corridor has been acquired, therefore no additional acquisition would be necessary in the first 7.75 miles of Alternative 2. Both routes require the acquisition by lease of the Lowelltown parcel from the Passamaquoddy Tribe.

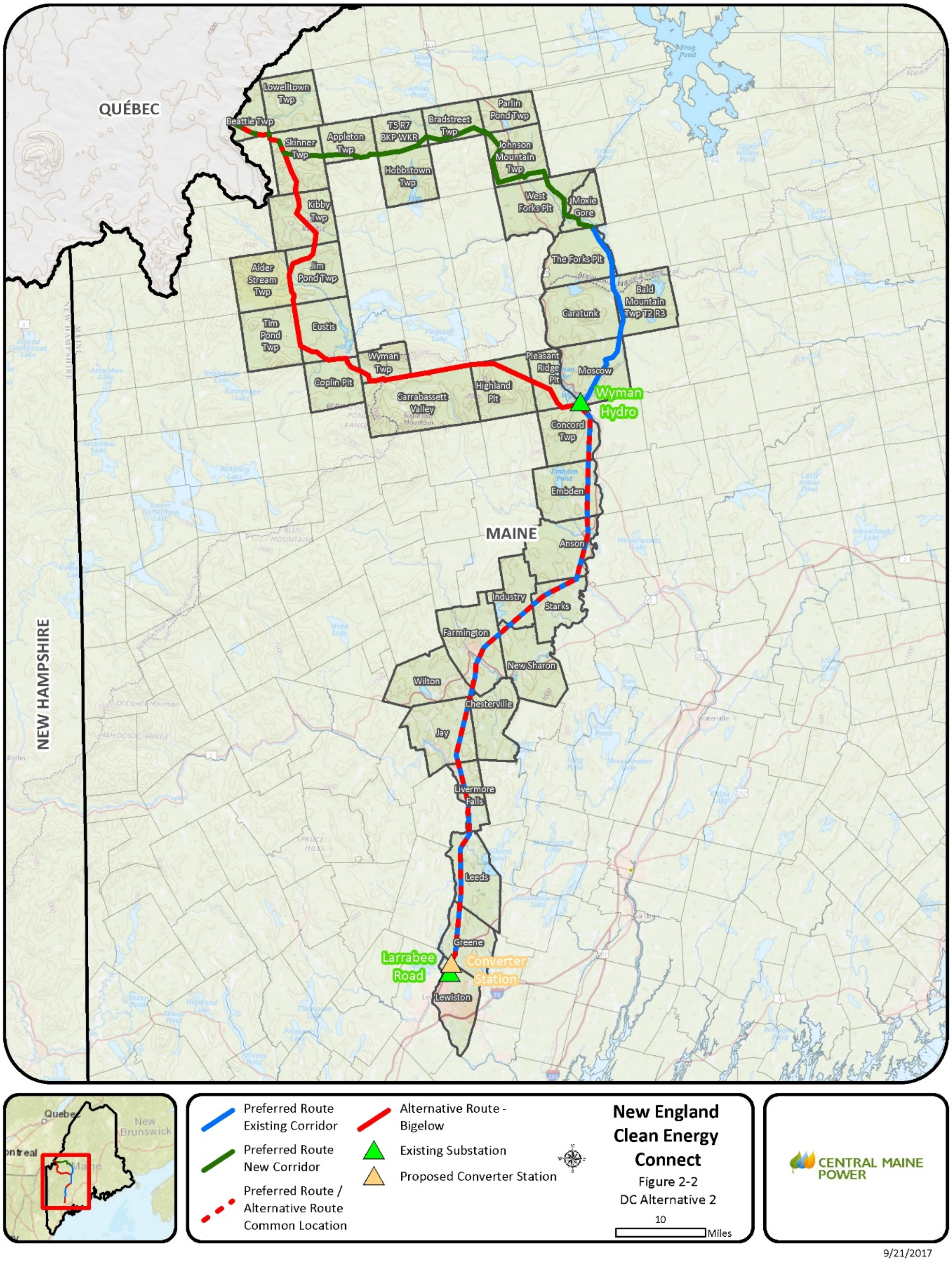
Alternative 2 continues southerly approximately 8.75 miles to a point in Kibby Township, Franklin County, where the corridor begins to parallel the Kibby Mountain Wind Farm 115kV generation lead line. Elevations range from 1,900 feet near the intersection with the generator lead to just under 2,700 feet. The Alternative 2 corridor parallels the generator lead south across Kibby Township, Jim Pond Township, the Town of Eustis, and Coplin Plantation, all in Franklin County. The 115kV generator lead from the Stratton Energy biomass plant begins to parallel the Kibby generator lead in Coplin Plantation and both lines continue to parallel the Alternative 2 corridor southeasterly across Coplin Plantation and Wyman Township to the Bigelow Substation located on the east side of Route 27 along the north line of the Town of Carrabassett Valley.

Alternative 2 parallels the generator lead for a total distance of approximately 27.5 miles. Elevation ranges from about 1,250 feet to about 1,900 feet on this portion of the alternative. The Alternative 2 corridor from the Preferred Alternative to Bigelow Substation would require the acquisition of a 150-foot wide corridor. This section of new corridor would be located parallel to, but would not overlap, the existing generator lead corridor. It is not possible to co-locate the Alternative 2 corridor and the Kibby generator lead corridor because of real estate constraints. Thus, development of Alternative 2 would result in a new full width corridor adjacent to the existing corridor in this location.

The surrounding land generally is industrial forest land typified by spruce-fir and northern hardwoods forest types that are owned and managed for timber production. Most of the area is undeveloped with only a few seasonal dwellings. Recreation is typically permitted on the industrial forest lands. The Village of Stratton is located about 0.25 miles east of the alternative corridor but the corridor does not impact any residential areas. There is one industrial wind farm located in Kibby Township, and both a biomass generation plant and a saw mill are located in Stratton.

The Alternative 2 corridor crosses Route 27 twice and Route 16 once. Generally, access would need to be obtained over private roads. The alternative corridor crosses the Appalachian Trail on the north side of the Wyman/Carrabassett Valley town line. Overhead rights were obtained from the U.S. Department of the Interior (DOI) for the Stratton Energy generator lead circa 1985. However, DOI refused to grant rights to cross the AT, either overhead or underground, for the Kibby Wind generator lead circa 2010 and the generator lead was placed underground in the Route 27 highway right of way. Obtaining a Special Use permit from the NPS to cross the Appalachian Trail corridor with an overhead line is highly unlikely. The cost and complexity of an underground crossing, whether buried roadside in the Route 27 right of way or placed underneath the Appalachian Trail corridor via directional bore, would pose a financial barrier and an engineering challenge.

Figure 2-2: HVDC Alternative 2



Starting at the Bigelow Substation, the Alternative 2 corridor would be co-located for approximately 23.5 miles with CMP's Section 215 corridor, which crosses Carrabassett Valley, Franklin County, Highland Plantation and Pleasant Ridge Plantation, Somerset County. Elevation ranges from about 1,100 feet to about 1,900 feet for this portion of the alternative.

Section 215 is a 115kV radial line[3] built on H-frame structures in a 150-foot wide corridor. For approximately 9.5 miles, the Section 215 corridor is located along the north line of Carrabassett Valley which is also the south line of the Bigelow Preserve, a large Maine-owned tract with strict land use restrictions designed to limit development. A one mile long portion of the Bigelow Preserve extends across the Section 215 corridor. Section 215 originates at Wyman Hydro and terminates at Bigelow substation.

Most of the eastern half of Carrabassett Valley is owned by the Penobscot Indian Nation. Most of the land in Highland Plantation and Pleasant Ridge Plantation is industrial forest land although there are smaller tracts of private forest ownership and some residential development along Rowe Pond Road in Pleasant Ridge, which is crossed twice by Section 215. The acquisition of an additional 75 feet of width would generally be necessary to co-locate with the Section 215 corridor. However, acquiring additional width through the Bigelow Preserve would be very difficult or impossible due to significant land use restrictions in the Preserve. Therefore, Alternative 2 would require that the DC line be double-circuited with Section 215, placed underground, or rerouted southerly around the Bigelow Preserve ownership. Given the probable need to cross the Appalachian Trail underground, the difficulty in taking radial line Section 215 out of service (i.e., there is no other CMP 115 kV line connected to Bigelow substation so the loss of Section 215 could jeopardize the entire load and generation serviced by this substation), and the expected visual impacts of Alternative 2, CMP anticipates that regulators would require the Alternative 2 line to be installed underground from the north side of the Appalachian Trail corridor to the Highland Plantation town line, a distance of approximately ten miles. Because underground transmission line construction costs can be approximately 4-10 times that of overhead construction, this represents a significant financial barrier. Conversely, the Preferred Alternative would cross the Appalachian Trail in an existing corridor owned by CMP.

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[3] A radial transmission line is a transmission line that is supplied from one direction only and terminates without connecting with another transmission line.

A new corridor approximately 0.75-mile long will be necessary to connect the Section 215 corridor in southeastern Pleasant Ridge Plantation and the Section 63 corridor in northeastern Concord Township. This segment of the Alternative 2 corridor would need to be 150 feet wide.

From the point of intersection with the Section 63 corridor, which is approximately 0.75 mile south of the Wyman Dam, Alternative 2 would follow the preferred route to Larrabee Road Substation in Lewiston.

2.3.2.3.2 Alternative 2 Comparison

Table 2-2, below, compares the NECEC Preferred Alternative to Alternative 2.

Table 2-2: Comparison of NECEC Preferred Alternative to Alternative 2

Point of Comparison	Unit	Preferred Alternative	Alternative 2
Conserved lands	no./acres	6 parcels/42 acres	9 parcels/53.2 acres
Undeveloped ROW	miles	53.5	17.3
Clearing	acres	1,823	1,670
Parcel count total	no.	7	34
Stream crossings	no.	115	123
Transmission line length	miles	146.5	138.5
NWI mapped wetlands	no./acres	263 wetlands/ 76.3 acres	283 wetlands/ 113.3 acres
Deer wintering areas	no./acres	8 DWAs/44.3 acres	8 DWAs/44 acres
Inland waterfowl and wading bird habitat	no./acres	12 IWWH/22.7 acres	12 IWWH/16.5 acres
Public water supplies within 500 feet	no.	1	1
Significant sand and gravel aquifers	no.	12	10

Conserved Lands

The Preferred Alternative and Alternative Route 2 both cross conserved land parcels. However, Alternative 2 would traverse three additional conserved parcels, resulting in 11.2 acres of additional impact to conserved lands compared to the Preferred Route. Alternative 2 would require crossing the Appalachian Trail on Route 27 in the town of Wyman. An overhead or direct bore underground crossing of the Appalachian Trail on Alternative 2 would require the acquisition of an easement from the NPS and an overhead crossing would require a 150-foot wide swath of tree clearing across the trail corridor where no transmission line corridor currently exists. Otherwise, underground installation of the DC transmission line would be required within the ROW of State Highway 27. Both options are prohibitively expensive.

In comparison, the Preferred Alternative crosses the Appalachian Trail corridor within an existing transmission line corridor and is adjacent to an existing gravel road. CMP owns the land where the Appalachian Trail is located on Section 222. CMP acquired the rights in fee circa 1950. It later conveyed an easement to the NPS, but retained fee ownership, and specifically retained the right to construct overhead electric and communication transmission lines for the entire 300-foot wide corridor when the NPS purchased the trail corridor easement. CMP would only require an additional 75 feet of tree clearing for the installation of the overhead transmission line for the Preferred Alternative.

Undeveloped Right of Way

The Preferred Alternative would require 53.5 miles of currently undeveloped right of way to be developed, compared to 17.3 miles of currently undeveloped right of way required for Alternative 2.

Clearing

The Preferred Alternative would require clearing 1,823 acres, compared to Alternative 2 which would require clearing 1,670 acres.

Parcel Count Total

The Alternative 2 corridor would require CMP to acquire title, right, or interest in 34 parcels of land. In contrast, the Preferred Route requires the acquisition of rights in only seven parcels. CMP has acquired the rights for all seven parcels.

Stream Crossings

The Preferred Route would cross 115 streams, while Alternative 2 would cross 123 streams. CMP standard construction practice is to install temporary equipment spans over streams and to avoid all in-stream activities. Consequently, the primary potential impacts to stream habitat are sedimentation and insolation. CMP mitigates the potential for these impacts by installing erosion and sedimentation controls, by routine cleaning of temporary crossing (construction mats) spans, and by maintaining riparian buffers. As a result, impacts to streams on either route would be insignificant.

Transmission Line Length

The Preferred Route transmission line corridor is 146.5 miles, whereas the Alternative 2 transmission line corridor is 138.5 miles.

NWI Mapped Wetlands

The Preferred Route crosses 263 wetlands and impacts 76.3 acres, whereas Alternative 2 crosses 283 wetlands and impacts 113.3 acres. The primary impact to wetlands from construction of the project will be the conversion of forested wetland to early successional scrub-shrub and meadow cover types. As a result, other than a minor amount of permanent fill associated with structures placed in wetlands where no siting alternatives are available, the permanent loss of wetlands from construction of the project on either the Preferred Route or Alternative 2 is negligible.

Deer Wintering Areas

Deer wintering areas crossed, and converted, are virtually identical between the Preferred Route and Alternative 2. There is no significant environmental advantage to either route with respect to DWAs.

Inland Waterfowl and Wading Bird Habitat

The Preferred Route crosses 12 IWWHs and would require conversion of 22.7 acres, while Alternative 2 crosses 12 IWWHs and would require conversion of 16.5 acres. There is no significant environmental advantage to either route with respect to IWWHs.

Public Water Supplies within 500 Feet

One public water supply is located within 500 feet of both routes. There is no significant environmental advantage to either route with respect to public water supplies.

Significant Sand and Gravel Aquifers

The Preferred Route crosses 12 significant sand and gravel aquifers, while Alternative 2 crosses 10 significant sand and gravel aquifers. Impacts from the construction and operation of a transmission line are unlikely to impact aquifers due to the short duration of equipment operation and the implementation of environmental controls, and the spill reporting and cleanup procedures utilized by CMP and its contractors during construction.

Preferred Alternative vs. Alternative 2 Summary

Alternative 2, while slightly shorter and containing less new corridor than the Preferred Route, has more wetland and stream crossings than the Preferred Alternative and would create more significant environmental impacts as well as severe land acquisition and social impact issues.

Approximately 34 parcels would need to be acquired, including rights across the Penobscot Indian Nation, the Bigelow Preserve and the Appalachian Trail corridor. Past attempts by others, including Highland Wind and Foster Mountain Wind (a/k/a West Hills Wind) to develop transmission and generation in this area have not been successful, due in part to local opposition; therefore, the acquisition of private land in these areas is expected to be difficult.

In addition, Alternative 2 transmission structures would likely be visible from points on the Appalachian Trail and other trails on the Bigelow Preserve and from the Sugarloaf Mountain Ski area. Based on recent National Park Service objections to the proposed overhead transmission line associated with the Kibby Mountain Wind generator lead, an overhead crossing near the Appalachian Trail on Route 27 in the town of Wyman would likely be opposed by the National Park Service and is therefore unlikely to be permittable.

For these reasons, Alternative 2 is more environmentally damaging than the Preferred Route, and is not a practicable alternative.

2.3.3 Alternative Locations to Merrill Road Converter Station

Several sites for the DC to AC converter station were identified and evaluated based on adequacy of land area suitable for the converter station siting, location along the preferred HVDC transmission route, proximity to the nearest substation capable of interconnection, and potential impacts to the environment and on surrounding land uses (see **Figure 2-3**).

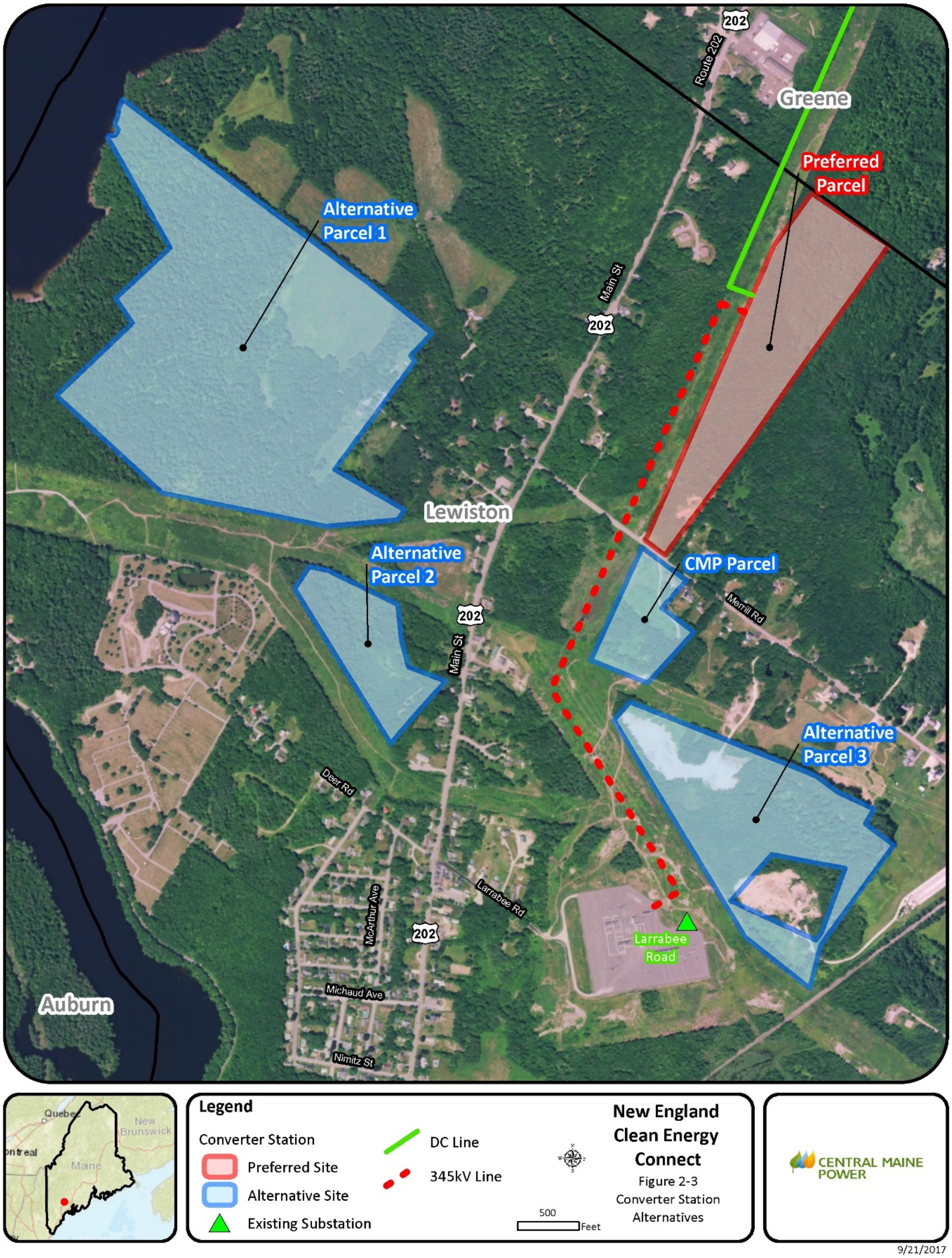
CMP evaluated six sites (including the Larrabee Road Substation) as possible options for the converter station. The unimproved forested parcel owned by CMP, “CMP Parcel,” on the south side of Merrill Road and a forested parcel, “Alternative 2 Parcel,” were ruled out as not being large enough to accommodate the proposed facility. The Larrabee Road Substation was ruled out for this same reason. “Alternative Parcel 3,” on the south side of Merrill Road, north of the Larrabee Road Substation has sufficient land area, but the NRCS soil maps indicated ScA (Scantic silt loam, 0-3% slopes) and Pa (Peat and muck) soils throughout the lot. These soils are poorly drained or very poorly drained and therefore reflective of wetlands, and are therefore not preferred from an environmental impact and an engineering standpoint.

CMP identified two of the six properties as being most suitable: 1) the “Preferred Parcel” (the preferred site) located along the project corridor 0.5 mile north of Merrill Road in Lewiston; and 2) the “Alternative Parcel 1” situated along an adjacent transmission corridor (0.6 miles from the project corridor) located at the end of Taylor Hill Road in Lewiston. These two sites are approximately one mile from the Larrabee Road Substation in Lewiston. Both properties contain adequate land area, are located a suitable distance from residential structures, are bordered by significant vegetative buffers, and would allow for interconnection to the Larrabee Road Substation through existing ROWs. However, Alternative Parcel 2 would require the HVDC line to extend an additional 0.5 mile, including one HVDC line crossing of U.S. Route 202 and one crossing of U.S. Route 202 by the 345kV tie to the Larrabee Road Substation. Alternative Parcel 2 would also require an approximately one mile segment of transmission line Section 61 and Section 255 to be placed on double-circuit structures, which are not preferred for reliability reasons.

Both the preferred and alternative parcels contain wetlands, but based on existing natural resource data and NRCS soil survey maps, the location of wetlands on the Alternative Parcel 2 would not allow the converter station to be positioned immediately adjacent to the transmission line corridor without significant fill for both the converter station and the access road to the site. The preferred site is positioned directly along the project’s HVDC corridor. There is one mapped significant vernal pool (SVP) on the preferred site; however, the six-acre converter station will be sited in an upland area outside of the SVP depression. Impacts will occur to the critical terrestrial habitat adjacent to this pool, however, a significant amount of adjacent forestland will remain undeveloped in the immediate vicinity.

For these reasons, the alternative site on Alternative Parcel 2 is more environmentally damaging than the preferred Merrill Road Converter Station site on the Preferred Parcel, and is not practicable.

Figure 2-3: Merrill Road Converter Station Alternatives



2.3.4 Alternative Locations to the Fickett Road Substation

CMP Transmission Planning analyzed several locations across the CMP transmission system to identify the optimal location and size of the STATCOM units needed to maintain system voltage stability. The optimal design and location to ensure electrical performance and to maintain system voltage stability, and in order to minimize the size and number of the units required, was determined to be a 200 MVAR STATCOM site located at Fickett Road in Pownal, adjacent to the existing Surowiec Substation, as well as a 200 MVAR STATCOM at the existing Coopers Mill Substation.

The STATCOM at Coopers Mill Substation will be within the existing fence line, no alternatives were considered for this option as it meets the objective of avoiding or minimizing environmental impact.

The location of the STATCOM proposed at Fickett Road is electrically optimal to be located as close to Surowiec Substation as possible. The existing Surowiec Substation yard is not large enough to accommodate the new STATCOM, and site restrictions due to the location of Runaround Brook do not allow for an expansion of the yard. The parcel located north of the Surowiec Substation, bordered by Fickett and Allen Road is on existing CMP owned land, adjacent to an existing CMP transmission line corridor. The close proximity of the proposed substation to Surowiec Substation will minimize the length of overhead transmission line required to connect the two substation sites, thereby minimizing impacts compared to the STATCOM compared to it any alternative location farther from Surowiec Substation

2.4 Site Specific Design to Minimize Environmental Impacts

In addition to the comprehensive analysis of alternatives completed for the NECEC, the various segments of the route have been designed to include site-specific adjustments to utility structure locations, temporary access roads, and substation designs that avoid and minimize potential natural resource impacts to the greatest extent practicable. Each segment of the NECEC route was assessed using GIS datasets available from the Maine Office of GIS, Maine Department of Inland Fisheries & Wildlife (MDIFW), Maine Natural Areas Program (MNAP), and the National Wetland Inventory (NWI). These datasets included: rare, threatened, and endangered species; unique natural areas; significant wildlife habitat; wetlands designated in the NWI; public lands (e.g., state and local parks); and conservation land trust properties. Field surveys were completed during the 2015, 2016 and 2017 field seasons to identify new and verify previously mapped vernal pools, wetlands and rivers and streams. Desktop reviews of prehistoric and historic archaeological sites and historic architectural resources were conducted to locate potentially significant cultural resources. Visual analysis field surveys were conducted and photo simulations were created to study visual impacts. Findings of the field investigations specific to wetlands and other protected natural resources are discussed in **Attachment 9.0** of this NRPA Application; findings specific to other topics are discussed in the Site Law Application.

After selecting the preferred NECEC route, CMP designed each transmission component to further avoid and minimize community, private property, and environmental impacts while maintaining a cost-effective and technically sound design in accordance with Chapter 310 and the 404(b)(1) Guidelines. These goals were achieved through two key design considerations. First, CMP attempted to site and design each NECEC transmission line segment within existing transmission corridors owned by CMP, although this was not practicable in all cases. Second, CMP established structure locations and temporary access roads that, to the extent practicable, avoided protected natural resources.

In some instances, construction within areas of mapped protected or sensitive species occurrences or plant communities cannot be avoided due to topography or safety concerns associated with existing infrastructure, however the proposed work will not necessarily adversely impact the species or identified resource. In some instances, rare plant or natural communities are enhanced by, or result from, conditions created and maintained within transmission line corridors. Furthermore, the species, plant community, or habitat mapped in the vicinity may not occur within the specific area of proposed construction, or may be absent at the time of construction. CMP has been in consultation with MNAP and MDIFW regarding potential rare, threatened, and endangered plant communities and animal occurrences along the proposed transmission line corridors, and will continue such consultations to ensure that potential effects on sensitive biological resources during and after construction are avoided and minimized to the maximum extent practicable.

Procedures that will also be utilized to further reduce environmental impacts during construction include implementation of CMP’s Environmental Guidelines (See Section 14 Basic Standards of the Site Law Application), preconstruction wildlife surveys, possible time of year restrictions, and utilization of third-party inspectors and environmental inspectors during construction. CMP has also developed an NECEC-specific Vegetation Clearing Plan (See Section 10 Buffers of the Site Law Application).

2.4.1 LUPC Site Specific Alternative Analysis

CMP evaluated alternatives where impacts to LUPC subdistricts requiring special exception approval could not be avoided. A description of these subdistricts and a discussion of the alternatives evaluated is provided in the LUPC Certification section (**Section 25**) of the Site Law Application and in addition, is provided below.

2.4.1.1 Beattie Pond

The Project corridor crosses the P-RR subdistrict associated with Beattie Pond, which is classified as a Management Class VI Lake, also referred to as a Remote Pond (**Figure 2-4**). The criteria to be designated Management Class 6 includes:

a. Having no existing road access by two-wheel drive motor vehicles during summer months within 1/2 mile of the normal high-water mark of the water body;
b. Having existing buildings within 1/2 mile of the normal high-water mark of the water body limited to no more than one non-commercial remote camp and its accessory structures; and
c. Supporting cold water game fisheries.

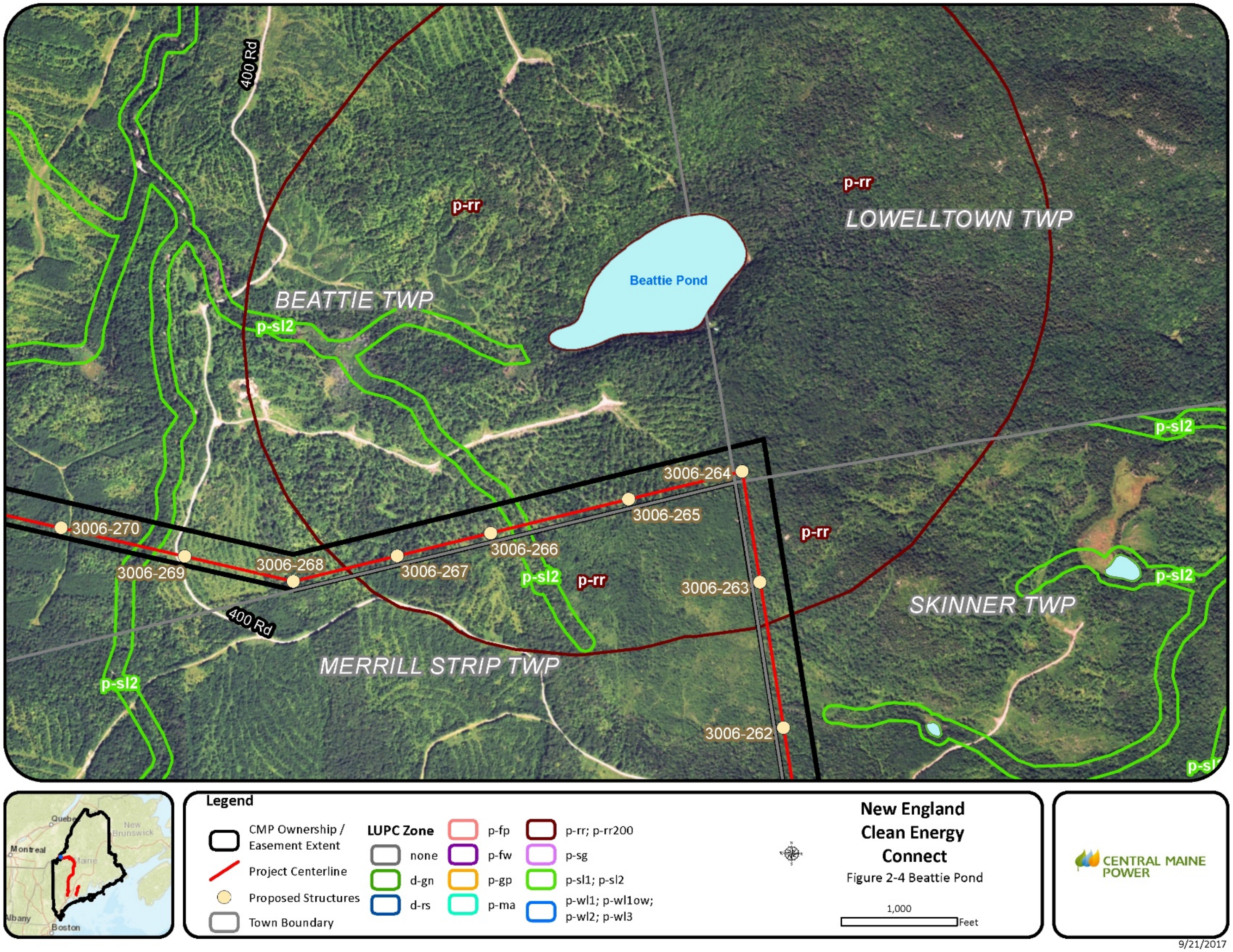
The P-RR subdistrict associated with Beattie Pond encompasses a ½ mile buffer from the normal high-water mark of the waterbody. Portions of the P-RR subdistrict are located in Beattie Twp, Lowelltown Twp, Skinner Twp, and Merrill Strip Twp. Of note, there is an existing, gated road access by two-wheel drive motor vehicles within 400 feet of the pond, available during the summer months within the P-RR subdistrict and signage indicating that the single camp on the pond is accessible by club members only, both of which appear to be inconsistent with the above criteria for classification as a remote pond.

The project corridor is located within ¼-mile of the high-water mark of Beattie Pond but is located farther away from the pond than the existing road access. The P-RR zoning is intended to protect the pond from permanent improvements in access that could lead to more intensive use or development. The presence of a transmission line corridor at a distance greater than the existing developed road access will not include permanent improvements that promote more intensive use or development of the pond, and is therefore consistent with the intent of the P-RR zoning.

Views of the Project from Beattie Pond are limited to one transmission line structure which will be located approximately 1,300 feet from the pond. The majority of the structure will be buffered by existing vegetation such that only the tallest portion of the structure will be visible. The structure will be made of weathered steel, appearing rusty and brown, which will further reduce contrast in color with the surrounding vegetation when viewed from the pond.

CMP attempted to negotiate an alternative alignment south of the Beattie Pond P-RR subdistrict through Merrill Strip Twp, but was unable to come to mutually-acceptable terms with the landowner. Re-routing north of the pond to avoid the P-RR subdistrict would result in approximately two miles of additional corridor and associated vegetation clearing, and would lead to potentially higher visibility from the pond, due to the higher elevations associated with Caswell Mountain. Neither alternative route is suitable for the proposed use, and reasonably available to CMP.

Figure 2-4: Beattie Pond



2.4.1.2 Kennebec River Gorge

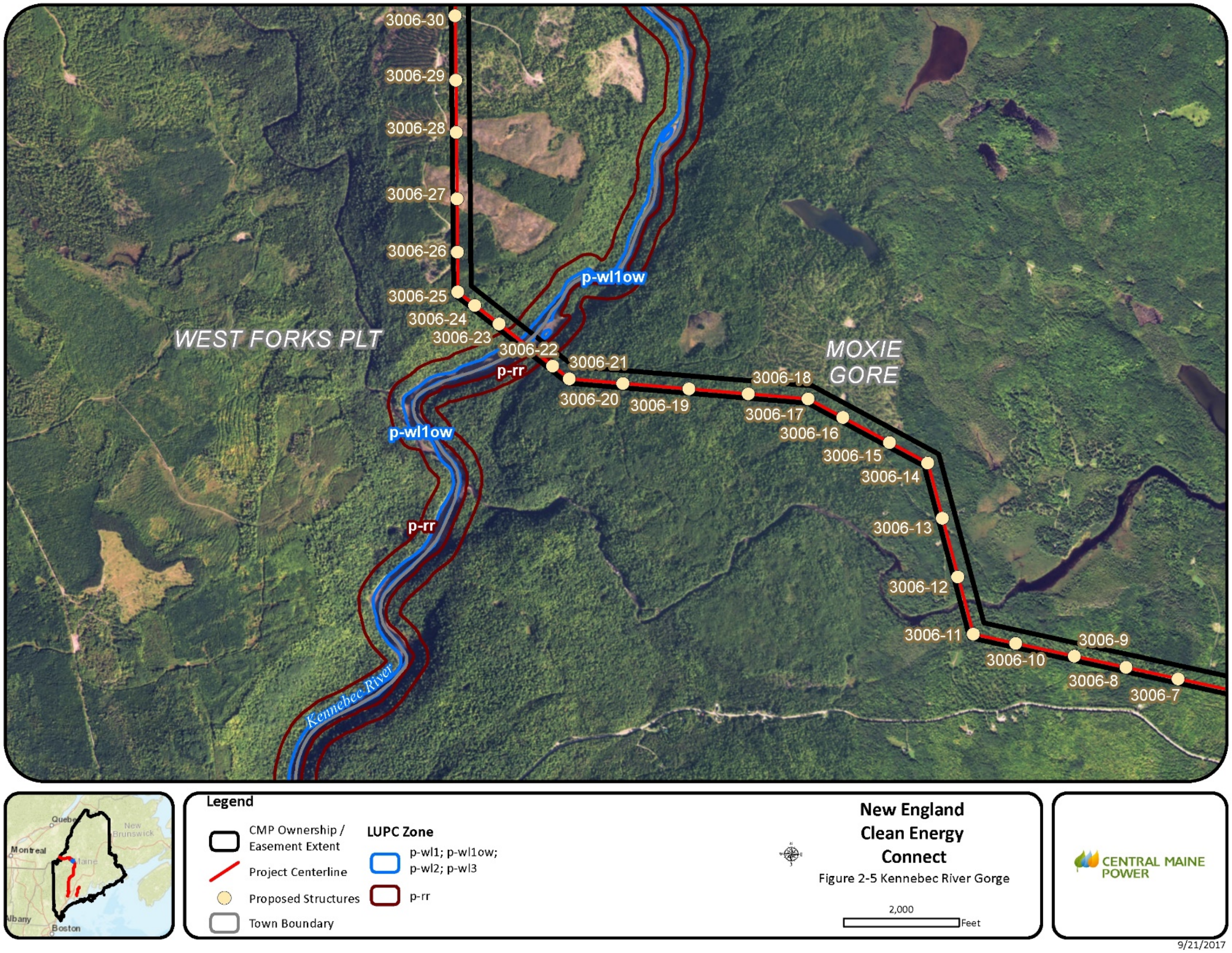
The Project corridor crosses the P-RR subdistrict associated with the Kennebec River Gorge in West Forks Plt and Moxie Gore (**Figure 2-5**). The P-RR subdistrict extends 250 feet from the normal high-water mark on both sides of the river. As stated previously, the P-RR subdistricts identified by the LUPC are those areas that provide or support unusually significant primitive recreation opportunities.

Whitewater rafting is the primary recreational use in this portion of the river. Notably, the Comprehensive Land Use Plan (LUPC 2010) identifies whitewater rafting as an intensive recreational use.

The project has been designed to minimize impact to the P-RR subdistrict at the gorge by positioning transmission line structures outside of the P-RR subdistrict. Additionally, if terrain conditions permit, trees will be allowed to grow within the P-RR subdistrict adjacent to the gorge in those areas where maximum tree heights are anticipated to remain below the conductor safety zone.

Views of the transmission line structures will be limited to the west side of the gorge, and overhead conductors will be visible to rafters passing through or stopping in this portion of the gorge. CMP will mitigate this visual impact by installing non-specular conductors, which reduce the reflection of light by the transmission line. Additionally, the mature capable tree species with a maximum height of 75’ will be preserved within 200’ +/- of the edge of the river to minimize views into the corridor from the river. The calculation to allow capable species to remain within the corridor on the edge of the river is based on conductor height and sag, required clearance from conductor to vegetation, topography between the river and each pole, and assumed maximum mature tree height of approximately 75 feet. Bird diverters will be installed on the overhead shield wires to deter avian collisions. Minimally-obtrusive bird diverters will be installed to lessen their visual impact.

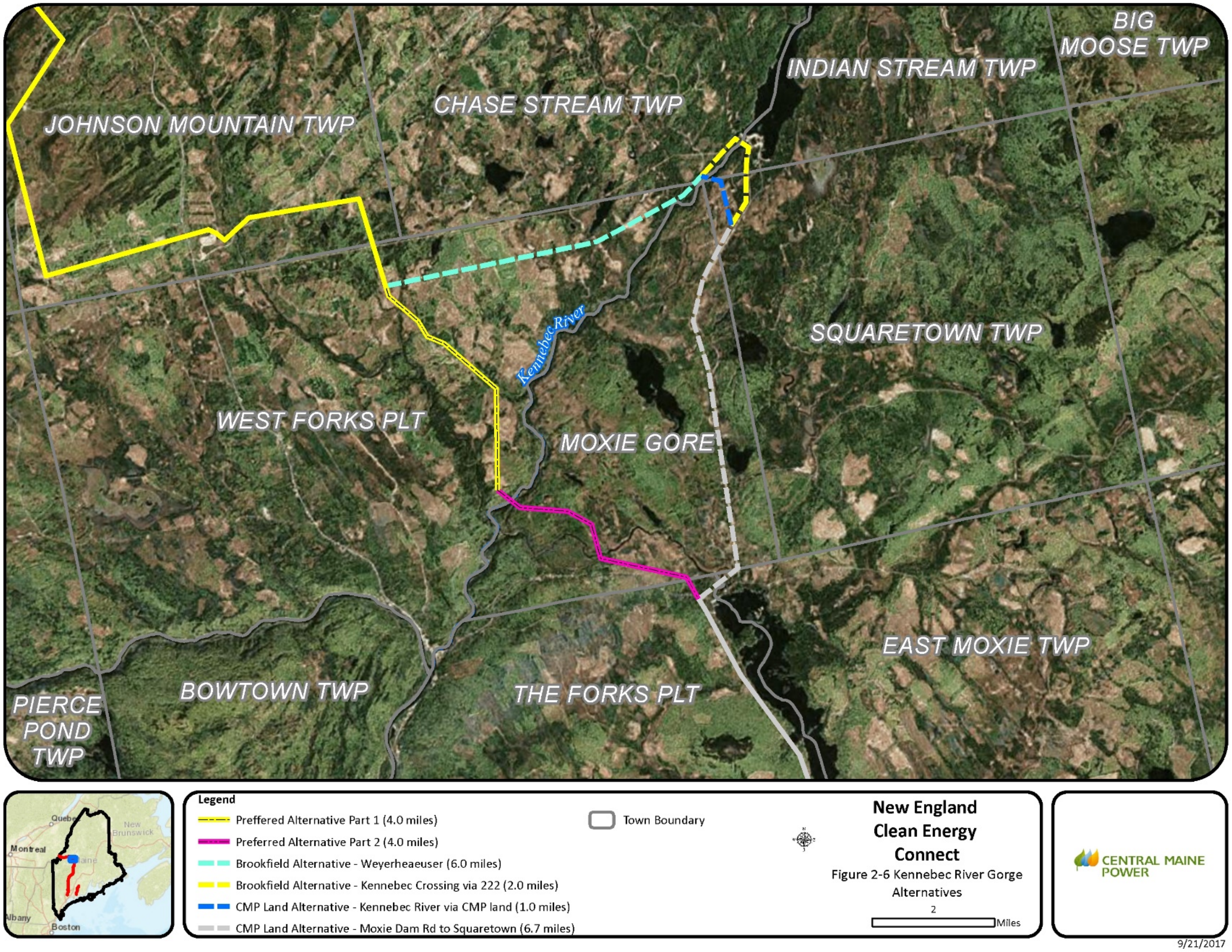
Figure 2-5: Kennebec River Gorge



2.4.1.2.1 Overhead Transmission Alternatives

There are three alternative locations for the proposed crossing of the Kennebec River (**Figure 2-6**): (1) a crossing north of Moxie Stream between Moxie Gore and West Forks Plt (the Preferred Alternative), (2) a crossing on CMP land about one mile downstream of Harris Dam (the CMP Land Alternative), and (3) a crossing near the Harris Station powerhouse (the Brookfield Alternative).

Figure 2-6: Kennebec River Gorge Alternative



CMP Land Alternative   13.3 miles

The CMP Land Alternative, represented by the white, blue and turquoise line shown on **Figure 2-6**, would follow the existing Section 222 corridor toward Harris Dam. The width of Section 222 decreases from 300 feet wide to 225 feet wide at Moxie Dam Road in The Forks Plt and maintains the 225-foot width north to the Harris Station powerhouse/substation located on Brookfield land at Harris Dam. Section 222 is an H-frame 115 kV line on the easterly half of the corridor. The corridor is owned in fee by CMP to the Harris Dam Hydropower Project ("Hydro Project") line and the remaining distance of about one mile across the Hydro Project is held as an easement. For most of the 6.7 miles, the Section 222 corridor is bordered on the east by the Harris Dam Road and on the west by 40 acre recreational parcels created in a 1980s subdivision. Eight of the subdivision parcels are now subject to a conservation easement and approximately forty parcels remain in private ownership. Also subject to a conservation easement is the Weyerhaeuser Company land in Squaretown Twp, located southeasterly of Harris Dam Road (the Moosehead Region Conservation Easement) and the Hydro Project land located westerly of Section 222 in Squaretown Twp and Indian Stream Twp (i.e., the Moosehead Kennebec Headwaters conservation easement).

At the point at which the fee owned portion of Section 222 becomes easement, the CMP Land Alternative would be in new corridor, due west approximately 1mile and across the upper gorge. CMP owns a 300 +/- acre parcel located between the Harris Dam Road and the Kennebec River in Squaretown Twp and Indian Stream Twp and an 85+/- acre parcel on the northwesterly side of the Kennebec River in Chase Stream Twp (i.e., the blue-dashed line on **Figure 2-5**). CMP reserved the right to place transmission lines across the Kennebec River in this area when CMP placed a conservation easement on its Kennebec River Gorge properties as part of the Maine Power Reliability Program (MPRP) project compensation.

The Project route would then continue in new corridor approximately 5.6 miles long (i.e., the turquoise line on **Figure 2-5**). This land would need to be acquired from a private landowner in West Forks Plt, from the CMP ownership in Chase Stream Twp to where it meets the Preferred Alternative.

Brookfield Alternative   14.5 miles

The Brookfield Alternative is similar to the CMP Land Alternative with one exception. Instead of crossing the upper gorge across the MPRP conserved lands the route would cross the river at Harris Dam (see yellow dashed line on **Figure 2-5**). A transmission line crossing of the Kennebec River at Harris Dam requires the use of Section 222 within the Hydro Project. CMP reserved a 225-foot wide easement within the Project limits. However, unless the new line is to cross directly over the powerhouse, the transmission line crossing corridor will need to leave the Section 222 corridor south of the first angle point in Section 222. The river crossing would be about 1,200 feet and would require a 90°+/- angle structure on the north side. A new corridor would need to be created on the northwesterly side of the Kennebec River between the river and the existing Jackman Tie Line (JTL) corridor. The JTL corridor will need to be widened by 200 feet for approximately ¼ mile until the JTL corridor leaves the Indian Pond Project and enters CMP land. About 900 feet of the JTL widening will involve Brookfield land that is encumbered by the Moosehead Kennebec Headwaters conservation easement. The use of this route depends on being able to widen the JTL corridor through the Moosehead Kennebec Headwaters conservation easement in addition to reaching an agreement with Brookfield and FERC on the other land that is inside the Hydro Project and outside the Section 222 easement. Although Section 222 connects to the Harris Substation from the south side of the river and the JTL connects from the north side, there is no transmission line that currently crosses the river in this location.

Greater environmental impacts, relative to transmission line length (i.e., the CMP Land and Brookfield Alternatives are 5.1 and 6.3 miles longer than the Preferred Alternative, respectively), would result from construction of either the CMP Land Alternative or the Brookfield Alternative. The addition of an HVDC transmission line along both alternatives would have a significant visual impact on recreational users of the upper Kennebec Gorge and Indian Pond area. The Brookfield Alternative would be visible to all rafters and private boaters putting into the Kennebec River and most likely would be directly over the stairway and marshalling area where rafters are given instructions before launching. Both alternatives would present similar perceived visual concerns as the Preferred Alternative and would cost approximately $30 million dollars more than the Preferred Alternative.

2.4.1.2.2 Underground Transmission Alternative

CMP has also evaluated an underground alternative at the gorge crossing using horizontal directional drill (HDD) technology. HDD construction to cross the Kennebec River Gorge would cost approximately 8 times more than standard overhead construction and would require additional facilities, known as transition stations, to be located at the first angle in the corridor on either side of the river.

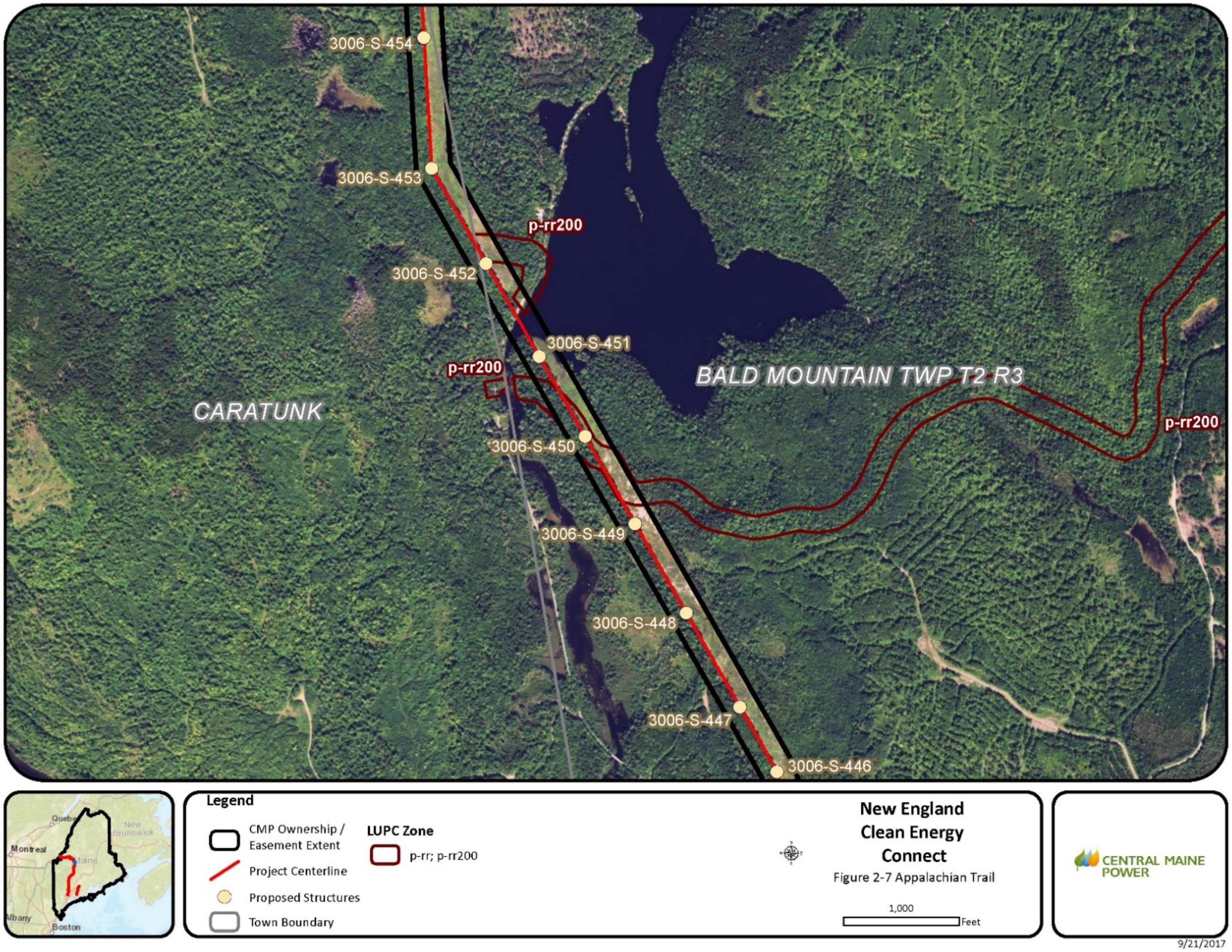
The transition stations would consist of structures that would transition the transmission line from an overhead to an underground configuration, and a control building within an approximately 2-acre fenced in yard with a stone covering. Additionally, permanent roads would need to be constructed to each of the transition stations. It is likely that the infrastructure for both transition stations would be hidden from view from the river due to topography and existing vegetation, however the contrast in vegetation from the removal of capable species would likely still be visible from the river.

CMP prefers the overhead transmission line crossing for several reasons. First, overhead transmission lines are easier to operate, inspect, and maintain than underground installations. In the event of a line outage, CMP can inspect, identify, and repair deficiencies on an overhead transmission line much more quickly than an underground line. Outages directly related to an underground transmission line are more difficult to repair. The installation of the underground option would likely require the installation of a backup circuit in the event the primary circuit failed. In addition to the technical difficulty of installing the transmission line underground and beneath the Kennebec River, the additional estimated cost is not financially practicable. The long-term operation and maintenance of the transition stations also presents additional cost to CMP. Thus, the underground alternative is not suitable to the proposed use and not reasonably available to the applicant, given that the preferred alternative can be sufficiently buffered from other uses in this location.

2.4.1.3 Appalachian Trail

The NECEC Project crosses the P-RR subdistrict in three locations at the Appalachian Trail adjacent to Moxie Pond and Trestle Road in Bald Mountain Twp in an existing CMP corridor containing a 115kV transmission line (**Figure 2-7**). The P-RR subdistrict in this location includes a 200-foot-wide strip centered over the Appalachian Trail. The configuration of the trail, within and adjacent to an approximately 3,500-foot long portion of transmission line corridor, prevented CMP from avoiding direct impacts to the subdistrict through the siting of the transmission line structures. As a result, one of five transmission line structures in this portion of the Project corridor is located within the P-RR subdistrict. Because the existing land use is transmission line corridor, there would be a negligible change in visual impact to hikers using the trail. Alternative alignments of the transmission line to meet the purpose and need of the Project would result in crossings of the Appalachian Trail in one or more locations where there are no existing transmission line corridors. Co-location of the transmission line within the existing transmission line corridor is therefore the least environmentally-damaging practicable alternative.

Figure 2-7: Appalachian Trail



3.0 USGS MAP

The USGS Maps are located in **Appendix 5** of Site Law Application.

4.0 PHOTOGRAPHS

4.1 Introduction

The following section provides, by segment, example photographs of the typical setting and wetland conditions associated with the NECEC corridors. The example photos provided generally correlate with the Wetlands of Special Significance (WOSS) described in Section 9.0 Site Conditions of this application. Photos of each wetland and other resources will be available upon request.

4.2 Segment 1

Photo 1: View of wetland 24-10: Primarily PSS with PEM wetland components located in Bradstreet Township (7/22/2015).

Photo 2: View of wetland 33-07: Primarily PEM, with an area of PFO wetland habitat located in Johnson Mountain TWP (7/14/2015).

Photo 3: View of wetland 48-08: PSS wetland located in West Forks PLT (6/4/2015).

4.3 Segment 2

Photo 1: View of wetland 54-01: Primarily PFO wetland with small PSS component located within existing transmission line corridor in The Forks PLT (8/12/2015).

Photo 2: View of wetland 56-01: A PEM/PFO wetland located in The Forks PLT (8/18/2015).

Photo 3: View of wetland 64-03: PFO wetland also contains greater than 20,000 square feet of PEM located in Bald Mountain TWP (9/16/2015).

Photo 4: View of wetland 64-06: PSS wetland located in Bald Mountain TWP (9/16/2015).

Photo 5: View of wetland 64-10: PFO/PEM wetland located in Bald Mountain TWP and Caratunk (9/17/2015).

Photo 6: View of wetland 74-102: PEM/PSS wetland located in Moscow (5/20/2017).

4.4 Segment 3

Photo 1: View of wetland 78-05: PFO wetland with smaller PEM components located in Concord TWP (5/24/2017).

Photo 2: View of wetland 100-05: PFO wetland located in Starks (5/16/2017).

Photo 3: View of wetland 103-11: Predominantly PSS/PFO wetland with smaller PEM components located in Industry (5/15/2017).

Photo 4: View of wetland 116-05: PFO/PEM/POW wetland located in Jay (5/2/2017).

Photo 5: Wetland 121-01: PEM wetland located in Jay (4/30/2017).

Photo 6: Wetland 122-03: PSS wetland located in Livermore Falls (4/30/2017).

Photos 7: Wetland 127-01: PFO wetland located in Livermore Falls (4/27/2017).

Photo 8: Wetland 129-01: PFO wetland with smaller PEM components located in Livermore Falls (4/25/2017).

Photo 9: Wetland 131-01: Predominately PSS wetland with smaller PEM components located in Leeds (4/29/2017).

Photo 10: Wetland 140-06: Predominately PSS wetland with smaller PFO components located in Greene (5/31/2017).

Photo 11: Wetland 142-04: Predominately PEM wetland in Greene (8/14/2017).

4.5 Segment 4

Photo 1: View of wetland 146-04: PSS wetland that runs along Stetson Brook in Lewiston (5/19/2017).

Photo 2: View of wetland 152-01: A PEM dominated wetland in Lewiston (5/21/2017).

Photo 3: View of wetland 155-03: PEM wetland located in Lewiston (5/23/2017).

Photo 4: View of wetland 159-08: PEM wetland located Lewiston (5/26/2017).

4.6 Segment 5

Photo 1: View of wetland 162-04: PEM wetland located in Windsor (4/28/2017).

Photo 2: View of wetland 167-01: PEM/POW wetland located in the Town of Whitefield (4/15/2017).

Photo 3: View of wetland 169-02: PSS wetland located in the Town of Whitefield (4/15/2017).

Photo 4: View of wetland 178-06: PSS wetland located in Alna (4/14/2017).

Photo 5: View of 188-17: PEM/PSS wetland located adjacent to Maine Yankee Substation in Wiscasset (10/23/2008).

4.7 Merrill Road Converter Station

Photo 1: View of wetland 145-01: Primarily PEM wetland with sub-components of PSS located adjacent to the Merrill Road Converter Station survey area (4/19/2017).

Photo 2: View of wetland 145-02: Seasonally flooded to saturated PFO wetland within the Merrill Road Converter Station survey area (4/30/2017).

4.8 Fickett Road Substation

Photo 1: View of wetland 161-16: Primarily PEM/PSS wetland within the Fickett Road Substation survey area (5/25/2017).

5.0 PROJECT PLANS

For Project Plans see the Attachments of the Site Law Application, listed below.

- Attachment 1- Transmission Line Configuration Cross-Sections
- Attachment 2- Natural Resources Maps
- Attachment 3- Aquifer Maps
- Attachment 4- Floodplain and Soil Series Maps
- Attachment 5- USGS Location Maps
- Attachment 6- Significant and Potentially Significant Vernal Pool Location Maps

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6.0 ADDITIONAL PLANS

Please refer to Attachment 1 of the Site Law Application for cross-sections for the transmission line corridors of the NECEC Project.

7.0 CONSTRUCTION PLAN

7.1 Introduction

The following construction plan provides an overview of the transmission line and substation construction techniques that will be implemented during construction of the NECEC Project. This plan is based on established transmission line and substation construction methods and is designed to minimize impacts to natural resources and expedite restoration after completion of construction activities. Construction will be performed in such a manner that: 1) natural resources are protected to the greatest extent practicable, 2) construction crews safely construct the transmission lines and substations, and 3) erosion and sedimentation is minimized. Specific erosion control methods are discussed in the Erosion and Sedimentation Control Plan located in CMP's "Environmental Guidelines for Construction and Maintenance Activities on Transmission Line and Substation Projects" ("Environmental Guidelines"), which is **Exhibit 14-1** of the Site Law Application.

As a result, the Project will not unreasonably interfere with natural water flow, violate any water quality law, or unreasonably cause or increase flooding. In addition, this plan helps to ensure there will be no unreasonable harm to wildlife habitats, including fisheries.

This plan focuses on the established transmission line and substation construction methods that will be employed when traversing uplands, waterbodies, and wetlands, when clearing, and when constructing project components. This plan also provides for flexibility to allow application of the most appropriate construction methods based on site-specific conditions.

It is estimated that construction of the NECEC transmission lines and substations will take place over 36 months.

7.2 Transmission Line Construction

7.2.1 Construction Sequence

The construction contractor will generally follow the conventional transmission line construction sequence listed below. Each item listed is independently discussed in the following subsections.

- Establish construction yards and on-site staging areas;
- Flag environmental resources and buffers;
- Complete the initial program "walk-through" with the NECEC team and construction contractor;

- Plan and install erosion and sedimentation controls and access at protected resources such as waterbodies, wetlands, areas of saturated soils, and areas susceptible to erosion;
- Establish temporary short-term (typically eighteen months or less) and temporary longer-term (typically more than eighteen months) construction access ways;
- Clear capable vegetation as necessary;
- Perform grading as necessary to accommodate construction equipment access roads;
- Move poles and materials to structure installation and laydown locations;
- Complete test digging/drilling at various pole locations;
- Install erosion and sedimentation controls at structure locations;
- Excavate structure holes;
- Install structures;
- Complete restoration and grading around the structures;
- Establish "pull-pad" locations and move tensioning and pulling equipment into place;
- Thread and install pull ropes, conductor, and fiber optic wire;
- Clip conductor and remove blocks;
- Complete the construction inspection, clean-up, and restoration, and energize the line; and
- Complete the final program "walk-through" and restoration.

7.2.1.1 Establishing Construction Yards and On-Site Staging Areas

The contractor will typically establish at least one principal working construction yard, office, and staging area in the vicinity of the right-of-way ("ROW"). This area is used to stage the bulk of construction materials such as poles, wire, and equipment, and is used as a central point of communication. A second yard may be established to store some materials closer to their area of application and may serve as a landing site for helicopters. Additionally, site specific staging areas will be established at strategic locations along the ROW, often where the line crosses county roads. These staging areas will be established away from protected natural resources.

7.2.1.2 Completing the Initial "Walk-Through"

Prior to tree clearing or construction activities, the NECEC team will walk the length of the transmission line with the contractor to identify critical areas where construction and construction access may be difficult due to terrain, wetland, and water course conditions, or the location of protected or sensitive natural resources. Erosion control placement, access road layout, wetland, and stream crossing locations will be addressed with the contractor, with avoidance and minimization of wetland and waterbody impacts a priority. The type and location of erosion controls as well as the approach to wetland and stream crossings will be confirmed at that time. Suitable access areas will be flagged with a specified color of surveyor tape, and "no-access" areas (such as certain stream buffers) will also be marked using appropriate color-coded tape.

7.2.1.3 Planning the Installation of Erosion Controls and Access

Installation of erosion controls and construction of access roads will be the first tasks completed. Erosion controls will be installed in accordance with CMP's Environmental Guidelines located in **Exhibit 14-1** of the Site Law Application.

7.2.1.4 Establishing Temporary Construction Access Ways

Temporary Shorter-term Access Ways (typically eighteen months or less)

Temporary access ways will be established within the ROW to provide construction equipment access to the structure locations. This will be an ongoing process as access will be established to areas undergoing immediate construction. As construction progresses, new access ways will be established and obsolete ones will be discontinued and restored as needed.

During frozen ground conditions without snow, paths will be designated and temporary bridges will be constructed to cross streams. During such conditions, access through most wetlands can be completed without the use of mats. All stream crossings will utilize construction mats. Construction mats, either timber or fiberglass composite, will also be used in areas where the ground is not sufficiently frozen to support equipment. During winter construction with snow cover, packed snow paths ("snow roads") and ice paths may be created to provide a solid surface for heavy equipment to traverse. The need for construction mats will be evaluated and discussed among CMP's environmental inspector, the Maine Department of Environmental Protection ("MDEP") third party inspector, and the contractor on a location-specific basis.

During non-frozen ground conditions, construction mats will be utilized to cross wetlands with standing water and/or organic soils, as well as streams and other areas particularly susceptible to rutting and erosion. This may require extensive utilization of construction mats. There may be instances where CMP's environmental inspector, the MDEP third party inspector (if required), and the contractor conclude that construction mat installation, use, and removal would cause more disturbance than if no construction mats were used; in these cases, construction mats may not be used.

The typical use of construction mats to cross wetlands is depicted in CMP's Environmental Guidelines (**Exhibit 14-1** of the Site Law Application). Cutting of non-capable vegetation, such as shrubs, in wetlands will be limited to those areas necessary for safe access. In these areas cutting will be selective. It is a priority to lay construction mats on top of shrub vegetation. No extensive grubbing (grading to remove root systems) within wetland crossing areas will be done prior to mat placement. However, some minor grading may be required to ensure mat stability and construction access safety. Such grading will be limited and only with prior approval by CMP's environmental inspector.

Temporary bridges will be used to cross streams regardless of site conditions. Temporary bridges can be created using construction mats, typically timber mats (See *Section 4.0 Installation of Crossings* in **Exhibit 14-1** of the Site Law Application). Appropriate erosion controls will be installed wherever necessary. If necessary, construction mats will be placed parallel to the upland edge as abutments to further protect stream banks and to establish stability. Streams that are too wide to cross with construction mats or temporary bridges will be avoided.

Temporary Longer-term Access Ways (typically more than eighteen months)

Construction of the NECEC is scheduled to take place over 36 months. Project construction will not require leaving longer-term access roads, including temporary bridges and construction mats, in place for longer than 18 consecutive months.

7.2.1.5 Clearing Canopy Vegetation and Grading

Some of the NECEC transmission line corridor will require limited additional clearing, which will be done in accordance with the NECEC Construction Vegetation Management Plan provided in **Exhibit 10-1** of the Site Law Application.

Danger trees will also be identified and cut down at that time. "Danger trees" are standing dead, damaged, or dying trees located adjacent to the right-of-way itself that, due to their location, pose a risk of contact with the transmission line. Some danger trees may be within or adjacent to protected natural resources.

Construction of the NECEC will be performed in a wide array of vegetative cover types. As in past CMP projects, the height of cover will dictate the type of structure site preparation needed. In general, vegetation less than approximately 30 inches high will require little structure site preparation. Typically, construction personnel will drive over the vegetation and perform their work. However, in wet areas where moderate to severe rutting could occur, construction mats will be needed to minimize or avoid unnecessary environmental impacts. In these areas, some vegetation treatment will be necessary in order to set the construction mats in place so that they are flat and provide a safe work platform. Vegetative treatment will remove vegetation to near ground level, but will not impact the plant's roots. Vegetative material removal may be performed using a grinding head, such as the "brontosaurus," attached to a small, tracked, low-ground-pressure equipment, such as a Caterpillar Bobcat, or may be removed by hand, typically with a chainsaw. This approach allows for a safe work platform and is preferred because it causes less environmental damage and promotes a more rapid regrowth than uprooting woody growth by driving over it, a danger that is exacerbated by wet soils.

Areas that have vegetation higher than 30 inches will require structure site preparation. As described above, vegetation removal may be performed using a grinding head, such as the "brontosaurus," attached to a small, tracked, low-ground-pressure equipment, such as a Caterpillar Bobcat, or may be removed by hand, typically with a chainsaw.

The area requiring site preparation will vary by structure type. Basically, there will be five structure types used on the NECEC project: wood H-frame, wood monopole, steel monopole, steel H-frame, and three-pole dead-end and angle structures. **Figure 7-1** depicts the variations on the four structure types and the necessary structure preparation area with the respective square footage for each type. Note that the shapes depicted are representative. The contractor will be restricted to the square footage depicted but the shape may vary based on need. The designs in **Figure 7-1** consider the equipment needed to perform the work. As the structure members get larger, larger equipment is needed to perform the work. Also, larger structures require greater clearances. For example, a typical wooden 115kV dead-end structure (EBR-1 on **Figure 7-1**) requires bucket trucks (approximately 50 feet long), cranes (approximately 40 feet long) and/or an excavator (approximately 20 feet long) for pole installation with clearance between outer conductors of 28 feet. Steel monopoles require much larger equipment and the use of concrete trucks (for pouring foundations) requiring stable roads and larger work pads.

In addition to structure site preparation, vegetation removal will be required for installation of guy wires for most three-pole structures. Guy wires are used to provide additional support for the poles in high stress conditions. In most cases, the distance the guy wire anchors are set from the base of the pole is equal to the height of the lowest conductor arm above the ground surface, which typically will be approximately 60 feet. On heavy angle (greater than 75 degrees) steel monopole structures, the distance the guy wire anchors are set from the base of the pole is equal to the height of the static (topmost) wire above the ground surface, which typically will be approximately 100 to 120 feet. This additional work space will normally only be needed on one of the two outer poles. The guy wire anchor for the remaining structures will be located in the work area prepared for the pole installation. Electric code requires that guy wires be grounded so a narrow lane between the guy wire anchor locations will require vegetative treatment to allow for installation of the counterpoise, or grounding wire.

In general, extensive grading will not be necessary. Grading may be required for stabilizing access roads, excavation sites, and pull-pad sites where terrain is uneven such that construction equipment access would not be safe without grading. Conductor pull-pad setup locations may require leveling by limited grading in an approximately 175-foot by 100-foot area to assure equipment stability. These sites will typically be located in uplands; if absolutely necessary; however, sites may be set up in wetlands using construction mats.

7.2.1.6 Moving Construction Materials in Place

Poles will either be hauled in by truck or skidder or flown in via helicopter. In areas where access is suitable (*e.g.,* level uplands near roads), trucks may be used. In areas with more difficult access, skidders or forwarders may be used to bring the poles to the proposed pole locations. In very remote areas or areas with extreme terrain, or during accelerated construction, helicopter transportation may be used.

7.2.1.7 Completing Test Drilling

Proposed pole placement locations may be pre-dug or drilled prior to a pole setting crew mobilizing to the area in order to determine if blasting will be required to set the poles. Holes must be dug to a depth of 10 percent of the pole length plus two feet. For example, an 85- foot pole requires a hole 8.5 feet plus 2 feet deep, or 10.5 feet total in depth. Blasting may be necessary if bedrock is encountered before the required depth for the placement of a specified pole is reached.

7.2.1.8 Establishing Erosion Controls

As access to each structure site is completed and prior to the contractor commencing excavation, erosion controls will be installed per the direction of the environmental inspector, and will adhere to standards as described in **Section 14** (Basic Standards Submissions) of the Site Law Application. These controls are in addition to the controls established during the initial site walk. The locations of erosion control devices will be marked using flagging tape or spray paint.

7.2.1.9 Excavating Structure Holes

Excavation for the structure holes will be completed using a backhoe. The contractor has a predetermined size and depth and location for each structure. De-watering of the hole during excavation may be necessary in areas with a high-water table. Pole placement will permanently disturb an area ranging from 30 square feet to 195 square feet depending on the structure type required; grubbing, if needed, will temporarily disturb an additional area of approximately 60 square feet. Disturbance will be slightly greater in areas where angle poles are installed, due to the need to excavate for one or more guy wire anchors. Topsoil will be set aside for restoration and placed on the top of the spoil and spread out evenly around the base of the pole.

Although extensive blasting is not anticipated, some controlled blasting may be required if bedrock is encountered. If blasting is required, proper safeguards will be employed to protect personnel and property in the vicinity of the blasting. Blasting mats will be used to prevent shot rock from scattering. Pre-blast surveys are typically performed to document the presence and condition of wells, personal property, and utilities in the vicinity. Blasting precautions will be the contractual responsibility of the contractor.

7.2.1.10 Installing Structures

Once a hole is prepared to the proper depth, a crane is used to place the pole in proper alignment. The construction crew aligns and plumbs each pole before filling the hole. The hole is filled with the spoil and is mounded up at the base of the pole and compacted. In wet areas, crushed rock is used to replace some of the soil. The spoil is removed and disposed of in an upland site, spread out, and mulched.

In areas where more than one pole is required (*e.g.*, specific transmission line designs and certain angle structures), the area of disturbance for the poles will overlap. Angle poles require guy wire anchor placement, which may slightly increase the area of disturbance around these locations.

For single pole structures, davit arms, i.e., the arms supporting insulators to which the conductor is connected, are attached before the pole is set in place. For structures with multiple poles, cross braces are hoisted into place using a crane; the braces are then affixed by workers climbing each pole. In each case, the insulators and blocks are subsequently attached.

The transmission line has been designed to site poles outside of wetlands to the maximum extent possible, but engineering limitations necessitate that some poles be placed in wetlands. In these cases, erosion controls will be used, grubbing will be kept to a minimum, and the disturbed areas will be restored to the original contour in order to maintain the original drainage and vegetation patterns.

7.2.1.11 Restoration and Grading

Once poles are installed, construction crews will grade any disturbed areas and apply temporary erosion control. Disturbed areas in uplands are typically seeded and/or mulched with hay or straw. Areas in wetlands are not seeded and are mulched with straw for permanent restoration. Temporary erosion control in wetlands may also be provided by applying straw over the exposed soil.

7.2.1.12 Establish Pull-pad Locations, Move Tensioning, Pull Equipment into Place

Pull-pads, often 175-foot by 100-foot, serve as level staging areas for installing pull ropes and conductor (see discussion below). The pull-pad sites vary in size and location, but are always directly beneath the location of the conductor. Pulling angles, the length of the conductor on the reels, the type of equipment required, topography, and access restrictions determine the locations and sizes of the pull-pads. These sites must be level to support the weight of the equipment; as such, some grading may be needed, as described in Section 7.2.1.5 above. Where soils are saturated or soft, construction mats will be used for stability. Should extreme conditions be encountered, on-site consultation will be performed with an environmental inspector and MDEP third-party inspector (if required) prior to locating any portion of a pulling or tension set-up in or near a protected natural resource.

The pullers and tensioners are typically mounted on large, flat bed-type tractor-trailer rigs, and can weigh in excess of 80,000 pounds. They frequently need to be anchored by a large bulldozer.

7.2.1.13 Installing Pull Ropes, Conductor and Tensioning

The conductor installation process involves three basic steps. A polypropylene line is first pulled through blocks on the insulators by using a helicopter or by workers on ATV’s. A steel pulling wire connected to the polypropylene line is pulled from the conductor puller. The conductor puller then pulls the conductor through the blocks and the tension is set on the far end of the pull by equipment called a tensioner. Conductor pullers and tensioners require a large, level area for their setup as discussed in Section 7.2.1.12 above.

7.2.1.14 Clipping Conductor and Removing Blocks

Clipping the conductor involves removing the wire from the blocks and permanently clipping it in place at the bottoms of the insulators. There are three approaches applied: workers access each pole on foot and climb the poles to clip the wires; workers clip wires from bucket trucks; or workers access the poles from a helicopter. The bucket truck access requires that crane mats remain in place or are repositioned to support the equipment. There is a temporal lag between pole installation and clipping where mats may have been removed after installation and need to be reinstalled for clipping. Use of the bucket truck is the preferred method because it is generally more efficient for clipping than climbing the poles. Depending on the program schedule and access difficulties, workers can be flown in by helicopter, eliminating the need for access by bucket trucks.

7.2.1.15 Completing the Construction Inspection and Energizing the Line

After wire is pulled and clipped into place, a construction inspector checks the newly installed line for construction deficiencies. Any deficiencies that are found during the final construction inspection will be fixed by a construction "clean-up" crew. These crews typically require limited use of heavy equipment, and reach program poles from the construction access road on foot. Impacts from these crews will be minimal to none. Once engineers have determined that the transmission line is in place and conductor is connected at each substation, the line is energized and brought into service.

7.2.1.16 Completing the Final Restoration and Walk-Through

The construction access travel paths and conductor-pulling setup locations within wetlands will be restored as closely as possible to pre-construction conditions. Contours and drainages will be restored. Disturbed wetland soils will be mulched with straw for final restoration in accordance with CMP's Environmental Guidelines. This manual is in **Exhibit 14-1** of Section 14 of the Site Law Application. Upland areas not adjacent to wetlands and streams are sometimes seeded with a suitable annual seed mix and mulched with hay. Often seeding will not be necessary as upland and wetland vegetation typically reestablishes quickly. Excess construction debris (litter, hardware, bracing) will be removed from the ROW and properly disposed of at a licensed recycling or solid waste disposal facility. No materials will be burned or buried on the ROW. Erosion and sedimentation controls will be installed as needed and maintained through the duration of the restoration efforts. These devices will be removed once the area has adequately revegetated; please see the Restoration Plan in **Exhibit 14-1** of the Site Law Application.

CMP personnel and/or qualified representative(s), including the environmental inspector, will walk through the completed project site and check for any potential erosion problems or areas that require further restoration work. Any identified problem areas will be permanently stabilized as soon as possible.

7.3 Substation Construction Detail

7.3.1 Construction Overview

Construction of the substation and equipment installation will generally consist of the steps listed below.

- Installation of erosion and sedimentation controls;
- Construction of the stormwater management areas;
- Clearing and rough earthwork to prepare the construction area;
- Establishment of the construction pad to include the grounding mat, gravel, and crush stone base;
- Establishment of the new entrance road, if needed, and completion of final grading for the site footprint;

- Placement of concrete foundations;
- Construction of structures and electric equipment;
- Installation of the perimeter fence;
- Final electrical installation and testing;
- Connection of electrical lines to new equipment, and energizing of the new equipment (commissioning); and
- Completion of site stabilization and permanent restoration.

7.3.1.1 Installation of Erosion and Sedimentation Controls

Erosion control measures will be installed prior to the initiation of any construction or grading activities. Sediment barriers (i.e., erosion control mix, hay bales, and/or silt fences) will be installed between wetlands/waterbodies and all disturbed areas unless land contour conditions slope away from these resources. All erosion control measures will be routinely inspected and maintained throughout the duration of construction to verify that they are functioning properly. Any measures that appear to be failing will promptly be corrected and/or replaced.

7.3.1.2 Construct Stormwater Management Areas

Components of the stormwater management system will be graded and established as site grading is completed. Drainage will be maintained and culverts installed as needed.

7.3.1.3 Clearing and Earthwork

Clearing and earthwork at substations sites can begin after construction roads are established to the sites. New substations will require new access roads, and existing entrance roads will be used as appropriate at existing substation sites. Some entrance roads may not be suitable and either will need to be upgraded or will require the construction of new roads. New roads will be graded and filled, and drainage will be established, prior to being put into service.

Earthwork will be required to accommodate the proposed new substations construction. This will require the use of heavy equipment including excavators, bulldozers, and dump trucks to grub the proposed substation yards and place clean fill. The limits of the proposed work zone will be clearly staked before the commencement of earthwork activities. Although blasting is not anticipated, some controlled blasting may be required if bedrock is encountered. If blasting is required, proper safeguards will be employed to protect personnel and property in the vicinity of the blasting (see **Section 20** of the Site Law Application). Blasting mats will be used to prevent shot rock from scattering. Pre-blast surveys are typically performed to document the presence and condition of adjacent wells, personal property, and utilities in the vicinity. Blasting precautions and code compliance will be the contractual responsibility of the contractor.

Vegetated areas will be cleared and grubbed. Trees and shrubs will be disposed of or chipped on site, consistent with the Maine Slash Law[4]. The sites will be graded and filled as needed to build the sites up to the necessary elevations to establish drainage and a level building surface.

7.3.1.4 Concrete Foundation Placement

Concrete foundations (either precast or cast in place) will be installed to create pads for the new substations' equipment. These concrete pads will be constructed to engineering specifications and will not cause erosion or sedimentation.

7.3.1.5 Fence Installation

Following the completion of earthwork and placement of the concrete pads, a new chain-link fence will be installed around the perimeter of each new substation. This fence will be the standard fencing (eight feet tall with three strand barbed wire pitched at a 45-degree angle) installed at other CMP substations.

7.3.1.6 Electrical Equipment Installation and Energizing

The bulk of the electrical equipment including transformers, termination structures, switchgear, circuit switchers, regulators, reclosers, and the control building will be installed after the main footings and structures are in place. All this work will be completed within the substation footprint (fenced area).

7.3.1.7 Site Stabilization and Permanent Restoration

Disturbed soils within 100 feet of wetlands will be stabilized through mulching and establishing native vegetation in accordance with CMP's Environmental Guidelines.

Allowing native vegetation to regenerate naturally will be the preferred method for re-establishing permanent vegetation. CMP's Environmental Inspector will work with the third-party inspector (if required) to identify areas that may require seeding. Upland areas not adjacent to protected resources will be allowed to revegetate naturally. Areas of exposed soils in uplands will be mulched with hay and those in wetlands will be mulched with straw. Any construction debris (litter, hardware, and bracing) will be removed from the site and properly disposed of at a licensed disposal facility. No construction debris or any other materials will be burned or buried at the project site. Erosion and sedimentation controls will be

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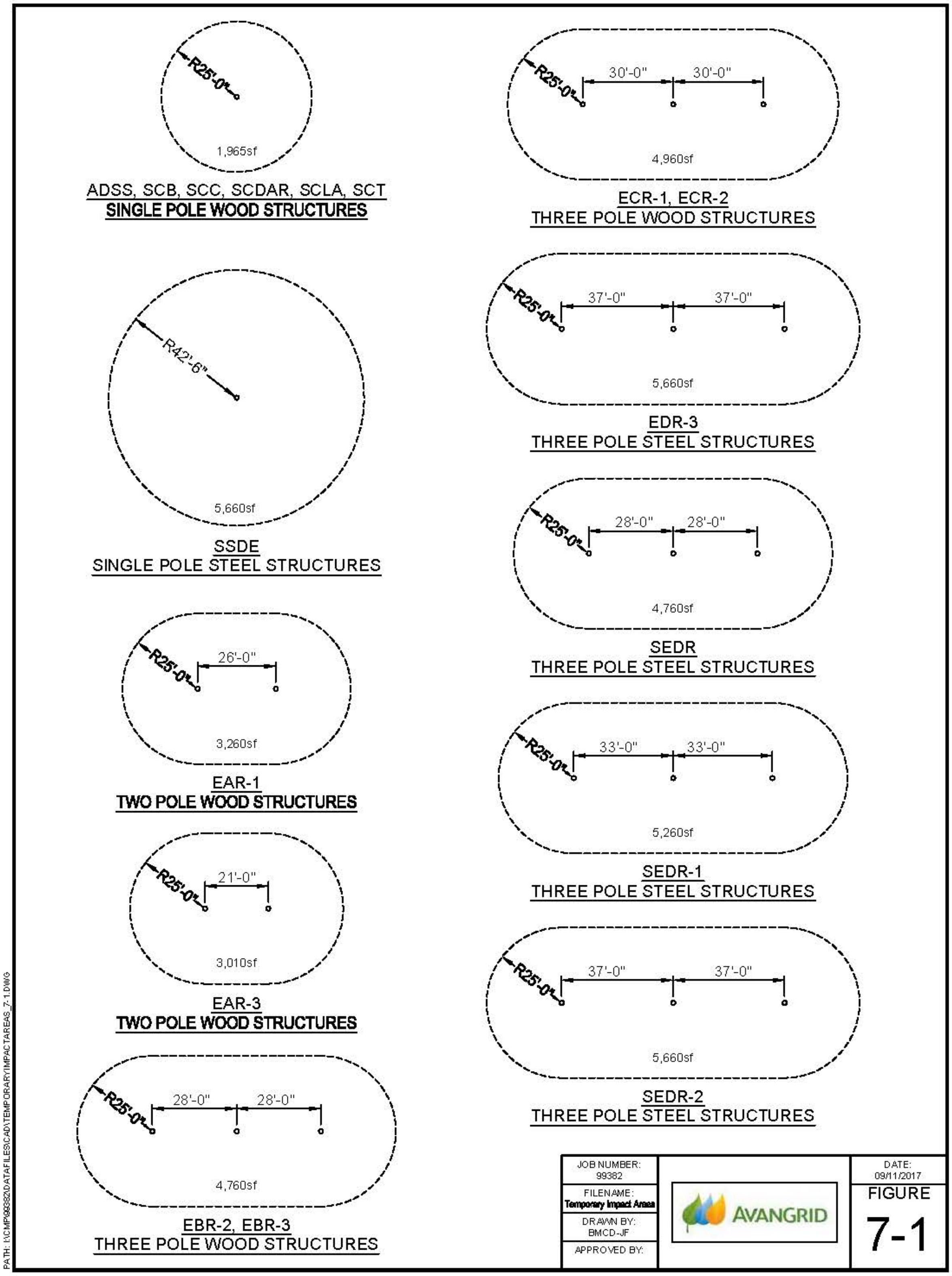
[4] 12 MRSA §M.R.S. §§ 9331 et seq.

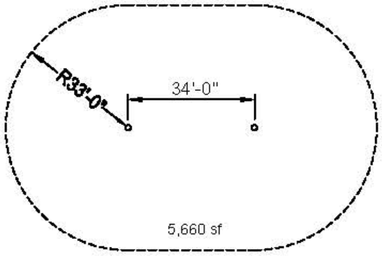
installed as needed and maintained through the duration of the restoration efforts. These devices will be removed once the area has adequately revegetated.

Please see CMP’s Environmental Guidelines, located in **Exhibit 14-1** of the Site Law Application for complete restoration details.

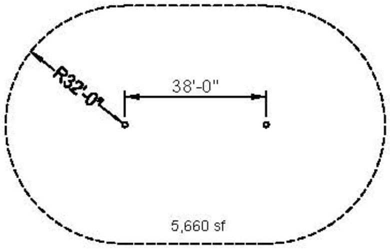
CMP personnel and/or qualified representatives, including the environmental inspector, will walk-through the completed project site and check for any potential erosion problems or areas that require further restoration work. Any identified problem areas will be permanently stabilized as soon as possible.

Figure 7-1: Temporary Structure Impact Areas

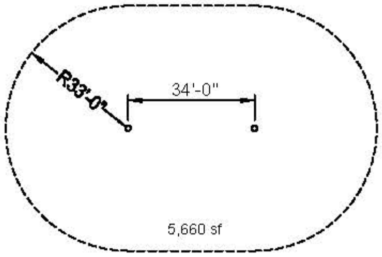




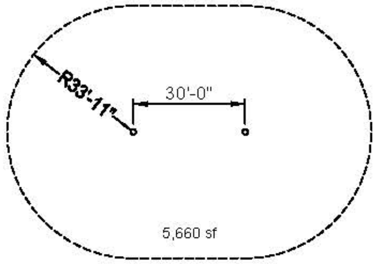
320HVDC DE 0-30
TWO POLE STEEL STRUCTURES



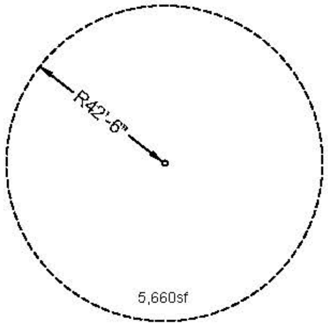
320HVDC DE 30-90
TWO POLE STEEL STRUCTURES



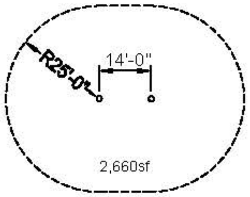
320HVDC RA 10-30
TWO POLE STEEL STRUCTURES



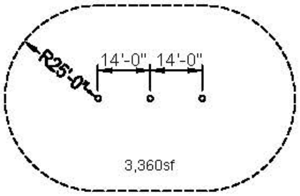
320HVDC RA 2-10
TWO POLE STEEL STRUCTURES



320HVDC TAN 0-2
SINGLE POLE STEEL STRUCTURES



AR, DR
TYPE D SPECIAL
TWO POLE STEEL STRUCTURES



DAR
THREE POLE WOOD STRUCTURES

PATH: I:\CMP\99382\DATAFILES\CAD\TEMPORARY\IMPACTAREAS_7_2.DWG

JOB NUMBER: 99382	DATE: 09/11/2017
FILENAME: Temporary Impact Areas	FIGURE 7-1
DRAWN BY: BMCD-JF	
APPROVED BY:	

8.0 EROSION CONTROL PLAN

For the erosion control plan refer to **Section 14** of the Site Law Application, which demonstrates that the project will not cause unreasonable soil erosion or unreasonably inhibit the natural transfer of soil from the terrestrial to the marine or freshwater environment, and will not violate State or Federal water quality law.

9.0 SITE CONDITIONS

9.1 Introduction

This report has been prepared to fulfill the application requirements of the Natural Resources Protection Act ("NRPA") and Section 404 of the Federal Clean Water Act. Boyle Associates ("Boyle") and Power Engineers were retained to identify and delineate wetlands (1) within all NECEC-associated transmission line corridors, and (2) in the vicinity of the planned NECEC converter station and substation. The purpose of the wetland field survey was to delineate and obtain detailed, accurate information on all onsite wetlands regulated by the United States Army Corps of Engineers ("USACE") under Section 404 of the Clean Water Act, and by the MDEP under the NRPA, 38 M.R.S. §§ 480-A et seq.

CMP has included a Certificate of Good Standing per the NRPA application requirements in Section 3.0 of the Site Law application.

9.2 Methodology

9.2.1 Remote Data Analysis

Aerial photos from the State of Maine Geographic Information Systems ("GIS") database were overlaid with the proposed transmission line corridors, and section lines; these maps served as a basis of reference for the wetland delineations. Natural Resource Maps are included in **Appendix 2** of the Site Law Application.

Federal Emergency Management Agency ("FEMA") Flood Insurance Rate Maps region were reviewed to determine which wetlands are within 100-year flood zones. These zones were incorporated onto NECEC maps and are in **Appendix 4** of the Site Law Application. Other resource maps utilized for the NECEC Project include Maine Natural Areas Program ("MNAP") rare plant communities or elemental plant occurrences, Maine Department of Inland Fisheries & Wildlife ("MDIFW") deer wintering areas, Threatened and Endangered ("T&E") species habitat, Inland Waterfowl and Wading Bird Habitat (IWWH), and Atlantic Salmon Commission ("ASC")-designated critical nursery and spawning areas. National Wetland Inventory Maps were also reviewed.

9.2.2 Field Surveys

NECEC components were surveyed on foot by professional wetland scientists to identify and map all wetlands, surface water bodies, and vernal pools. Wetland delineations were completed pursuant to the 1987 USACE Wetland Delineation Manual (Environmental Laboratory 1987) and the Regional

Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (2011). Natural Resource Maps are included in **Appendix 2** of the Site Law Application.

The wetland field survey effort was performed by field crews generally consisting of one wetland scientist and one Global Positioning System operator. Following analysis of soils, hydrology, and vegetation at each sampling location, the wetland boundary was identified and flagged using glo-pink colored wetland delineation flagging tape. Wetland boundaries were recorded using portable Trimble Geo7X units. All relevant features were mapped by recording a minimum of 15 epochs per position with a Precisional Dilution of Position no greater than 6.0. Centerlines of streams less than 10 feet in width were flagged using overhanging vegetation and top of each bank of streams greater than 10 feet in width were flagged. Stream flag locations were recorded using the same parameters as for the wetland flags. In total, approximately 192 linear miles of NECEC transmission line corridor were surveyed for the presence of federal and state jurisdictional waterbodies: wetlands, streams, and vernal pools.

The proposed Merrill Road Converter Station (Lewiston) and Fickett Road Substation (Pownal) sites were also surveyed for the presence of waterbodies: wetlands, streams, and vernal pools. Detailed vernal pool information can be found in **Section 7** of the Site Law Application.

Boyle wetland scientists collected wetland-specific data and photographs at each wetland not previously surveyed. For those wetlands surveyed during previous field efforts, an average of five wetlands per linear mile were spot checked for accuracy in accordance with a verification protocol approved by MDEP and the USACE (**Exhibit 9-1**). The wetland boundary line, vegetation, soils, and hydrology were checked and confirmed. In areas where any of the wetland parameters were found to be different, new data were collected to accurately reflect current wetland conditions. A Boyle Associates NECEC wetland summary form was completed for each wetland not previously surveyed. For those wetlands surveyed during previous field efforts, the corresponding data sheets were printed out, taken to the field and annotated/updated. Data documented on each form included wetland identification number, dominant vegetation, soil profile description, hydrologic indicators, stream characteristics and locations, wildlife observations, flagging sequence, and additional notes. In addition, one pair of USACE Routine Wetland Delineation plots was completed for approximately each linear mile of transmission line corridor surveyed. In areas where USACE data plots had previously been completed, wetland scientists checked and confirmed the accuracy of plot data.

All wetlands were classified in the field using the United States Fish and Wildlife Service's (USFWS) classification system (Cowardin et al. 1979). Field work was conducted during the 2015, 2016 and 2017 growing seasons. **Exhibits 9-2, 9-3 and 9-4** of this Attachment provide examples of USACE data plot forms and wetland summary forms. Only common names of wildlife are included in the discussion portion of this Attachment; for amphibian, reptile, bird, and mammal species common names and binomial name please refer to Section 7 of the Site Law Application. Vernal pool survey procedures and information can also be found in Section 7 of the Site Law Application.

For the purposes of resource identification naming, the NECEC project corridor was segmented into mile sections, starting at the Quebec border in Beattie Township ("Twp"), Maine at mile zero, increasing from Beattie east and south to Pownal, Maine. Mile numbers resume in Whitefield, Maine, and increase south to Wiscasset, Maine. Each wetland was numbered according to the project mile. For example, Wet-6-1 was the first wetland within project mile 6. Additional wetlands located within the same mile were numbered in sequential order. For example, additional wetlands located within mile 6 were named Wet-6-2, Wet-6-3, Wet-6-4, etc. Stream names were assigned in the same way, however in instances where waterbody features are not contiguous, each defined channel was given a separate ID number. For example, Stream 6-1 was the first stream within mile 6 and Stream 6-2 may be a separate channel associated with 6-1.

Specific methods for characterizing and evaluating vegetation, soils, and hydrology within wetland communities were as follows:

Vegetation: Dominant plant species in each major vegetative stratum (tree, sapling/shrub, and herbaceous) within the study area were identified and listed. Nomenclature for plants follows Haines and Vining (1998). Common names only are included in the discussion portion of this Attachment; for a list of wetland vegetation common names and binomial names please refer to **Table 9-8 and Table 9-9** at the end of this Attachment. Each plant's wetland indicator status (e.g., OBL, FACW, FAC, FACU, and UPL) was assigned using the USFWS National List of Plant Species that Occur in Wetlands, Northeast Region 1 (Reed 1988) to determine if there was a prevalence of hydrophytic vegetation at the site.

Soils: A Dutch auger was used to extract samples to examine the soil for evidence of hydric indicators. Soils were characterized by determining texture, structure and color, generally to a depth of 20 inches below the top of the mineral soil surface. Soil matrix colors were identified by using a Munsell Soil

Color Chart; hydric indicators such as depleted matrices, redoximorphic features, gleying, organic matter accumulation, and oxidized rhizospheres were also noted. In addition, hydric soil criteria were assigned in accordance with the manual of Field Indicators for Identifying Hydric Soils in New England (Field Indicators Manual), Version 3 (New England Hydric Soils Technical Committee 2004).

Representative wetland soils were noted as either mineral or organic. According to Brady and Weil (1999) histosols (organic soils without permafrost) have organic soil materials in more than half of the upper 80 centimeters of soil, or in two-thirds of the soil overlying shallow rock.

Therefore, for the purposes of this report, soils with greater than 16 inches of organic material or that have organic material in more than two-thirds of the soil profile over shallow bedrock were noted as organic soils. All other soils were noted as mineral.

Hydrology: Sampling locations were examined for evidence of wetland hydrology. General indicators of hydrology included the presence of watermarks, drift lines, sediment deposits, standing water, soil saturation within 12 inches of the soil surface, surface scouring, silt deposition, buttressed trunks, elevated roots, and drainage patterns within the wetland.

9.2.3 Wetlands of Special Significance Determinations

Wetlands within NECEC segments and substations were classified as either wetlands that are not of special significance or as Wetlands of Special Significance (WOSS), as defined in DEP Reg. chapter 310.4. Wetlands may be designated as WOSS for numerous reasons. All coastal wetlands and great ponds are WOSS. In addition, certain freshwater wetlands are WOSS. A freshwater WOSS has one or more of the following characteristics:

- The wetland contains a natural community that is critically imperiled (S1) or imperiled (S2) as defined by the MNAP;
- The wetland contains significant wildlife habitat as defined by 38 M.R.S. § 480-B (10);
- The wetland area is located within 250 feet of a coastal wetland;
- The wetland area is located within 250 feet of the normal high water line, and within the same watershed, of any lake or pond classified as a great pond under 38 M.R.S. § 465-A;
- The wetland contains under normal circumstances at least 20,000 square feet of aquatic vegetation, emergent marsh vegetation or open water (unless the 20,000 or more square foot area is the result of an artificial pond or impoundment);

- The wetland is inundated with floodwater during a 100-year flood event based on flood insurance maps produced by the FEMA or other site-specific information;
- The wetland contains peatland; and/or
- The wetland area is located within 25 feet of a river, stream, or brook.

Significant wildlife habitat, as defined by the NRPA, 38 M.R.S. § 480-B(10), includes, to the extent they have been mapped by MDIFW are within any other protected natural resource:

- habitats for state and federal agency listed rare, threatened and endangered species ("RTE");
- High or moderate value deer wintering area (DWA) and travel corridors, as defined by MDIF&W;
- Seabird nesting islands, as defined by MDIF&W; and
- Critical spawning and nursery areas for Atlantic salmon, as defined by DMR.

Significant wildlife habitat also includes the following areas that are defined by MDIF&W and are in conformance with criteria adopted by DEP or are within any other protected natural resource:

- Significant vernal pool habitat;
- High and moderate value IWWH, including nesting and feeding areas; and
- Shorebird nesting, feeding, and staging areas.

Significant wildlife habitats reviewed to determine freshwater WOSS include: mapped habitats for state and federally listed T&E species; high and moderate value IWWH; presence of significant vernal pool habitat; and critical spawning and nursery areas for Atlantic salmon, as identified by the ASC.

9.3 Delineation Results – Transmission Line Corridors

A summary of all wetlands identified along Segments 1, 2, 3, 4, and 5, as well as Merrill Road Converter Station and the Fickett Road Substation sites is provided in table format (**Table 9-10**) and is organized by segment and wetland identification number. A project overview map depicting Project segments is provided as **Exhibit 1-1** of the Site Law Application. Representative photos are provided in Section 4.

The following subsections provide general descriptions of non-WOSS wetlands, and detailed descriptions of representative WOSS wetlands identified along each segment.

9.3.1 Segment 1

Segment 1 extends from the border of Quebec, Canada in Beattie Twp, Maine to The Forks Plantation ("Plt"), Maine. This segment is approximately 53.5 miles in length and includes previously undeveloped land, historically and currently used for forest management. Segment 1 is located within a 150-foot wide cleared right-of-way in a previously undeveloped, 300-foot-wide transmission line corridor. Townships, towns, and cities traversed by Segment 1 include Beattie Twp, Merrill Strip Twp, Lowelltown Twp, Skinner Twp, Appleton Twp, T5 R6 BKP WKR, T5 R7 BKP WKR, Hobbstown Twp, Bradstreet Twp, Parlin Pond Twp, Johnson Mountain Twp, West Forks Plt, Moxie Gore, and The Forks Plt. Segment 1 is located within the Upper Kennebec River Watershed, and Dead River Watershed Hydrologic Unit Code 8 (HUC8) and within the Central Maine Embayment Biophysical Region.

Four hundred and eighty wetlands were identified, delineated, and mapped within the Segment 1 transmission line corridor (see Appendix 2 of the Site Law Application for Wetland and Stream Resource Maps). One hundred fifteen wetlands are Palustrine Emergent (PEM) wetlands, sixty four wetlands are Palustrine Scrub-Shrub (PSS) wetlands, and two hundred and twelve wetlands are Palustrine Forested (PFO) wetlands. In addition, there are thirty-three PEM/PFO wetlands, eighteen PFO/PSS wetlands, nineteen PSS/PEM/PSS wetlands, two PFO/PSS/PEM wetlands, one PFO/PSS/PUB wetland, and one Palustrine Unconsolidated Bottom PSS/(PUB) wetlands, and one Palustrine Open Water (POW) (Table 9-1). These wetlands receive sustaining hydrology from a high groundwater table, seepage, surface runoff from adjacent uplands, or inputs from adjacent waterbodies. Functions and values provided by wetlands within Segment 1 include groundwater recharge/discharge, nutrient removal, sediment/shoreline stabilization, and sediment retention with many of the wetlands providing wildlife habitat.

Table 9-1: Summary of Wetland Classes and Wetlands of Special Significance- Segment 1

	Non-WOSS	WOSS	Total
PEM	83	32	115
PSS	42	22	64
PFO	126	87	213
POW	0	1	1
PUB	2	0	2
PEM/PFO	25	7	32
PFO/PSS	9	9	18
PFO/PSS/PEM	1	1	2
POW/PSS/PFO	0	1	1
PFO/PSS/PUB	0	1	1
PSS/PUB	1	0	1
PEM/PSS	11	8	19
Unknown	8	3	11
Subtotal	**308**	**172**	**480**

The following are representative descriptions of the wetland types that were identified and delineated within the Segment 1 transmission line corridor.

9.3.1.1 Representative Wetland Descriptions: Non-WOSS

PEM (Palustrine Emergent Wetlands)

Eighty-three PEM wetlands of similar composition and characteristics (e.g., wet meadows and cat- tail marshes) that do not meet the definition of WOSS were identified along Segment 1 (**Table 9-1**). These PEM wetlands are characterized by persistent vegetation dominated by graminoids and herbaceous vegetation, although scattered shrubs are present in many of these PEM wetlands. The major distinction between the PEM wetlands in Segment 1 is hydrology. The wet, seasonally flooded or saturated wetlands include sphagnum and cat-tail swamps, extended floodplains and ephemeral ponds. The less wet, seasonally saturated wetlands are generally made up of wet meadows and sedge swamps. Common graminoid species include fringed sedge, lamp rush, melic manna grass, fowl manna grass, dark green bulrush, cottongrass bulrush, northern green rush and reed canary grass. Common herbs include spotted touch-me-not, sensitive fern, northern lady fern, equisetum species, and goldenrod species. Scattered shrubs and saplings observed in some of the PEM wetlands include steeple-bush, meadowsweet, speckled alder, balsam fir, red maple, and yellow birch.

PSS (Palustrine Scrub-Shrub Wetlands)

Forty-two PSS wetlands that do not meet the definition of WOSS were identified during field surveys along Segment 1 (**Table 9-1**). These PSS wetlands are typically dominated by dense stands of speckled alder and areas of sapling sized tree species common to the region. Other shrubs and saplings that are present in many PSS wetlands in Segment 1 include meadowsweet, catberry, silky dogwood, and willow species. Yellow birch, red maple, red spruce, balsam poplar and balsam fir saplings are also present. Shade tolerant species such as sensitive fern and northern lady fern are often present in the herb stratum. Many of the PSS wetlands on Segment 1 are formerly forested wetlands that have been altered by recent timber harvest activities.

PFO (Palustrine Forested Wetlands)

One hundred twenty-six PFO wetlands that do not meet the definition of WOSS were identified along Segment 1 (**Table 9-1**). Forested wetlands within Segment 1 are typically dominated by northern white-cedar, balsam fir, red maple, and black ash. Common subordinate species are gray birch, yellow birch, quaking aspen, green ash, and saplings of the canopy species. Shrubs such as winterberry, pussy willow and speckled alder are also present where the canopy opens. Cinnamon fern, sensitive fern, spotted touch-me-not, fringed sedge, dwarf red raspberry, and sphagnum moss are common in the herbaceous stratum.

PFO/PSS (Palustrine Forested/Scrub-Shrub Wetland)

Nine PFO/PSS wetlands which do not meet the definition of WOSS were identified during field surveys along Segment 1 (**Table 9-1**). Dominant species within the forested wetland portions are consistent with those described in the PFO description above. Shrub and sapling species include red maple, balsam fir, black spruce, speckled alder, meadowsweet, steeplebush and black elder.

PEM/PFO (Palustrine Emergent/Forested Wetland)

Twenty-five PEM/PFO wetlands which do not meet the definition of WOSS were identified during field surveys along Segment 1 (**Table 9-1**). The emergent component is typical of what is described in the above PEM representative descriptions and includes sensitive fern, jewelweed, fringed sedge, rattlesnake manna grass, cinnamon fern, dark green bulrush, twin flower, bristly dewberry and mountain wood sorrel. The PFO component is typical of a forested wetland dominated by mature mixed growth forest and includes balsam fir, red maple, gray birch and black ash.

PUB (Unconsolidated Bottom Wetland)

Two PUB wetlands which do not meet the definition of WOSS were identified during field surveys of Segment 1 (**Table 9-1**). A PUB is a freshwater wetland with an open water component and an unconsolidated bottom soil structure. The vegetation includes winterberry and viburnum species. The understory, herbaceous species include bristly dewberry and blueflag iris. The class unconsolidated bottom includes all wetland and deepwater habitats with at least 25% cover of particles smaller than stones, and a vegetative cover less than 30%.

Soils and Hydrology in PEM, PSS, PFO, and Mixed Communities

Soil profiles within the wetlands identified along Segment 1 vary according to parent material and saturation level. Wetland soil characteristics range from thick organic soils to seasonally saturated mineral soils having a shallow O horizon. In those wetlands where organic soils are present, the O horizon tends to be relatively shallow with rock refusal ranging from 2 to 10 inches. The mineral soils are generally characterized by an organic surface horizon and/or a dark A horizon with matrix values less than or equal to 3 and chromas of 2 or less. Subsoils are commonly characterized by a depleted B horizon with matrix values of 4 or more and a chroma of 2 or less with redoximorphic features. Silt loam-textured soils are common. Occasional organic soils are present, generally with sapric horizons extending at least 16 inches below the top of the soil surface or to rock refusal anywhere between 2 to 20 inches. Most soils meet criteria A1, S7, F3 and A11 of the Field Indicators of Hydric Soils of the United States Manual, Version 8.0. Soils were generally saturated at the time of investigation and several had surface water present. Wetland hydroperiods are typically seasonally saturated, although seasonally flooded areas are also present on Segment 1. Indicators of hydrology along Segment 1 include water-stained leaves, drainage patterns, drift deposits, thin muck surface, oxidized rhizospheres and sulfidic odor.

9.3.1.2 Representative Wetland Descriptions: WOSS

On Segment 1, one hundred and seventy-two wetlands were identified as WOSS as defined in the Wetlands and Waterbodies Protection Rules Chapter 310. Some wetlands (or portions thereof) within the Segment 1 transmission line corridor are WOSS because they contained at least 20,000 square feet of aquatic vegetation, emergent marsh vegetation or open water; are located within 25 feet of a river, stream, or brook; are located in the 100-year flood zone (see flood zone maps in Appendix 4 of the Site Law Application); are located within 250 feet of the normal high water line, and within the same watershed, of any lake or pond classified as a great pond; contain significant wildlife habitat; contain mapped RTE species habitat; and/or contain moderate or high value IWWH. Thirty-two of the WOSS are PEM wetlands, Twenty-two are PSS wetlands, eighty-five are PFO wetlands, one is a POW wetland, seven are PEM/PFO, nine are PFO/PSS wetlands, eight are PEM/PSS wetlands, and there are one each of PFO/PSS/PEM, POW/PSS/PFO, and PFO/PSS/PUB mixed community wetland types (**Table 9-1**).

The following narratives provide specific information on vegetation, soils, and hydrology for three representative wetlands identified along Segment 1 that meet WOSS designation criteria.

Wetland 24-10

Wetland 24-10 is primarily a PSS wetland but has PEM wetland components as well. The wetland is located along Bitter Brook in Bradstreet TWP, Maine. The wetland area within 25 feet of Bitter Brook is WOSS. Bitter Brook is a tributary to Moose River. Additionally, Wetland 24-10 contains IWWH considered significant wildlife habitat, therefore; the wetland is WOSS.

In emergent components of the wetland, mostly along the fringes of the brook, dominant herbaceous species include tussock sedge, sensitive fern, Canada bluejoint, and various sedge species. Dominant species in the scrub-shrub components include speckled alder, winterberry, meadowsweet, and steeple-bush.

Evidence of hydrology in Wetland 24-10 includes saturated soils and evidence of seasonal flooding due to occasional brook overflow, including drainage patterns, and surface scouring. Soils in the wetland have a silt loam texture, and display a dark A horizon underlain by a B horizon with a depleted matrix and redox concentrations. These soils meet indicator F6 of the Field Indicators Manual.

Wetland 33-07

Wetland 33-07 is primarily a PEM wetland, which also contains an area of PFO wetland habitat. The wetland is located in Johnson Mountain Twp, Maine. According to the Maine Natural Areas Program (MNAP), this wetland is within a mapped known occurrence of the Bicknell’s Thrush (*Catharus bicknelli*). The wetland area contains RTE habitat, therefore the wetland is a WOSS.

In emergent components of the wetland, dominant species include woolgrass, soft rush, and various sedge species. Dominant species in the scrub-shrub components are meadowsweet species. Within the PFO area, the wetland vegetation is dominated by a mix of trees and shrubs, most notably black spruce. Evidence of hydrology in the wetland includes seasonally flooded areas, as well as saturated soils and drainage patterns. Soils in the wetland have a sandy loam texture, and display a depleted A horizon. These soils meet indicator S4 of the Field Indicators Manual.

Wetland 48-08

Wetland 48-08 is primarily a PSS wetland. The wetland is located in the town of West Forks PLT, Maine and appears to have been partially logged within the last 50 years. The wetland is considered a WOSS because it contains peatlands. Dominant vegetative species include rhodora, rose-myrtle, winterberry, and mountain holly. Within small openings, herbaceous species are sparse and include cinnamon fern and sphagnum. A low percentage of tree cover was observed in portions of the wetland. Tree cover includes stunted black spruce and white pine. While a defined vernal pool depression is absent, scattered spotted salamander egg masses were identified throughout the wetland. Wetland 48-08 has saturated soils, a high water table, and evidence of shallow flooding including thin muck surface, water-stained leaves and watermarks. Soils in the wetland are organic (hemic) and have rock refusal at 10 inches. Wetland 48-08 meets indicator A1 of the Field Indicators Manual. During their initial site visit, in addition to spotted salamander egg masses, wetland scientists observed moose droppings throughout the wetland.

9.3.2 Segment 2

Segment 2 extends from The Forks, Maine to the Wyman hydropower station in Moscow, Maine, from project mile 53.6 to 75.5, for a total of 21.9 miles. This segment will be located within an existing partially developed 300-foot-wide transmission line corridor, CMP Section 222. Clearing width in most locations is approximately 75-feet, however may vary depending on conditions. Towns associated with Segment 2 include The Forks Plt, Bald Mountain Twp T2 R3, Caratunk, and Moscow. Segment 2 is located within the Upper Kennebec and Lower Kennebec River Watersheds (HUC 8) and within the Central Maine Embayment Biophysical Region.

One hundred forty-seven wetlands were identified, delineated, and mapped within Segment 2 (see **Appendix 2** of the Site Law Application for Natural Resource Maps). Fifty wetlands are PEM wetlands, twelve are PSS wetlands, twenty-five are PFO wetlands, two are POW/PFO wetlands, ten are PSS/PEM wetlands, seven are PFO/PSS wetlands, three are PFO/PSS/PEM wetlands, and thirty-four are PEM/PFO wetlands (**Table 9-2**).

These wetlands receive sustaining hydrology from a high groundwater table, seepage, surface runoff from adjacent uplands, or inputs from adjacent waterbodies. Functions and values provided by wetlands within Segment 2 include groundwater recharge/discharge, sediment/shoreline stabilization, floodflow alteration, wildlife habitat, and sediment retention.

Table 9-2: Summary of Wetland Classes of Wetlands of Special Significance- Segment 2

	Non-WOSS	**WOSS**	**Total**
PEM	30	20	50
PSS	7	5	12
PFO	19	6	25
PEM/PFO	23	11	34
PEM/PSS	6	4	10
PFO/PSS/PEM	1	2	3
PFO/PSS	4	3	7
POW/PFO	2	0	2
Unknown	1	3	4
Subtotal	**93**	**54**	**147**

The following are representative descriptions of the categories of wetlands that were encountered and mapped within the Segment 2 transmission line corridor.

9.3.2.1 Representative Wetland Descriptions: Non-WOSS

PEM (Palustrine Emergent Wetlands)

Thirty PEM wetlands of similar composition and characteristics (*e.g.*, wet meadows) that do not meet the definition of WOSS were identified along Segment 2 (**Table 9-2**). These wetlands are characterized by persistent vegetation dominated by graminoids and herbs, although scattered shrubs are sometimes present. Vegetation in these wet meadow communities is relatively consistent from one area to another. Many of the PEM wetlands on Segment 2 are formerly forested wetlands that have been maintained as transmission line corridor for many years. Species with a graminoid growth habit that are common include wool-grass, nodding sedge, rattlesnake mannagrass, fowl mannagrass. Common herbs include sensitive fern, cinnamon fern, wrinkle leaved goldenrod, spotted touch-me-not. Scattered shrubs and saplings are present in some of the PEM wetlands. These include balsam fir, red spruce, speckled alder, and red maple.

<u>PSS (Palustrine Scrub-Shrub Wetlands)</u>

Seven PSS wetlands that do not meet the definition of WOSS were identified during field surveys along Segment 2 (**Table 9-2**). These scrub-shrub wetlands are typically dominated by dense stands of speckled alder and meadowsweet species. Additional shrubs and saplings found throughout the wetland included maple, pussy willow, and balsam fir. Sensitive fern, cinnamon fern, soft rush, and spotted touch-me-not are often present in the herb stratum. Many of the PSS wetlands on Segment 2 are formerly forested wetlands that have been maintained as transmission line corridor for many years.

<u>PFO (Palustrine Forested Wetlands)</u>

Nineteen PFO wetlands that do not meet the definition of WOSS were identified along Segment 2 during field surveys (**Table 9-2**). These wetlands are typically dominated by black ash, red maple, and balsam fir. Common subordinate species are yellow birch, white cedar, and saplings of the canopy species. Shrubs such as speckled alder are commonly present where the canopy opens. Sensitive fern, cinnamon fern, nodding sedge, and reed canary grass are common herbs. PFO wetlands are present at the edges of the transmission line corridor, in areas that are not maintained.

<u>POW/PFO (Palustrine Open Water/Forested Wetlands)</u>

Two POW/PFO wetlands, Wetland 55-02 and 55-03, which do not meet the definition of WOSS, were identified during field surveys along Segment 2 (**Table 9-2**). These wetlands are dominated by an approximately even mix of open water and forested cover. The forested component is generally typical of what is described in the above PFO wetland description while the open water component of this wetland is semi-permanently flooded.

<u>Soils and Hydrology in PEM, PSS, PFO, and Mixed Communities</u>

Soil profiles within the wetlands identified along Segment 2 are generally characterized by an organic surface horizon and/or a dark A horizon with matrix values less than or equal to 3 and chromas of 2 or less. Subsoils are commonly characterized by a depleted layer with matrix values of 4 or more and a chroma of 2 or less with redoximorphic features. Silty loam textured soils are common. Occasional organic soils are present, generally with sapric horizons at least 16 inches deep. Most soils meet criteria F6, F3, and A1 of the Field Indicators of Hydric Soils of the United States Manual, Version 8.0. Soils were generally saturated at the time of investigation and free water was often observed in the pit within 12 inches of the soil surface. Wetland hydroperiods are typically seasonally saturated, although seasonally flooded areas are also present.

9.3.2.2 Representative Wetland Descriptions: WOSS

On Segment 2, fifty-four wetlands were identified as WOSS. Some wetlands (or portions thereof) within the Segment 2 transmission line corridor are WOSS because they are associated with a river, stream, or brook; are located in the 100-year flood zone (see flood zone maps in **Appendix 4** of the Site Law Application); contain Significant Vernal Pools ("SVPs") or a Potentially Significant Vernal Pool ("PSVP"); contain greater than 20,000 square feet of emergent marsh vegetation and/or open water; contain peatland; and/or contain moderate or high value IWWH. Twenty of the WOSS are PEM wetlands, five are PSS wetlands, and six are PFO wetlands (**Table 9-2**). The remaining 23 WOSS are mixed community type wetlands.

The following narratives provide specific information on vegetation, soils, and hydrology for six representative wetlands identified along Segment 2 that meet the criteria for designation as WOSS.

Wetland 54-01

Wetland 54-01 is a predominantly PFO wetland with a small PSS component located within CMP's existing transmission line corridor in The Forks Plt. The wetland is classified as WOSS because it is located within 250 feet of Moxie Lake. Wetland areas within 250 feet of the normal high water line, and within the same watershed, of any lake or pond classified as great pond are WOSS. Wetland 54-01 also contains a perennial stream P-STR-54-1 and an intermittent stream I-STR-54-02.

Dominant trees in the canopy include northern white cedar, black ash, yellow birch, red maple and balsam fir. Dominant shrubs include speckled alder, meadowsweet, red maple, northern white cedar, and silky dogwood. Common herbs species include swamp sensitive fern, reed canary grass, fringed sedge, interrupted fern, equisetum and goldenrod species. This wetland is seasonally saturated to seasonally flooded. Other indicators of wetland hydrology include sediment deposits and water stained leaves. The silt loam textured soils have a dark Ap horizon underlain by a depleted Bg horizon at 2 inches, and meet indicator A11 of the Field Indicators Manual.

Wetland 56-01

Wetland 56-01 is a PEM/PFO wetland located within the cleared corridor of CMP's existing transmission line in The Forks Plt, Maine. Wetland 56-01 is contiguous with greater than 20,000 square feet of PEM, and is within 250 feet of Moxie Pond, a great pond. Wetland 56-01 and is therefore a WOSS.

Dominant herbaceous species include reed canary grass, fringed sedge, sensitive fern, goldenrod species and aster species. Hydrology indicators include surface water, high water table, saturation, and water stained leaves. Soils are characterized by a thin dark A horizon, rock refusal at 4 inches. Soils key to indicator TF12 of the Field Indicators Manual.

Wetland 64-03

Wetland 64-03 is a PFO wetland located partially within the cleared corridor of CMP's existing transmission line and extending east off the survey area in Bald Mountain Twp. While the on-site portion of the wetland is characterized by coniferous forested wetlands, a majority of the wetland off site is visible from the survey area and is characterized by a broad expanse of natural emergent marsh, identified as IWWH. Because wetland 64-3 contains significant wildlife habitat and PEM wetland greater than 20,000 square feet the wetland is WOSS. Additionally, wetland 64-03 contains two river, stream, or brooks.

The forested portion of wetland 64-03 is dominated by northern white-cedar and balsam fir. Sapling and shrub species within this portion of the wetland are dominated by speckled alder and meadowsweet. Areas dominated by herbaceous cover include three-seed sedge, northern green rush, reed canary grass, rattlesnake manna grass and broad expanses of sphagnum moss. Hydrology indicators include high water table, saturation, and algal crust. Soils are characterized by a thick organic O horizon, with rock refusal at 14 inches. Soils key to indicator A1 of the Field Indicators Manual. During field investigations, wetland scientists noted moose and bear sign.

Wetland 64-06

Wetland 64-06 is a PSS wetland located within and adjacent to CMP's existing transmission line corridor in Bald Mountain Twp T2 R3. This wetland is associated with an unnamed perennial stream. The stream is approximately four feet wide and substrates consist of peat and muck. Wetland areas within 25 feet of the stream are WOSS.

Dominant shrubs include speckled alder, meadowsweet, and black spruce. Emergent species include barber-pole sedge, lamp rush and three-seed sedge. Hydrogen sulfide odor, water stained leaves, surface water and saturation are indicators of wetland hydrology. The mineral soils have a loamy texture in sub-horizons, with eight inches of sapric organic material. The A horizon is dark gray with rock refusal at 14 inches. These soils meet criteria A2 of the Field Indicators Manual.

Wetland 64-10

Wetland 64-10 is a large PFO/PEM wetland that extends well beyond the boundary of the existing, developed CMP transmission line corridor. The wetland straddles the boundary of Bald Mountain Twp and Caratunk. The wetland contains a peatland, and thus, the wetland is classified as a WOSS.

Within the survey area, leatherleaf, black spruce saplings and meadowsweet are common shrubs. The herbaceous stratum includes broad-leaf cattail, rattlesnake mannagrass and lamp rush. Evidence of wetland hydrology in this seasonally flooded wetland includes surface water, saturation and sulfidic odor. A 30 inch-thick organic, sapric horizon is present and meets criterion A1 of the Field Indicators Manual.

Wetland 74-102

Wetland 74-102 is a PEM/PSS wetland located within the cleared corridor of CMP’s existing transmission line in Moscow. The wetland is a natural depression that appears to have been modified by timber harvest equipment and transmission line construction equipment in years past. Wetland 74-102 contains high and moderate value deer wintering area (DWA), as defined and mapped by MDIF&W and is therefore considered a WOSS. Dominant vegetation within the herbaceous layer includes sensitive fern, cinnamon fern, reed canary grass and speckled alder seedlings. A small PSS component exists and is dominated by speckled alder. Hydrology indicators include surface water, saturation, and an algal mat. Soils are characterized by a thin dark A horizon with rock refusal at 8 inches. Soils key to indicator TF12 of the Field Indicators Manual.

9.3.3 Segment 3

Segment 3, approximately 71.1 miles in length, extends from the Wyman hydropower station in Moscow to the proposed Merrill Road Converter Station in Lewiston. Segment 3 will be located within an existing, partially developed 400-foot wide transmission line corridor, where clearing widths are 75 feet in most locations. Towns associated with NECEC Segment 3 include Moscow, Concord, Embden, Anson, Starks, Industry, New Sharon, Farmington, Wilton, Chesterville, Jay, Livermore Falls, Leeds, Greene, and Lewiston. Segment 3 is located within the Lower Kennebec River and Lower Androscoggin River Watersheds (HUC 8) and within the Central Maine Embayment Biophysical Region.

Four hundred ninety wetlands were identified, delineated, and mapped within the Segment 3 transmission line corridor (see **Appendix 2** of the Site Law Application for Natural Resource Maps). Forty-one wetlands are PEM wetlands, fifty-seven are PSS wetlands, one hundred and eight are PFO wetlands, eighty-five are PSS/PFO wetlands, fifty-eight are PEM/PFO wetlands, seventy-six are PEM/PSS wetlands, one is a PFO/PSS/POW wetland, one is a PFO/PEM/POW wetland, one is a PUB wetland, one is a PUB/PFO wetland, and one is a PUB/PSS wetland (**Table 9-3**).

These wetlands receive sustaining hydrology from a high groundwater table, seepage, surface runoff from adjacent uplands, or inputs from adjacent waterbodies. Functions and values provided by wetlands within Segment 3 include groundwater recharge/discharge, sediment/shoreline stabilization, floodflow alteration, nutrient removal, and sediment retention, with many of the wetlands providing wildlife habitat.

Table 9-3: Summary of Wetland Classes and Wetlands of Special Significance- Segment 3

	Non-WOSS	WOSS	Total
PEM	26	15	41
PSS	32	25	57
PFO	69	39	108
PEM/PSS	40	36	76
PSS/PFO	39	46	85
PFO/PEM	26	32	58
PUB	0	1	1
PUB/PFO	2	1	3
PUB/PSS	1	0	1
PEM/PFO/PSS	21	20	41
PFO/PEM/POW	0	1	1
PFO/PSS/POW	0	1	1
Unknown	7	10	17
Subtotal	**263**	**227**	**490**

The following are representative descriptions of the categories of wetlands that were encountered and mapped within the Segment 3 transmission line corridor.

9.3.3.1 Representative Wetland Descriptions: Non-WOSS

PEM (Palustrine Emergent Wetlands

Twenty-six PEM wetlands of similar composition and characteristics (e.g., wet meadows and marshes) that do not meet the definition of WOSS were identified along Segment 3 (**Table 9-3**). The PEM wetlands are characterized by persistent vegetation dominated by graminoids and herbaceous vegetation, although scattered shrubs and saplings are present in some of the PEM wetlands in Segment 3. The three typical types of PEM wetland identified were portions of maintained fields, natural emergent marshes, and formerly forested wetlands that were cleared and are maintained as transmission line corridor. Common graminoid species include sallow sedge, cotton grass, wool-grass, and various sedge and rush species. Common herbs include broad-leaved cat-tail, sensitive fern, flat-topped white aster, New England aster, cinnamon fern, smooth goldenrod, Labrador tea, and swamp dewberry. Scattered shrubs and saplings observed in some of the PEM wetlands include steeple-bush, meadowsweet, winterberry, speckled alder, willow species, balsam fir, and red maple.

PSS (Palustrine Scrub-Shrub Wetlands)

Thirty-two PSS wetlands that do not meet the definition of WOSS were identified during field surveys along Segment 3 (**Table 9-3**). These scrub-shrub wetlands are dominated by dense stands of speckled alder and winterberry mixed with steeple-bush, and meadowsweet. Other shrubs and saplings present include mountain holly, silky dogwood, wild-raisin, and willow species. Gray birch, yellow birch, red maple, black ash, and balsam fir saplings are also present. Shade tolerant species such as sensitive fern and cinnamon fern as well as various sedge species are often present in the herb stratum. Many of the PSS wetlands on Segment 3 are formerly forested wetlands that have been maintained as transmission line corridor for many years.

PFO (Palustrine Forested Wetlands)

Sixty-nine PFO wetlands that do not meet the definition of WOSS were identified along Segment 3 during field surveys (**Table 9-3**). These wetlands are typically dominated by balsam fir, red maple, gray birch, yellow birch, black ash, and green ash. Northern white cedar and eastern hemlock are also present. The understory is typically comprised of saplings of the canopy species. Shrubs such as winterberry and speckled alder are also present where the canopy opens. Royal fern, cinnamon fern, jewelweed, dewberry, and sensitive fern are common herbs. A sphagnum moss ground cover is also typical. Most of the forested wetlands located on Segment 3 are located adjacent to the existing cleared transmission line corridor, within the area proposed for expansion.

PSS/PFO (Palustrine Scrub-Shrub/Emergent Wetlands

Thirty-nine PSS/PFO wetlands that do not meet the definition of WOSS were identified during field surveys along Segment 3 (**Table 9-3**). These were determined to be scrub-shrub/forested wetlands because they have a co-dominance of these two cover types. The scrub-shrub and forested components are typical of what is described in the PSS and PFO representative wetland descriptions. The survey corridor in this segment is partially forested; the maintained cleared transmission line corridor contains PSS wetland and small areas of PEM wetland, and the un-cleared area contains PFO wetland.

PEM/PSS (Palustrine Emergent/Scrub-Shrub Wetland)

Forty PEM/PSS wetlands which do not meet the definition of WOSS were identified during field surveys along Segment 3 (**Table 9-3**). The emergent and scrub-shrub components are typical of what is described in the above PEM and PSS representative wetland descriptions.

PUB/PSS (Palustrine Unconsolidated bottom/Scrub-ShrubWetland)

Two PUB/PSS wetlands which do not meet the definition of WOSS were identified during field surveys along Segment 3 (**Table9-3**). The Scrub-Shrub component is typical of what is described in the above PSS representative wetland descriptions. A PUB is a freshwater wetland with an open water component and an unconsolidated bottom soil structure. Wetlands in this category are characterized by both wetland components.

PFO/PUB (Palustrine Forested/Unconsolidated Bottom Wetland

Two PFO/PUB wetlands which do not meet the definition of WOSS were identified during field surveys along Segment 3 (**Table 9-3**). The forested component is typical of what is described in the above PFO representative wetland descriptions. A PUB is a freshwater wetland with an open water component and an unconsolidated bottom soil structure. Wetlands in this category are characterized by both wetland components.

Soils and Hydrology in PEM, PSS, PFO, and Mixed Communities

Soil profiles within the wetlands identified along Segment 3 vary according to location in the region, topography, parent material, aspect, and saturation level. Wetland soil characteristics range from thick organic soils to seasonally saturated mineral soils. The mineral soil parent materials include fine-grained marine sediments, glacial till, and outwash. The mineral soils are generally characterized by an organic surface horizon and/or a dark A horizon with matrix values less than or equal to 3 and chromas of 2 or less. Subsoils are commonly characterized by a depleted Bg horizon with matrix values of 4 or more and a chroma of 2 or less with distinct or prominent redoximorphic features. Silt loam-textured soils are common. Organic soils are present, generally with sapric horizons extending at least 16 inches below the top of the soil surface. Most soils meet criteria F6, F3, and A1 of the Field Indicators of Hydric Soils of the United States Manual, Version 8.0. Soils were generally saturated at the time of investigation and free water was often observed in the pit within 12 inches of the soil surface. Wetland hydroperiods are typically seasonally saturated, although seasonally flooded areas are occasionally present on the segment. Other typically noted evidence of hydrology is drainage patterns, shallow roots, water-stained leaves, and surface scouring.

9.3.3.2 Representative Wetland Descriptions: WOSS

In Segment 3, two hundred twenty-seven wetlands were identified as WOSS. Some wetlands (or portions thereof) within the Segment 3 transmission line corridor are WOSS because they are associated with large (greater than 20,000 square feet) open water or emergent marsh vegetation wetlands; are associated with rivers, streams or brooks; are located in the 100-year flood zone (see flood zone maps in Appendix 4 of the Site Law Application); contain SVPs and potentially significant vernal pools (PSVPs); contain peatland; and/or contain moderate or high value WWH. Fifteen of the WOSS are PEM wetlands, twenty-five are PSS wetlands, thirty-nine are PFO wetlands, thirty-six are PEM/PSS wetland, thirty-two are PEM/PFO wetlands, forty-six are PSS/PFO wetlands, one is a PUB wetland and the remainder are mixed community type wetlands (**Table 9-3**).

The following narratives provide specific information on vegetation, soils, and hydrology for eleven representative wetlands identified along Segment 3 that meet the criteria for designation as WOSS.

Wetland 78-05

Wetland 78-05 is predominantly a PFO wetland with smaller PEM components restricted to the cleared portion of the CMP transmission line corridor. The wetland extends beyond the survey area to the west and is located in Concord Twp, Maine. Wetland 78-05 is a cedar swamp and contains two small and shallow intermittent streams having a rocky streambed. Wetland 78-05 contains a natural community that is either critically imperiled (S1) or imperiled (S2) as defined by the MNAP, thus, the wetland is considered a WOSS. In addition, wetlands within 25 feet of the streams are WOSS.

The forested component of wetland 78-05 is dominated by northern white cedar and yellow birch. The understory is dominated by saplings of the same canopy species. The sparse herbaceous layer consists of dwarf red raspberry and false lily of the valley. Hydrology indicators include saturation, high water table, and water stained leaves. Soils are histosols, characterized by a thick dark O horizon and key to indicator A1 of the Field Indicators Manual.

Wetland 100-05

Wetland 100-05 is a PFO wetland located partially within the cleared corridor of CMP’s existing transmission line and also extending east and west off the survey area in Starks, Maine. Wetland 100-05 is a long, narrow drainage and drains to the northwest. While it is mainly composed of PFO wetland, there are smaller components of PEM and PSS wetland. Wetland 100-5 contains significant wildlife habitat. Areas within wetland 100-05 have been identified as IWWH. Because wetland 100-05 contains significant wildlife habitat the wetland is WOSS.

The forested portion of wetland 100-05 is dominated by gray birch and red maple. Sapling and shrub species within this portion of the wetland are also dominated by gray birch and red maple. Areas dominated by herbaceous cover include Canada bluejoint, sensitive fern, ostrich fern, New York fern, rough avens, and foam flower. Hydrology indicators include seasonal flooding, drainage patterns and surface scouring. Several springs and seeps that disappear into the wetland were noted by wetland scientists during investigations. Soils are characterized by a shallow dark A horizon underlain by a depleted matrix with redoximorphic concentrations. Soils are deep, sandy loam textures. Soils key to indicator F3 of the Field Indicators Manual.

Wetland 103-11

Wetland 103-11 is predominantly a PSS/PFO wetland with smaller PEM components. The wetland is located partially within the cleared corridor of CMP's existing transmission line and also extends beyond the survey area to the north and south. Wetland 103-11 has a long and narrow configuration and drains to the north. It is composed of several wetland drainages along the floodplain of the perennial Goodrich Stream and contains two other unnamed streams. All streams within wetland 103-11 have substrates consisting of cobble, gravel and sand. Goodrich Stream is approximately 15 feet wide, while the second perennial stream is about seven feet wide. Wetland 103-11 contains high and moderate value deer wintering area (DWA), as defined and mapped by MDIF&W and is therefore considered a WOSS. Additionally, wetlands located within 25 feet of a river, stream, or brook are WOSS.

A mix of broad-leaved and deciduous trees dominate the PFO wetland area and include yellow birch and balsam fir. The shrub and sapling layer consists of speckled alder and balsam fir. Dominant herbaceous species include sensitive fern, king of the meadow, spotted touch me not, Canada bluejoint, boneset, arrowleaf, tearthumb, and aster species. Hydrology indicators include saturation, drainage patterns and elevated roots. Soils are characterized by a thick dark A horizon underlain by a B horizon consisting of dark gray with redox concentrations. Soils key to indicator F3 of the Field Indicators Manual.

Wetland 116-05

Wetland 116-05 is a typical example of PFO/PEM/POW WOSS found along Segment 3. This is a mixed-wood, mature, forested wetland with the exception of the portion of the wetland that is maintained as cleared transmission line corridor. The wetland is located partially within the CMP transmission line corridor and partially within forested areas adjacent to the transmission line corridor. Wetland 116-05 extends off the survey area to the east and west. Wetland 116-05 is a WOSS because it contains significant wildlife habitat. A straddle pool, PSVP-117-02 is within the uncleared portion of the wetland, adjacent to the western boundary. Wetland 116-5 also contains an unnamed perennial stream that drains to the north. The stream is about five feet wide, dominated by boulders, cobble and gravel. Three natural, non-significant vernal pools, VP-116-5, 116-06, and 117-01, were found within the cleared transmission line portion of the wetland.

Dominant herbaceous species include broad-leaf cattail, pointed broom sedge, shallow sedge, bluejoint, sensitive fern, and cinnamon fern. Noted shrub species include meadowsweet, steeplebush, catberry and common winterberry. Off the cleared portion of the transmission line corridor, forested components of the wetland are dominated by red maple, yellow birch, black ash and green ash. Noted evidence of wetland hydrology includes permanent and seasonal flooding, saturated soils, silt deposition, water marks, buttressed roots, elevated roots and drainage patterns. Soils in this wetland generally consist of a shallow organic surface underlain by silt loam-textured soils with a depleted or gleyed matrix. A layer of coarse sand was observed between 5-9 inches. The majority of the wetland meets indicator A3 of the Field Indicators Manual.

Wetland 121-01

Wetland 121-01 is a typical example of PEM WOSS found along Segment 3. The portion of the wetland that is within the cleared transmission line corridor and beyond is dominated by emergent marsh wetland vegetation in Jay, Maine. The wetland is considered a WOSS because it contains an open water wetland greater than 20,000 square feet. This wetland is also traversed by an unnamed perennial tributary stream. Due to these criteria, the wetland within 25 feet of the stream is considered WOSS. During their site visits, wetland scientists observed deer, beaver and muskrat sign.

Dominant herbaceous species include reed canary grass, lamp rush, rattlesnake manna grass, broadleaf cattail, tussock sedge, pointed broom sedge, yellow-green sedge, royal fern, swamp candles, simpler’s joy and green arrow-arum. Noted evidence of wetland hydrology includes saturated soils, permanent and seasonal flooding, drainage patterns and silt deposition. Soils in this wetland generally have a thin organic surface, which is underlain by a fine sandy loam with a depleted matrix. The majority of the wetland meets indicator A11 of the Field Indicators Manual.

Wetland 122-03

Wetland 122-03 is a typical example of PSS WOSS wetland found along Segment 3. This wetland is naturally dominated by scrub-shrub wetland vegetation due to the site hydrology. The wetland extends beyond the CMP transmission line corridor in Livermore Falls. Areas of this wetland that are within 25 feet of the stream are WOSS.

The wetland is considered a WOSS because of its association with Clay Brook and Redwater Brook, which are tributaries to the Androscoggin River. Wetlands within 25 feet of the streams are WOSS.

Dominant shrub species include speckled alder, buckthorn, southern arrow-wood and red osier dogwood. Emergent vegetation scattered throughout small, open pockets includes rattlesnake grass, sensitive fern, fringed sedge, shallow sedge, red-tinge bulrush, cinnamon fern, blue joint, and reed canary grass. Noted evidence of wetland hydrology includes seasonal flooding, drainage patterns, silt deposition, and surface scouring. Soils in this wetland have a thin organic surface, underlain by a silt loam with a depleted matrix. The majority of the wetland meets indicator F6 of the Field Indicators Manual.

Wetland 127-01

Wetland 127-01 is predominantly comprised of PFO wetland. The wetland is located beyond the cleared CMP transmission line corridor in Livermore Falls. This small, isolated wetland is located about 200 feet east of the Androscoggin River. The wetland contains habitat for a Special Concern (SC) freshwater mussel species, the creeper (*Strophitus undulates*); therefore, the wetland is WOSS. In addition, wetland 127-1 is located within 25 feet of a stream. Wetlands within 25 feet of a river, stream or brook are WOSS.

Vegetation found within herbaceous stratum includes sensitive fern, lady fern and cinnamon fern. The forested canopy of wetland 127-01 is dominated by striped maple, balsam fir and red maple. Saplings found within the PFO component of the wetland red maple and balsam fir. The wetland is seasonally flooded and signs of hydrology include surface water (up to 1”), water stained leaves, and drainage patterns. Soils are comprised of a shallow dark A horizon, underlain by a depleted B horizon comprised of silt loam. These soils meet indicator F3 of the Field Indicators Manual.

Wetland 129-01

Wetland 129-01 is predominantly a PFO wetland with smaller PEM components restricted to the cleared CMP transmission line corridor. Wetland 120-01 is located partially within the cleared corridor of CMP's existing transmission line and extends beyond the survey area to the west in Livermore Falls. Wetland 129-01 is characterized by pit and mound topography within the forested component. Wetland 129-01 contains ETS and is therefore a WOSS.

A mix of broad-leaved deciduous and coniferous trees including green ash, red maple, gray birch and American larch dominate the PFO wetland area. The shrub layer consists of common winterberry, meadowsweet, steeple bush, maleberry, red osier dogwood, sheep laurel and rhodora. Dominant herbaceous species include sensitive fern, cinnamon fern, royal fern, scouring rush, yellow-green sedge, Canada bluejoint, fringed sedge, arrowleaf, tearthumb, tawny cottongrass and expanses of thick sphagnum moss. Hydrology indicators include saturation, drainage patterns and water stained leaves. Soils are characterized by a shallow organic horizon and a thin dark A horizon, underlain by a depleted B horizon consisting of dark gray with redox concentrations. Soils are sandy and key to indicator S5 of the Field Indicators Manual.

Wetland 131-01

Wetland 131-01 is predominantly comprised of PSS wetland with smaller PEM components. The wetland is located both within and beyond the cleared CMP transmission line corridor in Leeds. The wetland drains towards the Dead River, a tributary to the Androscoggin River. Wetland 131-01 is within areas identified as a 100-year flood zone. Those wetland areas within the mapped 100-year floodplain are WOSS. In addition, wetland 131-01 contains a stream. Wetlands within 25 feet of the river are WOSS.

Vegetation found within emergent components of the wetland includes Kentucky bluegrass, jewelweed, sensitive fern, and cinnamon fern. The forested component of wetland 131-01 is dominated by green ash, American elm and red maple. Shrubs found within the PFO component of the wetland include silky dogwood and speckled alder. The wetland is seasonally flooded and signs of hydrology include surface scouring, elevated roots, drift lines, and drainage patterns. Soils are comprised of a shallow dark A horizon, underlain by a depleted B horizon comprised of silt loam. These soils meet indicator A11 of the Field Indicators Manual. Wetland scientists observed deer within the wetland.

Wetland 140-06

Wetland 140-06 is predominantly a PSS wetland with smaller PFO components on site. It is located partially within the cleared corridor of CMP's existing transmission line and also extends into a broad expanse of PEM wetland beyond the survey area to the east. Wetland 140-06 is located in Greene, Maine and contains three streams that drain through the wetland and ultimately to Allen Pond. Streams within wetland 140-6 have substrates consisting of cobble, gravel and sand. A few wood frog and spotted salamander egg masses were observed in ATV ruts near mile marker 140.5. A majority of the wetland off site is visible from the survey area and is characterized by a broad expanse of natural emergent marsh identified as IWWH. Because wetland 140-06 contains significant wildlife habitat (IWWH) and PEM wetland greater than 20,000 square feet the wetland is WOSS. Wetland 140-06 is also within 250 feet of Allen Pond, a great pond. Great ponds and freshwater wetland areas located within 250 feet of a great pond are WOSS. Additionally, wetland 140-06 contains three streams. Wetlands within 25 feet of streams are also WOSS.

The forested component of wetland 140-06 is dominated by red maple, mountain maple, yellow birch, gray birch, balsam fir and American elm. The shrub and sapling layer consists of speckled alder, common winterberry, arrowwood, red maple, and balsam fir. Dominant herbaceous species include Canada bluejoint, dark-green bulrush, cinnamon fern, late goldenrod, shallow sedge, fringed sedge and cranberry. Hydrology indicators include saturation, drainage patterns, surface scouring and areas of up to 24 inches of inundation in the center of the wetland. Soils are characterized by a thick dark A horizon underlain by a B horizon consisting of dark gray with redox concentrations. Soils key to indicator F3 of the Field Indicators Manual. During field surveys, wetland scientists observed moose and deer sign.

Wetland 142-04

Wetland 142-04 is primarily a PEM wetland within the cleared portion of the CMP transmission line corridor. This wetland extends well beyond the survey area. Areas outside the cleared corridor are characterized by forested cover. This wetland is located in Greene, Maine. As depicted on USGS topographic maps and National Wetland Inventory Maps, wetland 142-04 is contiguous with Daggett Bog, which is about 1400 feet to the west of the CMP transmission line corridor. While wetland scientists did not identify peatland within the survey boundaries, they did note that the area may be WOSS due to connectivity to Daggett Bog. Because wetland 142-04 is contiguous with a peatland, all of this wetland is considered a WOSS.

In the PEM components of the wetland, dominant species include cottongrass bulrush, lake bank sedge, broad-leaf cattail, and Canada bluejoint. Dominant species off the cleared portion of the transmission line corridor, within the PFO cover type, includes red maple, speckled alder, American larch, yellow birch and balsam fir. Wetland 142-04 is seasonally flooded (up to 12 inches noted by wetland scientists during field investigations) and displays evidence of hydrology, including water-stained leaves, drainage patterns, and surface scouring. Soils in the wetland are deep organics generally comprised hemic material up to 18 inches deep underlain by a depleted silt loam. This wetland meets indicators A1 of the Field Indicators Manual.

9.3.4 Segment 4

Segment 4, approximately 16.4 miles in length, extends from Larrabee Road Substation in Lewiston, Maine to Surowiec Substation in Pownal, Maine. Segment 4 includes the rebuilding of the existing Section 62 and Section 64 115kV transmission lines between Crowley's Substation in Lewiston and Surowiec Substation in Pownal and between Larrabee Road Substation in Lewiston and Surowiec Substation, respectively. No clearing is proposed in the rebuild portions of the Project. Towns associated with NECEC Segment 4 include Lewiston, Auburn, Durham, and Pownal. Segment 4 is located within the Lower Androscoggin River and Presumpscot River Watersheds (HUC 8) and within the Central Maine Embayment Biophysical Region.

One hundred and thirty-two wetlands were identified, delineated, and mapped within the Segment 4 transmission line corridor (see Appendix 2 of the Site Law Application for Natural Resource Maps). Thirty-six wetlands are PEM wetlands, fifteen are PSS wetlands, two are PFO wetlands, fifty-five are PEM/PSS wetlands, eleven are PEM/PFO wetlands, eight are PSS/PFO wetlands, and four are PEM/PSS/PFO wetlands (**Table 9-4**). These wetlands receive sustaining hydrology from a high groundwater table, seepage, or inputs from adjacent waterbodies. Functions and values provided by wetlands within Segment 4 include groundwater recharge/discharge, sediment/shoreline stabilization, flood flow alteration, wildlife habitat, and sediment retention.

Table 9-4: Summary of Wetland Classes and Wetlands of Special Significance- Segment 4

	Non-WOSS	WOSS	Total
PEM	30	6	36
PSS	14	1	15
PFO	2	0	2
PEM/PSS	28	27	55
PEM/PFO	5	6	11
PSS/PFO	3	5	8
PEM/PSS/PFO	2	2	4
Unknown	0	1	1
Subtotal	**84**	**48**	**132**

The following are representative descriptions of the categories of wetlands that were encountered and mapped within the Segment 4 transmission line corridor.

9.3.4.1 Representative Wetland Descriptions: Non-WOSS

PEM (Palustrine Emergent Wetlands)

Thirty PEM wetlands of similar composition and characteristics (e.g., wet meadows) that do not meet the definition of WOSS were identified along Segment 4 (Table 9-4). Typical types of PEM wetland identified were portions of former agricultural fields and formerly forested wetlands that were cleared and are maintained as transmission line corridor. These wetlands are characterized by persistent vegetation dominated by graminoids and herbs, although scattered shrubs are sometimes present. Vegetation in the wet meadow communities is relatively consistent within Segment 4. Species with a graminoid growth habit that are common include cottongrass bulrush, lamp rush, fringed sedge, reed canary grass, dark-green bulrush, common fox sedge, and melic manna grass. Common herbs include sensitive fern, bristly dewberry, late goldenrod, broad-leaved cat-tail and aster species. Scattered shrubs and saplings are present in some of the PEM wetlands. These include winterberry, speckled alder, willow species, gray birch, yellow birch, steeple-bush, and meadowsweet.

PSS (Palustrine Scrub-Shrub Wetlands)

Fourteen PSS wetlands that do not meet the definition of WOSS were identified during field surveys (see Table 9-4). Similar to the PEM wetlands, many of the PSS wetlands on Segment 4 are formerly forested wetlands that have been maintained as transmission line corridor for many years. These scrub-shrub wetlands are typically dominated by dense stands of speckled alder and winterberry. Other shrubs and saplings are also present and include willow species, arrowwood, silky dogwood, meadowsweet, steeplebush and red maple. Shade tolerant species such as sensitive fern, cinnamon fern, goldenrods and asters are generally present in the herb stratum.

PFO (Palustrine Forested Wetlands)

Two PFO wetlands, that do not meet the definition of WOSS, were identified along Segment 4 (Table 9-4). The PFO wetlands are dominated by red maple, green and ash. PFO wetlands within Segment 4 are located at the edge of the existing cleared transmission line corridor where tree clearing has not been performed. Common sapling and shrub species are arrowwood, green ash, and meadowsweet. Sensitive fern and equisetum are common herbs.

PEM/PSS (Palustrine Emergent/Scrub-Shrub Wetlands)

Twenty-eight PEM/PSS wetlands which do not meet the definition of WOSS were identified during field surveys along Segment 4 (Table 9-4). Wetlands within the existing transmission line corridor are a mixture of emergent and scrub-shrub components, both of which are typical of what is described in the above PEM and PSS representative wetland descriptions.

Soils and Hydrology in PEM, PSS, PFO, and PEM/PSS Communities

Soil profiles within these wetlands are generally characterized by an organic surface horizon and/or a dark A horizon with matrix values less than or equal to 3 and chromas of 2 or less. Subsoils are commonly characterized by a depleted Bg horizon with matrix values of 4 or more and a chroma of 2 or less with redoximorphic features. Surface horizons are underlain by Cg horizons in some alluvial soils. Soil textures range from sand to silty clay loam, although silty textured soils are most common. Occasional organic soils are found, generally with sapric horizons at between 6 and 16 inches deep. Most soils meet criteria A2, F3 and A11 of the Field Indicators of Hydric Soils of the United States Manual, Version 8.0. Wetland hydroperiods are typically seasonally saturated, although seasonally flooded areas are also present. All of these wetlands appear to receive some hydrologic inputs from groundwater as well as surface runoff. Soils were generally saturated at the time of investigation and free water in the pit was often observed within 12 inches of the soil surface.

9.3.4.2 Representative Wetland Descriptions: WOSS

On Segment 4, forty-eight wetlands were identified as WOSS. Some wetlands (or portions thereof) within the Segment 4 transmission line corridor are WOSS because they are located in the 100-year flood zone (see floodplain maps in Appendix 4 of the Site Law Application); contain greater than 20,000 square feet of emergent marsh vegetation and/or open water; contain SVPs or PSVPs; contain moderate or high value IWWH; contain a river, stream, or brook; and/or contain peatland. Additionally, any freshwater wetland located within 250 feet of a great pond is WOSS. Six WOSS are PEM wetlands, one is a PSS wetland, twenty-seven are PEM/PSS wetlands, six are PEM/PFO wetlands, five are PEM/PSS wetlands, and two are PEM/PSS/PFO wetlands (**Table 9-4**).

The following narratives provide specific information on vegetation, soils, and hydrology for four representative wetlands identified along Segment 4 that meet the criteria for designation as WOSS.

Wetland 146-04

Wetland 146-04 is a riparian PSS wetland that runs along Stetson Brook. This wetland is located within the CMP Section 3026 transmission line corridor in the town of Lewiston, Maine. This wetland contains a brook; therefore, the wetland area within 25 feet of Stetson Brook is a WOSS. Stetson Brook is a 50-foot wide perennial stream with sand/silt substrate within the project corridor.

Dominant herbaceous vegetation within the wetland includes bluejoint grass, sensitive fern, dewberry, and wrinkle-leaf goldenrod. Speckled alder and winterberry are dominant in the shrub layer of this wetland; other shrubs include arrowwood, silky dogwood, and meadowsweet. This wetland has a seasonally flooded hydroperiod. Signs of wetland hydrology include surface scouring, and drainage patterns. Soils have a silt loam texture with a deep 12-inch dark A horizon, and a depleted B horizon that extends to 15 inches below the soil surface. The soil profile meets hydric criterion F3 of the Field Indicators Manual.

Wetland 152-01

Wetland 152-01 is A PEM dominated wetland located in the city of Lewiston. This wetland traverses the transmission corridor and has a small area that extends into the woods on the west side of the corridor. This wetland contains a mapped deer wintering area, considered a significant wildlife habitat; therefore, the wetland is considered a WOSS.

Dominant vegetation within the wetland includes woolgrass, fringed sedge, shallow sedge, sensitive fern, broad-leaved cattail, rattlesnake manna grass, and Canadian rush. Scrub-shrub vegetation includes meadowsweet, winterberry, speckled alder, and arrowwood. This wetland has a seasonally flooded and saturated hydroperiod. Signs of wetland hydrology include surface scouring, drainage patterns, and surface water. Soils are comprised of a single depleted B horizon with silt loam texture greater than 12 inches thick with distinct redox. The A horizon was not apparent within the soil profile. These soils meet hydric criterion F2 of the Field Indicators Manual.

Wetland 155-03

Wetland 155-03 is a seasonally flooded to seasonally saturated PEM wetland located in the city of Lewiston. The wetland is located entirely within a FEMA mapped 100-year flood zone; therefore, the wetland is WOSS.

Wetland 155-03 is an agricultural swale along the side of harvested corn fields, therefore there are no shrub or tree strata. The herbaceous vegetation includes Canada bluejoint, reed canary grass, soft rush, hairy sedge, woolgrass, and shallow sedge. Evidence of wetland hydrology in this wetland includes saturated and seasonally flooded hydroperiod. Additional hydrology indicators include drainage patterns and surface scouring. The A horizon has a sandy loam texture with a dark matrix color. The A horizon is underlain by a depleted Bg horizon with a silt loam texture. These soils meet criterion F3 and F6 of the Field Indicators Manual.

Wetland 159-08

Wetland 159-08 is a large PEM wetland with minor areas of PSS throughout located in the city of Lewiston. The wetland is a PEM wetland larger than 20,000 square feet and is, therefore, a WOSS.

Dominant herbaceous vegetation includes woolgrass, russett sedge, bugleweed, and swamp dewberry. Dominant shrub species include speckled alder, meadowsweet, and maleberry. The wetland shows signs of saturation. Indicators of hydrology include water-stained leaves, and watermarks. The wetland has an 8 inch sapric organic layer above the soil surface. A 4-inch A horizon of clay loam is underlain by a depleted Bg horizon of clay; this soil meets indicator F3 and F7 of the Field Indicators Manual.

9.3.5 Segment 5

Segment 5, approximately 26.5 miles, extends from Coopers Mills Substation in Windsor, Maine to Maine Yankee Substation in Wiscasset, Maine. Segment 5 includes existing 270-foot wide CMP Section 392. No clearing is proposed in Segment 5 of The Project. Towns associated with NECEC Segment 5 include Windsor, Whitefield, Alna, Wiscasset, and Woolwich. Segment 5 is located within the Lower Kennebec River and St. George-Sheepscot River Watersheds (HUC 8) and is within the Central Maine Embayment Biophysical Region.

One hundred and fifty-seven wetlands were identified, delineated, and mapped within the Segment 5 transmission line corridor (see Appendix 2 of the Site Law Application for Wetland and Stream Resource Maps). Twenty-eight wetlands are PEM wetlands, forty-seven are PSS wetlands, three are PFO wetlands, sixty-five are PEM/PSS wetlands, two are PEM/PFO wetlands, one is a PSS/PFO wetland and six are PEM/PSS/PFO wetlands, and (**Table 9-5**).

These wetlands receive sustaining hydrology from a high groundwater table, seepage, or inputs from adjacent waterbodies. Functions and values provided by wetlands within Segment 5 include groundwater recharge/discharge, nutrient removal, sediment/shoreline stabilization, floodflow alteration, wildlife habitat, and sediment retention.

Table 9-5: Summary of Wetland Classes and Wetlands of Special Significance- Segment 5

	Non-WOSS	WOSS	Total
PEM	13	15	28
PSS	28	19	47
PFO	1	2	3
PEM/PSS	26	39	65
PEM/PFO	0	2	2
PSS/PFO	0	1	1
PEM/PSS/PFO	2	4	6
Unknown	4	1	5
Subtotal	**70**	**81**	**157**

The following are representative descriptions of the categories of wetlands that were encountered and mapped within the Segment 5 transmission line corridor.

9.3.5.1 Representative Wetland Descriptions: Non-WOSS

PEM (Palustrine Emergent Wetlands)

Thirteen PEM wetlands of similar composition and characteristics (e.g., wet meadows) that do not meet the definition of WOSS were identified along Segment 5 (**Table 9-5**). Typical types of PEM wetland identified were portions of former agricultural fields and formerly forested wetlands that were cleared and are maintained as transmission line corridor. These wetlands are characterized by persistent vegetation dominated by graminoids and herbs, although scattered shrubs are sometimes present. Vegetation in the wet meadow communities is relatively consistent within Segment 5. Species with a graminoid growth habit that are common include cottongrass bulrush, lamp rush, fringed sedge, reed canary grass, dark-green bulrush, common fox sedge, and melic manna grass. Common herbs include sensitive fern, bristly dewberry, late goldenrod, broad-leaved cat-tail and aster species. Scattered shrubs and saplings are present in some of the PEM wetlands. These include winterberry, speckled alder, willow species, gray birch, yellow birch, steeple-bush, and meadowsweet.

PSS (Palustrine Scrub-Shrub Wetlands)

Twenty-eight PSS wetlands that do not meet the definition of WOSS were identified during field surveys (see **Table 9-5**). Similar to the PEM wetlands, many of the PSS wetlands on Segment 5 are formerly forested wetlands that have been maintained as transmission line corridor for many years. These scrub-shrub wetlands are typically dominated by dense stands of speckled alder and winterberry. Other shrubs and saplings are also present and include willow species, arrowwood, silky dogwood, meadowsweet, steeplebush and red maple. Shade tolerant species such as sensitive fern, cinnamon fern, goldenrods and asters are generally present in the herb stratum.

PFO (Palustrine Forested Wetland)

One PFO wetland which does not meet the definition of WOSS, was identified during field surveys (**Table 9-5**). This wetland is dominated by red maple, and green ash. It is located at the edge of the existing cleared transmission line corridor. Common sapling and shrub species are arrowwood, green ash, and meadowsweet. Sensitive fern and equisetum are common herbs.

PEM/PSS (Palustrine Emergent/Scrub-Shrub Wetlands

Twenty-six PEM/PSS wetlands that do not meet the definition of WOSS were identified during field surveys along Segment 5 (**Table 9-5**). These wetlands are dominated by an approximately even mix of herbaceous and scrub-shrub vegetation. The emergent and scrub-shrub components are typical of what is described in the above PEM and PSS representative wetland descriptions.

Soils and Hydrology in PEM, PSS, PFO, and Mixed Communities

Soil profiles within these wetlands are generally characterized by an organic surface horizon and/or a dark A horizon with matrix values less than or equal to 3 and chromas of 2 or less. Subsoils are commonly characterized by a depleted Bg horizon with matrix values of 4 or more and a chroma of 2 or less with redoximorphic features. Soil textures range from silt loam to loamy sand, although silt loam and sandy loam soils are the most common. Most soils meet criteria F3, F6, and S5 of the Field Indicators of Hydric Soils of the United States Manual, Version 8.0. Soils were generally saturated at the time of investigation and free water was often observed in the pit within 12 inches of the soil surface.

Wetlands along Segment 5 are generally relatively flat, non-sloping wetlands, accordingly, the wetland hydroperiods are typically seasonally saturated and flooded areas are also present. ATV/four-wheel drive ruts are present in wetlands along this segment. Indicators of hydrology include surface water, high water table, saturation, water stained leaves, sediment deposits, and drainage patterns.

9.3.5.2 Representative Wetland Descriptions: WOSS

On Segment 5, eighty-three wetlands were identified as WOSS. Some wetlands (or portions thereof) within the Segment 5 transmission line corridor are WOSS because they are located in the 100-year flood zone (see floodplain maps in Appendix 4 of the Site Law Application); contain greater than 20,000 square feet of emergent marsh vegetation and/or open water; contain SVPs or a PSVP; contain T&E species habitat; and/or are associated with a river, stream or brook. Fifteen WOSS are PEM wetlands, nineteen are PSS wetlands, two are PFO wetlands, thirty-nine are PEM/PSS wetlands, two are PEM/PFO wetlands, 1 is PSS/PFO wetland, and 4 are PEM/PSS/PFO wetlands (Table 9-5).

The following narratives provide specific information on vegetation, soils, and hydrology for five representative wetlands identified along Segment 5 that meet the criteria for designation as WOSS.

Wetland 162-04

Wetland 162-04 is a large, predominantly PEM wetland in the town of Windsor, which also contains an area of PSS wetland habitat off site. The wetland contains significant wildlife habitat due to a PSVP, as well as habitat for a T&E freshwater mussel species, the brook floater, therefore, the wetland is WOSS. Additionally, wetland 162-04 is traversed by a 6 to 10-foot wide perennial stream which is an unnamed tributary to the West Branch of the Sheepscot River. An intermittent stream also traverses the wetland at the northeast end of the wetland, closer to Coopers Mill Road. The wetland area located within 25 feet of the stream is considered a WOSS. The wetland also contains two natural non-significant vernal pools.

In emergent components of the wetland, mostly within the maintained pipeline and transmission line corridors, dominant species include cinnamon fern, broad-leaf cattail, Canada bluejoint, and sensitive fern. Dominant species in the scrub-shrub components include speckled alder, common winterberry, and viburnum species. Outside the transmission line corridor, the wetland vegetation is dominated by a mix of trees and shrubs, most notably red maple, balsam fir, green ash, common winterberry, and speckled alder. Evidence of hydrology in the wetland includes portions that are seasonally flooded, saturated soils, water stained leaves, drift lines, buttressed and elevated roots, and drainage patterns. Soils in the wetland have a silt loam texture, and display a dark topsoil horizon with redoximorphic concentrations, underlain by a horizon with a depleted matrix. These soils meet indicator F3 of the Field Indicators Manual.

Wetland 167-01

Wetland 167-01 is a large PEM wetland located along the transmission line corridor in the Town of Whitefield. The wetland contains greater than 20,000 square feet of PEM and is contiguous with greater than 20,000 square feet of POW and the wetland contains significant wildlife habitat (IIWWH); therefore, the wetland is WOSS.

Wetland 167-01 is bisected on the western end by Coopers Road and extends southeast outside the transmission line corridor where the wetland turns to POW. A small portion along the northern edge of the wetland is PSS. The wetland shows signs of extensive beaver activity as well as impressive wildlife habitat. Dominant herbaceous vegetation includes woolgrass, Canary reed grass, rattlesnake mannagrass, sedge species, and patches of purple loosestrife. Shrub species include Labrador tea, steeplebush, and scattered speckled alder. The soil profile is a very dark 16 inch sapric organic layer which keys out to indicator A1 of the Field Indicators Manual. This wetland has a seasonally flooded hydroperiod. Signs of wetland hydrology include water marks and drainage patterns.

Wetland 169-02

Wetland 169-02 is a PSS wetland located within the transmission line corridor in the town of Whitefield. The wetland runs roughly southwest and is fed hydrologically by stream runoff. The wetland contains two streams, and one potential significant vernal pool and significant wildlife habitat identified as deer wintering area; therefore, the wetland is WOSS.

Dominant shrub vegetation in the wetland includes speckled alder, water hemlock, and elderberry. Herbaceous vegetation includes woolgrass, broad-leaved cat-tail, aster species, rattlesnake mannagrass, and smooth goldenrod. Seasonal saturation, water-stained leaves, surface scouring, and water marks are evident. The silt-loam textured soils were comprised of a thin Ap horizon and a depleted B horizon beginning 4 inches below the soil surface. The soils key to indicator F3 of the Field Indicators Manual.

Wetland 178-06

Wetland 178-06 is a PSS wetland, located in the town of Alna. Wetland 178-06 contains significant wildlife habitat (deer wintering area), thus the wetland is WOSS. In addition, the wetland within the transmission line corridor is a riparian wetland associated with Trout Brook, therefore; the wetland area within 25 feet of the brook is WOSS.

Dominant shrub vegetation includes speckled alder, meadowsweet, and steeplebush. Dominant herbaceous vegetation includes rattlesnake mannagrass, bluejoint grass, woolgrass, soft rush, and tussock sedge. The wetland is seasonally flooded and many overflow channels exist throughout the wetland created by surface water action caused by beaver activity. Indicators of hydrology include water-stained leaves, silt deposition, watermarks, drift lines, surface scouring, and drainage patterns. Two inches of a sapric organic horizon overlay the mucky silt loam soil surface. The soil keys to indicators F1, F3, and F6of the Field Indicators Manual.

Wetland 188-17

Wetland 188-17 is a PEM/PSS wetland located adjacent to the Maine Yankee substation site in the town of Wiscasset. The wetland contains an intermittent stream. Additionally, the wetland is located within 250 feet of a coastal wetland; therefore, the wetland is WOSS.

Herbaceous vegetation is dominant within the wetland, with shrubs scattered throughout. Representative vegetation includes broad-leaved cattail, soft rush, sensitive fern, woolgrass, bulrush, and broom sedge, with meadowsweet shrubs scattered throughout the wetland. Soils are seasonally flooded, and drainage patterns are evident. The disturbed soil profile contains sandy loam down to refusal A depleted Bg horizon is present to four inches, underlain by a dark C. Both layers have prominent redox concentrations. The soil keys to indicator F6 of the Field Indicators Manual. The wetland is impounded by the Maine Yankee access road.

9.4 Delineation Results – Substations

The Fickett Road Substation site, as well as the Merrill Road Converter Station site, and the areas around them, were each surveyed for wetlands within the area of proposed development. Wetlands were identified at each site.

Upgrades and modifications are proposed for six substations: Larrabee Road Substation (Lewiston), Crowley’s Substation (Lewiston), Surowiec Substation (Pownal), Raven Farm Substation (Cumberland), Coopers Mills Substation (Windsor), and Maine Yankee Substation (Wiscasset); no expansion of the footprint will occur and work will be limited to the area inside of the existing fence line for each site.

Non-WOSS wetlands were identified at the Merrill Road site. Wetlands (or portions thereof) were identified as WOSS at the proposed Merrill Road Converter Station site and Fickett Road substation site. For a detailed description of all characteristics that trigger WOSS designation, please see Section 9.2.3 Wetlands of Special Significance Determinations.

A summary of the wetlands identified within the substation sites, including identification number, and summary of respective classifications is provided in Table 9-30, located at the end of this section.

Detailed descriptions of each wetland identified at the substations are provided in the following subsections.

9.4.1 Merrill Road Converter Station

The Merrill Road Converter Station is proposed to be sited north of Merrill Road in Lewiston, Maine and will occupy approximately seven acres. A new, approximately 1.2-mile 345kV transmission line within an existing, partially developed 400-foot wide transmission line corridor (Section 200) will be required to connect the converter station with the Larrabee Road Substation.

Three wetlands were identified, delineated, and mapped within the Merrill Road Converter Station survey area (see Appendix 2 of the Site Law Application for Wetland and Stream Resource Maps). Two wetlands are PFO wetlands and one is PEM/PSS wetland (**Table 9-6**). These wetlands receive sustaining hydrology primarily from a high groundwater table or seepage and, in some cases, they are associated with small, ephemeral drainages. One small intermittent stream flows through the northeast corner of the survey area.

Table 9-6: Summary of Wetland Classes and Wetlands of Special Significance-Merrill Road Converter Station

	Non-WOSS	WOSS	Total
PFO	1	1	2
PEM/PSS	0	1	1
Subtotal	**1**	**2**	**3**

The following are representative descriptions of the wetlands encountered and mapped within the Merrill Road Converter Station survey area.

9.4.1.1 Representative Wetland Descriptions: Non-WOSS

PFO (Palustrine Forested Wetlands)

One PFO wetland that does not meet the definition of WOSS was identified on the Merrill Road Converter Station survey area (**Table 9-6**). This wetland is dominated by red maple, gray birch, balsam fir, and black ash. Common saplings include black ash and balsam fir. Shrubs such as winterberry are also present where the canopy opens. Herbaceous species common in PFO wetlands along the Merrill

Road Converter survey area include cinnamon fern, fringed sedge and balsam fir seedlings. Pockets of sphagnum moss were also observed.

Soils and Hydrology in PFO Communities

Wetlands within the Merrill Road Converter Station survey area are generally characterized by soils with an organic surface horizon about eight inches thick with rock refusal below. Soil textures consist of fibric organic material where plant fibers are partially decomposed. These soils meet criteria A1, histosols, of the Field Indicators Manual. Soils were saturated at the time of inspections and surface water, and water stained leaves were observed.

Wetland hydroperiods are seasonally saturated, although seasonally flooded areas are also present. Wetlands appear to receive some hydrologic inputs from a high groundwater table and seepage. These wetlands receive runoff from adjacent uplands and are located on areas of flat terrain.

9.4.1.2 Representative Wetland Descriptions: WOSS

Within the Merrill Road Converter Station survey area, two wetlands were identified as WOSS. Portions of one wetland, 145-1, within the Merrill Road Converter Station survey area is WOSS because it is associated with an intermittent stream. A second wetland, 145-02, within the survey area is WOSS because it contains a PSVP (**Table 9-6**).

The following narratives provide specific information on vegetation, soils, and hydrology for the two wetlands identified within the Merrill Road Converter Station survey area that meet the criteria for designation as WOSS.

Wetland 145-01

Wetland 145-01 is located both within Segment 4 of the CMP transmission line corridor and within the adjacent Merrill Road Converter Station survey area in Lewiston, Maine. This PEM wetland with sub-components of PSS wetland is large and consists of several fingers that extend east from the cleared CMP transmission line into the Merrill Road Converter Station survey area. Wetland 145-01 contains one intermittent stream located at the northeast corner of the Merrill Road Converter survey area. The stream emerges from a seep within the CMP transmission corridor and is about two feet wide at its widest point. It flows west into wetland 145-01 and continues north, off the survey area. Wetland area within 25 feet of the stream is WOSS.

Dominant species in the herbaceous stratum of the wetland include broad-leaved cat-tail, sensitive fern, Canada bluejoint, late goldenrod and cottongrass bulrush. Dominant shrub species within the smaller PSS wetland component include speckled alder, arrowwood and meadowsweet. Wetland 145-01 is a seasonally flooded and saturated wetland with several indicators of hydrology including 4 inches of standing water, surface scouring and drainage patterns. The soils observed in the wetland include a shallow organic horizon underlain by silt loam with a depleted matrix. This wetland meets indicator F3 of the Field Indicators Manual.

Wetland 145-02

Wetland 145-02 is a seasonally flooded to saturated PFO wetland with inclusions of shrub growth. It is located within the Merrill Road Converter Station survey area in the town of Lewiston. This wetland contains a PSVP; therefore, the wetland is WOSS. This natural pool had multiple rafts of wood frog egg masses within the deeper areas. Greater than 75 wood frog egg masses and greater than 25 spotted salamander egg masses were observed in this pool during a spring field visit. Four non-significant natural vernal pools were identified. In general, these natural vernal pools are shallow pools within wetlands and contained low numbers of spotted salamander egg masses and no wood frog egg masses. In addition, three depressions of anthropogenic origin were identified. These depressions are generally ruts within an existing wetland.

Dominant herbaceous vegetation in this wetland includes cinnamon fern, sensitive fern, fringed sedge, and tussock sedge, as well as vast areas of sphagnum moss cover. Balsam fir, red maple and gray birch saplings are common non-dominant shrubs. The canopy is dominated by red maple, northern white-cedar, black ash, gray birch, and balsam fir. Indicators of hydrology include isolated areas of surface water, water-stained leaves, drainage patterns, stunted or stressed plants, and microtopographic relief. The wetland is both seasonally flooded and saturated. Soils are comprised of deep, sapric organic material greater than 20 inches deep, which meet hydric criterion A1 of the Field Indicators Manual.

9.4.2 Fickett Road Substation

Fickett Road Substation is a proposed substation facility on approximately 6.12 acres adjacent to Fickett Road in Pownal.

One wetland was identified, delineated, and mapped within the Fickett Road Substation survey area (see Appendix 2 of the Site Law Application for Wetland and Stream Resource Maps). Wetland 161-16 is a PEM/PSS wetland that is WOSS as identified in Table 9-8 below. This wetland receives sustaining hydrology from a high groundwater table, seepage, surface runoff from adjacent uplands, and inputs from adjacent streams.

Table 9-7: Summary of Wetland Classes and Wetlands of Special Significance – Fickett Road Substation

	Non-WOSS	WOSS	Total
PEM	0	1	0
Subtotal	**0**	**1**	**1**

The following is a description of wetland 161-16 encountered and mapped within the Fickett Road Substation survey area.

9.4.2.1 Representative Wetland Descriptions: Non-WOSS

No non-WOSS wetlands were identified within the Fickett Road Substation survey area (**Table 9-7**).

9.4.2.2 Representative Wetland Descriptions: WOSS

Within the Fickett Road Substation survey area, one wetland was identified as WOSS. A portion of wetland 161-16 within the Fickett Road Substation survey area is WOSS because it contains a river, stream or brook. Wetland 161-16 is a PEM wetland (**Table 9-7**).

The following narrative provides specific information on vegetation, soils, and hydrology for wetland 161-16 which meets the criteria for designation as WOSS.

<u>Wetland 161-16</u>

Wetland 161-16 is a PEM wetland located within the Fickett Road Substation survey area in the town of Pownal. A majority of the wetland is a mowed wet meadow wetland with a small sub-component of PSS. The wetland is associated with Runaround Brook (P-STR-161-3); therefore, wetland area within 25 feet of the brook is WOSS.

Dominant herbaceous vegetation includes dark-green bulrush, three-way sedge, broadleaf cattail, cottongrass bulrush, fringed sedge, shallow sedge, blunt spike rush, blue flag iris, and goldenrod species. Shrub and sapling species include meadowsweet, winterberry, speckled alder, and arrowwood. The wetland is generally saturated and indicators of hydrology include water-stained leaves, water-marks, and drainage patterns. Soils in the wetland are generally comprised of a fine-grained (silt loam) horizon with a depleted matrix underlying a thin organic or topsoil horizon. This soil meets indicator F3 of the Field Indicators Manual. This wetland is often mowed and has been ditched and plowed in the past.

Table 9-8: Glossary for WOSS and Non-WOSS

Acronym	Term
CH	Channel
DWA	Deer Wintering Area
Int	Intermittent
NVP	Natural Vernal Pool
Per	Perennial
PSVP	Potentially Significant Vernal Pool
SC	Special Concern
SVP	Significant Vernal Pool
T&E	Threatened & Endangered
Trib	Tributary
IWWH	Inland Waterfowl and Wading Bird Habitat

Table 9-9: NECEC Wetland Vegetation List

Common Name	**Binomial Name**
American elm	*Ulmus americana*
American mannagrass	*Glyceria grandis*
appressed bog clubmoss[4]	*Lycopodiella appressa*[4]
arrowhead species	*Sagittaria sp.*
arrow-leaved tearthumb	*Persicaria sagittata* *Polygonum sagittatum*[5]
arrowwood	*Viburnum dentatum var. lucidum*
aster species	*Aster spp.*
avens species	*Geum sp.*
awned sedge[2]	*Carex atherodes*[2]
balsam fir	*Abies balsamea*
barnyard grass	*Echinochloa crus-galli*
barber pole sedge[1]	*Scirpus microcarpus*[5]
beaked hazelnut	*Corylus cornuta*
bedstraw species	*Galium sp.*
bentgrass species	*Agrostis sp.*
birch species	*Betula spp.*
black ash	*Fraxinus nigra*
black bulrush	*Scirpus atrovirens*
black chokeberry	*Photinia melanocarpa*
black gum	*Nyssa sylvatica*
black spruce	*Picea mariana*
black willow	*Salix nigra*
black-girdled wool-grass	*Scirpus atrocinctus*
bladder sedge[1]	*Carex intumescens*
blue vervain	*Verbena hastata*
blunt spike-rush	*Eleocharis obtusa*
boneset	*Eupatorium perfoliatum*
boneset species	*Eupatorium sp.*
box-elder	*Acer negundo*
bracken fern	*Pteridium aquilinum var. latiusculum*
bristly black currant	*Ribes lacustre*
broad-leaved cat-tail	*Typha latifolia*
bulrush species	*Schoenoplectus sp.*

Common Name	**Binomial Name**
bulrush species	*Scirpus sp.*
bunchberry	*Cornus canadensis*
bur oak	*Quercus macrocarpa*
bur-reed species[1]	*Sparganium sp.*
buttercup species	*Ranunculus spp.*
buttonbush	*Cephalanthus occidentalis*
Canada bluejoint	*Calamagrostis canadensis*
Canada mayflower	*Maianthemum canadense*
Canada rush	*Juncus canadensis*
choke cherry	*Prunus virginiana*
cinnamon fern	*Osmunda cinnamomea*
clammy azalea	*Rhododendron viscosum*
Columbia water-meal[2]	*Wolffia columbiana*[2]
common arrowhead	*Sagittaria latifolia*
common blackberry	*Rubus allegheniensis*
common buckthorn	*Rhamnus cathartica*
common buttercup	*Ranunculus acris*
common elder	*Sambucus canadensis*
common evening-primrose	*Oenothera biennis*
common flat-topped goldenrod grass-leaved	*Euthamia graminifolia*
common goldenrod	*Solidago canadensis*
common horsetail	*Equisetum arvense*
common juniper	*Juniperus communis var. depressa*
common reed	*Phragmites australis Phragmites*
common water-hemlock	*Cicuta maculata*
cotton-grass species	*Eriophorum spp.*
cow vetch	*Vicia cracca*
cranberry species	*Vaccinium sp.*
creeping bentgrass	*Agrostis stolonifera*
creeping spike-rush	*Eleocharis palustris*
curly dock	*Rumex crispus*
devil's beggar ticks	*Bidens frondosa*
dogwood species	*Cornus spp.*
drooping sedge	*Carex crinita*
dwarf raspberry	*Rubus pubescens*

Common Name	**Binomial Name**
eastern hemlock	*Tsuga canadensis*
eastern lined aster	*Symphyotrichum lanceolatum*
eastern white pine	*Pinus strobus*
Eaton's bur-marigold[2]	*Bidens eatonii*[2]
estuary bur-marigold[3]	*Bidens hyperborea*[3]
estuary monkeyflower[2]	*Mimulus ringens var. colpophilus*[2]
European alder-buckthorn	*Frangula alnus Rhamnus frangula*[5]
evergreen wood fern	*Dryopteris intermedia x triplodea*
false hellebore	*Veratrum viride*
false nettle	*Boehmeria cyclindrica*
field-bindweed	*Convolvulus arvensis*
fireweed	*Epilobium angustifolium*
flat-topped white aster	*Doellingeria umbellata Aster umbellatus*[5]
fleabane species	*Erigeron sp.*
fowl mannagrass	*Glyceria striata*
fowl meadowgrass	*Poa palustris*
fox sedge	*Carex vulpinoidea*
foxtail species	*Alopecurus sp.*
fresh water cordgrass	*Spartina pectinata*
Georgia bulrush1,[4]	*Scirpus hattorianus*[4]
giant bur-reed	*Sparganium eurycarpum*
goldenrod species	*Solidago spp.*
goldthread	*Coptis trifolia*
gray birch	*Betula populifolia*
greater poverty rush1,[4]	*Juncus anthelatus*[4]
green alder	*Alnus viridis*
green ash	*Fraxinus pennsylvanica*
hardstem bulrush	*Scirpus acutus*
highbush blueberry	*Vaccinium corymbosum*
highbush-cranberry	*Viburnum opulus Viburnum trilobum*[5]
hobblebush	*Viburnum lantanoides*
honeysuckle species	*Lonicera spp.*
horsetail species	*Equisetum spp.*
inflated sedge	*Carex vesicaria*

Common Name	**Binomial Name**
interrupted fern	*Osmunda claytoniana*
Jack in the pulpit	*Arisaema triphylllum*
jewelweed	*Impatiens capensis*
jointweed	*Polygonella articulata*
Kentucky bluegrass	*Poa pratensis*
Labrador-tea	*Rhododendron groenlandicum*
lady fern	*Athyrium filix-femina*
lake bank sedge	*Carex lacustris*
larch	*Larix laricina*
large cranberry	*Vaccinium macrocarpon*
large yellow pond-lily[2]	*Nuphar advena*[2]
leatherleaf	*Chamaedaphne calyculata*
long sedge	*Carex folliculata*
long-beaked willow	*Salix bebbiana*
maleberry	*Lyonia ligustrina*
maple-leaved viburnum	*Viburnum acerifolium*
marsh bedstraw	*Galium palustre*
marsh bulrush[1,2]	*Bolboschoenus novae-angliae*[2]
marsh fern	*Thelypteris palustris var. pubescens*
marsh horsetail	*Equisetum palustre*
marsh St. Johnswort	*Triadenum virginicum* *Hypericum*
meadow spikemoss[2]	*Selaginella apoda*[2]
meadow-rue species	*Thalictrum sp.*
meadowsweet	*Spiraea alba var. latifolia*
milfoil species	*Myriophyllum sp.*
morrow's honeysuckle	*Lonicera morrowii*
mountain holly	*Nemopanthus mucronatus*
musclewood	*Carpinus caroliniana*
nannyberry	*Virburnum lentago*
narrow-leaved cat-tail	*Typha angustifolia*
needletip blue-eyed grass[1,4]	*Sisyrinchium mucronatum*[4]
New England aster	*Symphyotrichum novae-angliae*
New York aster	*Symphyotrichum novi-belgii*
New York fern	*Thelypteris noveboracensis*
nodding beggar ticks	*Bidens cernua*
nodding sedge	*Carex gynandra*
northeastern mannagrass	*Glyceria melicaria*

Common Name	**Binomial Name**
northern blazing star[2]	*Liatris scariosa var. novae-angliae*[2]
northern blue flag	*Iris versicolor*
northern bog goldenrod	*Solidago uliginosa*
northern dewberry	*Rubus flagellaris*
northern red oak	*Quercus rubra*
northern swamp dogwood	*Cornus racemosa*
northern water-horehound	*Lycopus uniflorus*
northern white-cedar	*Thuja occidentalis*
old-field cinquefoil	*Potentillia simplex*
orchard grass	*Dactylis glomerata*
ostrich fern	*Matteuccia struthiopteris var. pensylvanica*
pale green orchid[2]	*Platanthera flava var. herbiola*[2]
Parker's pipewort[3]	*Eriocaulon parkerii*[3]
pendulous bulrush[2]	*Scirpus pendulus*[2]
Pennsylvania smartweed	*Persicaria pennsylvanica*
pickerelweed	*Pontederia cordata*
pitcher plant	*Sarracenia purpurea*
pointed broom sedge	*Carex scoparia*
poison-ivy	*Toxicodendron radicans*
pondweed species	*Potamogeton sp.*
purple loosestrife	*Lythrum salicaria*
purple-stemmed aster	*Symphyotrichum puniceum*
pussy willow	*Salix discolor*
quaking aspen	*Populus tremuloides*
quillwort species	*Isoetes sp.*
raspberry species	*Rubus sp.*
rattlesnake mannagrass	*Glyceria canadensis*
red maple	*Acer rubrum*
red osier dogwood	*Cornus sericea Cornus stolonifera*[5]
red raspberry	*Rubus idaeus*
red spruce	*Picea rubens*
red-stemmed gentian[2]	*Gentiana rubricaulis*[2]
redtop	*Agrostis gigantea*
reed canary grass	*Phalaris arundinacea*
rhodora	*Rhododendron canadense*
rice-cut grass	*Leersia oryzoides*
rough bedstraw	*Galium asprellum*

Common Name	**Binomial Name**
rough-stemmed goldenrod	*Solidago rugosa*
round-leaved eupatorium[2]	*Eupatorium rotundifolium var. ovatum*[2]
royal fern	*Osmunda regalis var. spectabilis*
rush species	*Juncus spp.*
sallow sedge	*Carex lurida*
saltmeadow cordgrass	*Spartina patens*
screwstem[2]	*Bartonia paniculata*[2]
seaside goldenrod	*Solidago sempervirens*
seaside plantain	*Plantago maritima var. juncoides*
sedge species	*Carex flava, palacea*
sedge species	*Carex spp.*
sensitive fern	*Onoclea sensibilis*
sessile-fruited arrowhead[2]	*Sagittaria rigida*[2]
sheep laurel	*Kalmia angustifolia*
silky dogwood	*Cornus amomum*
silky willow	*Salix pellita*
silverweed	*Argentina anserina*
skunk-cabbage	*Symplocarpus foetidus*
slender willow	*Salix petiolaris*
small reedgrass[3]	*Calamagrostis cinnoides*[3]
smooth aster	*Symphyotrichum laeve*
smooth goldenrod	*Solidago gigantea*
smooth hedge-nettle[4]	*Stachys tenuifolia hispida*[4]
smooth winterberry[3]	*Ilex laevigata*[3]
soft rush	*Juncus effusus*
softstem bulrush	*Schoenoplectus tabernaemontanii*
speckled alder	*Alnus incana spp. rugosa*
spike-rush species	*Eleocharis sp.*
spreading sedge[2]	*Carex laxiculmis*[2]
steeple-bush	*Spiraea tomentosa*
sugar maple	*Acer saccharum*
swamp candles	*Lysimachia terrestris*
swamp dewberry	*Rubus hispidus*
swamp milkweed	*Asclepias incarnata*
swamp rose	*Rosa palustris*
swamp saxifrage[3]	*Saxifraga pensylvanica*[3]
swamp white oak[2]	*Quercus bicolor* [2]

Common Name	**Binomial Name**
sweet gale	*Myrica gale*
tall goldenrod	*Solidago altissima*
tall meadow-rue	*Thalictrum pubescens*
tawny cotton-grass	*Eriophorum virginicum*
three-nerved joe-pye weed[4]	*Eupatorium dubium*[4]
three-seeded sedge	*Carex trisperma*
tidal arrowhead	*Sagittaria calycina var. spongiosa*
timothy	*Phleum pratense*
toothwort species	*Cardamime sp.*
tussock sedge	*Carex stricta*
Walter's sedge[1]	*Carex striata*
water avens	*Geum rivale*
water-parsnip	*Sium suave*
white ash	*Fraxinus americana*
white sweet-clover	*Melilotus officinalis*
white turtlehead	*Chelone glabra*
white willow	*Salix alba*
wild calla	*Calla palustris*
wild garlic[2]	*Allium canadense*[2]
wild rye species	*Elymus sp.*
wild sarsaparilla	*Aralia nudicaulis*
wild-raisin	*Viburnum nudum var. cassinoides*
willow herb species	*Epilobium sp.*
willow species	*Salix spp.*
winterberry	*Ilex verticillata*
witch-hazel	*Hamamelis virginiana*
wood fern species	*Dryopteris sp.*
woodland horsetail	*Equisetum sylvaticum*
wool-grass	*Scirpus cyperinus*
yellow birch	*Betula alleghaniensis*
yellow water-lily	*Nuphar variegata*

[1] - common name not listed in Haines and Vining (1998)

[2] - MNAP-listed S1 or S2 plant

[3] - MNAP-listed S3 plant

[4] - MNAP-listed SU plant or plant not listed by MNAP

[5] - synonym

Table 9-10: NECEC Wetland Summary Table

Exhibit 9-10: Wetland Summary Table: Segment 1

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-00-01	Y	140.01	0.00	0.00	0.00	PSS		River, stream or brook	1
WET-00-02	Y	1863.47	0.00	0.00	0.00	PFO1/4		River, stream or brook	1
WET-00-03	N	2610.04	0.00	0.00	1966.40	PFO1			1
WET-00-04	N	17610.30	0.00	0.00	3418.28	PFO1			1
WET-01-02	Y	5497.15	0.00	0.00	0.00	PFO1		River, stream or brook	3
WET-01-03	Y	12855.94	0.00	0.00	0.00	PSS	PEM	River, stream or brook	3
WET-01-04	N	56315.29	0.00	0.00	0.00	PSS			3
WET-01-05	N	4951.22	0.00	0.00	0.00	PFO1			3
WET-01-07	N	71018.57	0.00	2614.56	33042.28	PFO1E	PSS		3
WET-01-08	N	9369.29	0.00	0.00	2425.74	PFO1			4
WET-01-09	N	5163.96	0.00	0.00	0.00	PFO1/4E			4
WET-01-10	Y	287.82	0.00	0.00	0.00	PFO1/4E		River, stream or brook	4
WET-01-11	N	299.31	0.00	0.00	0.00	PSS			4
WET-01-12	Y	75.37	0.00	0.00	76.00	PFO1/4		River, stream or brook	4
WET-01-13	N	5.17	0.00	0.00	5.32	PFO1/4			4
WET-01-14	N	928.44	0.00	0.00	928.44	PFO1			5
WET-01-15	N	9218.92	0.00	0.00	0.00	PSS1E			5
WET-01-16	N	6156.43	0.00	0.00	0.00	PSS1E			5
WET-01-17	Y	8841.28	0.00	0.00	0.00	PEM1E		River, stream or brook	5
WET-01-19	Y	38613.95	0.00	2619.32	0.00	PEM1E		River, stream or brook	5
WET-01-20	N	3309.29	0.00	0.00	0.00	PEM1E			4

Exhibit 9-10: Wetland Summary Table: Segment 1

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-01-21	Y	682.71	0.00	0.00	0.00	PEM1E		River, stream or brook	4
WET-02-01	Y	6960.79	0.00	0.00	0.00	PEM1E		River, stream or brook	7
WET-02-02	Y	10068.54	0.00	0.00	0.00	PEM1E		River, stream or brook	7
WET-02-03	N	1354.83	0.00	0.00	0.00	PEM			7
WET-02-04	Y	21680.99	92.96	1074.87	0.00	PEM1E		River, stream or brook	6
WET-02-15	N	2102.06	0.00	0.03	1467.94	PFO1/4E			5/6
WET-02-16	Y	1739.23	0.00	0.00	0.00	PFO1E		River, stream or brook	5
WET-02-17	N	1587.69	0.00	0.00	0.00	PSS1E			5
WET-02-18	N	3159.31	0.00	0.00	0.00	PEM1			5
WET-02-19	N	3754.44	0.00	3.80	0.00	PEM1E	PFO1E		5
WET-02-20	N	2251.35	0.00	0.00	0.00	PEM1E	PFO1E		5
WET-02-22	N	2817.40	0.00	0.00	0.00	PEM1E			5/6
WET-04-02	N	8410.40	0.00	0.00	0.00	PEM1E			14
WET-04-03	N	2252.21	0.00	0.00	0.00	PEM1E			12/14
WET-04-04	N	1036.35	0.00	0.00	0.00	PEM1E			12/14
WET-04-09	N	6088.96	0.00	950.80	0.00	PEM1E			14
WET-04-10	N	1086.80	11.99	377.81	0.00	PEM1E			14
WET-04-12	N	13561.17	0.00	4.93	0.00	PEM1E			14
WET-05-01	N	9445.18	0.00	0.00	0.00	PEM			16
WET-05-03	N	1016.03	0.00	0.00	0.00	PEM			15
WET-05-04	N	11182.67	0.00	0.00	0.00	PSS			15
WET-05-05	N	20357.63	0.00	0.00	0.00	PSS			15
WET-05-06	Y	34846.71	0.00	1609.33	17147.30	PFO1-4		River, stream or brook	15

Exhibit 9-10: Wetland Summary Table: Segment 1

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-05-07	Y	2988.62	0.00	0.00	0.00	PEM		River, stream or brook	15
WET-05-08	Y	6295.93	0.00	510.58	6244.06	PFO1-4		River, stream or brook	14
WET-05-09	Y	6093.79	0.00	0.00	0.00	PEM		River, stream or brook	14
WET-06-01	N	7274.69	0.00	0.00	0.00	PEM			19
WET-06-02	Y	9319.91	0.00	0.00	1643.00	PFO1		River, stream or brook	19
WET-06-03	Y	6666.26	0.00	6.87	0.00	PEM		River, stream or brook	19
WET-06-04	Y	670.87	0.00	0.00	0.00	PEM		River, stream or brook	19
WET-07-01	Y	5326.64	0.00	0.00	0.00	PFO1-4		River, stream or brook	20
WET-07-02	Y	23990.99	0.00	1601.29	11336.14	PFO1-4		River, stream or brook	20
WET-07-03	N	5761.50	0.00	0.00	0.00	PEM			20
WET-07-04	N	2259.78	0.00	0.00	0.00	PEM			19
WET-07-05	Y	9508.32	0.00	362.35	0.00	PEM		River, stream or brook	19
WET-07-06	Y	20231.25	0.00	0.00	0.00	PEM		River, stream or brook	19
WET-07-08	N	310.67	0.00	0.00	311.25	PFO1			19
WET-07-09	N	10352.61	0.00	0.00	0.00	PEM			19
WET-07-10	N	7473.10	0.00	0.00	2315.33	PFO1-4			19
WET-07-13	N	1025.39	0.00	0.00	0.00	PFO1-4			19
WET-07-14	N	3983.00	0.00	0.00	0.00	PEM			19
WET-07-15	N	1701.40	0.00	0.00	0.00	PEM			19

Exhibit 9-10: Wetland Summary Table: Segment 1

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-08-01	Y	75490.63	0.00	0.00	37154.72	PFO4		River, stream or brook	22
WET-08-02	N	1603.22	0.00	0.00	0.00	PFO1-4			22
WET-08-03	Y	1167.57	0.00	0.00	0.00	PEM		River, stream or brook	22
WET-08-04	N	11771.38	0.00	0.00	0.00	PEM			22
WET-08-05	N	9427.04	0.00	0.00	0.00	PEM			22
WET-09-01	N	31145.57	0.00	1445.39	0.00	PEM			23
WET-09-04	Y	1841.03	0.00	0.00	0.00	PFO1-4		River, stream or brook	24
WET-09-05	N	3018.47	0.00	0.00	0.00	PEM			24
WET-09-07	N	14737.42	0.00	0.00	0.00	PEM			24
WET-09-09	Y	38316.12	0.00	0.00	11556.76	PFO1-4		River, stream or brook	23
WET-09-11	Y	56009.69	0.00	0.00	36924.27	PFO1-4		River, stream or brook	23
WET-10-01	N	36750.44	0.00	1527.85	17550.12	PFO1/4	PEM		25
WET-10-02	N	3906.73	0.00	410.17	3907.69	PFO1/4	PEM		26
WET-10-03	N	9469.22	0.00	1341.62	9476.91	PFO1/4	PEM		26
WET-10-04	N	3116.22	0.00	10.44	3116.22	PFO1/4			26
WET-10-05	N	206.65	0.00	0.00	207.87	PFO1/4			26
WET-10-06	N	977.41	0.00	0.00	504.78	PFO1/4			26
WET-10-07	N	13428.57	0.00	0.00	499.68	PFO1			26
WET-10-08	N	1522.30	0.00	0.00	0.00	PFO1			26
WET-10-09	Y	28680.68	0.00	0.00	21871.77	PFO1/4	PEM	River, stream or brook	26
WET-10-10	Y	57847.84	0.00	0.00	6200.77	PFO1/4E	PEM	River, stream or brook	26
WET-10-11	Y	35643.00	0.00	0.00	34939.68	PFO1/4E	PSS	River, stream or brook	26

Exhibit 9-10: Wetland Summary Table: Segment 1

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-10-12	N	259.43	0.00	0.00	260.76	PFO1/4E			27
WET-11-04	N	8685.95	0.00	0.00	582.82	PFO1E			27
WET-12-01	N	18888.56	0.00	0.00	3342.66	PFO1/4	PEM		30
WET-12-02	Y	2639.16	0.00	0.00	0.00	PFO1/4		River, stream or brook	30
WET-12-04	Y	40974.51	0.00	0.00	0.00	PSS		River, stream or brook	31
WET-12-07	Y	4307.48	0.00	0.00	4307.48	PFO4		River, stream or brook	31
WET-12-08	Y	6743.37	0.00	0.00	0.00	PEM		River, stream or brook	31
WET-13-02	N	544.34	0.00	0.00	0.00	PEM			33
WET-13-03	Y	485.67	0.00	0.00	0.00	PSS		River, stream or brook	34
WET-13-06	N	1893.19	0.00	0.00	0.00	PEM			32
WET-13-07	Y	26155.38	0.00	0.00	0.00	PEM		River, stream or brook	32
WET-13-08	Y	3615.06	0.00	0.00	0.00	PEM		River, stream or brook	32
WET-13-09	N	16565.28	0.00	619.47	5915.34	PFO4			32
WET-13-10	N	34174.04	0.00	1828.53	21109.11	PFO4			31
WET-13-11	N	4228.16	1.15	425.21	3807.45	PFO4			31
WET-13-13	N	6528.47	0.00	1185.81	3890.64	PFO4			31
WET-13-14	N	10885.55	0.00	375.59	2975.87	PFO4			31/32
WET-13-15	N	2041.07	0.00	274.06	2086.52	PFO4			31/32
WET-13-16	N	11772.90	0.00	758.90	4777.39	PFO4			32
WET-13-17	N	1626.13	0.00	0.00	1716.36	PFO4			32
WET-13-18	N	32413.73	0.00	1379.61	14638.38	PFO4			31
WET-13-19	N	1269.79	0.00	0.00	931.52	PFO4			31
WET-13-21	N	4067.70	0.00	0.00	0.00	PSS4E			31

Exhibit 9-10: Wetland Summary Table: Segment 1

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-13-22	N	426.33	0.00	0.00	0.00	PSS4E			31
WET-14-01	N	254.87	0.00	0.00	254.87	PFO1/4E			35
WET-14-02	N	470.66	0.00	0.00	463.07	PFO1/4E			35
WET-14-04	Y	146.20	0.00	0.00	0.00	PEM1E		River, stream or brook	34
WET-14-05	Y	30.75	0.00	0.00	0.00	PEM1E		River, stream or brook	34
WET-14-06	N	1286.44	0.00	0.00	0.00	PEM1E			34
WET-14-07	N	76.69	0.00	0.00	0.00	PEM1E			34
WET-14-08	N	57.22	0.00	0.00	0.00	PSS			34
WET-14-10	Y	467.34	0.00	0.00	467.34	PFO1		River, stream or brook	34
WET-14-11	Y	115.38	0.00	0.00	0.00	PFO1E		River, stream or brook	34
WET-14-12	Y	6716.15	0.00	0.00	0.00	PEM1E		River, stream or brook	34
WET-14-13	N	292.13	0.00	0.00	0.00	PEM1E			34
WET-14-14	N	2504.70	0.00	0.00	0.00	PEM1E			34
WET-14-16	Y	725.97	0.00	0.00	0.00	PEM1E		River, stream or brook	33
WET-14-17	N	2835.35	0.00	0.00	0.00	PEM			33
WET-15-04	N	982.14	0.00	0.00	0.00	PUB			37
WET-15-05	N	174.21	0.00	0.00	173.61	PFO1-4			37
WET-15-17	N	600.79	0.00	0.00	0.00	PFO1			35
WET-16-01	N	1872.14	0.00	0.00	0.00	PFO4E			37
WET-16-02	Y	3046.58	0.00	0.00	0.00	PFO1-4		River, stream or brook	38
WET-16-03	Y	0.00	0.00	0.00	0.00	PFO1-4		River, stream or brook	38

Exhibit 9-10: Wetland Summary Table: Segment 1

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-16-04	Y	29909.96	0.00	0.00	14400.31	PFO1/4E		River, stream or brook	38
WET-16-05	N	313.94	0.00	0.00	260.66	PFO1/4E			38
WET-16-07	Y	1201.81	0.00	0.00	0.00	PEM1E	PSS	River, stream or brook	38
WET-16-09	N	0.00	0.00	0.00	0.00	PSS1E			38
WET-16-10	Y	1055.68	0.00	0.00	0.00	PEM1E	PSS1E	River, stream or brook	38
WET-16-101	Y	36904.81	0.00	0.00	0.00	PSS1E		River, stream or brook	38
WET-16-102	N	17529.33	0.00	280.63	0.00	PSS1E			39
WET-16-104	N	3067.38	0.00	0.00	0.00	PFO1E			39
WET-16-11	N	1189.52	0.00	0.00	0.00	PSS1E	PEM		38
WET-16-12	N	227.08	0.00	0.00	0.00	PUB			38
WET-16-13	N	1369.39	0.00	0.00	0.00	PEM1E			38
WET-16-14	Y	17861.99	0.00	187.17	0.00	PSS1E	PFO1E	River, stream or brook	38
WET-17-04	Y	17486.43	0.00	0.00	1828.31	PFO1/4		River, stream or brook	40
WET-17-06	N	777.08	0.00	0.00	777.08	PFO1/4	PEM		41
WET-17-07	N	645.29	0.00	0.00	646.81	PFO1-4			41
WET-17-08	N	7027.78	0.00	27.74	7027.78	PFO			41
WET-17-09	N	520.22	0.00	0.00	520.22	PFO1/4			40
WET-17-10	N	467.84	0.00	0.00	0.00	PFO1/4			40
WET-17-11	Y	204503.88	40.00	13943.63	102243.61	PFO1/4		River, stream or brook	39/40
WET-18-01	N	10400.01	0.00	0.00	0.00	PFO1-4			43
WET-18-02	Y	11276.79	0.00	0.00	6153.97	PFO1-4		River, stream or brook	42

Exhibit 9-10: Wetland Summary Table: Segment 1

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-18-03	Y	1354.64	0.00	0.00	1358.80	PFO1/4		River, stream or brook	42
WET-18-04	Y	25861.47	0.00	1409.48	18910.15	PFO1/4		River, stream or brook	42
WET-18-05	Y	160016.24	0.00	2905.79	59446.49	PFO1/4		River, stream or brook	41/42
WET-19-01	N	3643.29	0.00	0.00	2044.07	PFO1/4			44
WET-19-02	N	3.98	0.00	0.00	4.38	PFO1/4			44
WET-19-03	N	6.48	0.00	0.00	0.00	PSS1E	PUB		45
WET-20-02	N	79164.79	0.00	5547.43	43034.67	PFO4			48
WET-20-05	Y	931.54	0.00	0.00	0.00	PSS	PEM	River, stream or brook; Significant wildlife (IWWH)	47
WET-20-06	N	20874.65	0.00	0.00	0.00	PFO1-4			46
WET-20-07	N	28226.92	0.00	1622.43	14019.52	PFO/PSS			46
WET-20-5-RR2	Y	48736.80	0.00	0.00	0.00	PEM/POW		River, stream or brook; Significant wildlife (IWWH)	47
WET-21-01	Y	66126.18	0.00	3558.92	29536.87	PFO4	PSS	Peatland	50
WET-21-02	Y	21927.72	0.00	0.00	0.00	PSS		Peatland	50
WET-21-03	Y	8184.51	0.00	0.00	0.00	PSS		Peatland	50
WET-21-04	N	2375.29	0.00	0.00	0.00	PSS			50
WET-21-05	N	6644.26	0.00	0.00	0.00	PSS			50
WET-21-06	N	1045.43	0.00	0.00	0.00	PFO1-4			49
WET-21-08	Y	167662.66	0.00	0.00	65322.28	PFO1-4		River, stream or brook	49
WET-21-09	Y	84062.30	0.00	0.00	51949.69	PFO1-4		River, stream or brook; Significant wildlife (IWWH)	48
WET-21-10	N	6406.54	0.00	0.00	0.00	PEM			48

Exhibit 9-10: Wetland Summary Table: Segment 1

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-21-12	Y	16711.68	0.00	0.00	15954.14	PFO4		River, stream or brook; Significant wildlife (IWWH)	48
WET-22-01	N	29824.19	0.00	834.72	25904.35	PFO4			51
WET-22-02	N	10222.68	0.00	0.00	3999.16	PFO1-4			51
WET-22-03	N	11443.47	0.00	0.00	4.21	PFO1-4			51
WET-22-04	N	9633.42	160.00	1973.39	0.00	PSS			52
WET-22-05	N	57952.49	0.00	1560.67	17605.58	PFO4			52
WET-22-07	N	11184.28	0.00	1278.76	9361.63	PFO1			50
WET-23-01	N	47718.28	0.00	2331.23	0.00	PSS			54
WET-23-02	Y	77086.57	0.00	0.00	46297.83	PFO4	PSS	Peatland	52/53
WET-23-03	Y	142913.12	0.00	0.00	63817.87	PFO4		River, stream or brook	54
WET-24-01	Y	8135.72	0.00	0.00	0.00	PSS		River, stream or brook	56
WET-24-03	N	20520.44	0.00	0.00	20538.76	PFO4			56
WET-24-04	Y	1723.94	0.00	0.00	0.00	PSS		Peatland	56
WET-24-05	Y	33600.59	0.00	0.00	18579.71	PFO	PSS/PUB	Peatland	56
WET-24-06	N	23474.94	0.00	0.00	12289.85	PFO4			56
WET-24-07	N	8069.60	0.00	0.00	0.00	PSS	PFO		56
WET-24-08	N	6179.28	0.00	0.00	5419.08	PFO4			56
WET-24-09	N	52449.62	0.00	4278.71	0.00	PSS			55
WET-24-10	Y	158273.00	0.00	0.00	0.00	PSS	PFO4	River, stream or brook; Significant wildlife (IWWH)	55
WET-24-11	N	115107.53	0.00	0.00	29559.20	PFO4			54/55
WET-25-01	N	85411.54	0.00	4745.47	49892.41	PFO4			57/58
WET-25-02	Y	6823.65	0.00	0.00	6831.29	PFO4		Significant wildlife (IWWH)	58

Exhibit 9-10: Wetland Summary Table: Segment 1

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-25-03	Y	54086.86	0.00	3354.65	30539.05	PFO4		River, stream or brook; Significant wildlife (IWWH)	58
WET-25-04	N	11310.19	0.00	0.00	1374.06	PFO4			58/59
WET-25-06	N	1151.05	0.00	0.00	0.00	PEM			58
WET-25-07	N	1990.69	0.00	0.00	0.00	PSS			58
WET-25-08	N	9717.25	0.00	0.00	0.00	PFO4			57/58
WET-25-09	N	3677.41	0.00	0.00	0.00	PEM			57
WET-25-09	N	3677.41	0.00	0.00	0.00	PEM			57
WET-25-10	N	22462.97	0.00	0.00	0.00	PFO4E	PEM1E		57
WET-25-11	N	4098.03	0.00	0.00	0.00	PFO4E			57
WET-26-01	Y	379.09	0.00	0.00	383.96	PFO4E		Significant wildlife (IWWH)	59
WET-26-02	Y	32515.24	0.00	0.00	0.00	PSS		River, stream or brook; Significant wildlife (IWWH)	59
WET-26-03	N	4419.79	0.00	0.00	0.00	PFO4			59
WET-26-04	N	12177.56	0.00	20.40	11583.74	PFO4E			59
WET-26-05	N	9519.72	0.00	0.00	0.00	PFO1-4			60
WET-26-06	Y	2020.80	0.00	0.00	2020.80	PFO1		River, stream or brook	60
WET-26-07	Y	46455.07	0.00	0.00	0.00	P404E		River, stream or brook, Peatland	60
WET-26-08	Y	6356.46	0.00	5.05	6373.87	PFO4E		Significant wildlife (IWWH), Peatland	59
WET-27-01	N	11793.64	0.00	0.00	2564.02	PFO1/4			62
WET-27-02	N	21327.69	0.00	0.00	5265.13	PFO1/4E			62
WET-27-03	Y	1371.39	0.00	0.00	0.00	PFO1/4E		River, stream or brook	62

Exhibit 9-10: Wetland Summary Table: Segment 1

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-27-04	Y	18486.16	0.00	0.00	1178.42	PFO1/4E		River, stream or brook	62
WET-27-06	N	247.03	0.00	0.00	0.00	PSS			62
WET-27-08	N	728.22	0.00	0.00	730.26	PFO1-4			61
WET-27-09	N	15696.10	0.00	0.00	12727.41	PFO1/4			61
WET-30-01	Y	3684.49	0.00	0.00	3686.47	PFO1/4		River, stream or brook	69
WET-30-02	Y	136653.52	18.09	5487.57	52481.06	PFO1/4		River, stream or brook; Significant wildlife (ETS)	69/75
WET-30-03	Y	27745.16	0.00	1699.37	13307.34	PFO4	PEM	Peatland	69
WET-31-01	Y	27005.60	0.00	0.00	21636.11	PFO1-4		River, stream or brook	77
WET-31-02	N	3057.81	0.00	0.00	0.00	PEM			76
WET-31-03	Y	417.21	0.00	0.00	0.00	PFO1-4		River, stream or brook	76
WET-31-04	N	710.18	0.00	0.00	0.00	PFO1			76
WET-31-05	Y	156949.86	0.00	0.00	0.00	PSS	PFO1-4	River, stream or brook; Significant wildlife (ETS)	75/76
WET-32-01	Y	0.00	0.00	0.00	0.00	PFO1-4		River, stream or brook; Significant wildlife (ETS)	79
WET-32-02	Y	31277.38	0.00	0.00	14313.41	PFO4	PEM	Significant wildlife (ETS)	79
WET-32-03	N	36951.95	0.00	0.00	26745.88	PFO4			78/79
WET-32-04	N	5084.08	0.00	0.00	0.00	PEM	PFO4		77
WET-32-05	N	12529.23	0.00	956.90	0.00	PEM			77
WET-32-06	N	1055.63	0.00	0.00	0.00	PEM			77
WET-32-07	N	30105.77	0.00	0.00	0.00	PFO4			77

Exhibit 9-10: Wetland Summary Table: Segment 1

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-33-02	N	1645.97	0.00	0.00	1651.76	PFO1			80/81
WET-33-07	Y	3188.63	0.00	0.00	0.00	PEM		Significant wildlife (ETS)	79
WET-33-08	Y	5178.64	0.00	0.00	0.00	PEM		Significant wildlife (ETS)	79
WET-33-09	Y	457.61	0.00	0.00	0.00	PEM		Significant wildlife (ETS)	79
WET-33-10	Y	2597.55	0.00	0.00	0.00	PEM		Significant wildlife (ETS)	79
WET-33-11	Y	956.97	0.00	0.00	0.00	PEM		Significant wildlife (ETS)	79
WET-33-12	N	394.75	0.00	0.00	0.00	PFO4			80
WET-34-06	N	8467.05	0.00	4.67	8476.07	PFO1-4			80
WET-35-01	Y	81298.35	0.00	2212.69	33751.20	PFO1-4		River, stream or brook	85
WET-35-02	Y	4124.11	0.00	0.00	0.00	PSS		River, stream or brook	85
WET-36-01	Y	208.42	0.00	0.00	0.00	PEM		River, stream or brook	89/90
WET-36-03	Y	5144.96	0.00	0.00	0.00	PEM		River, stream or brook	89
WET-36-04	Y	523.70	0.00	0.00	0.00	PEM		River, stream or brook	89/90
WET-36-05	Y	792.23	0.00	0.00	0.00	PEM		River, stream or brook	89/90
WET-36-06	N	4279.29	0.00	0.00	0.00	PEM			89
WET-36-07	N	15337.04	0.00	1620.44	0.00	PSS	PEM		89
WET-36-08	N	489.41	0.00	0.00	0.00	PEM			89
WET-36-09	N	64249.11	0.00	0.00	28811.76	PFO1/4			88
WET-36-10	N	11187.41	0.00	0.00	0.00	PSS			88

Exhibit 9-10: Wetland Summary Table: Segment 1

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-36-11	N	3161.99	0.00	0.00	0.00	PSS			88
WET-36-12	N	5041.44	0.00	0.00	0.00	PEM			88
WET-36-13	N	89455.21	0.00	4323.31	40194.20	PFO1-4			88
WET-37-01	N	1281.40	0.00	0.00	0.00	PEM			92
WET-37-02	N	5280.84	0.00	0.00	0.00	PSS	PEM		91
WET-37-03	N	6936.74	0.00	0.00	0.00	PSS	PEM		91
WET-37-07	Y	2363.58	0.00	0.00	0.00	PSS		River, stream or brook	91
WET-37-08	N	40302.53	0.00	0.00	0.00	PSS	PEM		91
WET-37-10	N	846.13	0.00	0.00	0.00	PFO1			91
WET-37-11	N	3210.63	0.00	0.00	502.05	PFO1-4	PEM		91
WET-38-01	N	6981.10	0.00	549.66	6982.61	PFO1			94
WET-38-02	N	0.00	0.00	0.00	0.00	PFO1			94
WET-38-03	Y	0.00	0.00	0.00	0.00	PEM		River, stream or brook	93
WET-38-04	Y	4683.55	0.00	0.00	0.00	PSS, PEM		River, stream or brook	93
WET-38-05	Y	5905.47	0.00	0.00	1665.91	PFO1		River, stream or brook	93
WET-38-08	N	511.98	0.00	0.00	514.21	PFO1-4			93
WET-38-10	Y	2540.93	0.00	0.00	0.00	POW, PSS	PFO, PSS	River, stream or brook, Open water	92
WET-38-11	Y	280.82	0.00	0.00	0.00	PEM		River, stream or brook	92
WET-38-12	N	5470.44	0.00	0.00	0.93	PFO1			92
WET-39-01	N	1350.80	0.00	0.00	0.00	PSS1E			96
WET-39-02	N	8047.52	0.00	661.98	6319.46	PFO1-4			96
WET-39-03	Y	37594.44	0.00	627.68	16773.92	PFO1-4		River, stream or brook	95/96
WET-39-04	N	548.50	0.00	0.00	0.00	PFO1			95

Exhibit 9-10: Wetland Summary Table: Segment 1

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-39-05	Y	21204.25	0.00	130.47	21213.97	PFO1-4		River, stream or brook	95
WET-39-06	N	0.00	0.00	0.00	0.00	PFO1-4			94
WET-39-07	N	34448.61	0.00	378.69	0.00	PSS			94
WET-39-08	Y	28508.26	0.00	2091.02	0.00	PSS		River, stream or brook	94
WET-40-05	N	9652.63	0.00	0.37	1454.65	PFO1/4E			97/98
WET-40-10	N	8977.16	0.00	0.00	8977.16	PFO1E			98
WET-40-11	Y	68610.22	0.00	0.00	31261.84	PFO1/4E		River, stream or brook	98
WET-40-13	N	257.11	0.00	0.00	0.00	PSS1E			97/98
WET-40-15	N	1588.13	0.00	0.00	1588.13	PFO1/4E			97
WET-40-16	Y	3110.94	0.00	0.00	0.00	PFO1E		River, stream or brook	97
WET-40-18	Y	177360.25	40.00	3546.62	86693.35	PFO4E		PSVP/SVP	97
WET-40-21	Y	7936.23	0.00	0.00	0.00	PFO1/4E	PEM1E	River, stream or brook	97
WET-40-24	N	164.68	0.00	0.00	0.00	PEM			96
WET-40-25	N	2801.26	0.00	0.00	2453.41	PFO1-4			97
WET-41-01	Y	18991.44	0.00	227.24	1620.73	PFO1-4		River, stream or brook	100
WET-41-02	Y	118626.28	0.00	0.00	43753.90	PFO1		River, stream or brook	99/100
WET-41-03	N	27435.69	0.00	0.00	10739.00	PFO1/4E	PSS1E		99
WET-41-04	N	0.00	0.00	0.00	0.00	PSS1E			99
WET-41-05	N	0.00	0.00	0.00	0.00	PFO1			99
WET-41-06	Y	97618.80	0.00	0.00	67815.35	PFO1/4E		River, stream or brook	99
WET-41-09	Y	14189.44	0.00	0.00	14189.44	PFO1-4		River, stream or brook	97

Exhibit 9-10: Wetland Summary Table: Segment 1

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-41-11	Y	322.23	0.00	0.00	0.00	PSS		River, stream or brook	97
WET-41-12	N	378.04	0.00	0.00	0.00	PFO			98
WET-42-02	Y	8503.81	0.00	0.00	3742.44	PFO1		River, stream or brook	102
WET-42-04	N	2100.12	0.00	0.00	0.00	PFO			102
WET-42-05	N	1139.55	0.00	0.00	0.00	PEM			102
WET-42-07	N	980.37	0.00	0.00	0.00	PEM			101/102
WET-42-08	N	363.64	0.00	0.00	0.00	PFO1			101
WET-42-09	Y	10959.56	0.00	0.00	0.00	POW		River, stream or brook	101
WET-42-11	N	15665.38	0.00	4.64	15791.66	PFO			101
WET-42-12	N	3134.81	0.00	28.54	0.00	PFO1-4			100
WET-42-13	N	679.30	0.00	0.00	0.00	PFO1-4			100
WET-42-14	N	3903.25	0.00	0.00	2192.58	PFO1-4			100
WET-42-15	Y	21357.80	0.00	0.00	21613.21	PFO1-4		River, stream or brook	100
WET-42-16	Y	12020.08	0.00	673.14	9032.48	PFO1-4		River, stream or brook	100
WET-42-17	Y	41482.64	0.00	0.00	23535.09	PFO1-4		River, stream or brook	100/101
WET-42-18	N	6620.88	0.00	0.00	0.00	PFO1-4			101
WET-43-01	N	701.40	0.00	0.00	701.40	PFO1			102
WET-43-02	N	5424.19	0.00	0.00	0.00	PFO			102
WET-43-03	N	0.00	0.00	0.00	0.00	PSS			103
WET-43-04	N	6733.86	0.00	0.00	6768.63	PFO			103/104
WET-43-05	N	128.71	0.00	0.00	0.00	PFO			103/104
WET-43-08	Y	9663.51	0.00	64.95	9685.82	PFO		River, stream or brook	104
WET-44-02	N	1489.17	0.00	0.00	0.00	PEM1E			106

Exhibit 9-10: Wetland Summary Table: Segment 1

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-44-03	N	3276.58	0.00	0.00	3276.58	PFO4E	PEM		106
WET-44-05	N	127101.72	0.00	2506.67	51906.23	PFO4	PEM, PSS		105
WET-44-07	N	480.57	0.00	0.00	0.00	PSS			105
WET-44-09	N	24008.19	0.00	0.00	0.00	PSS			104
WET-44-10	Y	8.66	0.00	0.00	13.14	PFO		River, stream or brook	104
WET-44-12	N	9751.94	0.00	0.00	9787.54	PFO	PEM		104
WET-44-13	Y	163216.44	0.00	0.00	46790.49	PFO1-4		River, stream or brook	106
WET-45-02	Y	100604.17	40.00	11343.98	74010.29	PFO4E		River, stream or brook	106
WET-45-03	Y	4265.66	0.00	0.00	4272.23	PFO1E		River, stream or brook	106
WET-45-04	N	503.13	0.00	0.00	0.00	PEM1E			107
WET-45-10	N	1806.41	0.00	0.00	0.00	PEM1E			107/108
WET-45-11	N	286.44	0.00	76.89	0.00	PEM1E			108
WET-45-12	Y	21975.65	0.00	0.00	10974.89	PFO1E		River, stream or brook	108
WET-46-03	Y	55503.33	0.00	0.00	9333.96	PFO1-4E		River, stream or brook	110
WET-46-06	Y	47113.61	0.00	1331.88	14805.10	PFO4E	PSS1E	River, stream or brook	108/109
WET-46-08	N	20465.74	0.00	0.00	0.00	PEM			108
WET-47-01	N	38556.63	0.00	0.00	0.00	PSS			112
WET-47-02	N	10.94	0.00	0.00	0.00	PEM1			112
WET-47-03	N	1231.42	0.00	0.00	0.00	PEM1E			112
WET-47-04	N	7114.63	0.00	0.00	0.00	PSS1E	PEM1E		111
WET-47-05	N	1513.38	0.00	0.00	0.00	PEM1E			111
WET-47-08	N	6174.91	0.00	0.00	0.00	PFO4E			111
WET-47-09	N	26385.30	0.00	0.00	13859.17	PFO1			111

Exhibit 9-10: Wetland Summary Table: Segment 1

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-47-13	N	630.21	0.00	0.00	0.00	PFO1/4E			110
WET-47-14	N	3283.69	0.00	0.00	3283.69	PFO1/4			110
WET-48-01	N	496.84	0.00	0.00	0.00	PFO1E	PEM		113/114
WET-48-03	N	44642.39	0.00	1824.19	17630.33	PFO4E	PEM		113
WET-48-04	N	2597.06	0.00	0.00	0.00	PEM1			113
WET-48-05	Y	58489.36	0.00	0.00	42925.75	PFO1E		River, stream or brook	113
WET-48-06	Y	5430.28	0.00	0.00	5447.76	PFO1/4E		PSVP/SVP	112
WET-48-07	Y	2767.46	0.00	0.00	0.00	PFO1/4E		PSVP/SVP	112
WET-48-08	Y	7521.65	0.00	20.43	0.00	PEM1E		PSVP/SVP	112
WET-49-01	N	9411.72	0.00	8.49	9383.74	PFO1E			115
WET-49-02	N	19708.90	0.00	58.27	4020.34	PFO1/4E			115
WET-49-03	N	6595.92	0.00	0.00	0.00	PFO1/4E			115
WET-49-04	Y	140521.46	40.00	12219.12	114438.78	PFO1/4E		River, stream or brook	116
WET-49-05	N	4685.32	0.00	0.00	0.00	PFO1E			116
WET-50-01	N	98048.83	160.00	1166.22	41427.05	PFO1/4E			117
WET-50-02	N	69576.18	0.00	0.00	24270.91	PFO1/4E			117
WET-50-03	N	10539.69	0.00	0.00	0.00	PFO1/4E			118
WET-50-04	N	5975.55	0.00	9.28	5975.55	PFO1E			118
WET-50-05	Y	1682.25	0.00	0.00	0.00	PSS1E		River, stream or brook; Great pond	118
WET-50-06	Y	835.29	0.00	0.00	0.00	PSS1E		River, stream or brook; Great pond	118
WET-50-07	Y	883.74	0.00	0.00	0.00	PEM, PSS		River, stream or brook; Great pond	118
WET-50-08	Y	12440.47	80.00	71.78	12068.77	PFO1/4E		River, stream or brook	118
WET-51-01	Y	14563.14	0.00	912.29	12953.45	PFO4/1E		River, stream or brook	119

Exhibit 9-10: Wetland Summary Table: Segment 1

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-51-02	Y	10173.23	0.00	1454.99	10166.16	PFO1/4E	PEM	River, stream or brook	119
WET-51-03	N	15089.25	0.00	81.75	15086.04	PEM	PFO		119
WET-51-04	N	552.94	0.00	0.00	0.00	PEM			119
WET-51-05	N	1629.08	0.00	0.00	88.14	PEM1E	PFO1E		119
WET-51-06	Y	14763.85	0.00	0.00	0.00	PFO1E		River, stream or brook	120
WET-51-07	Y	1277.75	0.00	0.00	0.00	PFO1E		River, stream or brook	120
WET-51-08	Y	268378.96	40.00	23068.63	161264.33	PFO1/4E		River, stream or brook	120
WET-51-09	Y	37616.95	0.00	0.00	20186.90	PFO1E		River, stream or brook	120/121
WET-52-06	Y	69149.67	0.00	3104.47	27454.15	PFO		River, stream or brook	122
WET-52-11	Y	42123.35	0.00	0.00	21385.35	PFO1/4E	PSS1E, PE	River, stream or brook	121
WET-52-12	Y	85044.58	0.00	3206.43	28707.47	PFO1E, PFO4E		River, stream or brook	121
WET-52-13	Y	724.95	0.00	0.00	0.00	PSS		River, stream or brook	121
WET-52-14	Y	30403.78	0.00	784.79	13573.56	PFO1E/PFO4E		River, stream or brook	121
WET-52-15	Y	1049.68	0.00	0.00	0.00	PSS1E		River, stream or brook	121
WET-52-17	Y	40876.87	0.00	42.16	11671.78	PFO4/1E	PSS1E	River, stream or brook	122
WET-52-18	Y	69784.58	160.00	821.42	57450.23	PFO4/1E	PSS1E	River, stream or brook	122
WET-52-19	N	149.86	0.00	111.91	54.94	PFO4/1E	PSS1E		122

Exhibit 9-10: Wetland Summary Table: Segment 1

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-CR-40-01	N	4600.80	0.00	0.00	0.00	PSS1/4E			97
WET-EM-28-10	N	60571.72	0.00	0.00	19907.18	PFO4E			64
WET-EM-28-11	N	3368.55	0.00	0.00	0.00	PSS1E	PEM1E		64
WET-EM-28-12	N	1992.11	0.00	0.00	0.00	PEM1E			64
WET-EM-28-13	N	63591.26	40.00	1019.62	0.00	PEM1E			64
WET-EM-28-15	N	3350.69	0.00	0.00	0.00	PEM1E			64
WET-EM-28-16	N	34272.04	0.00	0.00	0.00	PSS1E			64
WET-EM-29-14	N	569.37	0.00	0.00	0.00	PEM			64
WET-EM-33-01	N	13916.68	0.00	0.00	0.00	PSS4E			80
WET-EM-33-02	N	2408.52	0.00	0.00	0.00	PSS4E	PEM4E		80
WET-EM-33-03	Y	5614.58	0.00	0.00	0.00	PSS1E	PEM1E	River, stream or brook	80
WET-EM-33-04	N	729.26	0.00	0.00	0.00	PEM			80
WET-EM-33-08	N	4785.94	0.00	0.00	0.00	PEM1E			80
WET-EM-34-01	Y	0.00	0.00	0.00	0.00	PSS1E	PEM1E	Significant wildlife (ETS)	81/82
WET-EM-34-02	N	20413.57	0.00	2363.02	19978.13	PFO4E	PSS4E		82
WET-EM-34-03	N	3950.17	0.00	0.00	0.00	PFO1E	PEM1E		82
WET-EM-34-04	N	4791.44	0.00	0.00	0.00	PSS1E	PFO1E		82
WET-EM-34-05	N	8161.48	0.00	0.00	0.00	PEM1E	PFO1E		82
WET-EM-34-08	N	2597.87	0.00	0.00	1455.11	PFO1E	PFO4E		83
WET-EM-34-09	N	5559.63	0.00	72.75	5561.25	PFO4E	PEM1E		83
WET-EM-34-10	N	2732.50	0.00	0.00	2734.67	PFO1E			83
WET-EM-34-11	N	26581.95	0.00	0.00	1233.64	PFO1E			83
WET-EM-35-01	N	5128.90	0.00	0.00	0.00	PFO4E			84
WET-EM-35-02	N	87230.83	0.00	0.00	43803.30	PFO4E	PEM1E		84
WET-EM-35-05	N	65036.19	0.00	3113.02	41086.66	PFO4E	PEM1E		84/85
WET-EM-35-07	N	1823.12	0.00	0.00	0.00	PEM1E			85
WET-EM-35-08	N	304.95	0.00	0.00	0.00	PEM1E			85

Exhibit 9-10: Wetland Summary Table: Segment 1

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-LT-1	N	1808.36	0.00	0.00	0.00	PEM1E			12/14
WET-LT-10	N	398.89	0.00	0.00	0.00	PSS1E			9/10
WET-LT-11	N	7390.09	0.00	0.00	7269.44	PEM1E, PFO1E			10/11
WET-LT-12	N	2041.62	0.00	386.31	0.00	PEM1E			11
WET-LT-2	N	17064.49	0.00	0.00	0.00	PEM1E			12/14
WET-LT-3	N	18135.25	0.00	713.24	10243.49	PFO1E			12/14
WET-LT-4	Y	25173.87	0.00	842.48	9444.33	PFO1E		PSVP/SVP	12
WET-LT-5	N	2155.82	0.00	0.00	0.00	PSS1E			12
WET-LT-6	N	10776.68	0.00	167.70	0.00	PSS1E			12
WET-LT-7	N	15348.66	0.00	0.00	0.00	PEM1E			12
WET-LT-8	N	33443.76	0.00	1049.25	0.00	PEM1E			9/10
WET-LT-9	N	287.18	0.00	0.00	0.00	PEM1E			9/10
WET-MS-02-06	N	632.93	0.00	0.00	0.00	PEM1Y			7
WET-MS-03-02	N	1087.04	0.00	0.00	0.00	PEM1Y	PFO1Y		9
WET-MS-03-03	N	3304.81	0.00	0.00	0.00	PEM1Y	PFO1Y		9
WET-MS-03-04	N	2502.53	0.00	0.00	0.00	PSS1E			9
WET-MS-03-06	N	1148.43	0.00	0.00	0.00	PEM1Y			9
WET-MS-03-15	N	1157.12	0.00	0.00	0.00	PEM1E	PSS1E		7
WET-MS-03-16	N	737.65	0.00	0.00	0.00	PEM1E	PSS1E		7
WET-MS-03-17	N	2214.72	0.00	0.00	0.00	PEM1E	PSS1E		8
WET-MS-03-18	N	1995.80	0.00	0.00	0.00	PSS1E			8
WET-MS-03-19	N	1206.93	0.00	0.00	0.00	PEM			8
WET-MS-03-20	N	1054.07	0.00	0.00	0.00	PEM1E			8
WET-MS-03-21	N	442.02	0.00	0.00	0.00	PEM1E			7
WET-MS-04-06	N	1341.64	0.00	0.00	1154.02	PFO1/4E			9/10
WET-RR-11-01	N	4729.54	0.00	0.00	0.00	PEM1E			28
WET-RR-11-02	N	9694.65	0.00	0.00	0.00	PEM1E			28
WET-RR-11-03	Y	6759.49	0.00	0.00	6759.49	PFO1-4		River, stream or brook	28

Exhibit 9-10: Wetland Summary Table: Segment 1

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-RR-11-04	Y	3194.99	0.00	0.00	774.36	PFO1/4E	PEM1E	River, stream or brook	28
WET-RR-11-05	N	12094.81	0.00	0.00	0.72	PFO1/4E			28
WET-RR-12-01	Y	369.00	0.00	0.00	0.00	PSS1E		River, stream or brook	29
WET-RR-12-02	Y	7980.33	0.00	0.00	0.00	PFO1/4E		River, stream or brook	29
WET-RR-12-2-RR1	Y	73676.11	0.00	0.00	0.00	PFO1/4E		River, stream or brook	29
WET-RR2-1	N	816.70	0.00	0.00	0.00	PEM/PFO			47
WET-RR2-2	N	8439.05	0.00	0.00	8641.37	PFO			47
WET-RR2-3	N	4522.79	0.00	0.00	0.00	PFO			47
WET-SKINNER-1	N	0.00	0.00	0.00	0.00	PFO4			22
WET-SKINNER-2	N	0.00	0.00	0.00	0.00	PFO4, PSS			22
WET-SKINNER-3	N	0.00	0.00	0.00	0.00	PFO4, PSS			22
WET-SR-28-17	N	6127.42	0.00	0.00	0.00	PFO1E			65
WET-SR-28-19	N	1374.55	0.00	0.00	0.00	PEM1E			64
WET-SR-28-20	N	3661.36	0.00	0.00	0.00	PSS1E			64
WET-SR-29-03	Y	2702.95	0.00	0.00	0.00	PSS1E		River, stream or brook	66
WET-SR-29-04	Y	2652.84	0.00	0.00	0.00	PSS1E		River, stream or brook	66
WET-SR-29-05	N	3978.99	0.00	0.00	3978.99	PFO1E			66
WET-SR-29-06	N	1912.56	0.00	0.00	1912.56	PFO1E			66
WET-SR-29-07	N	33910.09	40.00	2016.83	0.00	PEM1E			66
WET-SR-29-10	N	1338.67	0.00	0.00	0.00	PEM1E			66/67
WET-SR-29-11	N	6218.50	0.00	0.00	0.00	PEM1E			66

Exhibit 9-10: Wetland Summary Table: Segment 1

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-SR-29-12	N	6608.15	0.00	0.00	0.00	PEM1E			66
WET-SR-29-13	N	746.49	0.00	0.00	0.00	PSS1E			66
WET-SR-29-16	N	803.33	0.00	0.00	0.00	PEM1E			67
WET-SR-29-17	N	3176.20	0.00	0.00	0.00	PSS1E			67
WET-SR-29-18	N	10269.59	0.00	0.00	0.00	PFO4E			67
WET-SR-29-19	N	2744.86	0.00	0.00	2744.86	PFO4E			67
WET-SR-29-20	N	231.20	0.00	0.00	228.68	PFO4E			67
WET-SR-29-21	N	3705.10	0.00	0.00	3700.97	PFO4E			67
WET-SR-29-22	N	51513.52	16.78	156.35	51479.59	PFO4E	PEM1E		67/68
WET-SR-30-01	N	7786.28	0.00	0.00	0.00	PSS1E			67
WET-SR-30-02	N	312867.96	0.00	11413.05	120244.21	PFO4E			67/68
WET-SR-30-03	N	6031.56	0.00	0.03	6031.56	PFO4E			68
WET-SR-31-02	N	10584.52	0.00	0.00	10615.79	PFO4E			76
WET-SR-31-03	Y	110943.74	0.00	3989.24	45617.94	PFO4E		Significant wildlife (ETS)	75
WET-SR-31-04	Y	5219.22	0.00	0.00	0.00	PSS4E		Significant wildlife (ETS)	75
WET-SR-31-05	Y	631.37	0.00	0.00	631.37	PFO4E		Significant wildlife (ETS)	75
WET-SR-31-06	Y	5961.03	0.00	0.00	5953.41	PFO4E		Significant wildlife (ETS)	75
WET-SR-31-07	Y	2741.82	0.00	0.00	0.00	PFO4E		Significant wildlife (ETS)	75
WET-SR-31-08	Y	1465.32	0.00	0.00	0.00	PFO4E		Significant wildlife (ETS)	75
WET-SR-31-09	Y	0.72	0.00	0.00	0.62	PFO4E		Significant wildlife (ETS)	75
WET-SRD1-27-01	N	1769.51	0.00	0.00	0.00	PSS			62/63

Exhibit 9-10: Wetland Summary Table: Segment 1

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-SRD1-27-02	N	2985.98	0.00	0.00	0.00	PSS			62/63
WET-SRD1-27-03	N	4174.12	0.00	549.44	0.00	PEM			62/63
WET-SRD1-27-04	Y	360215.98	40.00	1681.28	0.00	PSS		River, stream or brook	63/64

Exhibit 9-10: Wetland Summary Table: Segment 2

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-52-01	N	45057.42	0.00	397.15	3485.61	PFO1-4E			122
WET-52-02	N	28906.97	0.00	1079.48	4840.06	PFO1-4	PEM		122
WET-52-03	N	745.30	0.00	0.00	0.00	PFO1-4E	PEM		122
WET-52-04	N	11173.61	0.00	44.17	3165.15	PFO1-4E			122/123
WET-52-05	N	316462.73	39.94	20315.82	77623.33	PFO1-4E			123
WET-53-01	N	61931.53	39.94	5147.51	14206.23	PFO1-4E	PEM		124
WET-53-02	N	74623.63	0.00	3883.35	22823.90	PFO1-4	PEM		123
WET-53-03	N	66208.70	0.00	4203.16	17924.15	PFO1-4E	PEM		123
WET-53-04	N	71582.80	0.00	236.05	16090.39	PFO1-4E	PEM		124
WET-53-05	Y	32131.08	39.94	1113.04	0.00	PEM1		River, stream or brook	124
WET-53-06	N	24938.61	0.00	889.66	4835.43	PFO1-4			124
WET-53-07	Y	13104.72	0.00	0.00	0.00	PEM		River, stream or brook	124/125
WET-54-01	Y	16743.46	0.00	0.00	956.23	PFO1-4E		River, stream or brook; Great pond	125
WET-54-03	N	643.48	0.00	0.00	0.00	PEM			126
WET-54-04	N	14788.75	0.00	0.00	1065.34	PFO1-4E	PEM		126
WET-55-01	N	1780.17	0.00	199.89	0.00	PEM			128
WET-55-02	Y	45214.66	0.00	0.00	0.00	POW	PFO1-4E	River, stream or brook	128
WET-55-03	Y	12864.53	0.00	0.00	0.00	POW	PFO1-4E	Great Pond	129
WET-56-01	Y	16545.86	0.00	0.00	0.00	PFO1-4	PEM	Great Pond	129
WET-56-02	Y	3198.38	0.00	0.00	0.00	PFO1-4	PEM	Great Pond	129
WET-56-03	Y	11327.42	0.00	11.80	0.00	PEM		River, stream or brook	129
WET-56-04	N	10168.67	0.00	24.93	0.00	PEM	PFO1-4		130
WET-56-05	N	412.87	0.00	0.00	290.65	PFO1-4			130

Exhibit 9-10: Wetland Summary Table: Segment 2

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-56-06	Y	4729.19	0.00	0.00	1328.68	PFO1-4		River, stream or brook	130
WET-56-07	N	12425.68	0.00	0.00	6550.88	PFO1-4			129
WET-56-08	N	2466.27	0.00	0.00	0.00	PFO1-4			130
WET-56-09	N	18984.76	0.00	1286.62	6078.97	PFO1-4			130
WET-56-10	N	47993.60	0.00	29.10	0.00	PEM	PFO1-4		130
WET-56-11	N	16284.35	0.00	0.00	0.00	PEM			130
WET-57-01	Y	28646.77	0.00	0.00	2685.20	PFO1-4E	PES, PEM	River, stream or brook	131
WET-57-02	N	45076.23	39.94	3391.27	9416.40	PFO1-4	PEM		132
WET-57-03	N	93332.06	0.00	3043.30	14743.18	PFO1-4E	PEM		132
WET-57-04	N	1615.95	0.00	234.63	0.00	PEM			132
WET-57-05	N	3225.13	0.00	0.00	0.00	PEM			132
WET-57-06	N	2761.09	0.00	0.00	2729.96	PFO1-4			132
WET-58-01	N	4597.20	0.00	50.02	0.00	PEM	PFO4		135
WET-58-02	N	8645.34	0.00	0.00	0.00	PEM			135
WET-59-01	N	37992.47	0.00	4390.35	0.00	PEM			137
WET-59-02	N	60677.87	0.00	13.71	0.00	PEM1E	PFO4E		137
WET-59-03	N	18559.45	0.00	2099.81	0.00	PEM1E	PFO4E		136/137
WET-59-04	N	15308.03	6.00	127.07	6895.08	PFO4			136
WET-59-05	Y	36809.94	0.00	102.44	0.00	PEM		River, stream or brook	136
WET-59-06	N	10537.09	0.00	513.01	0.00	PEM			136
WET-59-07	N	2268.38	0.00	0.00	0.00	PEM			135/136
WET-60-01	Y	72041.10	0.00	971.02	0.00	PEM1E	PFO1E	River, stream or brook	139
WET-60-02	N	40321.12	0.00	2257.04	0.00	PEM1E			139
WET-60-03	N	1911.28	0.00	0.00	0.00	PEM1E			138
WET-60-04	Y	11873.51	0.00	194.75	0.00	PEM1E		River, stream or brook	138

Exhibit 9-10: Wetland Summary Table: Segment 2

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-60-05	Y	20512.82	0.00	137.46	0.00	PEM1		River, stream or brook; Great pond	138
WET-61-01	Y	72777.31	0.00	4057.55	0.00	PEM1E	PFO1E	River, stream or brook	142
WET-61-02	Y	137891.11	39.94	3205.95	0.00	PEM1E		River, stream or brook. Peatland.	141/142
WET-61-03	N	27542.09	0.00	91.64	9687.72	PFO1E			141
WET-61-04	N	3997.00	0.00	0.56	0.00	PEM1E			141
WET-61-05	N	24365.97	0.00	874.81	0.00	PEM1E	PFO1E		141
WET-61-06	N	2602.20	0.00	0.00	0.00	PFO1E			141
WET-61-07	Y	251473.52	39.94	13933.85	57938.04	PFO1E	PEM1E	River, stream or brook	140/141
WET-61-08	Y	46904.56	0.00	0.00	0.00	PSS1E	PEM1E	River, stream or brook; >20,000 sq ft of open water	140
WET-61-09	Y	180520.45	0.00	0.00	33771.76	PFO1E	PEM1E	River, stream or brook	140
WET-62-01	N	45030.81	0.00	3280.27	0.00	PEM			142
WET-62-02	N	38596.51	0.00	797.41	0.00	PEM			142
WET-62-03	Y	41426.47	0.00	0.00	0.00	PEM		River, stream or brook	143
WET-62-04	N	10428.37	0.00	0.00	0.00	PEM			143
WET-62-05	N	41645.90	36.44	6965.46	0.00	PEM			143/144
WET-62-06	Y	22854.59	0.00	0.00	0.00	PEM		River, stream or brook	144
WET-62-07	Y	57219.67	0.00	4714.31	0.00	PEM		River, stream or brook	144

Exhibit 9-10: Wetland Summary Table: Segment 2

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-62-08	Y	283992.12	39.94	1025.48	0.00	PEM		River, stream or brook	144
WET-63-01	Y	44551.76	0.00	2233.48	0.00	PEM		River, stream or brook	144/145
WET-63-02	Y	218302.66	0.00	3229.07	0.00	PEM		River, stream or brook	145
WET-63-03	N	3096.81	0.00	0.00	0.00	PEM			145
WET-63-04	N	52030.59	0.00	413.57	0.00	PEM			145
WET-63-05	N	17929.78	0.00	0.00	0.00	PEM			146
WET-63-06	N	20738.61	0.00	0.00	12708.85	PFO1E	PSS1E		146
WET-63-07	Y	147112.25	0.00	0.00	0.00	PEM1E	PSS1E	River, stream or brook; Significant wildlife (IWWH)	146
WET-64-01	N	21178.01	0.00	0.00	0.00	PEM1E	PSS1E		146
WET-64-02	N	8404.43	0.00	0.00	792.16	PFO4E			146
WET-64-03	Y	68480.71	0.00	421.29	1905.71	PFO4E		River, stream or brook; Significant wildlife (IWWH)	146/147
WET-64-04	Y	13140.73	0.00	0.00	0.00	PSS1E	PEM1E	River, stream or brook; Significant wildlife (IWWH)	147
WET-64-05	Y	6439.74	0.00	0.00	691.63	PFO4E		Significant wildlife (IWWH)	147
WET-64-06	Y	51211.07	0.00	0.00	0.00	PSS4E		River, stream or brook	147
WET-64-07	N	32455.73	0.00	0.00	0.00	PSS4E			147
WET-64-08	N	5167.55	0.00	0.00	0.00	PSS1E			147
WET-64-09	N	67509.38	0.00	0.00	0.00	PEM1E	PSS1E		147
WET-64-10	Y	411265.15	0.00	4621.51	0.00	PEM1E	PFO4E	Peatland	147/148
WET-65-01	N	304416.85	0.00	1185.82	0.00	PEM1E	PSS4E		148/149

Exhibit 9-10: Wetland Summary Table: Segment 2

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-65-02	Y	47788.15	39.94	531.47	0.00	PEM		>20,000 sq. ft. of open water	149
WET-65-03	Y	61714.27	0.00	2875.65	0.00	PSS1E	PFO4E	River, stream or brook	149
WET-65-04	N	8738.59	0.00	0.00	2560.63	PFO1E			149
WET-65-05	N	990.89	0.00	0.00	0.00	PFO4E			149/150
WET-65-06	N	1297.89	0.00	0.00	9.75	PFO1E			150
WET-65-07	N	124990.35	39.94	7254.50	0.00	PSS1E	PFO4E		150
WET-65-08	Y	172451.88	0.00	0.00	0.00	PEM1E	PSS1E	River, stream or brook	150/151
WET-66-01	N	3839.64	0.00	0.00	0.00	PFO4Y			151
WET-66-02	Y	201314.40	39.94	17252.25	0.00	PSS1E	PFO1E	River, stream or brook	151
WET-66-03	Y	3561.25	0.00	0.00	0.00	PEM1E	PFO4E	River, stream or brook	151
WET-66-04	N	15401.24	0.00	1424.75	0.00	PEM1E	PFO4Y		151
WET-66-05	Y	83890.47	0.00	5449.13	20839.96	PFO4Y	PEM1E	River, stream or brook	152
WET-66-06	Y	23803.04	0.18	1490.82	0.00	PEM1Y		River, stream or brook	152
WET-66-07	Y	48083.57	0.00	2939.44	0.00	PEM1E	PFO1E	River, stream or brook	152
WET-67-08	Y	198892.68	30.65	18725.45	0.00	PEM1E	PFO1E	River, stream or brook	152/153
WET-67-09	N	3696.54	0.00	0.00	0.00	PEM1E			153
WET-67-10	N	1318.93	0.00	0.00	0.00	PEM1Y			153
WET-67-11	N	19750.44	0.00	1569.97	0.00	PEM1Y			153
WET-67-12	N	20784.42	0.00	3355.88	0.00	PEM1Y			153
WET-67-13	N	11394.75	0.00	0.00	0.00	PEM1E			153
WET-68-02	N	81360.65	131.65	3947.21	0.00	PSS	PEM		156

Exhibit 9-10: Wetland Summary Table: Segment 2

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-68-03	N	4749.11	0.00	0.00	0.00	PSS	PEM		156
WET-68-04	N	20578.25	0.00	0.00	0.00	PFO4			156
WET-68-05	N	203820.02	39.94	6715.54	35368.20	PEM, PSS, PFO			155/156
WET-68-06	N	36453.32	0.00	874.88	4186.42	PEM	PFO4E		155
WET-68-07	N	789752.84	225.36	61085.46	0.00	PEM			154/155
WET-68-07	N	789752.84	225.36	61085.46	0.00	PEM			154
WET-69-01	Y	12352.54	0.00	0.00	0.00	PEM		River, stream or brook	156
WET-69-02	N	641.22	0.00	0.00	0.00	PEM	PFO		157
WET-69-04	Y	41886.81	0.12	506.26	0.00	PEM		River, stream or brook	158
WET-69-05	Y	35946.03	0.00	84.56	22339.96	PFO1-4		River, stream or brook	160
WET-70-02	Y	289442.79	79.88	2214.38	95633.93	PFO1/4E	PEM, PSS	River, stream or brook	159
WET-70-03	N	90426.93	39.94	6757.02	18640.31	PFO1/4E	PSS		158/159
WET-70-04	N	146677.90	0.00	5195.98	41419.73	PFO1-4			158
WET-71-101	N	865.89	0.00	0.00	0.00	PEM1E			161
WET-71-102	Y	55829.61	39.94	2789.27	8984.25	PFO/PEM		River, stream or brook	161
WET-71-103	N	2284.00	0.00	0.00	0.00	PEM1E			160
WET-71-104	Y	63303.06	19.64	798.84	0.00	PEM		River, stream or brook	160/161
WET-71-105	N	63384.32	0.00	0.00	18858.08	PFO1E	PEM1E		160/161
WET-71-106	N	101247.28	0.00	4509.67	11138.22	PFO1E	PEM1E		161
WET-72-101	N	351.22	0.00	0.00	0.00	PSS1E			162
WET-72-102	N	13233.35	0.00	490.29	0.00	PEM1E			162
WET-72-103	N	18635.21	0.00	0.00	0.00	PEM1E			163

Exhibit 9-10: Wetland Summary Table: Segment 2

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-72-104	N	5754.80	0.00	349.00	0.00	PSS1E	PEM1E		163
WET-72-105	N	5408.31	0.00	249.02	0.00	PSS1E			163
WET-72-106	N	103245.35	39.94	3487.49	0.00	PEM1E	PFO1E		164
WET-72-107	Y	5531.03	0.00	0.00	0.00	PSS1E		PSVP/SVP	162
WET-72-108	N	437.44	0.00	0.00	0.00	PSS1E			162
WET-72-109	Y	2149.18	0.00	0.00	0.00	PEM1E		River, stream or brook	163
WET-72-110	Y	13853.05	0.00	0.00	0.00	PSS1E		River, stream or brook	163
WET-73-101	N	89031.20	39.94	656.30	9806.89	PFO1, PEM			166
WET-73-102	N	5739.30	0.00	0.00	0.00	PEM			164
WET-73-103	Y	705.66	0.00	0.00	0.00	PSS1		River, stream or brook	164
WET-73-104	Y	1225.01	0.00	0.00	0.00	PSS		River, stream or brook	164
WET-73-105	Y	30253.72	39.94	1526.07	8129.40	PFO1/4	PSS	River, stream or brook	164/165
WET-73-106	N	16537.69	0.00	798.38	0.00	PEM	PFO1/4		165
WET-73-107	Y	7300.01	0.00	101.04	0.00	PEM		River, stream or brook	165
WET-73-108	N	2642.69	0.00	0.00	0.00	PSS1E			164
WET-74-101	Y	140566.37	39.94	8339.80	21773.55	PFO1		River, stream or brook	166
WET-74-102	Y	5931.83	0.00	916.71	0.00	PEM		Significant wildlife (DWA)	167
WET-74-103	Y	47913.91	0.00	0.00	0.00	PSS		Significant wildlife (DWA)	167
WET-74-104	N	9728.94	0.00	0.00	6480.64	PFO1E	PSS1E		168
WET-74-105	N	2062.37	0.00	0.00	0.00	PSS1E			168

Exhibit 9-10: Wetland Summary Table: Segment 3

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-100-01	Y	57776.00	0.00	3907.95	0.00	PEM1	PFO4	River, stream or brook; Significant wildlife (DWA)	222
WET-100-02	N	3684.19	0.00	0.00	0.00	PEM1	PSS1		222
WET-100-03	N	15983.69	0.00	1505.14	0.00	PEM1	PFO4		222
WET-100-04	Y	22422.40	0.00	0.00	0.00	PEM1	PFO4	River, stream or brook; Significant wildlife (IWWH)	223
WET-100-05	Y	23401.73	0.00	0.00	1926.69	PFO1/4, PEM1	PSS1	Significant wildlife (IWWH)	223
WET-100-06	N	266670.47	0.00	0.00	52478.47	PFO1/4, PEM1	PSS1		224
WET-101-01	N	3886.70	0.00	554.56	0.00	PSS1, PFO1	PEM1		224
WET-101-02	Y	85956.19	0.00	1274.03	7384.20	PFO1	PSS1	River, stream or brook	224/225
WET-101-03	N	7225.07	0.00	0.00	0.00	PEM1E	PSS1E		225
WET-101-04	Y	217663.18	0.00	13979.94	32560.64	PFO1E	PEM1E	River, stream or brook; Significant wildlife (IWWH); >20,000 sq ft of PEM	225
WET-101-05	N	2616.01	0.00	0.00	0.00	PFO1E			226
WET-101-06	Y	46206.38	0.00	737.31	9695.41	PFO1/4	PEM1	PSVP	226
WET-102-01	Y	3229.08	0.00	0.00	0.00	PSS1/4	PFO1	PSVP/SVP	226
WET-102-02	Y	1385.23	0.00	0.00	0.00	PSS1/4	PFO1	PSVP Habitat zone	226
WET-102-03	Y	181613.20	0.00	0.00	20544.97	PFO1	PEM1	River, stream or brook; Significant wildlife (IWWH)	227
WET-102-04	Y	67600.15	0.00	5144.94	11553.96	PFO1/4, PEM1	PSS1	PSVP	227

Exhibit 9-10: Wetland Summary Table: Segment 3

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-102-05	N	170397.68	0.00	9706.93	30260.02	PFO1/4, PEM1	PSS1		227
WET-102-06	Y	16784.18	0.00	0.00	0.00	PFO1E		River, stream or brook	228
WET-103-01	Y	7633.98	0.00	551.54	0.00	PFO1E		River, stream or brook	230
WET-103-02	Y	142.22	0.00	0.00	0.00	PEM		River, stream or brook	229
WET-103-03	Y	62650.29	0.00	0.00	0.00	PSS1	PEM1	River, stream or brook	229
WET-103-04	Y	7333.47	0.00	213.64	0.00	PEM1		River, stream or brook	229
WET-103-05	N	15644.61	0.00	487.71	0.00	PEM1	PFO1/4		228/229
WET-103-06	N	933.80	0.00	0.00	0.00	PFO1/4E			228
WET-103-07	N	6455.38	0.00	1088.60	0.00	PEM1			228
WET-103-08	Y	26042.14	0.00	0.00	17673.88	PFO1/4	PEM1	River, stream or brook	228
WET-103-09	Y	18596.72	0.00	0.00	7102.32	PFO1	PSS1, PEM1	River, stream or brook	229
WET-103-10	Y	47148.10	0.00	460.59	28308.72	PFO1, PSS	PEM	River, stream or brook	229/230
WET-103-11	Y	15791.52	0.00	0.00	0.00	PSS1	PFO1/4	River, stream or brook; Significant wildlife (DWA)	230
WET-103-12	N	5982.50	0.00	0.00	0.00	PEM1			229
WET-104-01	Y	159603.91	0.00	4460.39	34708.72	PFO1/4	PSS	River, stream or brook; Significant wildlife (DWA)	230/231
WET-104-02	Y	48261.03	0.00	4189.61	0.00	PSS1	PEM1	Significant wildlife (DWA)	233

Exhibit 9-10: Wetland Summary Table: Segment 3

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-104-03	Y	14148.76	0.00	571.61	0.00	PSS1	PFO4	River, stream or brook; Significant wildlife (DWA)	233
WET-104-04	N	41666.22	0.00	725.15	0.00	PEM1	PSS1		233
WET-104-05	Y	32835.37	0.00	1145.43	0.00	PEM1	PFO1	Significant wildlife (DWA)	234
WET-104-06	N	79925.93	0.00	3014.27	11608.21	PFO1/4E	PSS1		234
WET-104-07	N	153314.38	0.00	8214.82	0.00	PEM1	PFO1/4		234
WET-105-01	N	3083.73	0.00	0.00	0.00	PEM1			233
WET-105-02	N	29488.41	0.00	729.39	8640.81	PFO1, PEM1	PSS1		233
WET-105-03	N	3882.89	0.00	0.00	2715.24	PFO1			233
WET-105-04	N	73814.02	0.00	0.00	7644.87	PEM1, PFO1/4			233
WET-105-05	Y	584325.92	0.00	17044.71	100298.93	PEM1, PFO1		River, stream or brook	233/234
WET-106-01	N	11146.35	0.00	0.00	0.00	PEM1E			235
WET-106-02	N	1447.85	0.00	0.00	0.00	PEM			235
WET-106-03	N	21129.66	0.00	0.00	0.00	PEM1	PFO1		236
WET-106-04	N	1497.07	0.00	0.00	796.59	PFO1E			236
WET-107-01	Y	144613.04	0.00	0.00	30737.35	PFO1/4	PSS1, PEM1	River, stream or brook	237
WET-107-02	N	510.64	0.00	0.00	0.00	PFO1	PEM1		237
WET-107-03	Y	33639.53	0.00	652.32	0.00	PEM1	PSS1, PFO	River, stream or brook	237
WET-107-04	N	5961.21	0.00	0.00	0.00	PFO1	PEM1		237
WET-107-05	Y	105656.44	0.00	178.72	0.00	PSS1	PEM1	River, stream or brook	238
WET-107-06	N	23423.20	0.00	488.51	0.00	PEM	PFO1/4E		238
WET-107-07	N	2734.42	0.00	0.00	0.00	PSS1			238

Exhibit 9-10: Wetland Summary Table: Segment 3

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-107-08	Y	51767.96	0.00	0.00	10899.83	PFO1E		River, stream or brook	238/239
WET-108-01	N	12370.72	0.00	121.06	0.00	PEM1			241
WET-108-02	Y	57776.39	0.00	585.41	0.00	PEM1		River, stream or brook	239/240
WET-108-03	Y	26363.30	0.00	678.43	0.00	PEM1	PFO1	River, stream or brook	240/241
WET-109-01	N	2239.98	0.00	0.00	0.00	PEM1E			242
WET-109-02	N	2527.82	0.00	0.00	0.00	PEM1			241
WET-109-03	N	65037.60	0.00	2140.01	0.00	PEM1	PFO4		241
WET-109-04	Y	38837.49	0.00	559.08	2927.43	PFO1	PEM1	River, stream or brook	242
WET-109-05	Y	3726.80	0.00	0.00	0.00	PEM1	PSS1	River, stream or brook	242/243
WET-109-06	N	4193.04	0.00	0.00	0.00	PEM1	PFO4		243
WET-110-01	Y	53365.42	0.00	0.00	8969.67	PFO4		River, stream or brook	243
WET-110-02	N	1921.43	0.00	0.00	857.49	PFO4			243
WET-110-03	N	1276.77	0.00	0.00	1084.07	PFO1E			243
WET-110-04	N	4104.65	0.00	0.00	0.00	PFO1E	PSS1E		244
WET-110-05	N	216111.75	160.00	10861.06	49339.95	PFO1	PFO4		244
WET-110-06	N	10196.92	0.00	0.00	1308.14	PFO1/4			244
WET-110-07	N	2527.54	0.00	0.00	0.00	PSS1			245
WET-111-01	N	16562.10	0.00	0.00	0.00	PSS	PFO1E		245
WET-111-02	N	8873.80	0.00	89.69	0.00	PEM1	PSS1		245
WET-111-03	N	1839.46	0.00	0.00	0.00	PEM1	PSS1		246
WET-111-04	N	2562.13	0.00	0.00	0.00	PEM			246
WET-111-05	Y	3442.53	0.00	0.00	0.00	PEM1	PSS1	PSVP Habitat zone	246
WET-111-06	Y	7962.60	0.00	0.00	0.00	PEM1	PSS1	PSVP	246
WET-111-07	Y	1738.57	0.00	0.00	0.00	PFO1E		PSVP Habitat zone	246

Exhibit 9-10: Wetland Summary Table: Segment 3

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-111-08	Y	256978.22	0.00	3902.39	56688.70	PFO1	PEM1	River, stream or brook	246/247
WET-111-09	N	9776.71	0.00	0.00	0.00	PFO1/4			246
WET-112-01	N	1686.37	0.00	0.00	0.00	PFO1E			247
WET-112-02	Y	4057.45	0.00	0.00	298.16	PFO4	PEM1	River, stream or brook	247
WET-112-03	Y	273.99	0.00	0.00	0.00	PSS1E		River, stream or brook	248
WET-112-04	Y	43135.95	0.00	0.00	0.00	PSS1		River, stream or brook	248
WET-112-05	N	34453.82	0.00	0.43	9960.55	PFO1	PEM, PSS1		248
WET-112-06	N	7090.19	0.00	0.00	2881.35	PFO1/4	PEM1, PSS1		249
WET-112-07	N	7064.55	0.00	169.19	916.94	PSS1, PFO1/4, PEM1			249
WET-112-08	Y	1600.70	0.00	0.00	0.00	PEM1E		River, stream or brook	249
WET-112-09	Y	15211.24	0.00	0.00	4602.59	PSS1, PFO1/4, PEM1		River, stream or brook	249
WET-112-10	N	947.67	0.00	0.00	0.00	PEM1	PSS1		249
WET-112-11	N	66611.95	0.00	0.00	0.00	PFO1/4	PSS1		249
WET-113-01	N	24505.45	0.00	1670.88	0.00	PEM1			251
WET-113-02	N	98203.23	0.00	0.00	0.00	PSS1	PEM1		251
WET-114-01	N	26591.05	0.00	144.43	10218.08	PFO1/4	PSS1		252
WET-114-02	N	29642.06	0.00	0.00	0.00	PSS1	PEM1		252
WET-114-03	Y	140058.76	39.94	1739.59	0.00	PSS	PEM1E	River, stream or brook	252

Exhibit 9-10: Wetland Summary Table: Segment 3

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-114-04	Y	94158.04	0.00	958.53	0.00	PSS1	PFO1	River, stream or brook	253
WET-114-05	Y	4202.00	0.00	0.00	0.00	PSS1		River, stream or brook	253
WET-114-06	Y	42810.65	160.00	2246.18	0.00	PSS1	PFO1	River, stream or brook	253
WET-114-07	Y	2107.64	0.00	0.00	0.00	PEM	PSS1E	River, stream or brook	253/254
WET-114-08	Y	32344.83	0.00	0.00	6643.88	PFO1	PSS1	River, stream or brook	253/254
WET-115-01	N	619.17	0.00	0.00	619.17	PFO1	PSS1		254
WET-116-01	Y	20091.46	0.00	2118.01	0.00	PSS1	PFO1	River, stream or brook	256
WET-116-02	N	943.24	0.00	0.00	0.00	PFO			256
WET-116-03	Y	30530.20	0.00	1305.64	0.00	PSS1E	PEM1E	River, stream or brook	257
WET-116-04	Y	135399.48	0.00	10748.56	0.00	PEM2E	PEM1E	>20,000 sq ft of PEM, PSVP	257
WET-116-05	Y	419182.04	39.94	22553.92	88263.65	PFO1E	PEM1E, POW	River, stream or brook, PSVP	258
WET-116-06	Y	8000.64	0.00	371.66	0.00	PEM		River, stream or brook	256
WET-117-01	N	7628.75	0.00	0.00	0.00	PSS1E	PFO1E		258
WET-117-02	Y	5966.38	0.00	0.00	0.00	PEM2		River, stream or brook	259
WET-117-03	N	7944.93	0.00	0.00	3265.97	PFO1E			259
WET-117-04	N	16971.04	0.00	49.25	0.00	PFO1E	PSS1E		259
WET-117-05	Y	564880.76	0.00	4890.40	0.00	PSS1	PEM1	River, stream or brook	259/260
WET-117-06	N	2999.67	0.00	0.00	0.00	PEM1	PSS1		259

Exhibit 9-10: Wetland Summary Table: Segment 3

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-118-01	N	3352.52	0.00	0.00	0.00	PEM1	PSS1		260
WET-118-02	Y	5728.66	0.00	0.00	0.00	PEM1	PSS1	PSVP	261
WET-118-03	Y	31466.24	0.00	0.00	0.00	PEM1	PSS1	River, stream or brook; Significant wildlife (IWWH)	261/262
WET-119-01	Y	46059.32	0.00	1283.40	7129.43	PFO1/4E		River, stream or brook	262/263
WET-119-02	N	28029.00	0.00	2054.52	0.00	PEM	PFO1E		263
WET-119-03	Y	73658.10	0.00	438.25	0.00	PEM1	PSS1	PSVP	264
WET-119-04	N	28694.30	0.00	0.46	0.00	PEM1	PSS1		264
WET-120-01	N	257317.75	0.00	0.00	0.00	PSS1/4	PFO1/4		265/266
WET-120-02	N	72997.23	0.00	10.23	0.00	PSS1	PFO1		266
WET-121-01	Y	312566.91	0.00	2856.69	0.00	PEM1		River, stream or brook; >20,000 sq ft of PEM	266
WET-121-02	N	8263.68	0.00	0.00	0.00	PSS1E	PEM1E		266
WET-121-03	Y	566983.51	39.94	9682.94	0.00	PEM1	PSS1	River, stream or brook	266/267
WET-121-04	Y	110483.81	0.00	866.85	0.00	PSS1	PEM1	River, stream or brook	268/269
WET-122-01	Y	50869.08	0.00	43.13	0.00	PEM1	PSS1	River, stream or brook	269
WET-122-02	Y	38160.13	0.00	0.00	0.00	PSS1		River, stream or brook	269
WET-122-03	Y	228444.59	80.80	723.29	0.00	PSS		River, stream or brook	269/270
WET-122-04	N	8801.08	0.00	48.27	0.00	PSS1	PFO		270
WET-123-01	N	282730.45	0.00	0.00	0.00	PEM1	PSS1, PFO1		271

Exhibit 9-10: Wetland Summary Table: Segment 3

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-123-02	Y	63700.83	0.00	147.75	0.00	PSS1		River, stream or brook	271
WET-123-03	N	56005.71	0.00	547.09	0.00	PSS1	PFO1/4		272
WET-123-04	N	848.54	0.00	0.00	0.00	PFO1E			272
WET-123-05	N	215715.33	0.00	0.00	0.00	PEM1	PFO1		272/273
WET-124-01	N	31462.88	12.09	146.90	0.00	PSS1	PEM1		273
WET-124-02	Y	69053.98	0.00	476.82	0.00	PSS1	PEM1	River, stream or brook	273
WET-124-03	N	538209.02	199.94	5408.05	0.00	PFO1/4, PSS1	PEM1		273/274
WET-124-04	N	11902.32	0.00	31.73	0.00	PSS1E			274
WET-124-05	N	54076.73	0.00	689.75	15049.71	PSS1, PFO1/4	PEM1		274/275
WET-124-06	N	39704.07	0.00	0.00	0.00	PSS1/4			275
WET-124-07	N	10740.89	0.00	530.35	0.00	PSS1			275
WET-125-01	N	3704.41	0.00	404.73	0.00	PEM1	PSS1		275
WET-125-02	Y	17320.50	0.00	0.00	0.00	PSS1	PEM1	PSVP	275
WET-125-03	Y	6213.12	0.00	0.00	0.00	PEM1		River, stream or brook	275
WET-125-04	Y	214457.07	0.00	734.87	30172.17	PFO1/4	PEM1	River, stream or brook	275/276
WET-125-05	N	1166.91	0.00	0.00	1166.91	PFO1/4			275
WET-125-06	N	17341.23	0.00	2461.56	0.00	PSS1E	PEM1E		276
WET-125-07	N	438.49	0.00	0.00	0.00	PFO1E			277
WET-125-08	N	2225.82	0.00	0.00	0.00	PEM1	PSS1		277
WET-125-09	N	13158.32	0.00	909.35	0.00	PSS1			277
WET-125-10	N	49914.49	0.00	664.32	0.00	PSS1	PEM1		277
WET-126-01	N	1513.90	0.00	0.00	0.00	PEM1E	PSS1E		277
WET-126-02	N	15410.84	0.00	0.00	0.00	PSS1	PFO1		277
WET-126-03	N	22150.10	0.00	103.86	0.00	PSS1			277

Exhibit 9-10: Wetland Summary Table: Segment 3

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-126-04	N	5957.48	0.00	0.00	0.00	PSS1			277
WET-126-05	N	3462.50	0.00	0.00	0.00	PSS1			278
WET-126-06	Y	17338.24	0.00	0.00	0.00	PSS1		River, stream or brook	278
WET-126-07	Y	27013.70	0.00	0.00	1293.82	PSS1, PFO1	PEM1	River, stream or brook	278
WET-126-08	N	39611.40	0.00	0.00	0.00	PSS1	PFO1		278
WET-126-09	N	7052.26	0.00	0.00	0.00	PSS1E			279
WET-126-10	Y	20800.32	0.00	0.00	0.00	PSS1	PFO1	River, stream or brook	279
WET-126-11	N	36218.40	0.00	0.00	0.00	PEM1	PFO1/4, PSS1		279
WET-126-12	Y	27368.39	0.00	0.00	0.00	PEM1E		Significant wildlife (ETS)	279
WET-126-13	Y	736.00	0.00	0.00	0.00	PEM1E		Significant wildlife (ETS)	279
WET-127-01	Y	0.00	0.00	0.00	0.00	PFO1/4E		River, stream or brook; Significant wildlife (ETS)	279
WET-127-02	Y	1564.18	0.00	156.19	0.00	PSS1E		Significant wildlife (ETS)	279
WET-127-03	N	6846.96	0.00	25.11	0.00	PSS1E	PFO1		280
WET-127-04	Y	312493.43	0.00	1203.10	0.00	PSS1	PFO1	River, stream or brook	280/281
WET-128-01	Y	23984.93	0.00	997.70	4723.28	PFO1	PSS	River, stream or brook	281
WET-128-02	Y	85569.04	0.00	2026.49	14184.84	PFO1/4	PSS1	River, stream or brook	282
WET-128-03	N	2300.71	0.00	0.00	0.00	PSS			282
WET-128-04	N	315333.20	0.00	4321.07	0.00	PSS1	PFO1		282/283

Exhibit 9-10: Wetland Summary Table: Segment 3

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-128-05	Y	88910.46	0.00	1015.29	19405.48	PFO1/4	PEM1	Significant wildlife (ETS)	283
WET-128-06	Y	8736.85	0.00	0.00	5178.89	PFO1		Significant wildlife (ETS)	283
WET-128-07	N	20378.43	0.00	0.00	0.00	PSS1	PEM1		281
WET-129-01	Y	428958.60	39.94	18743.25	83754.96	PFO1/4	PSS1	Significant wildlife (ETS)	283/284
WET-129-02	N	62052.84	0.00	2099.13	0.00	PSS1	PEM		284
WET-129-02	N	62052.84	0.00	2099.13	0.00	PSS1	PEM		284
WET-129-03	Y	84859.12	0.00	0.00	0.00	PSS1	PFO1, PEM1	River, stream or brook	284
WET-129-04	N	6632.50	0.00	33.75	0.00	PEM1E			284
WET-129-05	N	515780.59	39.94	25660.26	0.00	PSS1	PFO1/4		284/285
WET-129-06	Y	193489.51	160.00	9826.01	0.00	PSS1	PEM, PFO1/4	River, stream or brook	285
WET-130-01	Y	690259.26	0.00	17047.89	0.00	PEM1	PFO1	River, stream or brook; Significant wildlife (Maine IF&W SVP)	286/287
WET-130-02	N	13059.60	0.00	5.76	0.00	PSS1	PFO1/4, PEM		287
WET-130-03	Y	14517.36	0.00	0.00	0.00	PSS1	PFO1	River, stream or brook	287
WET-130-04	Y	2078.82	0.00	0.00	0.00	PEM1E		Flood	287
WET-131-01	Y	36053.18	0.00	1010.61	10214.46	PFO1	PEM1	Flood; River, stream or brook	288
WET-131-02	N	15562.42	0.00	244.18	0.00	PEM1	PFO1		288
WET-131-03	N	24491.99	0.00	338.31	1350.63	PFO1	PEM1/PSS1		288
WET-131-04	N	7536.12	0.00	0.00	0.00	PEM1E			289

Exhibit 9-10: Wetland Summary Table: Segment 3

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-131-05	N	24856.99	0.00	1159.05	0.00	PSS1	PEM1E		289
WET-131-06	N	253937.13	0.00	0.00	0.00	PSS1	PFO1/4		289
WET-131-07	N	18306.57	0.00	14.84	0.00	PSS1	PEM1		289
WET-131-08	Y	123292.42	86.09	6070.92	24779.85	PFO1/4	PSS	River, stream or brook	290
WET-131-09	N	4099.32	0.00	0.00	0.00	PSS1E	PEM1E		289
WET-132-01	N	5813.95	0.00	0.00	0.00	PFO1/4E	PSS1E		290
WET-132-02	N	937.07	0.00	0.00	0.00	PFO1E			290
WET-132-03	Y	94848.09	0.00	0.00	7443.40	PFO1	PSS1/PEM1	River, stream or brook	290
WET-132-04	N	4317.30	0.00	0.00	0.00	PSS1	PEM1/PFO4/1		291
WET-132-06	N	353600.98	0.00	289.51	0.00	PSS1	PEM1		291/292
WET-133-01	N	350933.14	0.00	10292.38	0.00	PSS1	PFO1		292
WET-133-02	Y	6733.78	0.00	0.00	21.63	PFO1/4		Significant wildlife (DWA)	293
WET-133-03	Y	28218.49	0.00	0.00	0.00	PSS1	PFO1/4	Significant wildlife (DWA)	293
WET-133-04	Y	160672.02	0.00	0.00	27595.93	PFO1/4	PEM1	Significant wildlife (DWA)	293
WET-133-05	Y	46386.07	0.00	556.71	2853.15	PFO1/4	PSS1	River, stream or brook; Significant wildlife (DWA)	293
WET-133-06	N	26698.70	0.00	0.00	0.00	PFO1/4			294
WET-133-07	N	7400.02	0.00	0.00	0.00	PSS1	PFO1		294
WET-134-01	N	5163.44	0.00	0.00	0.00	PSS1	PFO		294
WET-134-02	N	8802.77	0.00	0.00	0.00	PFO1/4			294
WET-134-03	N	41226.12	0.00	0.00	9039.76	PFO1/4			295

Exhibit 9-10: Wetland Summary Table: Segment 3

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-134-04	Y	412644.81	0.00	8026.25	0.00	PSS1	PSS1, PEM1, PFO1/4	River, stream or brook	295/296
WET-134-05	N	1557.51	0.00	0.00	0.00	PFO1/4	PSS		296
WET-135-01	N	36525.17	0.00	0.00	0.00	PSS1	PEM		296
WET-135-02	Y	9398.61	0.00	20.43	2650.76	PFO1		Significant wildlife (Maine IF&W SVP)	296
WET-135-03	Y	12252.80	0.00	0.00	3452.39	PFO1	PSS	Significant wildlife (Maine IF&W SVP)	297
WET-135-04	Y	9995.90	0.00	1304.35	731.22	PFO1	PSS1	Significant wildlife (Maine IF&W SVP)	297
WET-135-05	Y	302268.54	39.94	3738.75	0.00	PSS1	PFO1	River, stream or brook; Significant wildlife (Maine IF&W SVP, DWA)	297/298
WET-135-06	Y	17074.88	0.00	0.00	0.00	PSS1	PFO	Flood; Significant wildlife (DWA)	298
WET-135-07	Y	22120.46	0.00	0.00	0.00	PSS1/4	PFO1/4	Significant wildlife (DWA)	298
WET-135-07	Y	22120.46	0.00	0.00	0.00	PSS1/4	PFO1/4	Significant wildlife (DWA)	298
WET-135-08	Y	1976.34	0.00	542.66	0.00	PSS1	PEM1	Significant wildlife (DWA)	298
WET-135-09	Y	5262.28	0.00	0.00	0.00	PSS1/4	PEM1	Significant wildlife (DWA)	298
WET-136-01	Y	137461.10	0.00	184.15	32878.22	PFO1/4		Significant wildlife (Maine IF&W SVP, DWA)	298/299
WET-136-02	Y	29653.70	0.00	0.00	0.00	PEM1	PFO1/4	Significant wildlife (Maine IF&W SVP)	299

Exhibit 9-10: Wetland Summary Table: Segment 3

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-136-03	N	69359.28	0.00	1891.51	3378.10	PFO4			299
WET-136-04	N	15390.09	39.94	708.89	0.00	PSS2/1E			299
WET-136-05	Y	10506.14	0.00	1108.86	0.00	PSS1		PSVP	299/300
WET-136-06	Y	8468.14	0.00	1020.56	0.00	PSS1		PSVP Habitat zone	300
WET-136-07	Y	10098.47	0.00	0.00	0.00	PFO1/4		Significant wildlife (DWA)	300
WET-136-08	Y	3567.52	0.00	0.16	2369.50	PFO		Significant wildlife (DWA)	300
WET-136-09	Y	37727.31	0.00	1617.96	0.00	PSS1/4	PFO1/4	Significant wildlife (DWA), PSVP	300
WET-136-10	Y	5266.46	0.00	307.90	0.00	PSS1	PFO4	Significant wildlife (DWA)	300
WET-136-11	Y	68230.63	0.00	2925.22	0.00	PSS1	PFO1/4	River, stream or brook; Significant wildlife (Maine IF&W SVP, DWA);	300
WET-136-12	Y	12670.07	0.00	0.00	835.14	PFO1/4		PSVP Habitat zone	299
WET-137-01	Y	2622.09	0.00	0.00	0.00	PEM1	PSS1	Significant wildlife (DWA)	300
WET-137-02	Y	7450.24	0.00	0.00	0.00	PFO1/4	PSS1	Significant wildlife (DWA)	301
WET-137-03	Y	8969.56	0.00	1034.69	0.00	PEM1	PSS1	Significant wildlife (DWA)	301
WET-137-04	Y	29600.28	0.00	1278.22	7078.23	PFO1/4	PSS1	Significant wildlife (DWA)	301
WET-137-05	Y	1807.48	0.00	0.00	57.18	PFO1E		Significant wildlife (DWA), PSVP	302
WET-137-06	Y	8138.85	0.00	0.00	895.36	PFO1/4E		Significant wildlife (DWA)	301

Exhibit 9-10: Wetland Summary Table: Segment 3

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-137-07	Y	14938.19	0.00	316.40	0.00	PEM1		Significant wildlife (DWA)	301
WET-137-08	N	5304.03	0.00	15.92	0.00	PSS1	PFO1/4		301/302
WET-137-09	N	12945.11	0.00	1649.86	0.00	PSS1	PFO1		301/302
WET-137-10	Y	21846.77	0.00	0.00	7264.06	PFO1		Significant wildlife (DWA)	302
WET-138-01	N	47483.87	0.00	0.00	0.00	PSS1E			303
WET-138-02	N	214631.74	0.00	0.29	0.00	PEM1, PSS1	PFO4		303/304
WET-138-03	Y	16649.30	0.00	422.81	0.00	PSS1		River, stream or brook	304
WET-138-04	N	515.00	0.00	0.00	0.00	PSS1	PEM		304
WET-138-05	N	20460.44	0.00	272.79	0.00	PSS1	PFO		304
WET-138-06	Y	34510.38	0.00	0.00	0.00	PSS1	PFO1/4	River, stream or brook	304/305
WET-138-07	Y	66314.56	0.00	3884.87	0.00	PSS1	PFO	River, stream or brook	305
WET-138-08	N	172373.80	0.00	580.63	0.00	PSS1	PFO1/4		305
WET-138-09	N	22988.69	0.00	0.00	0.00	PSS1	PFO1		305
WET-138-10	Y	43811.72	0.00	576.73	0.00	PEM1	PFO1	River, stream or brook	307
WET-138-11	N	2758.34	0.00	0.00	0.00	PSS1	PFO1/4		304
WET-140-01	Y	5541.93	0.00	525.92	0.00	PSS1		River, stream or brook	307
WET-140-02	Y	18255.28	0.00	559.19	0.00	PSS1	PFO	Significant wildlife (Maine IF&W SVP)	307
WET-140-03	Y	37974.82	0.00	19.02	0.00	PSS1	PFO1/4	Significant wildlife (Maine IF&W SVP)	308
WET-140-04	N	19068.16	0.00	0.00	0.00	PEM	PSS1E		308

Exhibit 9-10: Wetland Summary Table: Segment 3

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-140-05	Y	24212.01	0.00	0.00	0.00	PEM1	PFO1/4	River, stream or brook	308
WET-140-06	Y	114094.85	0.00	2224.14	0.00	PSS1	PFO1/4	River, stream or brook; Significant wildlife (IWWH); Great pond; >20,000 sq ft of PEM	308
WET-141-01	N	762.99	0.00	0.00	623.29	PFO1E			311
WET-141-02	N	8120.36	0.00	0.00	0.00	PSS1E			310
WET-141-03	Y	544148.45	160.00	8202.18	0.00	PSS1	PFO1	River, stream or brook	309/310
WET-142-01	Y	6109.99	0.00	0.00	3506.37	PFO1/4	PSS1	Significant wildlife habitat	311
WET-142-02	N	1571.12	0.00	0.00	0.00	PFO1E			311
WET-142-03	N	3005.64	0.00	0.00	0.00	PSS1E			312
WET-142-04	Y	250646.35	0.00	10652.44	0.00	PEM1	PFO	Peatland	313
WET-143-01	N	395409.71	39.94	10380.86	0.00	PEM1	PFO1/4		313/314
WET-143-02	Y	121372.33	0.00	719.43	0.00	PSS1	PFO1/4	Significant wildlife (Maine IF&W SVP)	314
WET-143-03	Y	2296.65	0.00	0.00	0.00	PFO4E		Significant wildlife (Maine IF&W SVP)	314
WET-143-04	N	136497.00	0.00	4326.55	33680.39	PFO1/4	PSS1		314/315
WET-143-05	N	3701.83	0.00	36.27	0.00	PSS			315
WET-143-06	Y	87474.21	39.94	2479.22	0.00	PEM	PFO4	River, stream or brook	315
WET-144-01	N	20452.08	0.00	0.00	0.00	PSS1E	PEM1E		316
WET-144-02	Y	472869.71	39.94	5737.80	0.00	PEM1	PSS1	River, stream or brook	316
WET-144-03	Y	63564.84	0.00	0.00	1807.42	PFO4/1		Significant wildlife (Maine IF&W SVP)	316/317

Exhibit 9-10: Wetland Summary Table: Segment 3

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-145-01	Y	676338.53	344.99	24327.70	0.00	PEM1	PSS1	River, stream or brook	317/318
WET-145-04	N	4537.24	0.00	0.00	0.00	PSS1	PFO1		318
WET-145-05	Y	307064.57	253.93	2827.90	0.00	PEM1	PSS1	River, stream or brook; Significant wildlife (IWWH)	318/319
WET-145-06	Y	15970.21	0.00	0.00	0.00	PSS1E		Significant wildlife (IWWH)	319
WET-145-07	Y	8794.82	0.00	0.00	0.00	PSS1	PEM1	River, stream or brook	321
WET-145-08	N	1053.79	0.00	0.00	0.00	PSS1	Unknown		319
WET-146-01	Y	61199.08	0.00	0.00	0.00	PFO1	PSS	River, stream or brook	321
WET-75-01	N	9403.81	0.00	0.00	0.00	PUB, PFO1E			170
WET-75-02	N	1883.78	0.00	0.00	0.00	PEM1E			169/170
WET-75-03	N	28377.85	0.00	0.00	2737.02	PFO			169/170
WET-75-04	N	1147.95	0.00	0.00	0.00	PEM1E			170
WET-75-05	N	1159.69	0.00	0.00	0.00	PSS1E			170
WET-75-06	N	2800.49	0.00	0.00	0.00	PUB, PSS1E			170
WET-75-07	Y	117115.07	0.00	426.87	21640.46	PFO1/4E		River, stream or brook, PSVP	170
WET-76-01	Y	10724.34	0.00	0.00	0.00	PSS1E		River, stream or brook	171
WET-76-02	Y	30670.62	0.00	0.00	0.00	PSS1E	PFO1/4	River, stream or brook	171
WET-76-03	Y	10594.04	0.00	0.00	0.00	PFO1/4E		River, stream or brook	171
WET-76-04	N	990.31	0.00	0.00	0.00	PFO1E			171

Exhibit 9-10: Wetland Summary Table: Segment 3

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-76-05	Y	7790.32	0.00	0.00	0.00	PFO1E		River, stream or brook	171
WET-76-06	N	1254.66	0.00	0.00	0.00	PEM			173
WET-76-07	N	2091.43	0.00	0.00	0.00	PSS1E			173
WET-77-01	N	7222.35	0.00	0.00	0.00	PFO1E	PUB		174
WET-77-02	N	3286.06	0.00	0.00	0.00	PFO			174
WET-77-03	N	3955.98	0.00	0.00	0.00	PFO4E			174
WET-77-04	Y	228000.03	0.00	0.00	0.00	PSS	PFO, PEM	>20,000 sq ft of open water/PEM	175
WET-77-05	Y	2063.28	0.00	0.00	0.00	PFO1E		River, stream or brook	175
WET-77-06	N	4.23	0.00	0.00	0.00	PFO1E			175
WET-77-07	N	9109.41	0.00	0.00	0.00	PSS1E			175
WET-77-08	Y	90479.19	0.00	493.41	0.00	POW	PFO1/4E, PSS	>20,000 sq ft of open water/PEM	174
WET-78-01	N	218.95	0.00	0.00	0.00	PEM1E			175
WET-78-02	N	1454.19	0.00	0.00	0.00	PSS1E			176
WET-78-03	N	3509.76	0.00	0.00	0.00	PEM1E			176
WET-78-04	N	1728.33	0.00	0.00	0.00	PFO1E			176
WET-78-05	Y	306994.26	0.00	787.21	58428.24	PFO4E	PEM, PSS	MNAP, River, stream, brook	176/177
WET-78-06	Y	982.36	0.00	0.00	0.00	PFO4E		River, stream or brook	178
WET-78-07	Y	101615.44	0.00	0.00	10567.59	PFO1	PFO1/4E, PEM, PSS	River, stream or brook	178
WET-79-01	N	473827.25	0.00	24352.85	62647.46	PEM, PFO4E	PFO1, PSS		178
WET-79-02	N	4615.08	0.00	0.00	656.91	PFO1E			178

Exhibit 9-10: Wetland Summary Table: Segment 3

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-79-03	Y	120938.94	0.00	93.44	0.00	PSS	PFO4E, PEM	>20,000 sq ft of PEM; Significant wildlife (IWWH)	179/180
WET-79-04	N	22931.39	0.00	0.00	0.00	PFO1/4E			179
WET-79-05	N	6431.32	0.00	0.00	0.00	PFO1/4E			179
WET-79-06	N	415.49	0.00	0.00	0.00	PFO1/4E			178
WET-80-01	N	27677.35	0.00	259.24	5054.50	PFO1/4E	PEM		180
WET-80-02	N	5927.76	0.00	0.00	0.00	PFO1E			180
WET-80-03	Y	43673.86	0.00	1848.26	5988.74	PFO1E		River, stream or brook	180
WET-80-04	Y	24928.53	0.00	511.84	13022.69	PFO1E		PSVP	180/181
WET-80-05	Y	15489.06	0.00	541.40	2534.46	PFO1	PSS1E	River, stream or brook	181
WET-80-06	N	4878.59	0.00	0.00	0.00	PFO1E			181
WET-80-07	N	2690.00	0.00	0.00	1014.69	PFO1E			181
WET-80-08	N	1662.07	0.00	0.00	792.07	PFO1E			181
WET-80-09	N	1121.92	0.00	0.00	0.00	PFO1E			180/181
WET-80-10	N	5648.91	0.00	0.00	0.00	PFO4E			180
WET-80-11	N	941.03	0.00	0.00	0.00	PFO1E			180
WET-80-12	N	8660.64	0.00	26.53	0.00	PFO1/4E			180
WET-80-13	N	3784.50	0.00	12.05	0.00	PEM1E			180
WET-80-14	N	28557.40	0.00	0.00	0.00	PEM, PFO4E			181
WET-80-15	N	7194.94	0.00	95.99	0.00	PEM1E			181
WET-80-16	Y	23898.85	0.00	1677.37	3983.72	PFO1/4E		River, stream or brook	181
WET-80-17	N	1922.43	0.00	0.00	0.00	PFO1E			181
WET-80-18	Y	11680.60	0.00	372.71	2006.27	PFO		PSVP/SVP	181
WET-81-01	Y	143186.46	0.00	1602.90	31040.02	PFO1/4E		River, stream or brook	182

Exhibit 9-10: Wetland Summary Table: Segment 3

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-81-02	N	65422.34	0.00	2560.69	4130.46	PFO1/4E			182
WET-81-03	N	11496.05	0.00	199.08	207.34	PFO1E			181
WET-81-04	N	2862.52	0.00	91.04	0.00	PEM	PSS1E		182
WET-81-05	N	1097.25	0.00	0.00	1052.64	PFO4E			182
WET-81-06	N	3565.18	0.00	0.00	0.00	PFO1E			182
WET-81-07	N	11418.87	0.00	0.00	388.27	PFO1E			183
WET-81-08	N	13178.56	0.00	0.00	1809.69	PFO			183
WET-81-09	N	5413.84	0.00	0.00	0.00	PFO4E			183
WET-81-10	N	5456.84	0.00	0.00	0.00	PSS1E			183
WET-81-11	N	3763.85	0.00	0.00	0.00	PFO1/4E			183
WET-81-12	N	4137.72	0.00	0.00	0.00	PFO1E			182
WET-81-13	N	2539.79	0.00	0.00	0.00	PFO1/4E			182
WET-81-14	N	71893.25	0.00	1593.90	14149.16	PFO4E	PSS, PEM1E		183/184
WET-81-15	N	3671.25	0.00	0.00	0.00	PFO1/4E			183
WET-82-01	Y	26572.32	39.94	743.83	0.00	PEM, PSS		Significant wildlife (DWA)	184
WET-82-02	Y	48998.14	0.00	4657.60	10308.81	PFO1/4E	PSS, PEM	Significant wildlife (DWA)	184
WET-82-03	Y	5297.72	0.00	0.00	0.00	PFO4E		Significant wildlife (DWA)	185
WET-82-04	Y	19862.48	0.00	0.00	0.00	PFO4E	PFO1E	Significant wildlife (DWA)	185
WET-82-05	Y	65964.35	0.00	1124.27	0.00	PEM1	PSS1	Significant wildlife (DWA)	185
WET-82-06	Y	1489.96	0.00	0.00	0.00	PEM1E		Significant wildlife (DWA)	185
WET-82-07	Y	1275.02	0.00	0.00	0.00	PFO1		Significant wildlife (DWA)	185

Exhibit 9-10: Wetland Summary Table: Segment 3

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-82-08	Y	3802.85	0.00	0.00	0.00	PFO1/4E		Significant wildlife (DWA)	184
WET-82-09	Y	6896.41	0.00	62.34	0.00	PSS1E		Significant wildlife (DWA)	184
WET-82-10	Y	5936.36	0.00	0.00	0.00	PUB	PFO4E	Significant wildlife (DWA)	184
WET-83-01	N	1315.25	0.00	0.00	31.12	PFO1E			188
WET-83-02	Y	22634.57	0.00	1287.40	0.00	PEM1E	PSS1E	River, stream or brook	187
WET-83-03	Y	1136.33	0.00	0.00	0.00	PSS1E		River, stream or brook	187
WET-83-04	N	2884.78	0.00	0.00	0.00	PFO1/4E			187
WET-83-05	N	50931.70	0.00	1834.03	7424.11	PFO4E, PSS			187
WET-83-06	Y	3685.15	0.00	0.00	0.00	PEM1E	PFO1E	River, stream or brook	187
WET-83-07	Y	49816.03	39.94	4994.47	0.00	PSS1E		River, stream or brook	186
WET-83-08	Y	1427.65	0.00	0.00	0.00	PSS1E		River, stream or brook	186
WET-83-09	Y	940.30	0.00	0.00	0.00	PEM1E		River, stream, or brook	186/187
WET-83-10	Y	13028.26	0.00	0.00	0.00	PEM1E	PSS1E	PSVP	186/187
WET-83-11	Y	5301.66	0.00	0.00	0.00	PSS1E		River, stream, or brook	187
WET-83-12	Y	426.92	0.00	0.00	0.00	PSS1E		River, stream, or brook, PSVP	187
WET-83-13	Y	1725.05	0.00	0.00	0.00	PSS1E		PSVP	187
WET-83-14	Y	5647.29	0.00	0.00	0.00	PSS1E		River, stream, or brook	187

Exhibit 9-10: Wetland Summary Table: Segment 3

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-83-15	N	28297.97	0.00	0.00	0.00	PSS1E			187
WET-83-16	Y	4924.41	0.00	0.00	0.00	PEM1E	PFO1E	River, stream, or brook	187
WET-83-17	Y	2023.47	0.00	0.00	0.00	PSS1E		River, stream, or brook	187
WET-83-18	Y	104413.24	0.00	0.00	0.00	PFO4E	PSS1E	River, stream or brook	186/187
WET-83-19	Y	2456.47	0.00	0.00	0.00	PSS		River, stream, or brook	187
WET-83-20	Y	1079.18	0.00	0.00	0.00	PSS		River, stream, or brook	186
WET-83-21	Y	25331.40	0.00	0.00	0.00	PFO		Significant wildlife (DWA)	186
WET-83-22	Y	241500.26	0.00	4906.78	0.00	PSS/PEM		Significant wildlife (DWA)	186
WET-84-01	N	51936.80	0.00	0.00	0.00	PFO1/4E	PEM1E		189
WET-84-02	N	1034.58	0.00	0.00	0.00	PEM1E			188/189
WET-84-03	Y	11569.12	0.00	0.00	0.00	PFO1/4E		River, stream or brook	188
WET-84-04	Y	95178.86	0.00	0.00	0.00	PFO1/4E		River, stream or brook	188
WET-84-05	N	425.92	0.00	0.00	0.00	PFO1E			189
WET-85-01	Y	542497.33	0.00	10719.25	54829.67	PFO1/4	PEM1	River, stream or brook; Significant wildlife (IWWH)	190/191
WET-85-02	N	4650.15	0.00	0.00	0.00	PFO1/4E	PSS1E		190
WET-85-03	Y	3623.65	0.00	0.00	0.00	PEM1E		Significant wildlife (IWWH)	190
WET-85-04	Y	34293.30	0.00	0.00	0.00	PFO1/4		PSVP	192
WET-85-05	N	199546.38	0.00	4324.99	0.00	PEM1	PFO1/4		191/192

Exhibit 9-10: Wetland Summary Table: Segment 3

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-86-01	N	1881.40	0.00	0.00	1875.90	PFO1E			192
WET-86-02	N	450768.13	0.00	14281.15	0.00	PSS1	PFO1/4		192/193
WET-86-03	N	3736.88	0.00	1102.48	0.00	PSS1	PEM1		193
WET-86-04	Y	5951.34	0.00	0.00	0.00	PFO1/4		PSVP/SVP	193
WET-86-05	Y	2645.37	0.00	0.00	0.00	PFO1E		PSVP/SVP	193
WET-86-06	Y	3722.59	0.00	0.00	0.00	PFO1/4E		PSVP	193
WET-86-07	N	5852.68	0.00	0.00	0.00	PFO1/4			193
WET-86-08	N	7636.15	0.00	0.00	0.00	PSS1			194
WET-86-09	Y	17781.47	0.00	211.87	0.00	PEM1		PSVP/SVP	193
WET-86-10	Y	20283.55	0.00	0.00	0.00	PEM1	PFO4/1	PSVP/SVP	194
WET-86-11	Y	6090.66	0.00	0.00	0.00	PSS1E		PSVP/SVP	194
WET-87-01	Y	536182.18	0.00	14034.81	0.00	PEM1E	PFO1/4E	River, stream or brook, PSVP	194
WET-87-02	N	27744.72	0.00	76.22	0.00	PEM1			195
WET-87-03	N	19641.13	0.00	408.06	937.55	PFO1E	PEM1E		195
WET-87-04	N	5537.68	0.00	483.14	0.00	PSS1E			195
WET-87-05	N	4002.60	0.00	0.00	3641.29	PFO1W			195
WET-87-06	N	18269.94	0.00	0.00	0.00	PFO1/4			196
WET-87-07	N	6078.49	0.00	0.00	0.00	PEM1			196
WET-87-08	N	97162.20	0.00	2702.33	9900.09	PFO1	PEM1, PSS1		196
WET-88-01	N	51081.01	0.00	413.21	0.00	PEM1	PFO1/4		196
WET-88-02	N	14986.08	0.00	0.00	0.00	PEM1	PSS1		197
WET-88-03	N	3051.35	0.00	0.00	1483.00	PFO1/4E			197
WET-88-04	N	154171.96	0.00	5822.00	26230.76	PFO1/4	PEM1		197
WET-88-05	N	20482.87	0.00	0.00	0.00	PEM1	PSS1		197
WET-88-06	N	13993.14	0.00	0.00	0.00	PSS1E			197/198
WET-88-07	N	107337.38	0.00	5320.65	21348.21	PFO1/4	PEM1		198
WET-89-01	Y	93202.20	0.00	0.00	0.00	PSS		River, stream or brook	198/199

Exhibit 9-10: Wetland Summary Table: Segment 3

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-89-02	N	7473.29	0.00	0.00	0.00	PSS1E			199
WET-89-03	N	1706.70	0.00	0.00	0.00	PFO1			199
WET-89-04	N	12897.61	0.00	173.25	1115.81	PFO1/4			199
WET-89-05	N	3580.10	0.00	0.00	0.00	PFO1			199
WET-89-06	N	5606.90	0.00	0.00	176.21	PFO1/4			199
WET-89-07	N	1534.08	0.00	0.00	0.00	PEM1	PFO1		200
WET-90-01	Y	249542.24	0.00	0.00	0.00	PSS1	PFO1, PEM1	River, stream or brook	201
WET-90-02	N	4946.42	0.00	134.69	0.00	PEM1	PSS1		201
WET-90-03	Y	5784.56	0.00	0.00	811.53	PFO1	PEM1	MNAP	202
WET-90-04	Y	40414.74	0.00	0.00	0.00	PEM1	PSS1	PSVP	202
WET-90-05	Y	23972.09	0.00	0.00	0.00	PEM1	PSS1	River, stream or brook	202/203
WET-91-01	N	9621.40	0.00	0.00	0.00	PFO1/4			203
WET-91-02	N	1870.09	0.00	0.00	0.00	PFO4E			203
WET-91-03	N	10073.84	0.00	571.94	0.00	PEM1	PSS1, PFO1		203
WET-91-04	Y	21872.45	0.00	0.00	0.00	PSS1	PEM1	River, stream or brook	203
WET-91-05	N	97619.45	39.94	3431.60	0.00	PEM1	PSS1		204
WET-91-06	N	17362.91	0.00	0.00	0.00	PEM1	PSS1		204
WET-91-07	N	205445.03	39.94	3374.51	0.00	PEM1	PSS, PFO1/4		204
WET-91-08	N	1987.06	0.00	0.00	0.00	PEM1	PSS1		205
WET-91-09	N	8787.58	0.00	0.00	0.00	PFO1/4			205
WET-92-01	N	105716.74	0.00	0.00	0.00	PEM1	PFO1/4		205
WET-92-02	N	117683.56	0.00	0.00	9120.55	PFO1/4			205/206
WET-92-03	Y	1972.58	0.00	0.00	0.00	PEM1	PSS1	PSVP	206
WET-92-05	Y	9106.48	0.00	0.00	0.00	PFO1/4	PEM1	PSVP/SVP	206
WET-92-06	N	5147.60	0.00	0.00	0.00	PEM1			206

Exhibit 9-10: Wetland Summary Table: Segment 3

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-92-07	Y	87842.94	0.00	0.00	0.00	PEM1	PSS1, PFO1/4	River, stream or brook	206
WET-92-08	Y	615894.95	0.00	5478.99	0.00	PEM1	PFO1/4	River, stream or brook	206/207
WET-93-01	N	201888.60	39.94	6708.26	0.00	PSS1	PEM1		208
WET-93-02	N	13910.05	0.00	0.00	273.64	PFO1			208
WET-93-03	Y	1936.07	0.00	0.00	0.00	PFO1	PSS	River, stream or brook	209/210
WET-93-04	N	86050.66	0.00	2191.98	0.00	PEM1B	PFO1B		210
WET-95-01	Y	96740.16	0.00	0.00	0.00	PEM1	PSS1	River, stream or brook	211/212
WET-95-02	N	14346.79	0.00	0.00	0.00	PEM1	PSS1		212
WET-95-03	Y	28965.12	0.00	0.00	0.00	PEM1	PSS1	River, stream or brook	212
WET-95-04	N	55481.41	39.94	1423.08	0.00	PEM1			212/213
WET-95-05	N	19576.39	0.00	622.37	0.00	PEM1E			213
WET-96-01	Y	26253.33	0.00	139.87	0.00	PSS1E	PFO1E	River, stream or brook	213/214
WET-96-02	Y	83646.46	0.00	8024.81	6923.34	PFO1E	PSS1E	River, stream or brook	214
WET-96-03	N	19817.61	0.00	832.80	0.00	PSS1E			214
WET-96-04	N	113.30	0.00	0.00	0.00	PSS1E			214
WET-96-05	Y	70035.10	0.00	0.00	0.00	PSS1E		River, stream or brook; Significant wildlife (DWA)	215
WET-96-06	N	2462.74	0.00	0.00	0.00	PEM1E			215
WET-96-07	Y	804.71	0.00	0.00	0.00	PUB		Significant wildlife (DWA)	215
WET-96-08	N	320.55	0.00	0.00	0.00	PEM1E			213/214

Exhibit 9-10: Wetland Summary Table: Segment 3

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-96-09	Y	16214.19	0.00	577.72	3163.32	PFO1E	PSS1E	River, stream or brook; Significant wildlife (DWA)	215
WET-96-10	Y	4802.27	0.00	2.68	0.00	PEM1E		Significant wildlife (DWA)	215
WET-97-01	Y	6961.92	0.00	0.00	0.00	PFO		Significant wildlife (IWWH, DWA)	216
WET-97-02	Y	110245.48	39.94	6913.83	21028.27	PFO		River, stream or brook; Significant wildlife (IWWH, DWA)	216
WET-97-03	Y	28397.01	0.00	2686.50	0.00	PSS1E	PFO1E	River, stream or brook; Significant wildlife (DWA)	216
WET-97-04	N	80463.28	0.00	2065.67	24678.17	PFO1/4E	PSS1E		217
WET-97-05	N	2706.10	0.00	0.00	0.00	PSS1E			217
WET-97-06	N	79272.17	39.94	7463.83	9144.62	PFO1E	PSS1E		217
WET-97-07	Y	107954.77	0.00	0.00	17682.13	PFO1E	PSS1E	River, stream or brook; Significant wildlife (IWWH)	217/218
WET-98-01	N	1225.66	0.00	76.49	0.00	PSS1E			218
WET-98-02	N	2266.91	0.00	0.00	0.00	PFO1E			218
WET-98-03	N	10609.18	0.00	1510.68	2276.80	PFO4E	PSS1E		218
WET-98-04	N	67250.31	39.94	6180.32	13354.42	PFO1/4E	PSS1E		219
WET-98-05	N	77399.71	0.00	7761.27	8717.58	PFO1/4E	PSS1E		219
WET-98-06	Y	53080.52	0.00	2631.66	8350.12	PFO1/4E	PEM, PSS1E	River, stream or brook	219
WET-98-07	N	3813.67	0.00	0.00	2457.65	PFO1/4E			219
WET-99-01	Y	64492.76	0.00	5.05	19126.35	PFO4E		Significant wildlife (DWA)	221

Exhibit 9-10: Wetland Summary Table: Segment 3

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-99-02	Y	48948.64	0.00	2433.32	0.00	PEM1	PFO1/4	River, stream or brook; Significant wildlife (DWA)	221
WET-99-03	N	1076.28	0.00	0.00	0.00	PEM1E			220
WET-99-04	Y	2907.13	0.00	2.84	0.00	PSS		River, stream or brook; Significant wildlife (DWA)	221
WET-99-05	Y	67015.44	0.00	1656.26	14384.45	PFO1/4	PEM1	River, stream or brook; Significant wildlife (DWA)	221
WET-99-06	N	5927.53	0.00	0.00	0.00	PFO			220
WET-99-07	N	829.07	0.00	0.00	0.00	PSS1E			220
WET-99-08	N	8572.90	0.00	106.59	0.00	PFO4E			220

Exhibit 9-10: Wetland Summary Table: Segment 4

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-146-02	Y	5119.96	0.00	0.00	0.00	PEM1		River, stream or brook	321
WET-146-04	Y	662009.28	134.00	12292.33	0.00	PSS1E		River, stream or brook	320
WET-146-05	N	81392.43	0.00	4707.54	0.00	PEM1			320
WET-146-06	N	7022.75	0.00	0.00	0.00	PEM1	PSS1		320
WET-146-07	N	9568.41	0.00	0.00	0.00	PEM1E			320
WET-146-08	Y	315427.37	90.00	21639.36	0.00	PEM1	PSS1	River, stream or brook	320/322
WET-146-09	N	12295.81	0.00	0.00	0.00	PEM1E			322
WET-146-10	N	35163.88	0.00	0.00	0.00	PSS1	PFO1/4		322
WET-146-11	N	3364.09	0.00	0.00	0.00	PFO1			322
WET-147-01	Y	296015.65	60.00	12578.89	0.00	PSS1	PEM1	River, stream or brook	323
WET-147-02	Y	4180.49	0.00	0.00	0.00	PSS1		Significant wildlife (Maine IF&W SVP)	323
WET-147-03	Y	2537.65	0.00	0.00	0.00	PEM1E		Significant wildlife (Maine IF&W SVP)	323
WET-147-04	Y	758612.45	210.00	46024.53	0.00	PSS1	PEM1	River, stream or brook	323/324/325
WET-148-01	Y	15603.31	0.00	0.00	0.00	PSS1	PEM1	Significant wildlife (Maine IF&W SVP)	325
WET-148-02	N	2941.11	0.00	0.00	0.00	PSS1	PEM1		325
WET-148-03	N	81137.98	30.00	3592.91	0.00	PSS1	PFO1		326
WET-148-04	N	9036.97	0.00	0.00	0.00	PEM1			326
WET-148-05	Y	17057.74	0.00	692.21	0.00	PSS1	PFO1/4	River, stream or brook	326
WET-148-06	Y	11328.99	0.00	549.41	0.00	PSS1	PFO1	River, stream or brook	327

Exhibit 9-10: Wetland Summary Table: Segment 4

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-149-01	Y	459499.31	120.00	24310.71	0.00	PSS1	PEM1	River, stream or brook; Significant wildlife (Maine IF&W SVP)	327/328
WET-149-02	N	2832.79	0.00	94.93	0.00	PEM1			328
WET-149-03	Y	20918.16	0.00	0.00	0.00	PSS1E	PFO1E	Flood	328
WET-149-04	N	78412.24	0.00	2967.79	0.00	PSS1			328
WET-149-05	N	40677.55	0.00	0.00	0.00	PEM1			329
WET-150-01	N	26798.47	0.00	756.23	0.00	PEM1	PFO1		329
WET-150-02	N	1816.57	0.00	0.00	0.00	PSS1			329
WET-150-03	N	4190.61	0.00	770.09	0.00	PEM			329
WET-150-04	N	2049.51	0.00	538.16	0.00	PSS1E			329
WET-150-05	Y	145879.18	0.00	5318.23	0.00	PEM1	PSS1	River, stream or brook	329/330
WET-150-06	N	2491.63	0.00	0.00	0.00	PEM1	PSS1		330
WET-150-07	N	1328.85	0.00	0.00	0.00	PEM2	PSS2		330
WET-150-08	N	6327.21	0.00	0.00	0.00	PEM1E	PSS1E		330
WET-150-09	Y	20268.95	0.00	800.64	0.00	PSS1	PEM1	River, stream or brook	330
WET-150-10	N	7778.34	0.00	0.00	0.00	PSS1			330
WET-150-11	Y	10116.82	0.00	1209.29	0.00	PEM1E		Significant wildlife (DWA)	330
WET-150-11	N	10116.82	0.00	1209.29	0.00	PEM1E			
WET-151-01	N	74778.16	30.00	6965.03	0.00	PEM1, PSS1	PFO1		331
WET-151-02	Y	392845.83	60.00	11985.48	0.00	PSS1	PEM1	River, stream or brook	331/332
WET-151-03	N	5894.86	0.00	0.00	0.00	PSS1			332
WET-151-04	N	92627.02	0.00	3926.53	0.00	PSS1			332
WET-151-05	N	5507.63	0.00	0.00	0.00	PEM1			333
WET-151-06	N	3190.43	0.00	0.00	0.00	PEM1			333

Exhibit 9-10: Wetland Summary Table: Segment 4

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-151-07	N	2722.99	0.00	0.16	0.00	PFO1	PEM1		333
WET-151-08	N	2339.48	0.00	0.00	0.00	PSS1E			333
WET-151-09	Y	9228.45	0.00	430.92	0.00	PFO1	PSS1	Significant wildlife (DWA)	333
WET-152-01	Y	51945.67	0.00	2925.62	0.00	PEM1	PFO1	Significant wildlife (DWA)	333
WET-152-02	N	43354.63	0.00	398.59	0.00	PSS1	PEM1		333/334
WET-152-03	N	5319.42	0.00	0.00	0.00	PEM1			334
WET-152-04	N	10522.85	0.00	0.00	0.00	PEM1			334
WET-152-05	N	10842.54	0.00	202.53	0.00	PEM1			334
WET-152-06	Y	72265.41	0.00	0.00	0.00	PEM1	PSS1	River, stream or brook	334
WET-152-07	N	18219.46	0.00	43.00	0.00	PSS1E			334
WET-152-08	N	85201.51	0.00	320.18	0.00	PSS1			334
WET-152-09	N	97972.65	30.00	7140.53	0.00	PEM1			335
WET-152-10	N	26657.02	0.00	192.77	0.00	PEM1			335
WET-153-01	N	16545.48	0.00	725.01	0.00	PSS1	PEM1		337
WET-153-02	Y	50698.76	0.00	1697.84	0.00	PSS1, PEM1		River, stream or brook	337
WET-153-03	N	336259.08	30.00	23682.90	0.00	PSS1	PFO1/4		335/336
WET-153-04	Y	599.13	0.00	0.00	0.00	PEM1E	PFO1E	River, stream or brook	337
WET-153-05	Y	945.60	0.00	0.00	0.00	PEM1E	PFO1E	River, stream or brook	337
WET-153-06	N	3280.71	0.00	64.33	0.00	PEM1			337
WET-153-07	N	7493.80	0.00	1076.66	0.00	PEM2			337
WET-154-01	N	96211.69	0.00	6044.74	0.00	PSS1	PEM1		338
WET-154-02	N	7988.85	0.00	1387.26	0.00	PEM1E			339
WET-154-03	N	16946.88	0.00	319.37	0.00	PEM1			339
WET-154-04	N	60777.83	0.00	1280.13	0.00	PEM1	PFO1		339
WET-154-05	N	1395.00	0.00	0.00	0.00	PEM1E			338

Exhibit 9-10: Wetland Summary Table: Segment 4

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-155-01	N	17188.96	0.00	807.73	0.00	PEM1			339/340
WET-155-02	Y	26997.16	0.00	558.59	0.00	PEM1		River, stream or brook	340
WET-155-03	Y	29054.75	0.00	1330.13	0.00	PEM1		Flood	340
WET-155-04	Y	126600.68	60.00	8957.69	0.00	PSS1	PEM1/PFO1/4	River, stream or brook	341
WET-156-01	Y	23640.27	0.00	594.76	0.00	PSS1/4	PEM1	River, stream or brook	342
WET-156-02	Y	34890.25	0.00	719.82	0.00	PSS1	PFO1	River, stream or brook	342
WET-156-03	Y	72984.12	0.00	3399.27	0.00	PEM1	PSS1	Flood; River, stream or brook	342/343
WET-156-04	N	1432.24	0.00	0.00	0.00	PSS1E			342/343
WET-156-05	N	1562.67	0.00	11.97	0.00	PEM1			343
WET-156-06	N	251.44	0.00	0.00	0.00	PSS1			343
WET-156-07	Y	5648.65	0.00	0.00	0.00	PEM1	PFO4	Significant wildlife (DWA)	343
WET-156-08	Y	222594.10	0.00	17043.12	0.00	PEM1	PSS1	Significant wildlife (DWA)	343/344
WET-156-09	Y	11313.74	0.00	0.00	0.00	PEM1E	PFO1/4E	Significant wildlife (DWA)	343
WET-157-01	N	6460.23	0.00	423.57	0.00	PEM1	PSS1		344
WET-157-02	Y	58619.08	0.00	4498.74	0.00	PEM1	PSS1	River, stream or brook	344
WET-157-03	N	523.94	0.00	0.00	0.00	PSS			344
WET-157-04	Y	84598.52	2.36	1888.17	0.00	PSS1	PEM1	River, stream or brook	344/345
WET-157-05	N	1868.68	0.00	179.37	0.00	PEM1			345
WET-157-06	N	285729.07	34.19	15007.28	0.00	PEM1	PSS1		345
WET-157-07	N	25473.94	0.00	0.00	0.00	PEM1	PSS1		345
WET-157-08	N	11238.28	0.00	239.23	0.00	PSS1	PEM1		346

Exhibit 9-10: Wetland Summary Table: Segment 4

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-157-09	N	3865.62	0.00	0.00	0.00	PEM1	PSS1		346
WET-157-10	N	7071.02	0.00	967.60	0.00	PEM1E			344
WET-158-01	Y	130280.38	30.00	9302.05	0.00	PEM1	PSS1	Significant wildlife (Maine IF&W SVP)	346
WET-158-02	Y	1919.60	0.00	0.00	0.00	PSS1	PEM1	PSVP Habitat zone	346
WET-158-03	Y	3504.95	0.00	0.00	0.00	PEM1	PSS1/4	Significant wildlife (DWA)	347
WET-158-04	N	3179.19	0.00	0.00	0.00	PEM1, PFO1/4			347
WET-158-05	N	1196.50	0.00	0.00	0.00	PEM1, PSS1			347
WET-158-06	Y	365091.24	44.77	13121.15	0.00	PSS1, PEM1	PEM1/4	River, stream or brook	347/348/349
WET-158-08	N	2816.36	0.00	0.00	0.00	PSS1E			346
WET-158-09	N	10276.90	0.00	0.00	0.00	PEM1E			347
WET-159-01	N	14162.17	0.00	0.00	0.00	PEM1	PSS1		348
WET-159-02	N	1573.53	0.00	0.00	0.00	PFO1			348
WET-159-04	N	647.76	0.00	0.00	0.00	PEM1/2			349
WET-159-05	N	19599.15	0.00	2108.26	0.00	PEM1/2			349
WET-159-06	N	223368.77	0.37	12363.43	0.00	PEM1	PSS, PFO1/4		349
WET-159-07	N	1040.68	0.00	0.00	0.00	PEM1	PFO1/4		350
WET-159-08	Y	512921.30	60.00	32455.86	0.00	PEM1	PSS1/PFO1/4	>20,000 sq ft of PEM	350/351
WET-159-09	N	1151.70	0.00	0.00	0.00	PEM1			350
WET-160-01	N	15911.15	0.00	224.92	0.00	PEM1	PSS1		350/351
WET-160-02	N	669.68	0.00	0.00	0.00	PEM1			351
WET-160-03	N	1584.45	0.00	0.00	0.00	PEM1	PSS1		351
WET-160-04	Y	41449.51	0.00	917.44	0.00	PSS1	PEM1	River, stream or brook	351

Exhibit 9-10: Wetland Summary Table: Segment 4

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-160-05	Y	59772.15	0.00	3513.56	0.00	PEM1	PSS1/4	River, stream or brook	351
WET-160-06	N	10085.66	0.00	0.00	0.00	PEM1	PSS1/4		352
WET-160-07	N	13199.80	0.00	151.23	0.00	PSS1	PEM1		352
WET-160-08	N	5546.38	0.00	839.28	0.00	PEM1	PSS1		352
WET-160-09	N	1395.17	0.00	0.00	0.00	PEM1			352
WET-161-01	Y	8411.99	0.00	0.00	0.00	PEM1	PSS1	Significant wildlife (Maine IF&W SVP)	352
WET-161-02	Y	35712.90	0.00	1094.58	0.00	PEM1	PSS1/4	River, stream or brook	352
WET-161-03	N	8880.42	0.00	55.49	0.00	PSS	PEM		352
WET-161-04	Y	1328.24	0.00	0.00	0.00	PEM1	PSS1/4	Significant wildlife (Maine IF&W SVP)	352
WET-161-05	Y	5666.15	0.00	0.00	0.00	PEM1	PFO1	Significant wildlife (Maine IF&W SVP)	352/353
WET-161-06	N	1412.69	0.00	0.00	0.00	PEM1	PSS1/4		352
WET-161-07	Y	4361.75	0.00	0.00	0.00	PEM		Significant wildlife (Maine IF&W SVP)	352
WET-161-08	N	1540.05	0.00	0.00	0.00	PEM1	PSS1/4		353
WET-161-09	N	2572.76	0.00	645.64	0.00	PSS1	PEM1		353
WET-161-10	N	4310.32	0.00	0.00	0.00	PEM1	PSS1		353
WET-161-11	N	8022.81	0.00	130.18	0.00	PEM1	PSS1		353
WET-161-12	N	23754.77	0.00	36.41	0.00	PEM1	PSS1		353
WET-161-13	N	3326.19	0.00	43.43	0.00	PEM1	PSS1		353
WET-161-15	N	169410.33	30.00	9986.02	0.00	PEM1	PSS1/PSS 1/4		353/354
WET-161-16	Y	566342.53	302.82	26851.02	0.00	PEM1, PSS1	PEM1 mowed; PSS1	River, stream or brook	354
WET-161-18	Y	590746.58	239.99	18908.42	0.00	PSS1	PEM1	River, stream or brook	354/355

Exhibit 9-10: Wetland Summary Table: Segment 4

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-161-19	Y	1665.46	0.00	0.00	0.00	PEM1E		Significant wildlife (Maine IF&W SVP)	352/353

Exhibit 9-10: Wetland Summary Table: Segment 5

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-162-01	Y	1108.85	0.00	0.00	0.00	PEM1		PSVP Habitat	357
WET-162-02	Y	9430.78	0.00	0.00	0.00	PEM1		Significant wildlife (Maine	357
WET-162-03	Y	22455.82	0.00	0.00	0.00	PEM1		PSVP Habitat	357
WET-162-04	Y	1191470.03	60.00	1884.19	0.00	PEM1E	PFO1/2E	River, stream or brook; Significant wildlife (Maine IF&W SVP,	356/357/ 358
WET-162-05	Y	2148.94	0.00	0.00	0.00	PEM1		PSVP Habitat	
WET-163-01	Y	9419.64	0.00	0.00	0.00	PSS1	PEM1	Significant wildlife (ETS);	359
WET-163-02	Y	461666.99	129.82	1907.56	0.00	PSS1, PFO1	PEM1	River, stream or brook; Significant wildlife (ETS); Great pond	358/359/ 360
WET-163-03	N	31449.23	0.00	105.88	0.00	PSS1	PEM1		360
WET-163-04	N	6348.57	0.00	0.00	0.00	PSS1			360
WET-163-05	N	9183.46	0.00	0.00	0.00	PSS1	PEM1		360
WET-164-01	N	98786.82	0.00	0.00	0.00	PEM1	PSS1		361
WET-164-02	N	39925.63	92.41	1509.58	0.00	PSS1	PEM1		361
WET-164-03	N	664.34	0.00	0.00	0.00	PSS1	PEM1		361
WET-164-04	N	51012.52	0.00	1036.08	0.00	PSS1	PEM1		362
WET-164-05	N	22039.20	0.00	0.00	0.00	PSS1			362
WET-164-06	N	1887.36	0.00	0.00	0.00	PSS1E			362
WET-164-07	N	16124.86	0.00	3.32	0.00	PSS1E			362
WET-164-08	N	64694.11	0.00	5207.99	0.00	PEM1	PSS1		363
WET-165-01	Y	35218.88	0.00	1426.01	0.00	PSS1, PEM1		Significant wildlife (DWA)	365
WET-165-02	Y	14540.87	0.00	0.00	0.00	PSS1	PEM1	Significant wildlife (DWA)	364

Exhibit 9-10: Wetland Summary Table: Segment 5

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-165-03	Y	151644.63	0.00	4187.93	0.00	PEM1	PSS1	Significant wildlife (DWA); >20,000 sq ft of	363/364
WET-165-04	N	51881.69	0.00	3509.79	0.00	PEM1	PSS1		363
WET-166-01	Y	145940.41	119.99	8773.49	0.00	PSS1		River, stream or brook	366
WET-167-01	Y	987098.20	779.96	54661.06	0.00	PEM1	PSS1	>20,000 sq ft of PEM; Significant wildlife (IWWH)	367/368/369
WET-167-02	N	12499.51	0.00	44.76	0.00	PSS1			369
WET-167-03	N	5599.61	0.00	0.00	0.00	PSS1			369
WET-167-04	N	30957.00	0.00	119.88	0.00	PEM1	PSS1		369
WET-168-01	N	8840.60	0.00	0.00	0.00	PSS1			371
WET-168-02	N	13316.57	0.00	0.00	0.00	PSS1			371
WET-168-03	N	194571.30	119.99	10687.67	0.00	PEM1	PSS1		371
WET-168-04	Y	86734.32	60.00	5454.45	0.00	PEM1	PSS1	River, stream or brook	370/371
WET-168-05	Y	92769.27	0.00	0.00	0.00	PEM1	PSS1	River, stream or brook; Significant wildlife (DWA)	371
WET-168-06	N	73612.01	119.99	1186.83	0.00	PEM1	PSS1		369/370
WET-169-01	Y	55538.35	0.00	3516.17	0.00	PEM1		River, stream or brook; Significant wildlife (DWA)	371/372
WET-169-02	Y	140584.78	0.00	4366.72	0.00	PSS1		River, stream or brook; Significant wildlife (DWA), PSVP	372
WET-169-03	N	6269.95	0.00	0.00	0.00	PSS			373
WET-170-01	N	99243.76	119.99	4492.00	0.00	PSS1E			375/376
WET-170-02	N	144547.27	119.99	8152.48	0.00	PSS1			375

Exhibit 9-10: Wetland Summary Table: Segment 5

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-170-03	N	48204.47	0.00	1160.35	0.00	PEM1	PSS1		375
WET-170-04	N	40791.55	0.00	1036.33	0.00	PSS1			374/375
WET-170-05	Y	51175.43	0.00	2306.41	0.00	PSS1		River, stream or brook	374
WET-170-06	Y	142440.01	119.99	6059.13	0.00	PEM1	PSS1	River, stream or brook	373/374
WET-171-01	N	5929.51	0.00	0.00	0.00	PEM1			377
WET-171-02	N	9388.40	0.00	0.00	0.00	PEM1, PSS1			377
WET-171-03	Y	24526.41	0.00	1775.44	0.00	PSS1		River, stream or brook	376
WET-171-04	N	3900.26	0.00	105.60	0.00	PSS1			376
WET-172-01	Y	20817.81	0.00	1317.33	0.00	PEM1		River, stream or brook	378
WET-172-02	Y	137259.63	0.00	0.00	0.00	PSS1		River, stream or brook	378/379
WET-172-03	N	8903.09	0.00	3408.83	0.00	PSS1			379/380
WET-172-04	N	5634.67	0.00	0.00	0.00	PSS1	PEM1		380
WET-172-05	N	21930.84	0.00	931.39	0.00	PEM1	PSS1		379
WET-172-06	Y	81413.03	0.00	0.00	0.00	PSS1	PEM1	River, stream or brook	379
WET-173-01	N	1521.21	0.00	0.00	0.00	PSS1E			380
WET-173-02	N	6349.53	0.00	0.00	0.00	PSS1			380/381
WET-173-03	Y	14392.17	0.00	697.73	0.00	PSS1	PEM1	River, stream or brook	381
WET-173-04	N	1733.37	0.00	0.18	0.00	PSS1	PEM1		381
WET-174-01	N	4364.11	0.00	26.96	0.00	PSS1	PEM1		383/384
WET-174-02	N	4534.14	0.00	1.38	0.00	PSS1	PEM1		383/384
WET-174-03	Y	51330.01	0.00	1276.84	0.00	PSS1	PEM1	PSVP Habitat	383
WET-174-05	Y	16286.41	0.00	900.53	0.00	PSS1	PEM1	River, stream or brook	382

Exhibit 9-10: Wetland Summary Table: Segment 5

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-174-06	Y	33672.61	0.00	0.00	0.00	PSS1	PEM1	PSVP	383
WET-174-07	Y	23150.12	0.00	1416.04	0.00	PSS1	PEM1	River, stream or brook	382
WET-174-08	N	18849.80	0.00	0.00	0.00	PSS1	PEM1		383
WET-175-01	N	12320.14	0.00	73.69	0.00	PSS1	PEM1		384
WET-175-02	Y	16078.47	0.00	841.18	0.00	PSS1	PEM1	River, stream or brook; >20,000 sq ft of PEM	385
WET-175-03	Y	10680.48	0.00	704.87	0.00	PSS1		River, stream or brook	385
WET-175-04	N	6428.32	0.00	0.00	0.00	PSS1			385
WET-175-05	N	2949.43	0.00	0.00	0.00	PSS1			385
WET-176-01	N	36511.38	30.00	743.94	0.00	PSS1			387
WET-176-02	Y	45744.75	0.00	4180.47	0.00	PSS1		River, stream or brook; Significant wildlife (ETS)	386
WET-177-01	Y	375005.04	184.99	16825.99	0.00	PSS1		River, stream or brook	389/390
WET-177-02	N	178282.42	122.40	2906.84	0.00	PSS1E			388
WET-178-01	N	940.43	0.00	0.00	0.00	PSS1E			390
WET-178-02	N	54698.57	0.00	2070.15	0.00	PEM1E	PSS1E		390
WET-178-03	N	1543.79	0.00	0.00	0.00	PSS			391
WET-178-04	N	11195.78	0.00	0.00	0.00	PSS1E			391
WET-178-05	N	1289.00	0.00	0.00	0.00	PSS			391
WET-178-06	Y	156991.12	0.00	0.00	0.00	PSS1E		River, stream or brook; Significant wildlife (DWA)	391/392
WET-179-01	Y	6797.55	0.00	0.00	0.00	PSS1	PEM1	Significant wildlife (DWA)	394

Exhibit 9-10: Wetland Summary Table: Segment 5

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-179-02	Y	31206.96	0.00	0.00	0.00	PSS1	PEM1	River, stream or brook; Significant wildlife (DWA)	393/394
WET-179-03	Y	75482.21	0.00	982.73	0.00	PSS1	PEM1	River, stream or brook; Significant wildlife (DWA)	393
WET-180-01	Y	204181.61	242.28	4339.65	0.00	PSS1	PEM1	River, stream or brook; Significant wildlife (DWA); >20,000 sq ft of	395/396
WET-180-02	Y	10878.78	0.00	0.00	0.00	PSS1	PEM1	Significant wildlife (DWA)	395
WET-180-03	Y	24393.89	0.00	1335.17	0.00	PSS1		Significant wildlife (DWA)	397
WET-180-04	Y	24663.40	0.00	3805.56	0.00	PSS1	PEM1	Significant wildlife (DWA)	396
WET-181-01	Y	6721.12	0.00	0.00	0.00	PSS1	PEM1	Significant wildlife (DWA)	397/398
WET-181-02	Y	8003.26	0.00	0.00	0.00	PSS1		Significant wildlife (DWA)	398
WET-181-03	Y	2838.96	0.00	63.82	0.00	PSS1		Significant wildlife (DWA)	398
WET-181-04	Y	269489.76	206.35	10787.67	0.00	PEM1	PSS1	River, stream or brook	398
WET-181-05	N	13867.65	0.00	0.00	0.00	PSS1			398
WET-182-01	N	541.97	0.00	0.00	0.00	PEM1			400
WET-182-02	N	3135.06	0.00	0.00	0.00	PEM			400
WET-182-03	N	3066.00	0.00	0.00	0.00	PEM1			399
WET-182-04	Y	8896.03	0.00	566.79	0.00	PEM1		River, stream or brook	399
WET-182-05	N	125448.43	0.00	4544.10	0.00	PEM1			400/401

Exhibit 9-10: Wetland Summary Table: Segment 5

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-183-01	Y	96421.35	119.99	5798.98	0.00	PSS1/4	PEM1	River, stream or brook	402
WET-183-02	N	15381.25	0.00	0.00	0.00	PSS1/4	PEM1		402
WET-183-03	Y	25446.92	0.00	0.00	0.00	PSS1	PEM1	Significant wildlife (DWA)	402
WET-183-04	Y	32472.32	0.00	0.00	0.00	PSS1		Significant wildlife (DWA)	402
WET-183-05	Y	3082.27	0.00	0.00	0.00	PSS1		Significant wildlife (DWA)	402
WET-183-06	Y	207343.16	0.00	1352.72	0.00	PSS		Significant wildlife (DWA)	401
WET-183-07	N	102648.18	0.00	1597.18	0.00	PEM1/PSS1/4			403
WET-183-08	Y	159538.55	0.00	6383.17	0.00	PSS1/4	PEM1	River, stream or brook	403
WET-184-01	Y	37074.12	0.00	0.00	0.00	PEM	PSS1E	River, stream or brook	403
WET-184-02	Y	251737.29	0.00	3514.52	0.00	PEM1, PSS1/4		River, stream or brook	404
WET-184-03	Y	76409.96	0.00	0.00	0.00	PSS1	PEM1	Significant wildlife (DWA); River, stream or	404
WET-184-04	N	19246.33	0.00	91.09	0.00	PSS1			405
WET-184-05	N	34643.49	0.00	773.25	0.00	PSS1			405
WET-184-06	N	2412.70	0.00	0.00	0.00	PSS1/4	PEM1		405
WET-184-07	Y	28715.06	0.00	515.85	0.00	PEM1, PSS1/4		River, stream or brook; Significant wildlife (DWA)	405
WET-185-01	Y	217920.32	119.99	11007.94	0.00	PEM1	PFO1/4	River, stream or brook	407

Exhibit 9-10: Wetland Summary Table: Segment 5

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-185-02	Y	10907.65	0.00	57.52	0.00	PFO	PSS	River, stream or brook	407
WET-185-03	Y	38462.25	0.00	0.00	0.00	PSS1	PFO4	River, stream or brook	408
WET-185-04	Y	5359.79	0.00	115.15	0.00	PEM1		River, stream or brook	408
WET-186-01	Y	25701.70	0.00	0.00	0.00	PSS1		River, stream or brook	408
WET-186-02	N	3331.36	0.00	0.00	0.00	PEM1			408
WET-186-03	Y	37913.21	0.00	416.26	0.00	PEM1		River, stream or brook	408
WET-186-04	N	10131.32	0.00	679.98	0.00	PEM1			408
WET-186-05	N	15416.15	0.00	240.59	0.00	PEM1			409
WET-186-06	N	14476.66	0.00	0.00	0.00	PEM1	PSS/PFO		409
WET-186-08	Y	39157.62	0.00	3192.54	0.00	PEM1		River, stream or brook	409
WET-186-08	Y	39157.62	0.00	3192.54	0.00	PEM1		River, stream or brook	409
WET-186-09	Y	77730.84	0.00	860.57	0.00	PSS1	PEM1	River, stream or brook	409
WET-186-10	Y	15059.53	0.00	0.00	0.00	PFO		River, stream, or brook	409
WET-186-11	N	6353.72	0.00	0.00	0.00	PFO1/4E			409
WET-186-12	N	9153.05	0.00	0.00	0.00	PSS1E			409
WET-186-13	N	7709.85	0.00	2207.38	0.00	PSS1E			409
WET-186-14	N	2761.79	0.00	0.00	0.00	PSS1/4			409
WET-186-15	N	109488.21	0.00	2288.33	0.00	PEM1	PFO1/4/PSS1		410
WET-186-16	Y	24044.72	0.00	2061.98	0.00	PEM1, PSS1	PFO1	River, stream or brook	410
WET-186-17	N	21759.95	0.00	0.00	0.00	PEM1	PSS1		410

Exhibit 9-10: Wetland Summary Table: Segment 5

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-187-01	Y	14280.00	0.00	253.29	0.00	PEM1	PFO4/PSS1	River, stream or brook; Significant wildlife (DWA)	410
WET-187-02	Y	168293.31	0.00	6439.45	0.00	PFO1E		River, stream or brook; Significant wildlife (DWA)	411
WET-187-03	Y	63181.18	0.00	0.00	0.00	PEM1, PSS1	PFO4/1	River, stream or brook; Significant wildlife (DWA)	411
WET-187-04	Y	2187.43	0.00	0.00	0.00	PEM1	PSS1	River, stream or brook; Significant wildlife (DWA)	411
WET-187-05	Y	8887.34	0.00	0.00	0.00	PEM1	PSS1	River, stream or brook	412
WET-187-06	Y	69214.83	0.00	0.00	0.00	PSS1		River, stream or brook	412
WET-187-07	Y	30556.73	0.00	1470.66	0.00	PEM1, PSS1		River, stream or brook	412
WET-187-08	N	7381.86	0.00	0.00	0.00	PEM1			412/413
WET-188-01	Y	11156.67	0.00	134.87	0.00	PEM1, PSS1		River, stream or brook	413
WET-188-02	Y	8472.50	0.00	464.55	0.00	PSS1		River, stream, or brook	413
WET-188-03	Y	7051.20	0.00	321.57	0.00	PEM1		River, stream, or brook	413
WET-188-04	Y	17340.51	0.00	929.20	0.00	PEM1		River, stream or brook	413
WET-188-05	Y	12168.03	0.00	475.50	0.00	PEM1, PSS1		River, stream or brook	413

Exhibit 9-10: Wetland Summary Table: Segment 5

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Pole Fill Impact (Sq Ft)	Temporary Access Crossing Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-188-06	Y	17690.75	0.00	3895.94	0.00	PEM1, PSS1		River, stream or brook; Significant wildlife (Maine IF&W SVP)	414
WET-188-07	N	2674.03	0.00	0.00	0.00	PEM1			414
WET-188-08	Y	7692.37	0.00	0.00	0.00	PEM1		Significant wildlife (Maine	414
WET-188-09	N	2663.20	0.00	0.00	0.00	PEM1			414
WET-188-10	Y	1512.36	0.00	0.00	0.00	PEM1		Significant wildlife (Maine	414
WET-188-11	Y	23728.98	0.00	1039.16	0.00	PEM1, PSS1		Significant wildlife (Maine	414
WET-188-12	N	14205.89	0.00	948.71	0.00	PSS1E			414
WET-188-13	N	8224.69	0.00	0.00	0.00	PEM1	PSS1		414
WET-188-14	N	49836.90	0.00	0.00	0.00	PEM1			414
WET-188-15	Y	3582.12	0.00	0.00	0.00	PSS1		River, stream or brook	414
WET-188-16	N	641.60	0.00	0.00	0.00	PEM1			414
WET-188-17	Y	28130.20	0.00	0.00	0.00	PEM1	PSS1/E2EM1	River, stream or brook; Significant wildlife (TWWH);	415
WET-188-18	N	2333.90	0.00	0.00	0.00	PEM1			414

Exhibit 9-10: Wetland Summary Table: Fickett Road Substation

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Fill Impact (Sq Ft)	Temporary Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-161-16	Y	566342.53	0.00	0.00	0.00	PEM1, PSS1	PEM1 mowed; PSS1	River, stream or brook	

Exhibit 9-10: Wetland Summary Table: Merrill Road Converter Station

Wetland ID	WOSS	Wetland Area within CMP Ownership (Sq Ft)	Fill Impact (Sq Ft)	Temporary Impact (Sq Ft)	Forested Wetland Conversion (Sq Ft)	Main NWI Class	Other NWI Class	WOSS Determination	NRM ID
WET-145-01	Y	676338.53	0.00	0.00	0.00	PEM1	PSS1	River, stream or brook	
WET-145-02	Y	0.00	0.00	0.00	0.00	PFO1/4E	PFO1/4E	PSVP	
WET-145-03	N	0.00	0.00	0.00	0.00	PFO1/4E	PFO1/4E		

Exhibit 9-1: Resource Verification Protocol Correspondence

2017 Resource Delineation Protocol (including previously mapped resources)
Jim Boyle Telephone Conversations with Jay Clement, Mike Mullen and Philip De Maynardier
April 2017

For new project areas not previously mapped, complete paired-plot (one wetland, one upland) data forms when you encounter meaningful changes in vegetative cover types or meaningful changes in soil, e.g., red maple swamp (and associated lower vegetative strata) with mineral soil shifting to black spruce swamp with organic soil, or similar changes. This method should normally result in a data forms for every running mile or so of transmission line, on average. The burden is on the wetland scientist to insure data forms are representative of the types of wetlands delineated across the entire project. In the project narrative describing the field delineation, the wetland scientist should group the wetland types, describe how the work was done, document that data forms were completed for each wetland type. For example, "Of thirty wetlands, ten were red maple swamps, three were black spruce swamps, ten were alder shrub wetlands, etc." Data forms and representative photographs should be submitted with project applications.

For portions of the project where wetlands and vernal pools were previously mapped, we will obtain data sheets and shapefiles of those mapped resources. We will install the shapefiles in GPS units, and verify five wetlands per mile, and verify one full Corps data form per mile. If we find a discrepancy, we will document our new resource delineation with a data forms, and flag the resource boundary as we see it now. We might find areas that we delineate now that were not previously delineated, or we might find the reverse. In either case, we will document our work. We will hang a flag at each verified resource with the resource number written on the flag, GPS-locate the flag and take a photograph. The wetland scientist will note his or her name on the data sheet and the date of the field visit. We will not flag or GPS-locate resource boundaries if we agree with them.

Vernal Pools

- If a VP was uploaded to IF&W GIS data layer, and if natural, no need to check.
- If a VP was uploaded to IF&W GIS data layer, but not natural, need to verify that the VP is not natural, and provide this documentation to IF&W and request removal, including a letter documenting removal, if approved.
- If a VP is observed but was not previously mapped, we will survey the VP following our normal full survey protocol.
- If a VP was previously mapped/surveyed (whether SVP or not) but not uploaded to IF&W data layer, we will field verify (spot check) the VP, including egg mass counts.
    - Maine SVP = meets state definition, has "significant" egg masses, etc.
    - Maine Non-SVP = meets state definition, doesn't have "significant" egg masses, etc.
    - Corps Priority Pool = In a wetland, not natural, has "significant" egg masses, etc.
    - Corps Pool = In a wetland, not natural, doesn't have "significant" egg masses, etc.
    - Spawning Area = Not in a wetland, not natural.

Exhibit 9-2: Non-WOSS Data Form Examples

Non-WOSS
Data Form Examples

Segment 1

MREI
WETLAND SUMMARY FORM 2015

Observers: JPB   Date: 8/6/2015

Town: Beattie   Map: 1

Wetland ID: WET-1-7 (mile segment - wetland #)

Stream/Waterbody Name: Corps Plot: Yes ___ No X

Dominant NWI Class: PFO1E   Other NWI Classes: PSS

Representative Wetland Vegetation

Tree	S/S	Herb
Betula allegheniesis	Betula allegheniensis	Carex crinita
Acer rubrum	Salix sp	Impatiens capensis
Fraxinus nigra	Acer spicatum	Osmunda claytoniana
	Acer rubrum	Solidago gigantea
	Abies balsamea	Rubus hispidus
		Glyceria canadensis

Representative Wetland Hydrology

X Surface Water (Approximate Depth 1")
X High Water Table (Approximate Depth 0)
X Saturated (Approximate Depth 0)

Hydraulic Indicators:
___ Water Marks
X Algal Mat or Crust
___ Sediment Deposits
___ Drift Deposits
___ Hydrogen Sulfide Odor
X Water Stained Leaves
___ Thin Muck Surface
___ Oxidized Rhizospheres on Living Roots

Other Observations:

Representative Wetland Soils

X Mineral
___ Organic

Depth	Horizon	Color	Redox Features	Texture
0-4"	A	10YR2/2	N/A	SL
4-9"	B	2.5Y6/1	10YR5/6	SL

Other Observations: Rock refusal at 9"

Meets Army Corps NE-NC regional Supplemental Criteria X

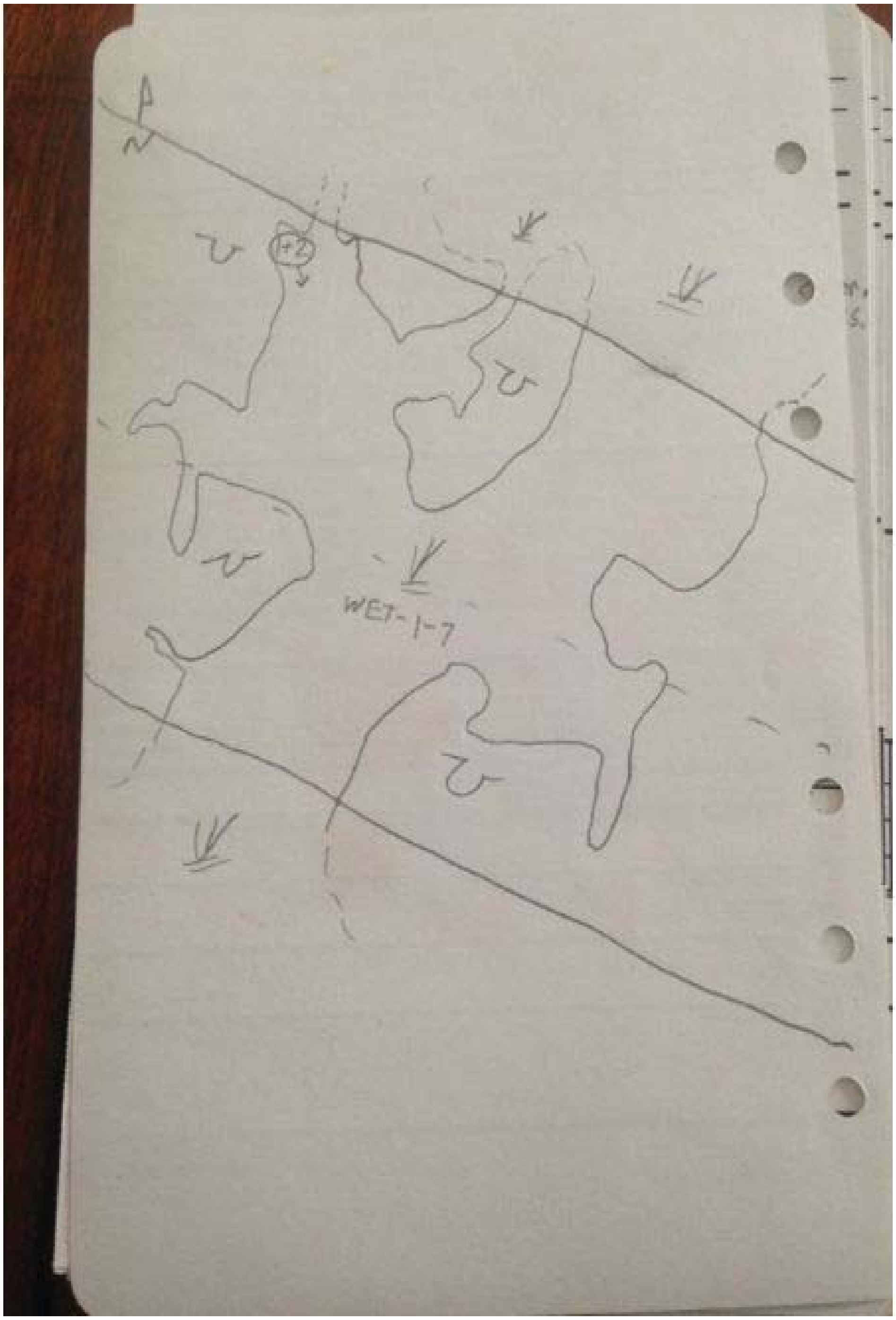
Wildlife Observation/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, etc.)

Invasive Species: Yes ___ No X
Notes:

WOSS: Yes ___ No X
Type

General Notes:

Photo # 2   **SKETCH ON BACK**


N
WET-1-7

MREI
WETLAND SUMMARY FORM 2015

Observers: SNH, LKH
Date: 8/19/2015

Town:
Map:

Wetland ID: WET-1-15 (mile segment - wetland #)

Stream/Waterbody Name:
Corps Plot: Yes ___ No X

Dominant NWI Class: PSSO1E
Other NWI Classes:

Representative Wetland Vegetation

Tree	S/S	Herb
Acer saccharinum	Acer saccharinum	Impatiens capensis

Representative Wetland Hydrology

___ Surface Water (Approximate Depth)
___ High Water Table (Approximate Depth)
X Saturated (Approximate Depth)

Hydraulic Indicators:
___ Water Marks
X Algal Mat or Crust
___ Sediment Deposits
___ Drift Deposits
___ Hydrogen Sulfide Odor
X Water Stained Leaves
X Thin Muck Surface
X Oxidized Rhizospheres on Living Roots

Other Observations:

Representative Wetland Soils

X Mineral
___ Organic

Depth	Horizon	Color	Redox Features	Texture
5-0"	O	Black	N/A	Hemic
0-9"	A	10YR5/2	5YR4/6	

Other Observations: Rock refusal at 9"

Meets Army Corps NE-NC regional Supplemental Criteria X

Wildlife Observation/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, etc.)
Moose and bear sign

Invasive Species: Yes ___ No X
Notes:

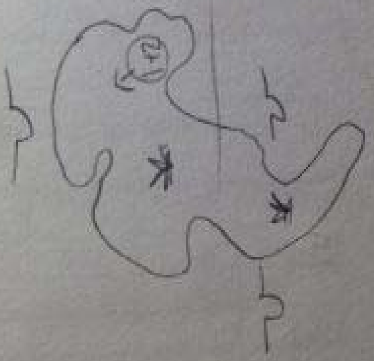
WOSS: Yes ___ No X
Type

General Notes:
Series of small plateaus on steep slope. Acer sacc growing on small upland areas within.

Photo # 2

SKETCH ON BACK

WE7-1-15



MREI
WETLAND SUMMARY FORM 2015

Observers: SNH, LKH

Date: 8/19/2015

Town:

Map:

Wetland ID: WET-1-19 (mile segment - wetland #)

Stream/Waterbody Name:

Corps Plot: Yes No X

Dominant NWI Class: PEM01E

Other NWI Classes:

Representative Wetland Vegetation

Tree	S/S	Herb
Acer saccharinum	Acer saccharinum	Glyceria striatum
Abies balsamea		Impatiens capensis

Representative Wetland Hydrology

Surface Water (Approximate Depth)

X High Water Table (Approximate Depth)

X Saturated (Approximate Depth)

Hydraulic Indicators:

Water Marks

X Algal Mat or Crust

X Sediment Deposits

Drift Deposits

Hydrogen Sulfide Odor

X Water Stained Leaves

X Thin Muck Surface

Oxidized Rhizospheres on Living Roots

Other Observations:

Representative Wetland Soils	**Depth**	**Horizon**	**Color**	**Redox Features**	**Texture**
Mineral	6-0"	O	Black	N/A	Hemic
X Organic	0-0.5"	A	10YR6/1	7.5YR5/7	S

Other Observations:

Meets Army Corps NE-NC regional Supplemental Criteria X

Wildlife Observation/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, etc.)

Moose and bear sign

Invasive Species: Yes X No

Notes: Colts foot

WOSS: Yes X No

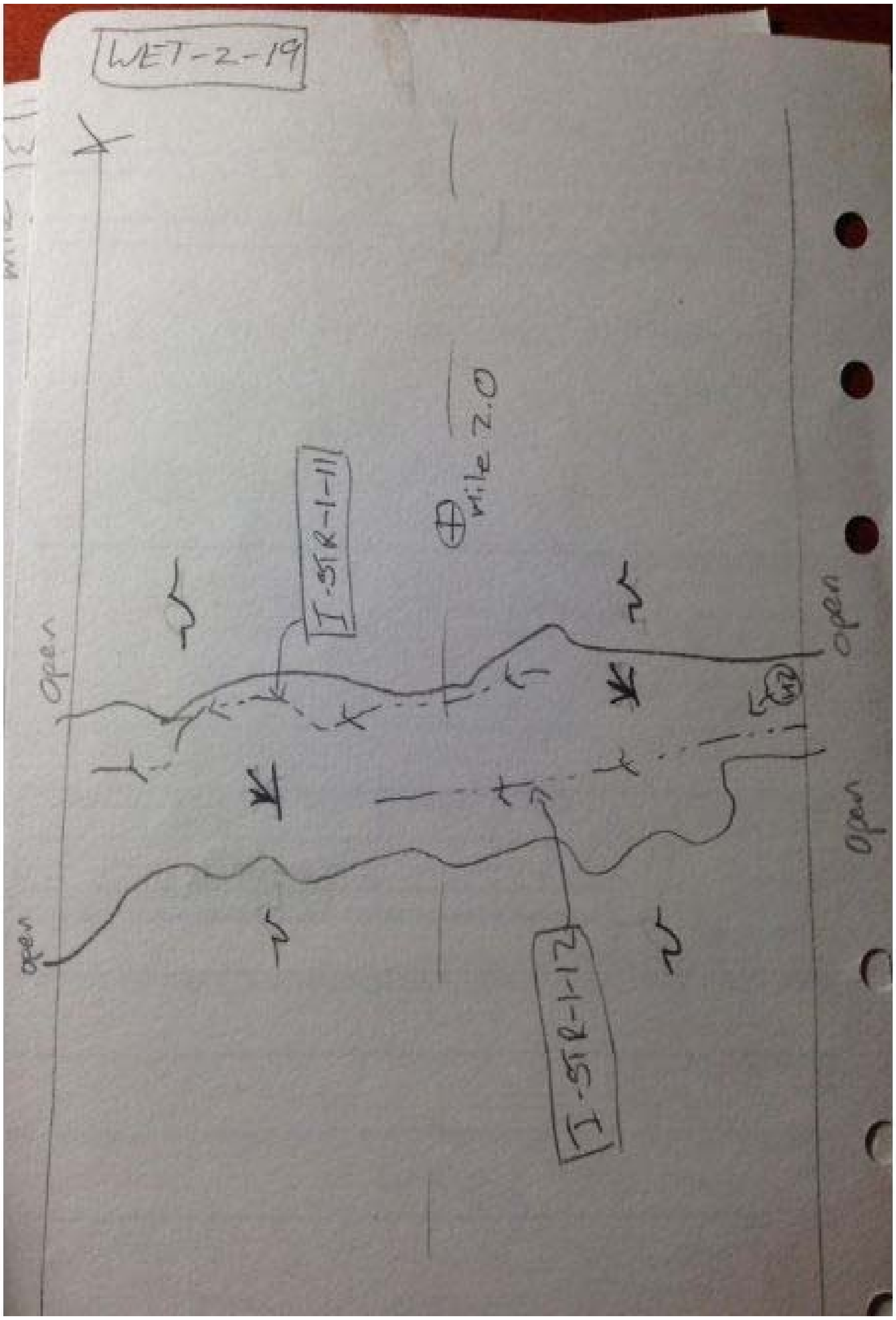
Type Stream adjacency

General Notes:

I-STR-1-11 and I-STR-1-12 runs through it. Contains several areas with upaldn veg. on drained hydric soil.
Likely equipment trails led to drainage.. Not flagged as up islands.

Photo # 2

SKETCH ON BACK


WET-2-19
Mile 2.0
I-STR-1-11
I-STR-1-12
open
open
open
open

MREI

WETLAND SUMMARY FORM 2015

Observers: SNH, LKH Date: 8/18/2015

Town: ____ Map: ____

Wetland ID: WET-2-19 (mile segment - wetland #)

Stream/Waterbody Name: ____ Corps Plot: Yes ____ No X

Dominant NWI Class: PEM01E Other NWI Classes: PFO1E

Representative Wetland Vegetation

Tree	S/S	Herb
Acer saccharinum	Viburnum lantonoides	Impatiens capensis
Abies balsamea		Dryopteris carthusiana

Representative Wetland Hydrology

____ Surface Water (Approximate Depth)

X High Water Table (Approximate Depth)

X Saturated (Approximate Depth)

Hydraulic Indicators:
____ Water Marks
____ Algal Mat or Crust
____ Sediment Deposits
____ Drift Deposits
____ Hydrogen Sulfide Odor
X Water Stained Leaves
____ Thin Muck Surface
____ Oxidized Rhizospheres on Living Roots

Other Observations:

Representative Wetland Soils

____ Mineral

X Organic

Depth	Horizon	Color	Redox Features	Texture
0-6"	A	Black	N/A	Fibric

Other Observations:

Meets Army Corps NE-NC regional Supplemental Criteria X

Wildlife Observation/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, etc.)

Moose sign

Invasive Species: Yes ____ No X

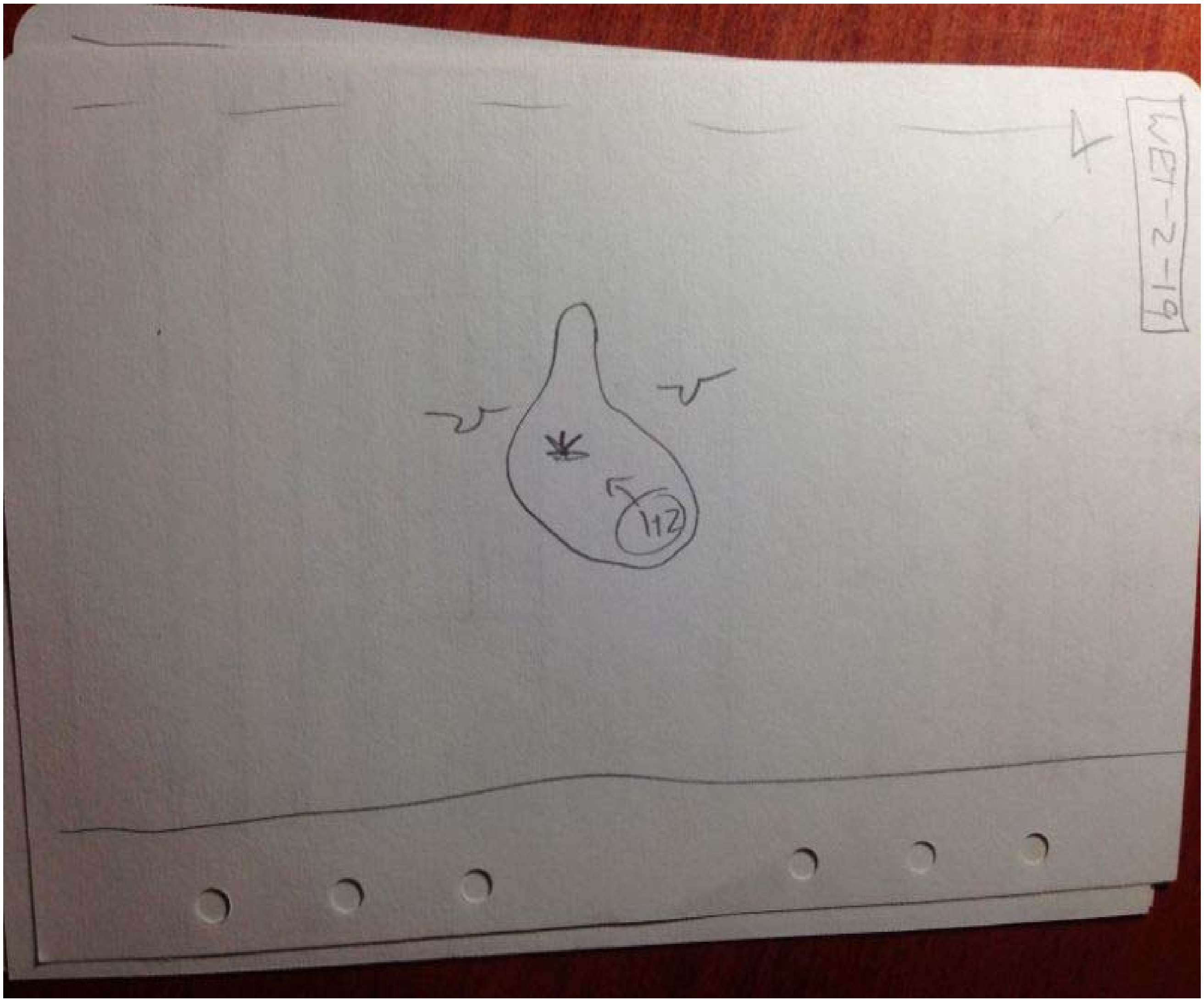
Notes:

WOSS: Yes ____ No X

Type

General Notes:

Photo # 2 **SKETCH ON BACK**


WET-2-19
4
112

MREI
WETLAND SUMMARY FORM 2015

Observers: HSW, LKH, SNH
Date: 7/15/2015

Town: Appleton
Map: 15

Wetland ID: WET-15-4 (mile segment - wetland #)

Stream/Waterbody Name:
Corps Plot: Yes ___ No X

Dominant NWI Class: PUB
Other NWI Classes:

Representative Wetland Vegetation

Tree	S/S	Herb
Abies balsamea		

Representative Wetland Hydrology

X Surface Water (Approximate Depth 0-2")
X High Water Table (Approximate Depth Surface)
X Saturated (Approximate Depth Surface)

Hydraulic Indicators:
___ Water Marks
___ Algal Mat or Crust
___ Sediment Deposits
___ Drift Deposits
X Hydrogen Sulfide Odor
X Water Stained Leaves
___ Thin Muck Surface
___ Oxidized Rhizospheres on Living Roots

Other Observations:

Representative Wetland Soils

X Mineral

___ Organic

Depth	Horizon	Color	Redox Features	Texture
4-0"	O	Black	N/A	Org
0-4"	B	2.5Y4/2	N/A	LS

Other Observations: Rock refusal at 8"

Meets Army Corps NE-NC regional Supplemental Criteria X

Wildlife Observation/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, etc.)

Invasive Species: Yes ___ No X
Notes:

WOSS: Yes ___ No X
Type Uknown -PVP

General Notes:
PVP-15-4
Very little vegetation

Photo # 3+4 facing PUB, 5 wetland drain 1+2 PVP-15-4

SKETCH ON BACK

WET-15-4

PVP-15-9

MGWHSW 28
WET-49-05

BOYLE ASSOCIATES

Routine Wetland Field Data Form

Date: 7/9/14	Project Name: Ken George
Job #: 488	Cowardin Class(es) & %: PFO1E
Observers: HSW JFM	Photo(s) #:
Comments: morph. adaptations – buttressed roots	

Dominant Vegetation (by stratum):

Herbs	Herbs (cont.)	Shrubs/Saplings	Trees	Vines
rub his		bet all	pop trem	N/A
cin fern		pic rub	bet all	
wild currant		ace. pen		
lady fern		abi bal		
star flower				

Wetland Hydrology Indicators:

____ Perm. Flooded (approx. depth: ____) ✓ Seasonally Flooded/[✓ Saturated] (approx. depth: ______) ✓ Saturated

*A1 – Surface water	*B5 – Iron deposits	*B15 – Marl deposits	*C7 – Thin muck surface
*A2 – High water table	B6 – Surface soil cracks	B16 – Moss trim lines	C8 – Crayfish burrows
[✓ *A3] – Saturation	*B7 – Inundated aerial imagery	*C1 – Hydrogen sulfide odor	C9 – Saturation visible on aerial imagery
*B1 – Water marks	*B8 – Sparse veg. concave surface	C2 – Dry-season water table	*D1 – Stunted or stressed plants
*B2 – Sediment deposits	*B9 – Water-stained leaves	*C3 – Oxidized rhizospheres - living root	*D2 – Geomorphic position
*B3 – Drift deposits	B10 – Drainage patterns	*C4 – Presence of reduced iron	*D3 – Shallow aquitard ←
*B4 – Algal mat or crust	*B13 – Aquatic fauna	*C6 – Recent iron reduction in tilled soils	*D4 – Microtopographic relief
*Denotes Primary Indicator			*D5-FAC-neutral test

Representative Hydric Soils:

Depth (in)	Horizon	Texture	Color	Redox. Features	Other
0-1	1	loam	2.5B/1	N/A	
1-4	2	loam	5Y 3/2		
4-8	3	sil	5Y 5/2		

Hydric Soil Indicator & Reference:

Other Soil Comments:

Functions & Values: place an * next to primary f&v & circle all that apply
■Groundwater Recharge/Discharge ■Floodwater Alteration ■Fish & Shellfish Habitat ■Sed./Tox./Pathogen Retention ■Nutrient R/R/T ■Production Export ■Sediment/Shoreline Stabilization ■Wildlife Habitat ■Recreation ■Educational/Scientific Value ■Uniqueness/Heritage ■Visual Quality/Aesthetics ■RTE Habitat

Feature(s) ID: MGWHSW28

GPS Tech: JFM GPS File: 488KG SMG 07092014

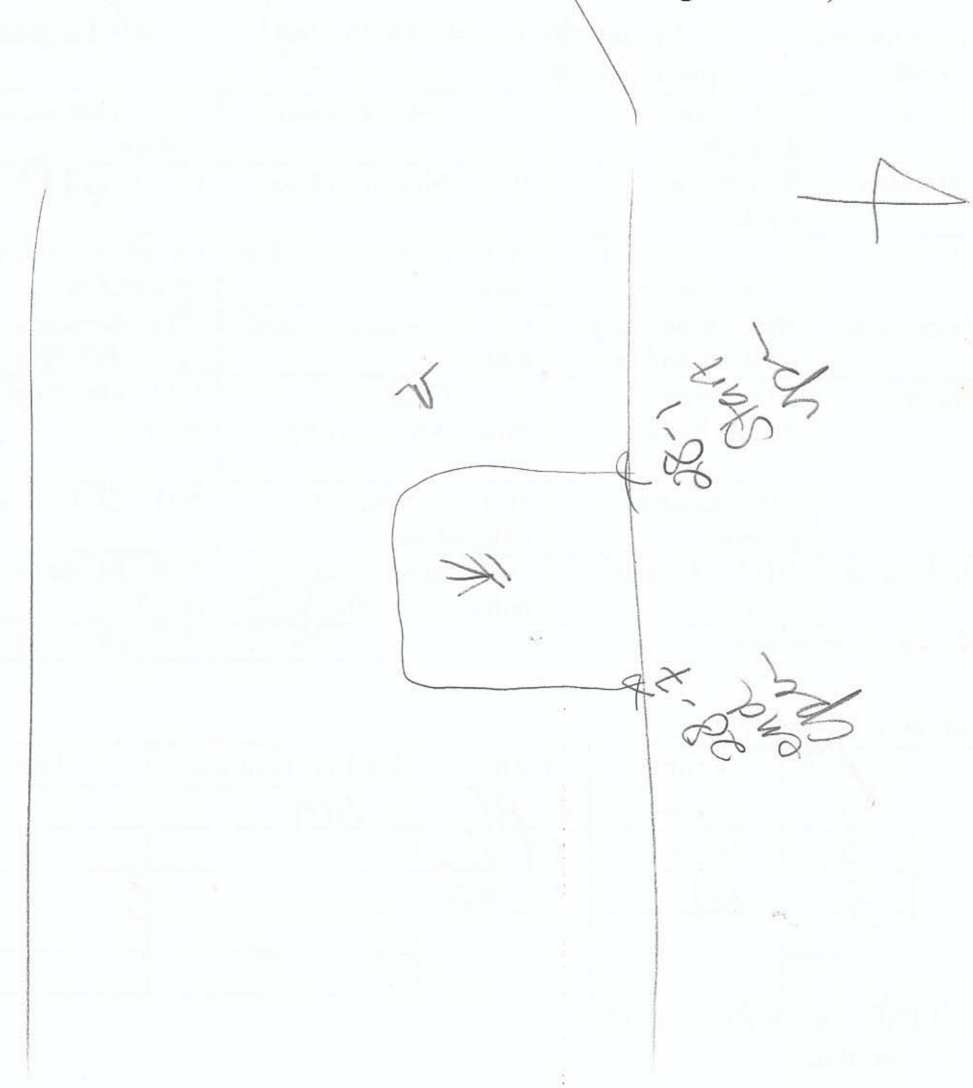
Stream Data:

Stream Name: ______________ Wetland: ___no wetland ___wetland: __________
Max Width: _______ Max Depth: ______ Per:___ Int: ____
Bank Type: ____vertical ____ gradual ____undercut ____other:
Substrate (>30%): ____mud ____gravel ____sand ____bedrock ____peat/muck

Stream Name: ______________ Wetland: ___no wetland ___wetland: __________
Max Width: _______ Max Depth: ______ Per:___ Int: ____
Bank Type: ____vertical ____ gradual ____undercut ____other:
Substrate (>30%): ____mud ____gravel ____sand ____bedrock ____peat/muck

Notes:

SKETCH: wetland (&) stream ID:____________________________
(include: North Arrow, Photo # and Location/Direction, Landmarks, Flag locations)



Non-WOSS
Data Form Examples

Segment 2

MREI
WETLAND SUMMARY FORM 2015

Observers: JPB   Date: 8/17/2015

Town: West Forks   Map:

Wetland ID: WET-55-2 (mile segment - wetland #)

Stream/Waterbody Name: Corps Plot: Yes ___ No X

Dominant NWI Class: POW   Other NWI Classes: PFO1/4E

Representative Wetland Vegetation

Tree	S/S	Herb
Thuja occidentalis	Abies balsamea	Thuja occidentalis
Abies balsamea	Acer rubrum	Chamaedaphne calyculata
Betula alleghaniensis	Spiraea tomentosa	Onoclea sensibilis
Acer rubrum	Rhododendron groenlandicum	Equisetum sp
	Chamaedaphne calyculata	Phalaris arundinacea

Representative Wetland Hydrology

X Surface Water (Approximate Depth 0-10")
X High Water Table (Approximate Depth 0)
X Saturated (Approximate Depth 0)

Hydraulic Indicators:
___ Water Marks
___ Algal Mat or Crust
___ Sediment Deposits
___ Drift Deposits
___ Hydrogen Sulfide Odor
X Water Stained Leaves
___ Thin Muck Surface
___ Oxidized Rhizospheres on Living Roots

Other Observations: Drainage patterns

Representative Wetland Soils

X Mineral

___ Organic

Depth	Horizon	Color	Redox Features	Texture
0-6"	A	10YR5/1	7.5YR5/4	CL

Other Observations: Rock refusal at 6"

Meets Army Corps NE-NC regional Supplemental Criteria X

Wildlife Observation/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, etc.)

Invasive Species: Yes ___ No X

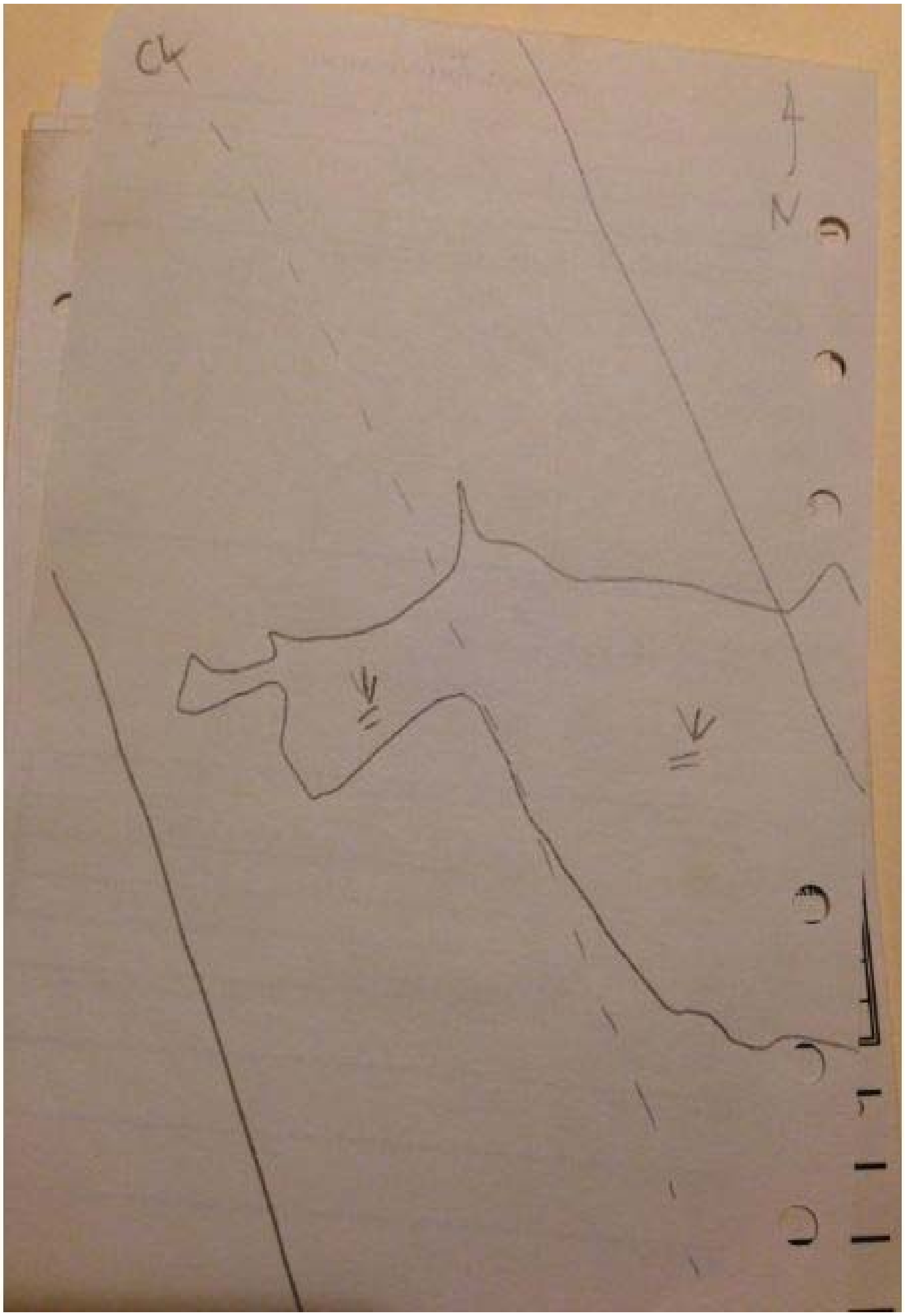
Notes:

WOSS: Yes X No ___

Type

General Notes:

Photo # 2   **SKETCH ON BACK**


C4
N

MREI

WETLAND SUMMARY FORM 2015

Observers: JPB Date: 8/25/2015

Town: Map:

Wetland ID: WET-57-1 (mile segment - wetland #)

Stream/Waterbody Name: Corps Plot: Yes No X

Dominant NWI Class: PFO1/4E Other NWI Classes: PSS, PEM

Representative Wetland Vegetation

Tree	S/S	Herb
Abies balsamea	Alnus incana	Pharalis arundinacea
Betula alleghaniensis	Cornus sp	Impatiens capensis
Thuja occidentalis	Abies balsamea	Onoclea sensibilis
Fraxinus nigra		

Representative Wetland Hydrology

X Surface Water (Approximate Depth 2")

X High Water Table (Approximate Depth 5")

X Saturated (Approximate Depth 0)

Hydraulic Indicators:

X Sediment Deposits

X Water Stained Leaves

Water Marks

Drift Deposits

Thin Muck Surface

Algal Mat or Crust

Hydrogen Sulfide Odor

Oxidized Rhizospheres on Living Roots

Other Observations:

Representative Wetland Soils

X Mineral

Organic

Depth	Horizon	Color	Redox Features	Texture
0-4"	A	10YR2/1	N/A	MuSiL

Other Observations: Rock refusal at 4". Mucky modifier.

Meets Army Corps NE-NC regional Supplemental Criteria X

Wildlife Observation/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, etc.)

Wildlife trail

Invasive Species: Yes No X

Notes:

WOSS: Yes X No

Type Adjacent to stream

General Notes:

Contains P-STR-57-1 and I-STR-57-2

Photo # 2 **SKETCH ON BACK**

MREI
WETLAND SUMMARY FORM 2015

Observers: SNH, LKH
Date: 8/27/2015

Town:
Map: 53

Wetland ID: WET-59-3 (mile segment - wetland #)

Stream/Waterbody Name:
Corps Plot: Yes X No

Dominant NWI Class: PEM01E
Other NWI Classes: PFO4E

Representative Wetland Vegetation

Tree	S/S	Herb
Picea rubens	Picea rubens	Phalaris arundinacea Osmundastrum cinnamomeum

Representative Wetland Hydrology

X Surface Water (Approximate Depth)
High Water Table (Approximate Depth)
X Saturated (Approximate Depth)

Hydraulic Indicators:
Water Marks
Algal Mat or Crust
Sediment Deposits
Drift Deposits
Hydrogen Sulfide Odor
X Water Stained Leaves
Thin Muck Surface
X Oxidized Rhizospheres on Living Roots
Other Observations:

Representative Wetland Soils

X Mineral

Organic

Depth	Horizon	Color	Redox Features	Texture
0-4"	A	Gley1 4/10Y	7.5YR5/6	SCL

Other Observations: Rock refusal at 4"

Meets Army Corps NE-NC regional Supplemental Criteria X

Wildlife Observation/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, etc.)

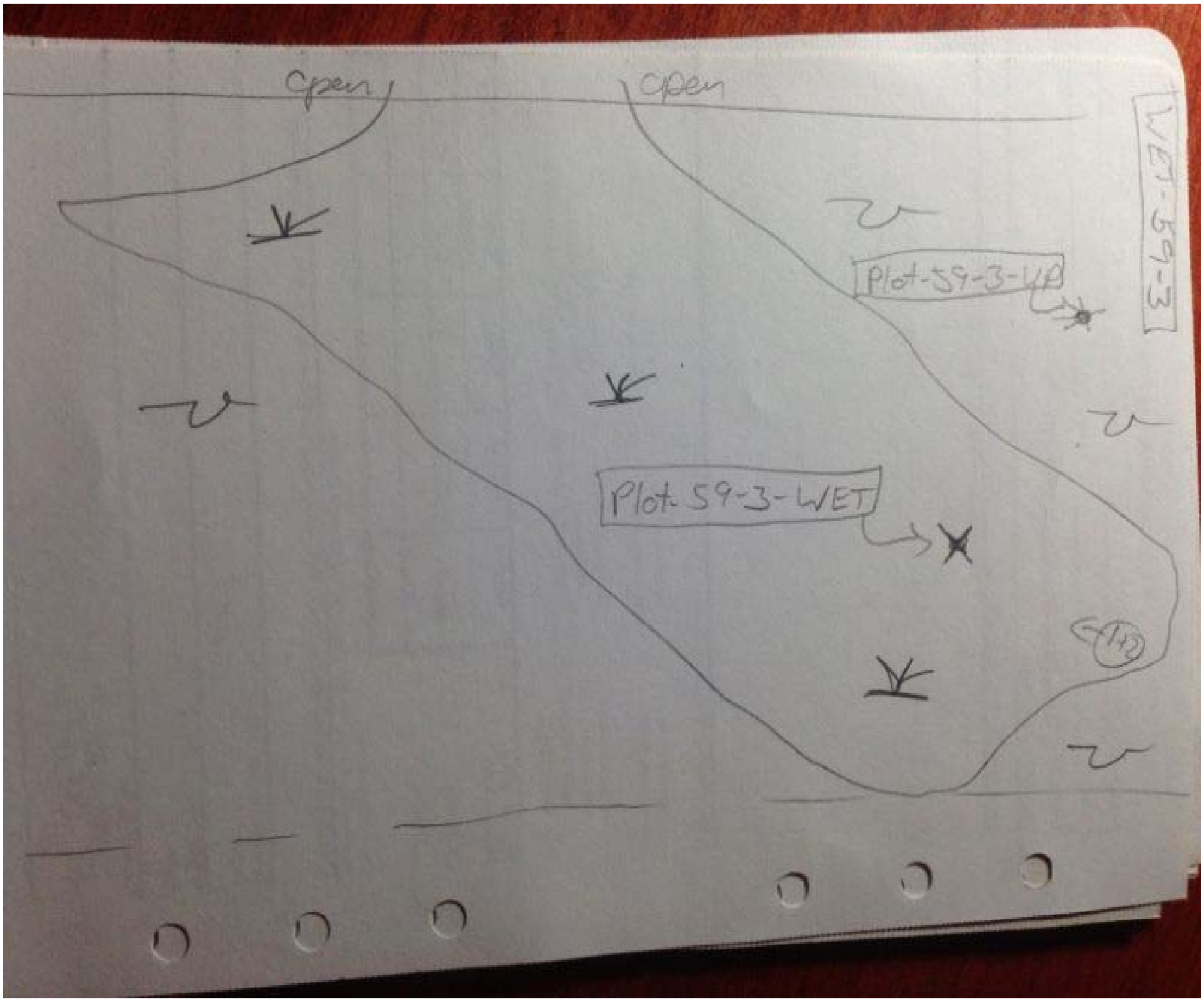
Invasive Species: Yes X No
Notes: Phalaris

WOSS: Yes No X
Type

General Notes:
Wetland enters forested area and ends open on downhill side (E) of cleared corridor

Photo # 2

SKETCH ON BACK


open
open
WET-59-3
Plot-59-3-UP
Plot-59-3-WET
1+2

MREI
WETLAND SUMMARY FORM 2015

Observers: SNH, LKH
Date: 9/25/2015

Town:
Map:

Wetland ID: WET-66-2 (mile segment - wetland #)

Stream/Waterbody Name:
Corps Plot: Yes ☐ No X

Dominant NWI Class: PSS1E
Other NWI Classes: PF1E

Representative Wetland Vegetation

Tree	S/S	Herb
Tjuja occidentalis	Thuja occidentalis	Phalaris arundinacea
Abies balsamea	Sirea alba	Juncus effusus
	Albus incana	Agrostis gigantea

Representative Wetland Hydrology

___ Surface Water (Approximate Depth)
___ High Water Table (Approximate Depth)
X Saturated (Approximate Depth)

Hydraulic Indicators:
___ Water Marks
X Algal Mat or Crust
___ Sediment Deposits
___ Drift Deposits
___ Hydrogen Sulfide Odor
X Water Stained Leaves
X Thin Muck Surface
___ Oxidized Rhizospheres on Living Roots

Other Observations:

Representative Wetland Soils

___ Mineral
O Organic

Depth	Horizon	Color	Redox Features	Texture
0-8"	O	10YR2/2	N/A	Sap
RR				

Other Observations:

Meets Army Corps NE-NC regional Supplemental Criteria X

Wildlife Observation/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, etc.)

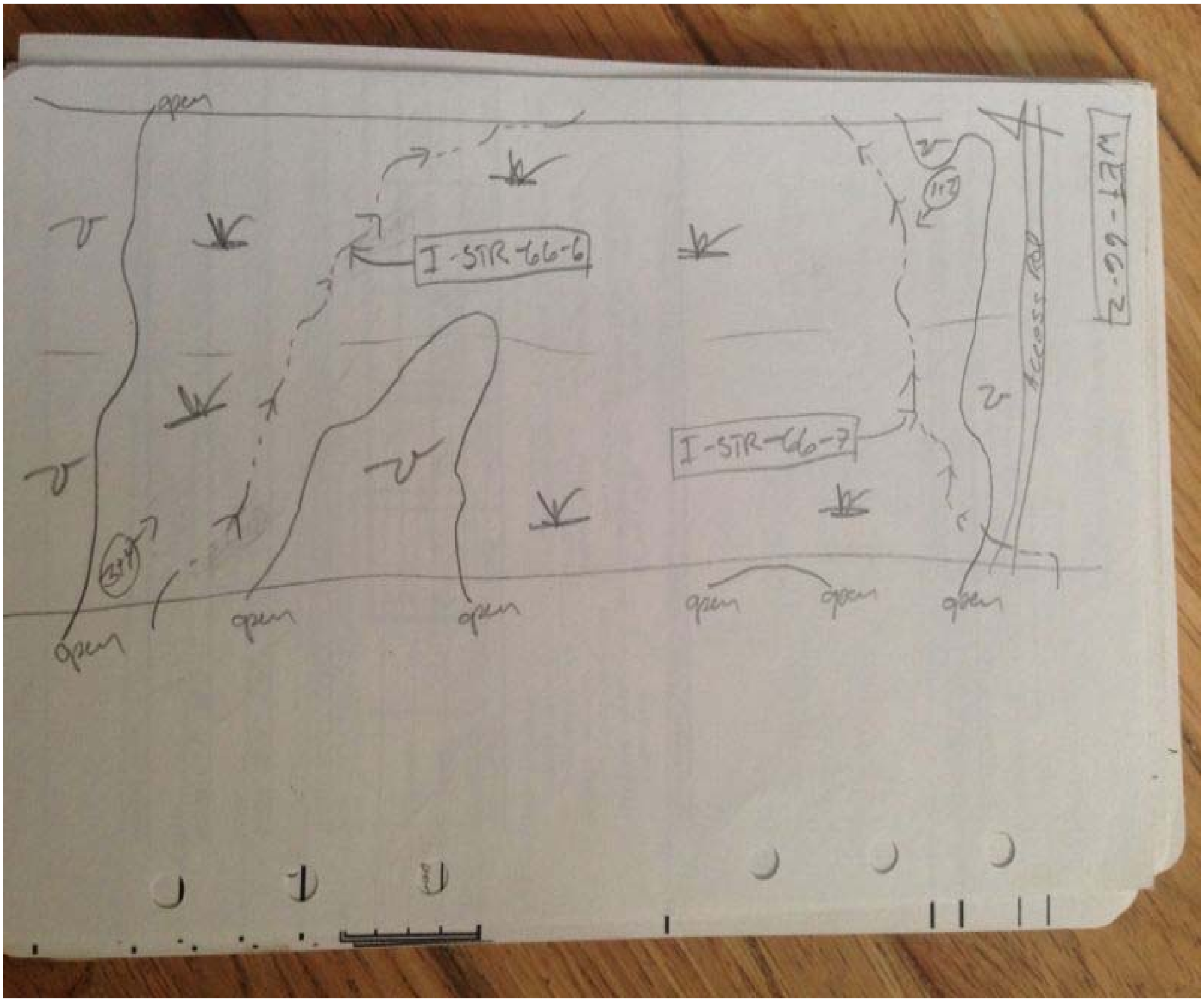
Invasive Species: Yes X No ___
Notes: Phalaris

WOSS: Yes X No ___
Type Stream adj

General Notes:

Photo # 4

SKETCH ON BACK


open
WET-66-2
1+2
I-STR-66-6
Access Rd
I-STR-66-7
3+4
open
open
open
open
open
open
open

Non-WOSS
Data Form Examples

Segment 3

Feature(s) ID: ~~98~~6

BOYLE ASSOCIATES

Routine Wetland Field Data Form WET- 75-06

Date: 5.21.17	Project Name: QMI
Job #: 532	Cowardin Class(es) & %: PUB/SS1E
Observers: HSW CJT	Photo(s) #:
Comments:	

Dominant Vegetation (by stratum):

Herbs	Herbs (cont.)	Shrubs/Saplings	Trees	Vines
carex sp.		spi lat		
		aln inc		
				–

Wetland Hydrology Indicators:

____ Perm. Flooded (approx. depth: ____)

✓ Seasonally [✓ Flooded]/Saturated (approx. depth: 3')

___ Saturated

[✓ *A1 – Surface water]	*B5 – Iron deposits	*B15 – Marl deposits	*C7 – Thin muck surface
*A2 – High water table	B6 – Surface soil cracks	B16 – Moss trim lines	C8 – Crayfish burrows
*A3 – Saturation	*B7 – Inundated aerial imagery	*C1 – Hydrogen sulfide odor	C9 – Saturation visible on aerial imagery
*B1 – Water marks	*B8 – Sparse veg. concave surface	C2 – Dry-season water table	*D1 – Stunted or stressed plants
*B2 – Sediment deposits	*B9 – Water-stained leaves	*C3 – Oxidized rhizospheres - living root	*D2 – Geomorphic position
*B3 – Drift deposits	B10 – Drainage patterns	*C4 – Presence of reduced iron	*D3 – Shallow aquitard
*B4 – Algal mat or crust	*B13 – Aquatic fauna	*C6 – Recent iron reduction in tilled soils	*D4 – Microtopographic relief
*Denotes Primary Indicator			*D5-FAC-neutral test

Representative Hydric Soils:

Depth (in)	Horizon	Texture	Color	Redox. Features	Other
0-1	1	loam-	10YR 3/2	—	—
1-6	2	Sil	2.5Y 3/2		
6-10	3	Sil	2.5Y 4/2	10YR 4/5	

Hydric Soil Indicator & Reference: A12

Other Soil Comments:

Functions & Values: place an * next to primary f&v & circle all that apply
■Groundwater Recharge/[✓ Discharge] ■Floodwater Alteration ■Fish & Shellfish Habitat
■Sed./Tox./Pathogen Retention ■Nutrient R/R/T ■Production Export
■Sediment/Shoreline Stabilization ■Wildlife Habitat ■Recreation
■Educational/Scientific Value ■Uniqueness/Heritage ■Visual Quality/Aesthetics
■RTE Habitat

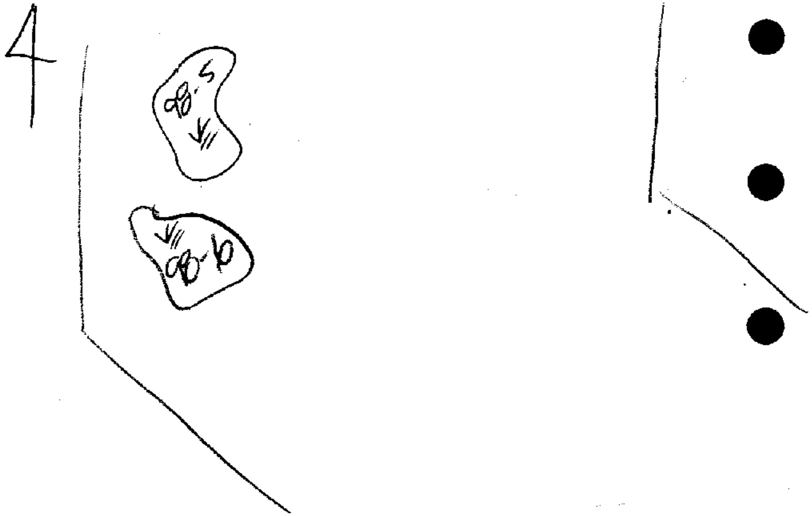
GPS Tech: CJF GPS File:

Stream Data:
Stream Name: ____________ Wetland: ___no wetland
___wetland:__________
Max Width: ______ Max Depth: ______ Per:___ Int: ____
Bank Type: ____vertical ____ gradual ____undercut ____other:
Substrate (>30%): ____mud ____gravel ____sand ____bedrock
____peat/muck

Stream Name: ____________ Wetland: ___no wetland
___wetland:__________
Max Width: ______ Max Depth: ______ Per:___ Int: ____
Bank Type: ____vertical ____ gradual ____undercut ____other:
Substrate (>30%): ____mud ____gravel ____sand ____bedrock
____peat/muck

Notes:

SKETCH: wetland (&) stream ID:______________________
(include: North Arrow, Photo # and Location/Direction, Landmarks, Flag locations)



Feature(s) ID: ~~76-1~~

BOYLE ASSOCIATES

Routine Wetland Field Data Form WET-77-01

Date: 5·23·17	Project Name: QMI
Job #: 532	Cowardin Class(es) & %: PFO1E/PUB
Observers: HSW CJF	Photo(s) #:

Comments: VP. Area appears to be recently flooded due to either beaver impoundment or other

Dominant Vegetation (by stratum):

Herbs	Herbs (cont.)	Shrubs/Saplings	Trees	Vines
∅	∅	cor ser	ace rub	∅
		aln inc		
		abi bal		

Wetland Hydrology Indicators:

____ Perm. Flooded (approx. ~~depth:~~) X Seasonally [✓ Flooded]/Saturated (approx. depth: 5') ___ Saturated

[✓ *A1 – Surface water]	*B5 – Iron deposits	*B15 – Marl deposits	*C7 – Thin muck surface
[✓ *A2 – High water table]	B6 – Surface soil cracks	B16 – Moss trim lines	C8 – Crayfish burrows
[✓ *A3 – Saturation]	*B7 – Inundated aerial imagery	*C1 – Hydrogen sulfide odor	C9 – Saturation visible on aerial imagery
~~*B1 – Water marks~~	*B8 – Sparse veg. concave surface	C2 – Dry-season water table	*D1 – Stunted or stressed plants
*B2 – Sediment deposits	[✓ *B9 – Water-stained leaves]	*C3 – Oxidized rhizospheres - living root	[✓ *D2 – Geomorphic position]
*B3 – Drift deposits	B10 – Drainage patterns	*C4 – Presence of reduced iron	*D3 – Shallow aquitard
*B4 – Algal mat or crust	*B13 – Aquatic fauna	*C6 – Recent iron reduction in tilled soils	*D4 – Microtopographic relief
*Denotes Primary Indicator			*D5-FAC-neutral test

Representative Hydric Soils:

Depth (in)	Horizon	Texture	Color	Redox. Features	Other
0-4	1	SaL	10YR 3/2	—	—
4-8	2	LS	2.5YR 4/2	2.5Y 5/1	—

Hydric Soil Indicator & Reference:

Other Soil Comments: F6 - broaden area could use NEHSI (New Eng) I, Ponded or Flooded Soils.

Functions & Values: place an * next to primary f&v & circle all that apply
■Groundwater Recharge/[✓ Discharge] ■Floodwater Alteration ■Fish & Shellfish Habitat
■Sed./Tox./Pathogen Retention ■Nutrient R/R/T ■Production Export
■Sediment/Shoreline Stabilization ■[✓ Wildlife Habitat] ■Recreation
■Educational/Scientific Value ■Uniqueness/Heritage ■Visual Quality/Aesthetics
■RTE Habitat

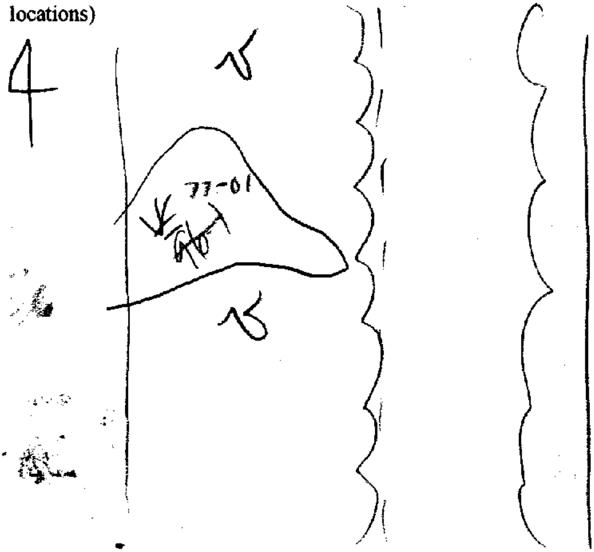
GPS Tech: CJF GPS File:

Stream Data:
Stream Name: ____________ Wetland: ___no wetland
___wetland:__________
Max Width: ______ Max Depth: ______ Per:___ Int: ____
Bank Type: ____vertical ____ gradual ____undercut ____other:
Substrate (>30%): ____mud ____gravel ____sand ____bedrock
____peat/muck

Stream Name: ____________ Wetland: ___no wetland
___wetland:__________
Max Width: ______ Max Depth: ______ Per:___ Int: ____
Bank Type: ____vertical ____ gradual ____undercut ____other:
Substrate (>30%): ____mud ____gravel ____sand ____bedrock
____peat/muck

Notes:

SKETCH: wetland (&) stream ID:____________________
(include: North Arrow, Photo # and Location/Direction, Landmarks, Flag locations)



Feature(s) ID: ~~[illegible]~~

BOYLE ASSOCIATES

Routine Wetland Field Data Form WET-78-03

Date: 5.23.17	Project Name: QMI	
Job #: 532	Cowardin Class(es) & %: PEM IE	
Observers: HSW CJF		Photo(s) #:
Comments:		

Dominant Vegetation (by stratum):

Herbs	Herbs (cont.)	Shrubs/Saplings	Trees	Vines
watercress		Ø	Ø	Ø
unid				
ono sen				
galium				
rub pub				

Wetland Hydrology Indicators:

____ Perm. Flooded (approx. depth: ____)

___ Seasonally Flooded/Saturated (approx. depth: ______)

___ Saturated

*A1 – Surface water	*B5 – Iron deposits	*B15 – Marl deposits	*C7 – Thin muck surface
[✓ *A2 – High water table]	B6 – Surface soil cracks	B16 – Moss trim lines	C8 – Crayfish burrows
[✓ *A3 – Saturation]	*B7 – Inundated aerial imagery	*C1 – Hydrogen sulfide odor	C9 – Saturation visible on aerial imagery
*B1 – Water marks	*B8 – Sparse veg. concave surface	C2 – Dry-season water table	*D1 – Stunted or stressed plants
*B2 – Sediment deposits	[✓ *B9 – Water-stained leaves]	*C3 – Oxidized rhizospheres - living root	*D2 – Geomorphic position
*B3 – Drift deposits	B10 – Drainage patterns	*C4 – Presence of reduced iron	*D3 – Shallow aquitard
*B4 – Algal mat or crust	*B13 – Aquatic fauna	*C6 – Recent iron reduction in tilled soils	*D4 – Microtopographic relief
*Denotes Primary Indicator			*D5-FAC-neutral test

Representative Hydric Soils:

Depth (in)	Horizon	Texture	Color	Redox. Features	Other
2-0	1	org	2.5Y 2.5/1		
0-7	2	LS	2.5Y 5/1		
7-16	3	LS	2.5Y 4/2	10YR 4/4	

Hydric Soil Indicator & Reference:

Other Soil Comments:

F6

Functions & Values: place an * next to primary f&v & circle all that apply
■[✓ Groundwater Recharge/Discharge] ■Floodwater Alteration ■Fish & Shellfish Habitat
■Sed./Tox./Pathogen Retention ■Nutrient R/R/T ■Production Export
■Sediment/Shoreline Stabilization ■Wildlife Habitat ■Recreation
■Educational/Scientific Value ■Uniqueness/Heritage ■Visual Quality/Aesthetics
■RTE Habitat

GPS Tech: CJF GPS File:

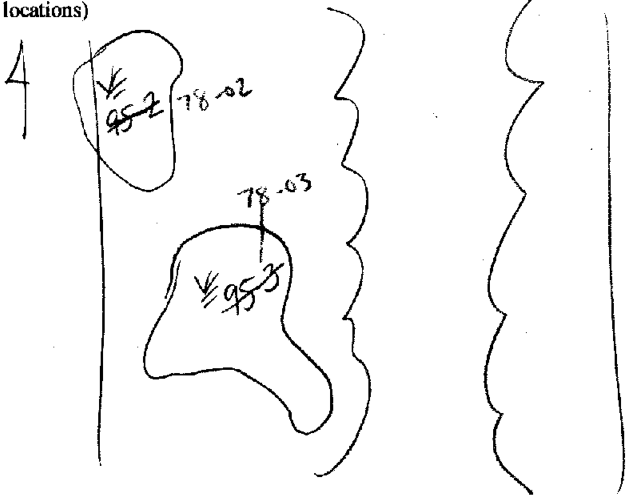
Stream Data:

Stream Name: ____________ Wetland: ___no wetland
___wetland:__________
Max Width: ______ Max Depth: ______ Per:___ Int: ____
Bank Type: ____vertical ____ gradual ____undercut ____other:
Substrate (>30%): ____mud ____gravel ____sand ____bedrock
____peat/muck

Stream Name: ____________ Wetland: ___no wetland
___wetland:__________
Max Width: ______ Max Depth: ______ Per:___ Int: ____
Bank Type: ____vertical ____ gradual ____undercut ____other:
Substrate (>30%): ____mud ____gravel ____sand ____bedrock
____peat/muck

Notes:

SKETCH: wetland (&) stream ID:______________________________
(include: North Arrow, Photo # and Location/Direction, Landmarks, Flag locations)



W055 - Stream

Feature(s) ID: ~~92~~1

BOYLE ASSOCIATES

Routine Wetland Field Data Form

WET-81-01

Date: 5.29.17	Project Name: QWMI		
Job #: 532	Cowardin Class(es) & %: PFO VUE		
Observers: HSW CJF		Photo(s) #:	
Comments: logged - Selective			

Dominant Vegetation (by stratum):

Herbs	Herbs (cont.)	Shrubs/Saplings	Trees	Vines
typ lat		abi bal	fra nig	Ø
ono sen		spi lat	abi bal	
car lur		vac cor	bet pop	
imp cap		ulm ame		
osm cin		fra nig		
tia cor		bet pop		

Wetland Hydrology Indicators:

____ Perm. Flooded (approx. depth: ____) ____ Seasonally Flooded/Saturated (approx. depth: ______) X Saturated

[✓ *A1 – Surface water]	*B5 – Iron deposits	*B15 – Marl deposits	[✓ *C7 – Thin muck surface]
[✓ *A2 – High water table]	B6 – Surface soil cracks	B16 – Moss trim lines	C8 – Crayfish burrows
[✓ *A3 – Saturation]	*B7 – Inundated aerial imagery	*C1 – Hydrogen sulfide odor	C9 – Saturation visible on aerial imagery
*B1 – Water marks	*B8 – Sparse veg. concave surface	C2 – Dry-season water table	*D1 – Stunted or stressed plants
*B2 – Sediment deposits	[✓ *B9 – Water-stained leaves]	*C3 – Oxidized rhizospheres - living root	*D2 – Geomorphic position
*B3 – Drift deposits	[✓ B10 – Drainage patterns]	*C4 – Presence of reduced iron	*D3 – Shallow aquitard
*B4 – Algal mat or crust	*B13 – Aquatic fauna	*C6 – Recent iron reduction in tilled soils	*D4 – Microtopographic relief
*Denotes Primary Indicator			*D5-FAC-neutral test

Representative Hydric Soils:

Depth (in)	Horizon	Texture	Color	Redox. Features	Other
2-0	O	org	blk	—	—
0-2	A	mucky min	10YR 2/1		
2-6	B	vfsl	2.5Y 5/2	10YR 4/4	10%

Hydric Soil Indicator & Reference:

Other Soil Comments: F6 Nat'l Ind

Functions & Values: place an * next to primary f&v & circle all that apply
■Groundwater Recharge/[✓ Discharge] ■Floodwater Alteration ■Fish & Shellfish Habitat
■Sed./Tox./Pathogen Retention ■Nutrient R/R/T ■Production Export
■Sediment/Shoreline Stabilization ■[✓ Wildlife Habitat] ■Recreation
■Educational/Scientific Value ■Uniqueness/Heritage ■Visual Quality/Aesthetics
■RTE Habitat

GPS Tech: CJF GPS File:

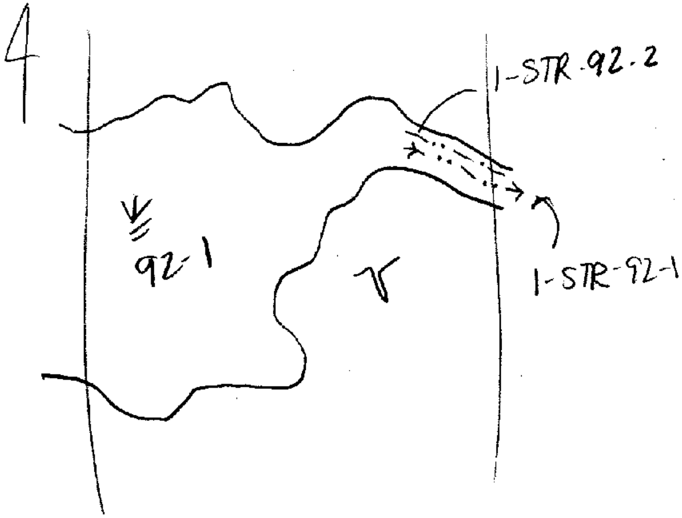
Stream Data:

Stream Name: 1-STR-92-1 Wetland: ___no wetland
X wetland: 92-2
Max Width: _______ Max Depth: ______ Per:___ Int: X
Bank Type: ____vertical ____ gradual X undercut ____other:
Substrate (>30%): X mud ____gravel ____sand ____bedrock X rock
____peat/muck

Stream Name: 1-STR-92 2 Wetland: ___no wetland
X wetland: 92-2
Max Width: 4' Max Depth: 8" Per:___ Int: X
Bank Type: ____vertical X gradual ____undercut ____other:
Substrate (>30%): X mud ____gravel ____sand ____bedrock X rock
____peat/muck

Notes:

SKETCH: wetland (&) stream ID:
(include: North Arrow, Photo # and Location/Direction, Landmarks, Flag locations)



Feature(s) ID: ~~90 5~~ WET-83-05

BOYLE ASSOCIATES

Routine Wetland Field Data Form

Date: 5.18.17	Project Name: QMI
Job #: 532	Cowardin Class(es) & %: PFO4E(50%) PSS(50%)
Observers: HSW DHP	Photo(s) #:
Comments:	

Dominant Vegetation (by stratum):

Herbs	Herbs (cont.)	Shrubs/Saplings	Trees	Vines
ono sen		spi lat	abi bal	
white flower		spi tom	ace rub	Ø
spi lat		abi bal		
sphag.		pop bal		
mia can				

Wetland Hydrology Indicators:

____ Perm. Flooded (approx. depth: ____) ___ Seasonally Flooded/Saturated (approx. depth: ______) X Saturated free water in pit

[✓ *A1 – Surface water]	*B5 – Iron deposits	*B15 – Marl deposits	*C7 – Thin muck surface
*A2 – High water table	B6 – Surface soil cracks	B16 – Moss trim lines	C8 – Crayfish burrows
[✓ *A3 – Saturation]	*B7 – Inundated aerial imagery	*C1 – Hydrogen sulfide odor	C9 – Saturation visible on aerial imagery
*B1 – Water marks	*B8 – Sparse veg. concave surface	C2 – Dry-season water table	*D1 – Stunted or stressed plants
*B2 – Sediment deposits	[✓ *B9 – Water-stained leaves]	*C3 – Oxidized rhizospheres - living root	*D2 – Geomorphic position
*B3 – Drift deposits	B10 – Drainage patterns	*C4 – Presence of reduced iron	*D3 – Shallow aquitard
*B4 – Algal mat or crust	*B13 – Aquatic fauna	*C6 – Recent iron reduction in tilled soils	*D4 – Microtopographic relief
*Denotes Primary Indicator			*D5-FAC-neutral test

Representative Hydric Soils:

Depth (in)	Horizon	Texture	Color	Redox. Features	Other
0-2	1	loam	blk		
2-6	2	sil	10YR 3/2	10YR 4/4 15%	
6-12	3	sil	2.5Y 4/2	10YR 4/4 20%	

Hydric Soil Indicator & Reference:

Other Soil Comments:

F7

Functions & Values: place an * next to primary f&v & circle all that apply
■Groundwater Recharge/[✓ Discharge] ■Floodwater Alteration ■Fish & Shellfish Habitat
■Sed./Tox./Pathogen Retention ■Nutrient R/R/T ■Production Export
■Sediment/Shoreline Stabilization ■[✓ Wildlife Habitat] ■Recreation
■Educational/Scientific Value ■Uniqueness/Heritage ■Visual Quality/Aesthetics
■RTE Habitat

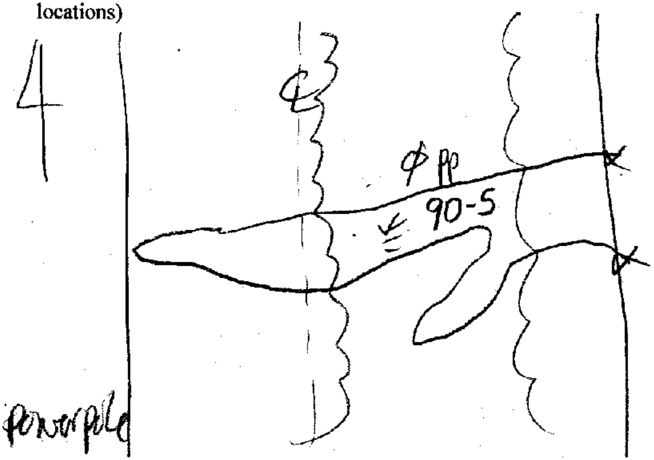
GPS Tech: DHP GPS File:

Stream Data:
Stream Name: ____________ Wetland: ___no wetland
___wetland: __________
Max Width: ______ Max Depth: ______ Per:___ Int: ____
Bank Type: ____vertical ____ gradual ____undercut ____other:
Substrate (>30%): ____mud ____gravel ____sand ____bedrock
____peat/muck

Stream Name: ____________ Wetland: ___no wetland
___wetland: __________
Max Width: ______ Max Depth: ______ Per:___ Int: ____
Bank Type: ____vertical ____ gradual ____undercut ____other:
Substrate (>30%): ____mud ____gravel ____sand ____bedrock
____peat/muck

Notes:

SKETCH: wetland (&) stream ID: ____________
(include: North Arrow, Photo # and Location/Direction, Landmarks, Flag locations)



Φ=powerpole

Feature(s) ID: WET-83-15

BOYLE ASSOCIATES

Routine Wetland Field Data Form

Date:	Project Name:
Job #:	Cowardin Class(es) & %: PSS1E
Observers:	Photo(s) #:
Comments: W has been rutted up by heavy equipment	

Dominant Vegetation (by stratum):

Herbs	Herbs (cont.)	Shrubs/Saplings	Trees	Vines
Rub pub	Equ pal	Spi tom		
Osm cln	Tha tha	Aln inc		
Ono sen	Junc eff			
Eut gra				
Sol rug				

Wetland Hydrology Indicators:

____ Perm. Flooded (approx. depth: ____) ___ Seasonally Flooded/Saturated (approx. depth: ______) ✓ Saturated

[✓ *A1 – Surface water]	*B5 – Iron deposits	*B15 – Marl deposits	*C7 – Thin muck surface
*A2 – High water table	B6 – Surface soil cracks	B16 – Moss trim lines	C8 – Crayfish burrows
*A3 – Saturation	*B7 – Inundated aerial imagery	*C1 – Hydrogen sulfide odor	C9 – Saturation visible on aerial imagery
*B1 – Water marks	*B8 – Sparse veg. concave surface	C2 – Dry-season water table	*D1 – Stunted or stressed plants
*B2 – Sediment deposits	[✓ *B9 – Water-stained leaves]	*C3 – Oxidized rhizospheres - living root	*D2 – Geomorphic position
*B3 – Drift deposits	B10 – Drainage patterns	*C4 – Presence of reduced iron	*D3 – Shallow aquitard
*B4 – Algal mat or crust	*B13 – Aquatic fauna	*C6 – Recent iron reduction in tilled soils	*D4 – Microtopographic relief
*Denotes Primary Indicator			*D5-FAC-neutral test

Representative Hydric Soils:

Depth (in)	Horizon	Texture	Color	Redox. Features	Other
0-4	A	SiL	10YR 3/2		
4-16+	B	SiL	5Y 5/2	10YR 5/6 CM	4% Gravelly

Hydric Soil Indicator & Reference:

Other Soil Comments:

~~WET-85-5~~

WET-88-05

Sam Hayden 5/11/17

Veg, soil, hydro good. Added long W section to N boundary. Area highly impacted by equipment/ATV Ruts.

S. H.

Maine Power Reliability Project
WETLAND SUMMARY FORM

Team E

Observers: SEK, SLS, HBL Date: 10/3/07

Town: N. ANSON and EMBDEN Series: 1-8

Segment #: 12 CMP Section #: 63 CMP Pole #: 176 Wetland ID #: 1

Stream/Waterbody ID:

Corps plot: ___ Yes X No

Dominant NWI Class: PEM1 (90%) Other NWI Classes: PSS1 (10%)

Representative Wetland Vegetation (by Strata):

herb

tearthumb sensitive fern

woolgrass (x) Rubus hispidus

white boneset swamp candles

Flattop aster marsh fern

Shrub

Spiraea lat. (x)

willow sp.

Representative Wetland Hydrology

___ Permanently Flooded (approximate depth -)

___ Seasonally Flooded (approximate depth -)

___ Saturated

Hydrologic Indicators:

X Water Marks

/ Drainage Patterns

___ Silt Deposition

___ Drift Lines

___ Buttressed Trees

___ Water-Stained Leaves

X Surface Scouring Ruts

___ Elevated Roots

Other Observations:

Representative Wetland Soils:

X Mineral

___ Organic

Depth	Horizon	Color	Redox Features	Texture
0-6	A	10yr 3/2		Silt loam
6-11	Bw	10yr 5/2		" "
11-18+	Bg	10yr 6/1	10yr 5/6	silty clay loam

somewhat common, small, distinct

Other Observations:

Meets NEIWPCC (2004) Criteria IA

Stream # 1 Data:

Width (Bank-Bank): ___ Depth @ Center: ___ Peren. ___ Intermittent ___

Bank Configuration: ___ Undercut ___ Vertical ___ Gradual

Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder ___ Bedrock

Stream # 2 Data

Width (Bank-Bank): ___ Depth @ Center: ___ Peren. ___ Intermittent ___

Bank Configuration: ___ Undercut ___ Vertical ___ Gradual

Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder ___ Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP): moose browse (willow)

Notes: mounds included (hay scented fern)

☐ Cedar Swamp ☐ Wetland of Special Significance

Photo # 6 7, 4

SKETCH ON BACK

Maine Power Reliability Project
WETLAND SUMMARY FORM

Team E

Observers: SEK, SLS, LKC Date: 10/3/07
Town: N. ANSON and EMBDEN Series: 1-8
Segment #: 12 CMP Section #: 63 CMP Pole #: 176 Wetland ID #: 1
Stream/Waterbody ID:
Corps plot: ___Yes X No

Dominant NWI Class: PEM1 (90%) Other NWI Classes: PSS1 (30%)

Representative Wetland Vegetation (by Strata):

herb
tearthumb
woolgrass (X)
white boneset
Flattop aster
sensitive fern
Rubus hispidus
swamp candles
marsh fern

Shrub
Spiraea lat. (x)
willow sp.

Representative Wetland Hydrology

_____ Permanently Flooded (approximate depth -)
_____ Seasonally Flooded (approximate depth -)
_____ Saturated

Hydrologic Indicators:
_____ Silt Deposition
_____ Water-Stained Leaves
X Water Marks
_____ Drift Lines
X Surface Scouring Rills
X Drainage Patterns
_____ Buttressed Trees
_____ Elevated Roots

Other Observations:

Representative Wetland Soils:
X Mineral
_____ Organic

Depth	Horizon	Color	Redox Features	Texture
0-6	A	10yr 3/2		Silt loam
6-11	Bw	10yr 5/2		" "
11-18+	Bg	10yr 6/1	10yr 5/6	silty clay loam

somewhat common, small, distinct

Other Observations:
Meets NEIWPCC (2004) Criteria N/A

Stream # 1 Data:
Width (Bank-Bank): ________ Depth @ Center: ________ Peren. ______ Intermittent______
Bank Configuration: ____Undercut ___ Vertical ___ Gradual
Channel Substrate: ___Peat-Muck ___Silt-Mud ___Sand ___Gravel/Cobble ___Boulder ___ Bedrock

Stream # 2 Data
Width (Bank-Bank): ________ Depth @ Center: ________ Peren. ______ Intermittent______
Bank Configuration: ____Undercut ___ Vertical ___ Gradual
Channel Substrate: ___Peat-Muck ___Silt-Mud ___Sand ___Gravel/Cobble ___Boulder ___ Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP): moose browse (willow)

Notes: mounds included (hay scented fern)

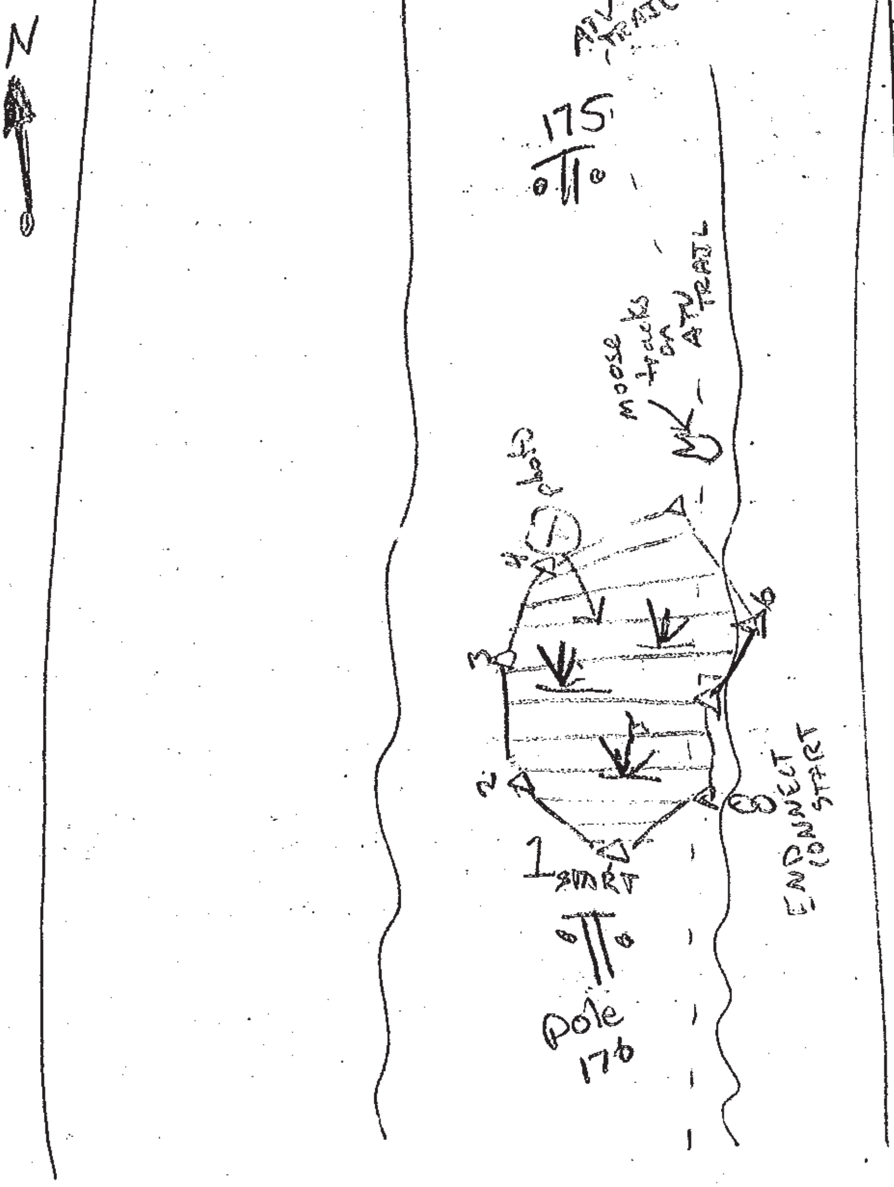
☐Cedar Swamp ☐Wetland of Special Significance

Photo # 2,3,4

SKETCH ON BACK

WETLAND SKETCH

Line Flagging Series
1-8



Possible Functions and Values:

Groundwater Recharge/Discharge
Fish and Shellfish Habitat
Nutrient Removal
Sediment/Shoreline Stabilization
Recreation
Uniqueness/Heritage
Endangered Species Habitat
Floodflow Alteration
Sediment/Toxicant Retention
Production Export
[✓] Wildlife Habitat
Educational/Scientific Value
Visual Quality/Aesthetics
[✓] Other small

Checklist:

[✓] **Wetland ID#** E12·63·176·1
[✓] North arrow.
[✓] Detailed sketch of wetland boundary and flagging sequence.
[✓] Natural and man-made features – roads, culverts, outcrops, structures, etc.
[✓] Photo locations.
[✓] Location of important wildlife sign.

Non-WOSS
Data Form Examples

Segment 4

Page 116

WET-146-05

Maine Power Reliability Project

Team 12

WETLAND SUMMARY FORM

Observers: MP AG MC Date: 10-17-07
Town: Lewiston Series: OVER
Segment # : 17 CMP Section #: 64 CMP Pole #: 25 Wetland ID #: 1
Stream/Waterbody ID: Corps plot : Yes ✓ No

Dominant NWI Class: PEM1 Other NWI Classes:

Representative Wetland Vegetation (by Strata):

Gly can
Scicyp
Jun eff
Euth gram

Ast umb
Rub his

Shrub
Spi lat
Vib dent
Aln inc

Representative Wetland Hydrology

____ Permanently Flooded (approximate depth -)
✓ Seasonally Flooded (approximate depth - 3")
____ Saturated

Hydrologic Indicators: ____ Silt Deposition ✓ Water-Stained Leaves
✓ Water Marks ____ Drift Lines ✓ Surface Scouring
✓ Drainage Patterns ____ Buttressed Trees ____ Elevated Roots
Other Observations:

Representative Wetland Soils:
✓ Mineral
____ Organic

Depth	Horizon	Color	Redox Features	Texture
0-8	A1	5Y 4/2	10YR 4/6	SaLo
			5Y 4/2	
8-12+	B1	5Y 5/2	5Y 6/1	SiLo

Other Observations:
Meets NEIWPCC (2004) Criteria VI

Stream # 1 Data:
Width (Bank-Bank): ____ Depth @ Center: ____ Peren. ____ Intermittent ____
Bank Configuration: ____ Undercut ____ Vertical ____ Gradual
Channel Substrate: ____ Peat-Muck ____ Silt-Mud ____ Sand ____ Gravel/Cobble ____ Boulder ____ Bedrock

Stream # 2 Data
Width (Bank-Bank): ____ Depth @ Center: ____ Peren. ____ Intermittent ____
Bank Configuration: ____ Undercut ____ Vertical ____ Gradual
Channel Substrate: ____ Peat-Muck ____ Silt-Mud ____ Sand ____ Gravel/Cobble ____ Boulder
Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP): Pot ABA/VP in RUB

Notes:

N/A

☐ Cedar Swamp ☐ Wetland of Special Significance

Photo # 8/9

SKETCH ON BAC

Sam Hayden 5/19/17

Added Aln inc to veg, soil, hydro and delineation good

Page 116

Maine Power Reliability Project

WETLAND SUMMARY FORM

Team V

Observers: MP AG MC
Date: 10-17-07
Town: Lewiston
Series: OVER
Segment # : 17 CMP Section #: 64 CMP Pole #: 25 Wetland ID #: 1
Stream/Waterbody ID:
Corps plot : Yes ✓ No

Dominant NWI Class: PEM1
Other NWI Classes:

Representative Wetland Vegetation (by Strata):

Gly can
Scicyp
Jew eff
Euth gram

Ast umb
Rub his

Shrub
Spi lat
Vib dent

Representative Wetland Hydrology

___ Permanently Flooded (approximate depth -)
✓ Seasonally Flooded (approximate depth - 3")
___ Saturated

Hydrologic Indicators:
___ Silt Deposition
___ Water-Stained Leaves
✓ Water Marks
___ Drift Lines
✓ Surface Scouring
✓ Drainage Patterns
___ Buttressed Trees
___ Elevated Roots

Other Observations:

Representative Wetland Soils:
✓ Mineral
___ Organic

Depth	Horizon	Color	Redox Features	Texture
0-8	A1	5Y 4/2	10YR 4/6	SaLo
			5Y 4/2	
8-12+	B1	5Y 5/2	5Y 6/1	SiLo

Other Observations:
Meets NEIWPCC (2004) Criteria VI

Stream # 1 Data:
Width (Bank-Bank): ___ Depth @ Center: ___ Peren. ___ Intermittent ___
Bank Configuration: ___ Undercut ___ Vertical ___ Gradual
Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder ___ Bedrock

Stream # 2 Data
Width (Bank-Bank): ___ Depth @ Center: ___ Peren. ___ Intermittent ___
Bank Configuration: ___ Undercut ___ Vertical ___ Gradual
Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP): Pot ABA VP in ROB

Notes:

N/A

☐ Cedar Swamp ☐ Wetland of Special Significance

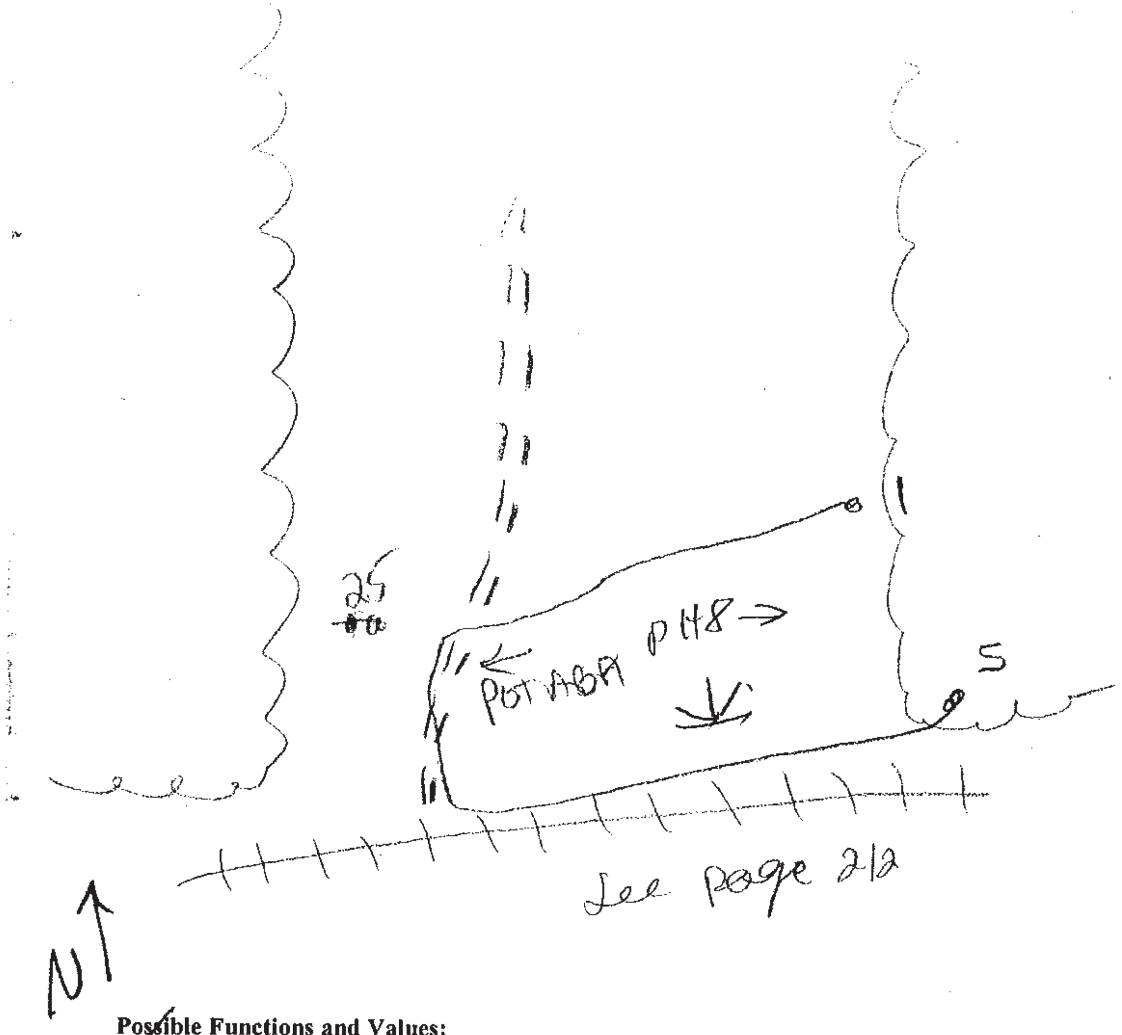
Photo # 8/9

SKETCH ON BAC

Page 1/2 **WETLAND SKETCH**

Line Flagging Series
1-5

pH9 Flag



Possible Functions and Values:

✓ Groundwater Recharge/Discharge
___ Fish and Shellfish Habitat
___ Nutrient Removal
___ Sediment/Shoreline Stabilization
___ Recreation
___ Uniqueness/Heritage
___ Endangered Species Habitat
___ Floodflow Alteration
___ Sediment/Toxicant Retention
___ Production Export
___ Wildlife Habitat
___ Educational/Scientific Value
___ Visual Quality/Aesthetics
___ Other

Checklist:

✓ **Wetland ID#** B17-64-25-1
✓ North arrow.
✓ Detailed sketch of wetland boundary and flagging sequence.
✓ Natural and man-made features – roads, culverts, outcrops, structures, etc.
✓ Photo locations.
✓ Location of important wildlife sign.

Maine Power Reliability Project
WETLAND SUMMARY FORM

Team 2

Observers: MP, AG, MC
Date: 10-17-07
Town: Lewiston
Series: OVER
Segment # : 17 CMP Section #: 64 CMP Pole #: 25 Wetland ID #: 1
Stream/Waterbody ID:
Corps plot : ___ Yes ✓ No

Dominant NWI Class: PEM1
Other NWI Classes: PFO1

Representative Wetland Vegetation (by Strata):

PEM

Shrub
Spi lat
Aln rug
Ilex ver
Vib dent

Herb
Gly can
Thy lat
Phal aru
Eup perf
Thel pal
Ast umb
Lyt sal
Sol gig

Cont.

Ace rub
Ulm Amer
Bet pop
Aln rug

Representative Wetland Hydrology

_____ Permanently Flooded (approximate depth -)
✓ Seasonally Flooded (approximate depth - 12")
_____ Saturated

Hydrologic Indicators: _____ Silt Deposition _____ Water-Stained Leaves
✓ Water Marks _____ Drift Lines ✓ Surface Scouring
✓ Drainage Patterns _____ Buttressed Trees _____ Elevated Roots
Other Observations:

Representative Wetland Soils:
✓ Mineral
_____ Organic

Depth	Horizon	Color	Redox Features	Texture
0-2	A1	5Y3/2	—	Sa Lo
2-10+	B1	5Y4/2	5GY 5/1	Si Lo
			10YR 4/6	

Other Observations:
Meets NEIWPCC (2004) Criteria VI

Stream # 1 Data:
Width (Bank-Bank): ________ Depth @ Center: ________ Peren. ______ Intermittent______
Bank Configuration: ____Undercut ___ Vertical ___ Gradual
Channel Substrate: ___Peat-Muck ___Silt-Mud ___Sand ___Gravel/Cobble ___Boulder ___Bedrock

Stream # 2 Data
Width (Bank-Bank): ________ Depth @ Center: ________ Peren. ______ Intermittent______
Bank Configuration: ____Undercut ___ Vertical ___ Gradual
Channel Substrate: ___Peat-Muck ___Silt-Mud ___Sand ___Gravel/Cobble ___Boulder ___Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):
PUT ABH/VP in RUTS

Notes:

☐Cedar Swamp ☐Wetland of Special Significance

Photo # 10|11

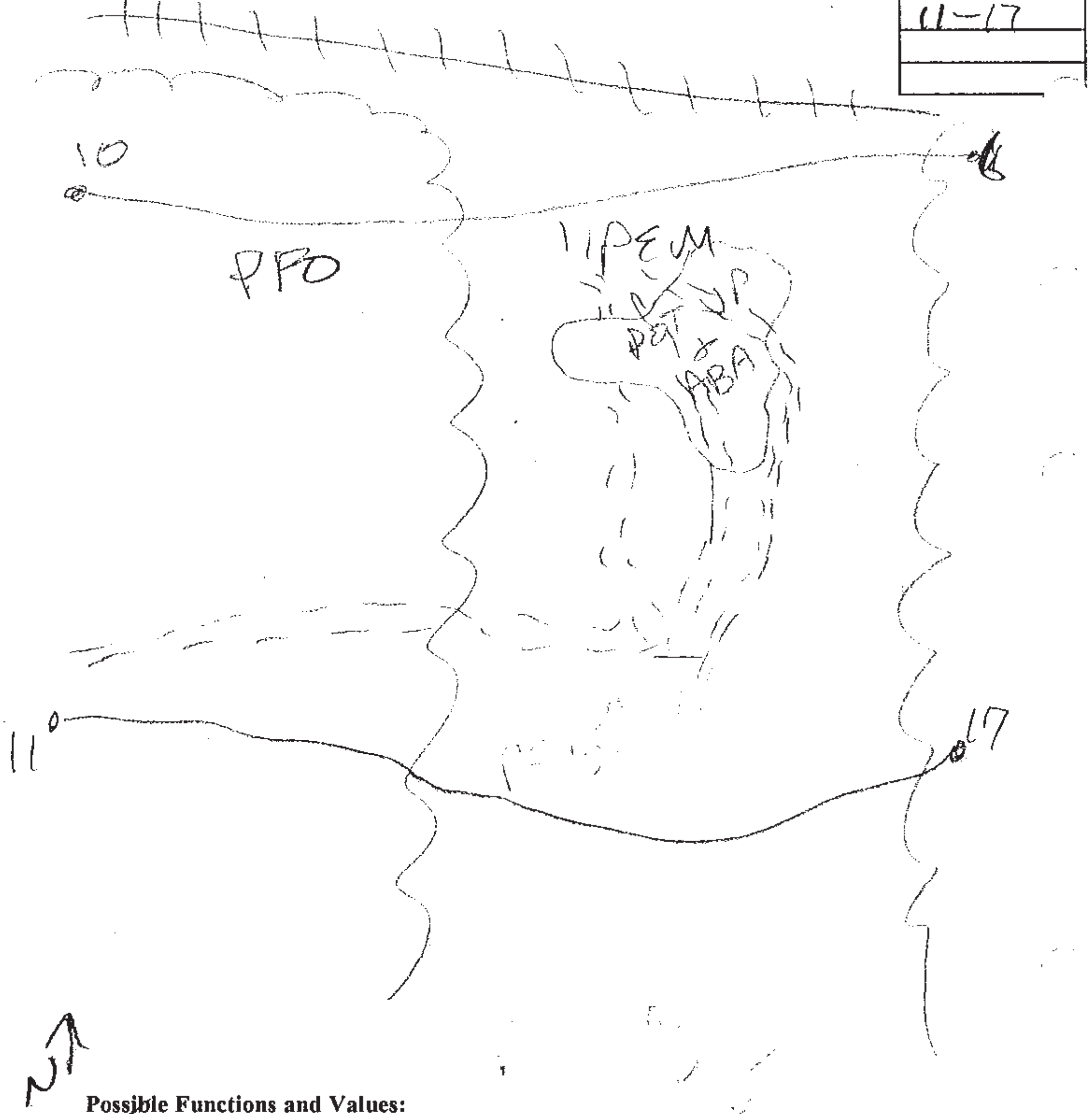
SKETCH ON BAC

page 2/2

WETLAND SKETCH

See page 1/2

Line Flagging Series
6-10
11-17



Possible Functions and Values:

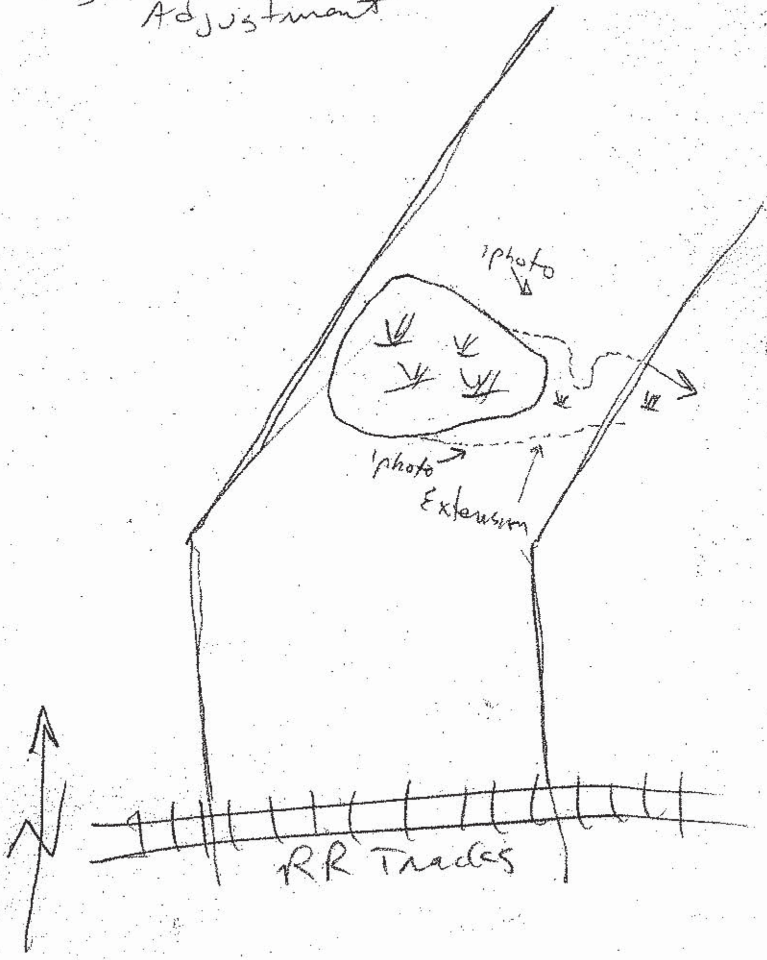
- ✓ Groundwater Recharge/Discharge
- __ Fish and Shellfish Habitat
- ✓ Nutrient Removal
- __ Sediment/Shoreline Stabilization
- __ Recreation
- __ Uniqueness/Heritage
- __ Endangered Species Habitat
- __ Floodflow Alteration
- __ Sediment/Toxicant Retention
- ✓ Production Export
- ✓ Wildlife Habitat
- __ Educational/Scientific Value
- __ Visual Quality/Aesthetics
- __ Other

Checklist:

- ✓ **Wetland ID#** B17-B4.25.1 Cont.
- ✓ North arrow.
- ✓ Detailed sketch of wetland boundary and flagging sequence.
- ✓ Natural and man-made features – roads, culverts, outcrops, structures, etc.
- ✓ Photo locations.
- ✓ Location of important wildlife sign.

NAI-17- PF-1 9/3/2009

B-17-64-24-2
Adjustment



PFO/PSS | PEM

~~Adjusted~~
~~B-~~

NAI-17-PF-4 9/3/2009

B-17-64-25-1

Wetland boundary South east side slightly

Boundary not significantly different than original boundary except for the South side which is ~50' off.

No photo

Ace rub
Aln rug
Carex [illegible]
Sci cyp
Lyt sal

Adjusted
B-17-64-24-2 NAI-17-PF-1

Adjusted northern wetland boundary to encompass more wetland. — See original Data sheets for soils/hydrology

Mtn Holly
Sphag
Rub hisp
Ilex vert
Vib cas
Osm cin
Jun eff
Spi lat

WET-146-10

Sam Hayden 5/19/17
Veg, soil, hydro, delineation good
correct SH

~~B-17-64-32-1~~

Maine Power Reliability Project
WETLAND SUMMARY FORM

Team: L

Observers: MP, AG, MC
Date: 10-18-07
Town: Lewiston
Series: over
Segment #: 17
CMP Section #: 64
CMP Pole #: 32
Wetland #: 1
Stream/Waterbody ID: —
Corps plot: Yes [✓ No]

Dominant NWI Class: PSS1
Other NWI Classes: PFO4

Representative Wetland Vegetation (by Strata):

Shrub
Ilex ver
Aln rug
Spi lat
Spi tom

Sci cyp
Thel pal
Car lac
Cottongr
Ast umb

Rub his
Mit rep
Sphagnum

Ace rub
Bet pop
Pin stro
Tus can

Representative Wetland Hydrology

___ Permanently Flooded (approximate depth -)
✓ Seasonally Flooded (approximate depth - 6")
___ Saturated

Hydrologic Indicators:
___ Silt Deposition
___ Water-Stained Leaves
___ Water Marks
___ Drift Lines
✓ Surface Scouring
✓ Drainage Patterns
___ Buttressed Trees
___ Elevated Roots

Other Observations: Dense Sphagnum

Representative Wetland Soils:
___ Mineral
✓ Organic

Depth	Horizon	Color	Redox Features	Texture
18-16	Oi	10YR2/1	-	Fibric
16-0	Oa	10YR3/1	-	Sapric

Other Observations:
Meets NEIWPCC (2004) Criteria III

Stream # 1 Data:
Width (Bank-Bank): ___ Depth @ Center: ___ Peren. ___ Intermittent ___
Bank Configuration: ___ Undercut ___ Vertical ___ Gradual
Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder ___ Bedrock

Stream # 2 Data
Width (Bank-Bank): ___ Depth @ Center: ___ Peren. ___ Intermittent ___
Bank Configuration: ___ Undercut ___ Vertical ___ Gradual
Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder ___ Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):

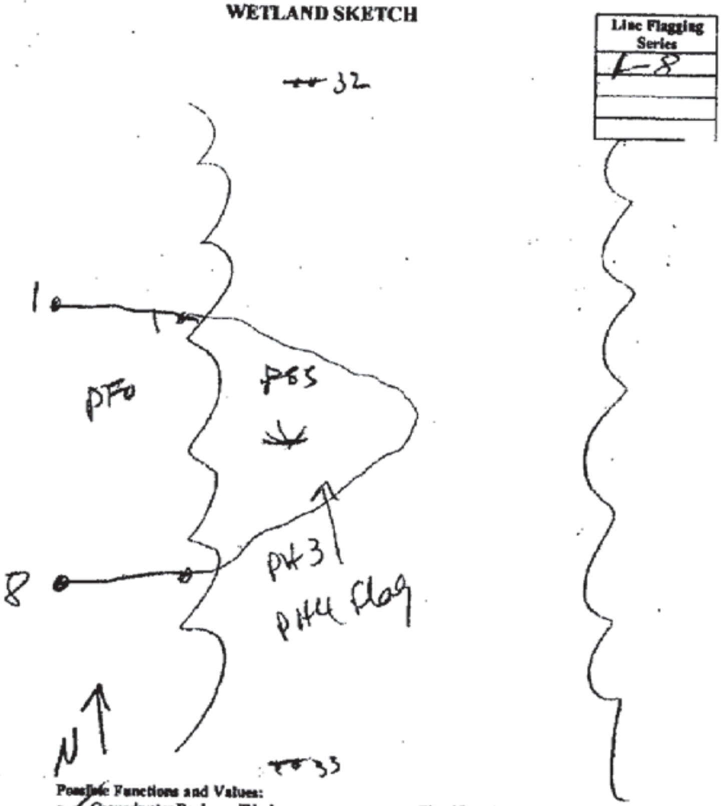
Notes:

☐ Cedar Swamp ☐ Wetland of Special Significance

Photo # 3/4

SKETCH ON BACK

WETLAND SKETCH



Possible Functions and Values:
✓ Groundwater Recharge/Discharge
___ Fish and Shellfish Habitat
___ Nutrient Removal
___ Sediment/Shoreline Stabilization
___ Recreation
___ Uniqueness/Heritage
___ Endangered Species Habitat
___ Floodflow Alteration
___ Sediment/Toxicant Retention
___ Production Export
___ Wildlife Habitat
___ Educational/Scientific Value
___ Visual Quality/Aesthetics
___ Other

Checklist:
✓ Wetland ID# B17-64-32-1
✓ North arrow.
✓ Detailed sketch of wetland boundary and flagging sequence.
✓ Natural and man-made features – roads, culverts, outcrops, structures, etc.
✓ Photo locations.
___ Location of important wildlife sign.

Maine Power Reliability Project

Team ✓

WETLAND SUMMARY FORM

Observers: MP, AG, MC
Date: 10-18-07
Town: Lewiston
Series: OVGR
Segment # : 17 CMP Section #: 64 CMP Pole #: 32 Wetland #: 1
Stream/Waterbody ID: —
Corps plot: Yes [✓ No]

Dominant NWI Class: PSS1
Other NWI Classes: PFO1/4

Representative Wetland Vegetation (by Strata):

Shrub
Ilever
Aln rug
Spi lat
Spi tom

Sci cyp
Thel pal
Car lac
Cottongr
Ast umb

Rub hrs
Mit rep
Sphagnum

Ace rub
Bet pop
Pin stro
Tus can

Representative Wetland Hydrology

_____ Permanently Flooded (approximate depth -)
✓ Seasonally Flooded (approximate depth - 6")
_____ Saturated

Hydrologic Indicators:
_____ Silt Deposition
_____ Water-Stained Leaves
_____ Water Marks
_____ Drift Lines
✓ Surface Scouring
✓ Drainage Patterns
_____ Buttressed Trees
_____ Elevated Roots

Other Observations:
Dense Sphagnum

Representative Wetland Soils:
_____ Mineral
✓ Organic

Depth	Horizon	Color	Redox Features	Texture
18-16	Oi	10yR2/1	-	Fibric
16-0	Oa	10yR3/1	-	Sapric

Other Observations:
Meets NEIWPCC (2004) Criteria III

Stream # 1 Data:
Width (Bank-Bank): ________ Depth @ Center: ________ Peren. ________ Intermittent ________
Bank Configuration: ____Undercut ___ Vertical ___ Gradual
Channel Substrate: ___Peat-Muck ___Silt-Mud ___Sand ___Gravel/Cobble ___Boulder ___ Bedrock

Stream # 2 Data
Width (Bank-Bank): ________ Depth @ Center: ________ Peren. ________ Intermittent ________
Bank Configuration: ____Undercut ___ Vertical ___ Gradual
Channel Substrate: ___Peat-Muck ___Silt-Mud ___Sand ___Gravel/Cobble ___Boulder Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):

Notes:

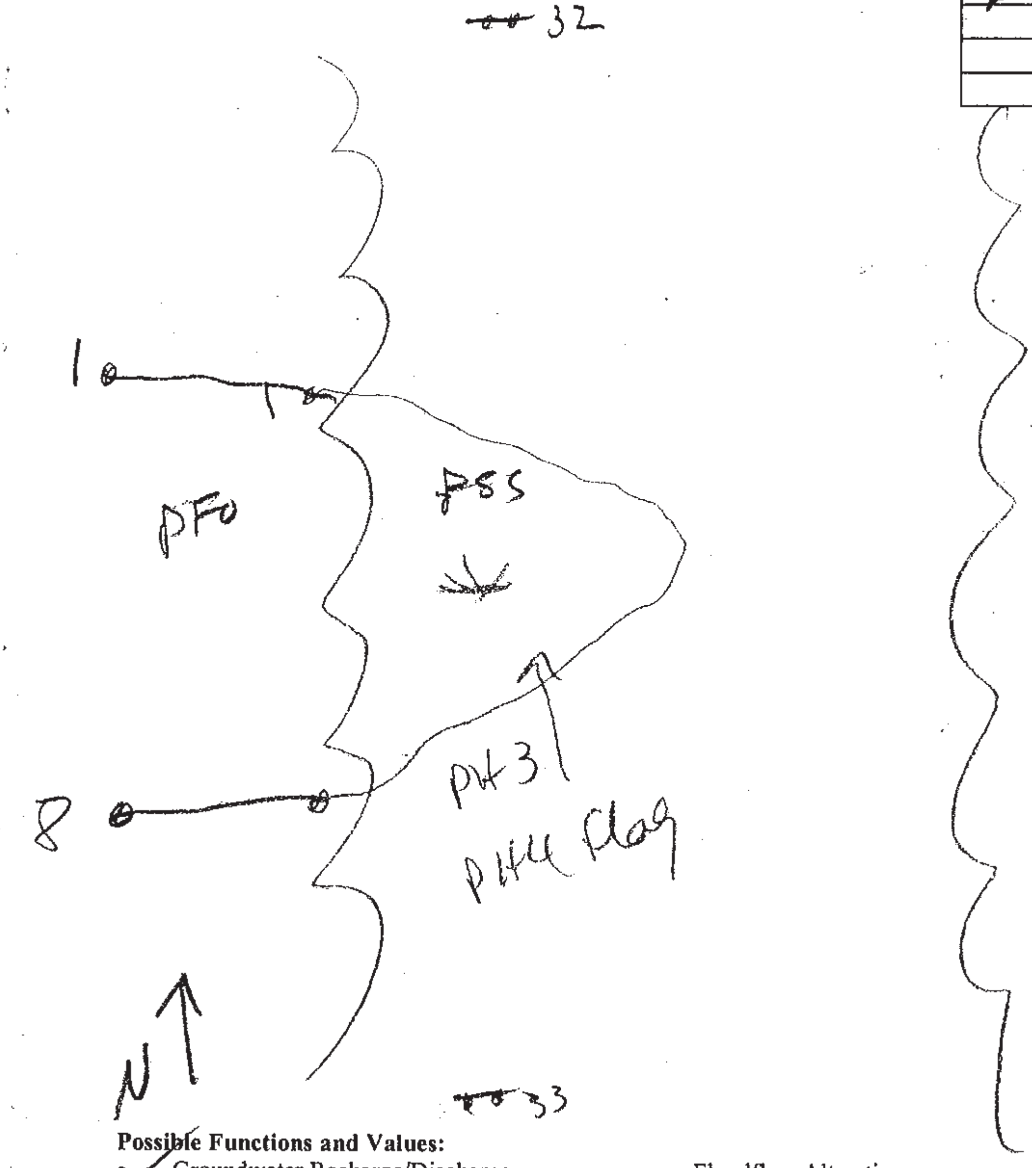
☐ Cedar Swamp ☐ Wetland of Special Significance

Photo # 3/4

SKETCH ON BACK

WETLAND SKETCH

Line Flagging Series
1-8



Possible Functions and Values:

✓ Groundwater Recharge/Discharge
__ Fish and Shellfish Habitat
__ Nutrient Removal
__ Sediment/Shoreline Stabilization
__ Recreation
__ Uniqueness/Heritage
__ Endangered Species Habitat

__ Floodflow Alteration
__ Sediment/Toxicant Retention
__ Production Export
__ Wildlife Habitat
__ Educational/Scientific Value
__ Visual Quality/Aesthetics
__ Other

Checklist:

✓ **Wetland ID#** B17-64-32-1
✓ North arrow.
✓ Detailed sketch of wetland boundary and flagging sequence.
✓ Natural and man-made features – roads, culverts, outcrops, structures, etc.
✓ Photo locations.
— Location of important wildlife sign.

Z-17-64-68-2

NAI-17-IB-30 OMSIRP
New wetlands 9/8/2009
Z-17-64-68-1
Z-17-64-68-2
PEM/PSS

Soils
0-8" - Oi
8-12" - A 10YR3/2
12"-18" - B 10YR6/1
10YR5/6 Mottle
A/D

Hydro
- Saturated
- water 2" in pit
- drainage patterns
Silo

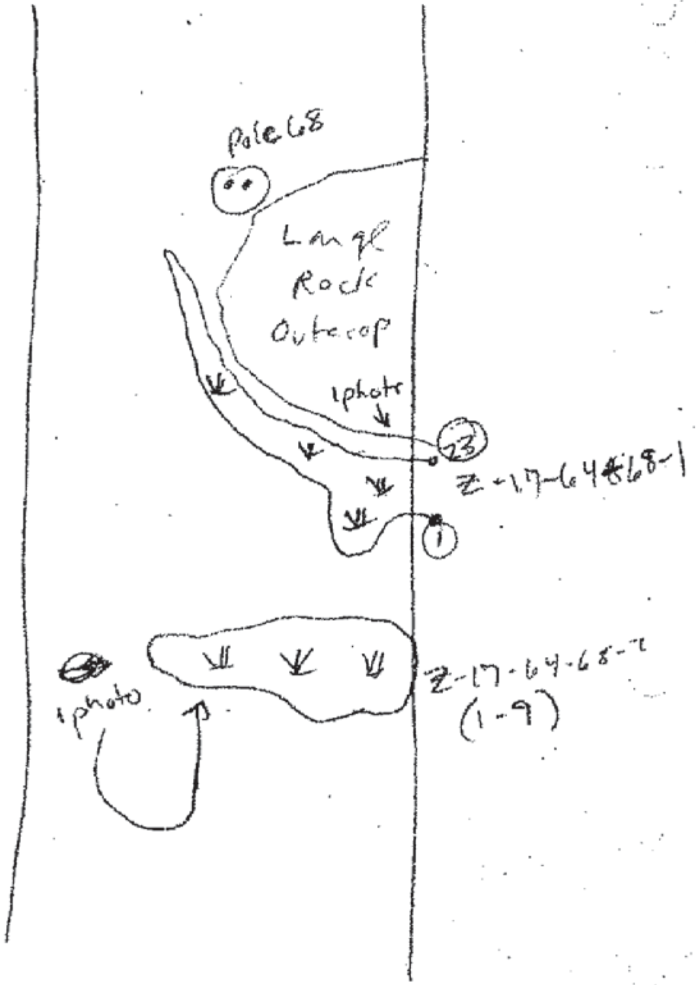
Veg
Sphag
Car cri
Spi lat
Marsh fern
Osm cin
Spi tom
Ger per
Lys ter
Sci cyp
Ver has
Imp cap
Equ arv
Salix spp
Car sco
Pol sag
Car lur

Milk Snake
14"

Wetland 1 - NAI Observation
Wetland 2 - TRC new delineation

Sam Hyden 5/21/17
Veg, soils, hydro, delineation good, correct. S.H.

NAI-17-IB.30
new wetlands Z-17-64-68-1
Z-17-64-68-2



WET-450-07

NAI-17-IB-30 OBS|RP

New wetlands 9/8/2009

Z-17-64-68-1
Z-17-64-68-2

PEM/PSS

Soils

0-8" - Oi
8-12" - A 10YR3/2
12"-18" - B 10YR6/1
10YR5/6 Mottle
A/D

Silo

Hydro
- Saturated
- water 2" in pit
- drainage patterns

Veg

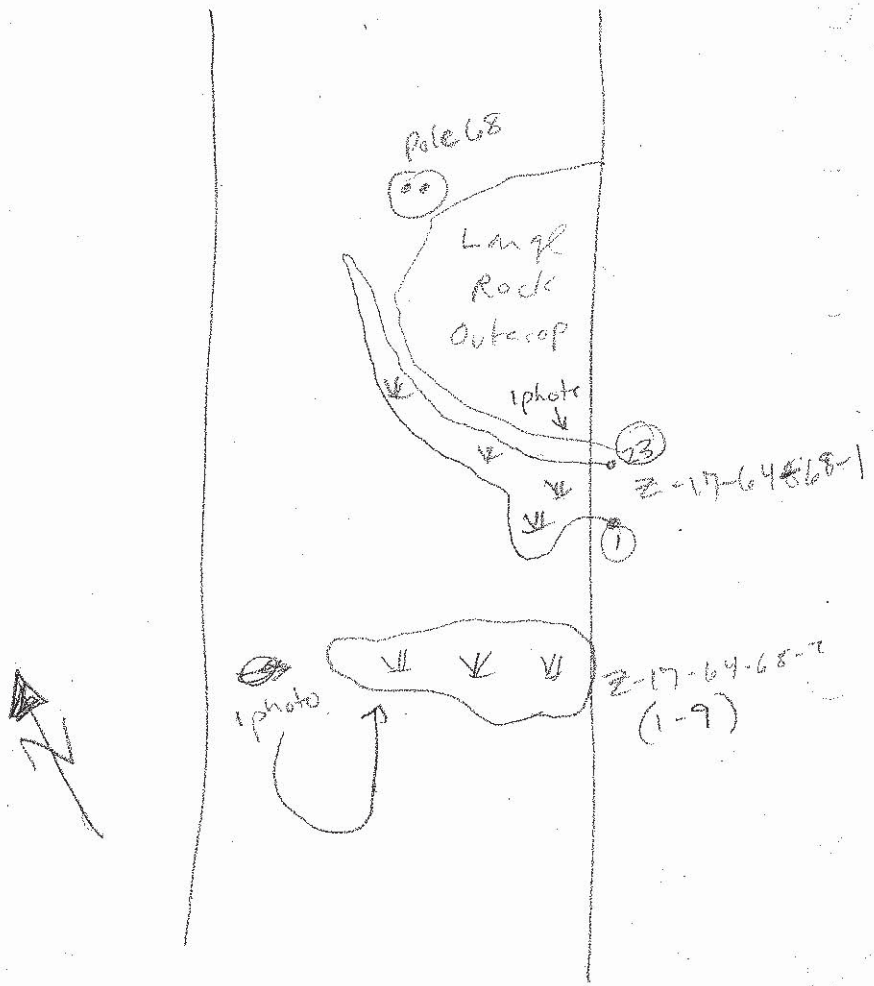
Sphag
Car cri
Spi lat
Marsh fern
Osm cim
Spi tom
Ger per
Lyster

Sci cyp
Ver has
Imp cap
Equ arv
Salix spp
Car sto
pol sag
Car luR

Milk Snake 14"

Wetland 1 - NAI Observation
Wetland 2 - TRC new delineation

NAI-17-IB-30
new wetlands Z-17-64-68-1
Z-17-64-68-2



~~Y-17-64-200-1~~ / WET-159-02

WET-159-02 Sam Hayden 5/24/17

Veg, soil, hydro, delineation good

NAI-17-JB-2 Y

WETLAND SUMMARY FORM

Observers: AF - RP Date:
Town: Series:
Segment # : 7 CMP Section #: 64 CMP Pole #: 200 Wetland #: Y
Stream/Waterbody ID: Corps plot : Yes [✓ No]

Dominant NWI Class: PFO Other NWI Classes:

Representative Wetland Vegetation (by Strata):

I Acer rubrum
Fraxinus pennsylvanica
S Viburnum dentatum
Green Ash

H Onoclea sensibilis
Spiraea latifolia
Equisetum sp.

Representative Wetland Hydrology

____ Permanently Flooded (approximate depth -)
____ Seasonally Flooded (approximate depth -)
✓ Saturated

Hydrologic Indicators:
✓ Silt Deposition
✓ Water-Stained Leaves
____ Water Marks
____ Drift Lines
✓ Surface Scouring
✓ Drainage Patterns
____ Buttressed Trees
____ Elevated Roots

Other Observations:

Representative Wetland Soils:
✓ Mineral
____ Organic

Depth	Horizon	Color	Redox Features	Texture
0-4	A	10YR 2/2		Loam
4-11	B1	2.5Y 5/1	10YR 4/6, C	Sandy loam
11	B2	2.5Y 5/3	[illegible]	Loamy silt

Other Observations:
Meets NEIWPCC (2004) Criteria ____

Stream # 1 Data:
Width (Bank-Bank): ____ Depth @ Center: ____ Peren. ____ Intermittent ____
Bank Configuration: ____ Undercut ____ Vertical ____ Gradual
Channel Substrate: ____ Peat-Muck ____ Silt-Mud ____ Sand ____ Gravel/Cobble ____ Boulder ____ Bedrock

Stream # 2 Data
Width (Bank-Bank): ____ Depth @ Center: ____ Peren. ____ Intermittent ____
Bank Configuration: ____ Undercut ____ Vertical ____ Gradual
Channel Substrate: ____ Peat-Muck ____ Silt-Mud ____ Sand ____ Gravel/Cobble ____ Boulder ____ Bedrock

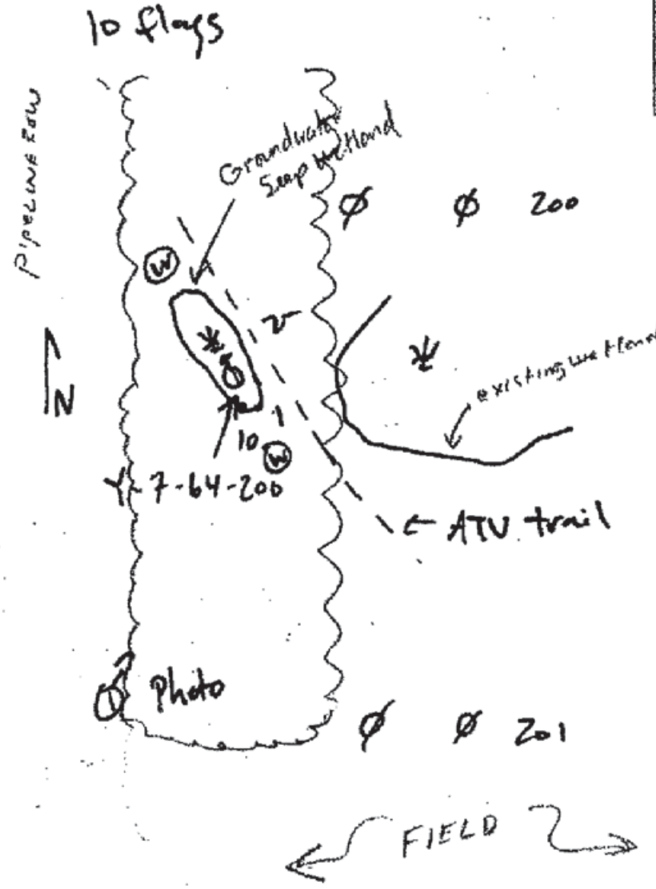
Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):

Notes: narrow drainage parallel to ATV trail dug well above + below wetland

☐ Cedar Swamp ☐ Wetland of Special Significance

WETLAND SKETCH

Line Flagging Series



Possible Functions and Values:
✓ Groundwater Recharge/Discharge
__ Fish and Shellfish Habitat
__ Nutrient Removal
__ Sediment/Shoreline Stabilization
__ Recreation
__ Uniqueness/Heritage
__ Endangered Species Habitat
__ Floodflow Alteration
__ Sediment/Toxicant Retention
__ Production Export
__ Wildlife Habitat
__ Educational/Scientific Value
__ Visual Quality/Aesthetics
__ Other

Checklist:
— Wetland ID# Y-7-64-200
— North arrow.
— Detailed sketch of wetland boundary and flagging sequence.
— Natural and man-made features – roads, culverts, outcrops, structures, etc.
— Photo locations.
— Location of important wildlife sign.

NAI-17-JB-2 Y

WETLAND SUMMARY FORM

Observers: AF - RP Date: ______
Town: ______ Series: ______
Segment #: 7 CMP Section #: 64 CMP Pole #: 200 Wetland #: ✓
Stream/Waterbody ID: ______ Corps plot: __ Yes [✓ No]

Dominant NWI Class: PFO Other NWI Classes: ______

Representative Wetland Vegetation (by Strata):

I Acer rubrum
Fraxinus pennsylvanica
S Viburnum dentata
Green Ash

H Onoclea sensibilis
Spiraea latifolia
Equisetum sp.

Representative Wetland Hydrology

____ Permanently Flooded (approximate depth -)
____ Seasonally Flooded (approximate depth -)
✓ Saturated

Hydrologic Indicators:
✓ Silt Deposition
✓ Water-Stained Leaves
____ Water Marks
____ Drift Lines
✓ Surface Scouring
✓ Drainage Patterns
____ Buttressed Trees
____ Elevated Roots

Other Observations:

Representative Wetland Soils:
✓ Mineral
____ Organic

Depth	Horizon	Color	Redox Features	Texture
0-4	A	10YR 2/2		Loam
4-11	B1	2.5Y 4/4	10YR 4/6, C, d	Sandy Loam
>11	B2	2.5Y 5/[illegible]	mcp	Loamy Sand

Other Observations:
Meets NEIWPCC (2004) Criteria ____

Stream # 1 Data:
Width (Bank-Bank): ____ Depth @ Center: ____ Peren. ____ Intermittent ____
Bank Configuration: ____ Undercut ____ Vertical ____ Gradual
Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder ___ Bedrock

Stream # 2 Data
Width (Bank-Bank): ____ Depth @ Center: ____ Peren. ____ Intermittent ____
Bank Configuration: ____ Undercut ____ Vertical ____ Gradual
Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder ___ Bedrock

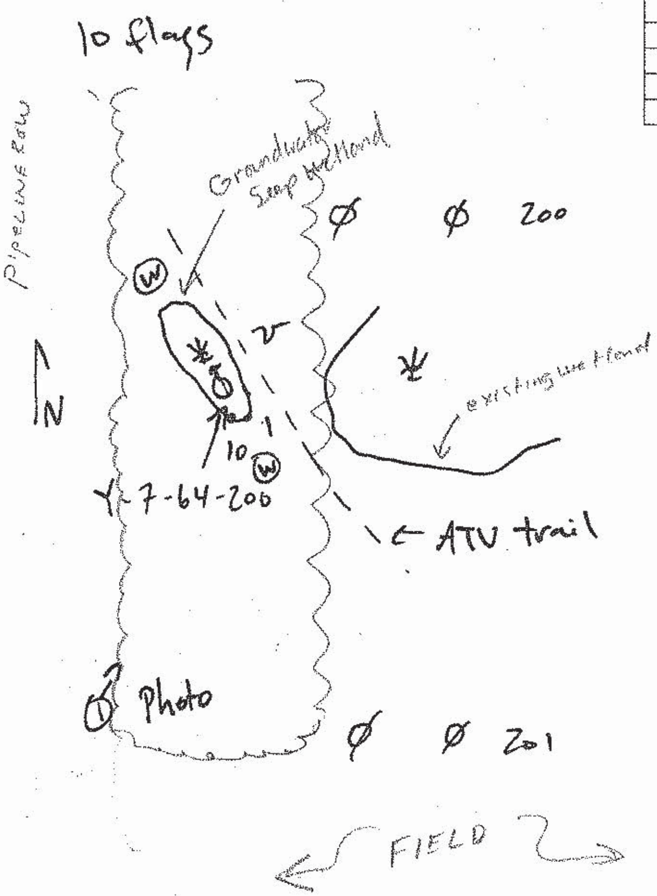
Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):

Notes: narrow drainage parallel to ATV trail
dug well above & below wetland

☐ Cedar Swamp ☐ Wetland of Special Significance

WETLAND SKETCH

Line Flagging Series



Possible Functions and Values:
✓ Groundwater Recharge/Discharge
__ Fish and Shellfish Habitat
__ Nutrient Removal
__ Sediment/Shoreline Stabilization
__ Recreation
__ Uniqueness/Heritage
__ Endangered Species Habitat
__ Floodflow Alteration
__ Sediment/Toxicant Retention
__ Production Export
__ Wildlife Habitat
__ Educational/Scientific Value
__ Visual Quality/Aesthetics
__ Other

Checklist:
— **Wetland ID#** Y-7-64-200
— North arrow.
— Detailed sketch of wetland boundary and flagging sequence.
— Natural and man-made features – roads, culverts, outcrops, structures, etc.
— Photo locations.
— Location of important wildlife sign.

Non-WOSS
Data Form Examples

Segment 5

Maine Power Reliability Project
WETLAND SUMMARY FORM

Team A

Observers: DWP, CCD, KJW
Date: 10-10-07
Town: WINDSOR
Series : 1-7
Segment # : 11 CMP Section #: 392 CMP Pole #: 212 Wetland ID #: 1
Stream/Waterbody ID: ∅
Corps plot : ___ Yes [✓ No]
Dominant NWI Class: PSS1
Other NWI Classes:

Representative Wetland Vegetation (by Strata):

SHRUB:
Vib. recog.
Spiraea lat.
Alnus inc.
Cornus stolon.

Ranun. sp.

HERBACEOUS:
Onoc. sens.
Aster umbell.
Symphio. lance.
Lyco. unif.

Representative Wetland Hydrology

___ Permanently Flooded (approximate depth -)
___ Seasonally Flooded (approximate depth -)
✓ Saturated

Hydrologic Indicators:
___ Silt Deposition
___ Water-Stained Leaves
___ Water Marks
___ Drift Lines
___ Surface Scouring
✓ Drainage Patterns
___ Buttressed Trees
___ Elevated Roots

Other Observations: OLD PLOWED FIELD; ERODED

Representative Wetland Soils:
☒ Mineral
☐ Organic

Depth	Horizon	Color	Redox Features	Texture
0-9"	Ap	10YR 4/2	C, F, P	SIL
9-20"+	Bc	2.5Y 5/2	M, F, P	SICL

Other Observations:
Meets NEIWPCC (2004) Criteria VI ERODED SCANTIC

Stream # 1 Data:
Width (Bank-Bank): ___ Depth @ Center: ___ Peren. ___ Intermittent ___
Bank Configuration: ___ Undercut ___ Vertical ___ Gradual
Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder ___ Bedrock

Stream # 2 Data
Width (Bank-Bank): ___ Depth @ Center: ___ Peren. ___ Intermittent ___
Bank Configuration: ___ Undercut ___ Vertical ___ Gradual
Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder ___ Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):

Notes:

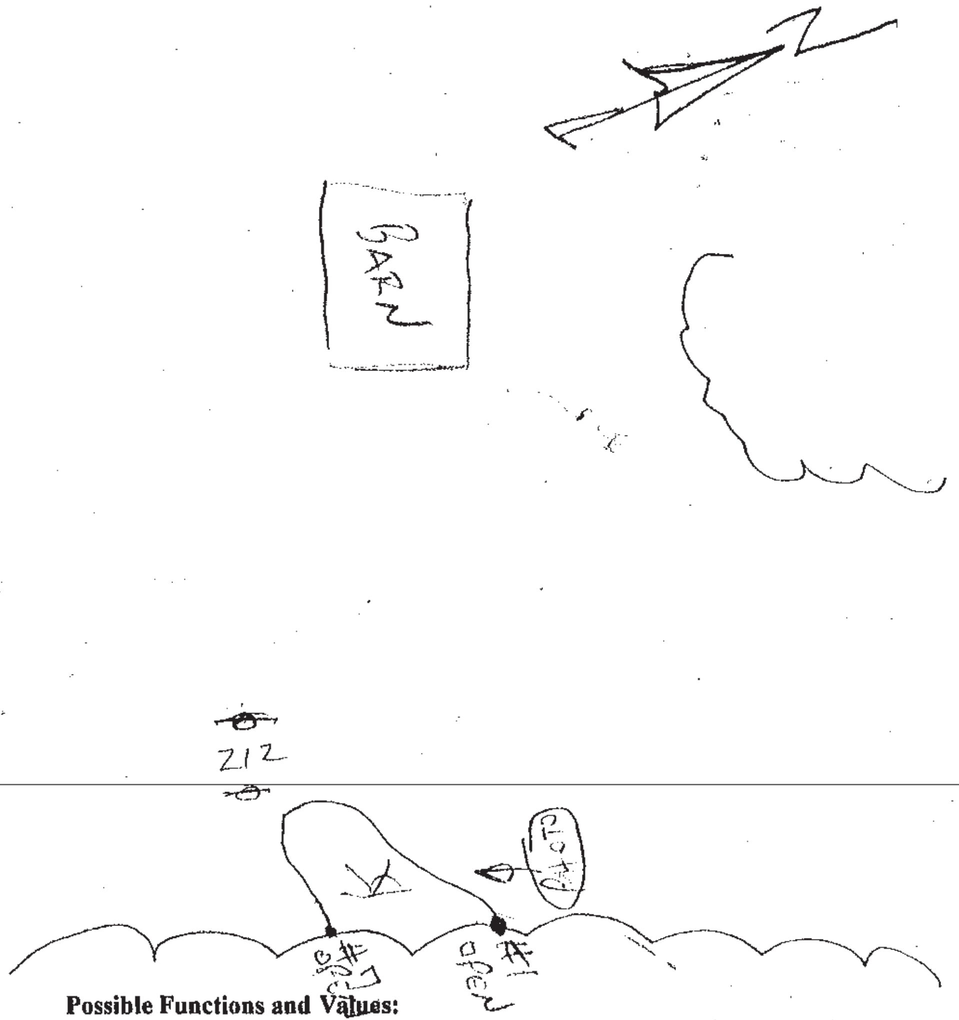
☐ Cedar Swamp ☐ Wetland of Special Significance

Photo # 1

WETLAND SKETCH

Dorion

Line Flagging Series
1-7



Possible Functions and Values:

- ___ Groundwater Recharge/Discharge
- ___ Fish and Shellfish Habitat
- ___ Nutrient Removal
- ___ Sediment/Shoreline Stabilization
- ___ Recreation
- ___ Uniqueness/Heritage
- ___ Endangered Species Habitat
- ___ Floodflow Alteration
- ___ Sediment/Toxicant Retention
- ___ Production Export
- ✓ Wildlife Habitat
- ___ Educational/Scientific Value
- ___ Visual Quality/Aesthetics
- ___ Other

Checklist:

- ✓ Wetland ID# A11-392-212-1
- ✓ North arrow.
- — Detailed sketch of wetland boundary and flagging sequence.
- — Natural and man-made features – roads, culverts, outcrops, structures, etc.
- — Photo locations.
- — Location of important wildlife sign.

Maine Power Reliability Project
WETLAND SUMMARY FORM

Team A

Observers: DWP, CCD, KJW
Date: 10-10-07
Town: WINDSOR
Series: 1-6, 7-13
Segment #: 1 CMP Section #: 392 CMP Pole #: 210 Wetland #: 1
Stream/Waterbody ID: 0
Corps plot: ____Yes X No

Dominant NWI Class: PEM1
Other NWI Classes: PSS1

Representative Wetland Vegetation (by Strata):

SHRUB:
Alnus inc.
Spiraea lat.
Ilex vert.
Spiraea tomen.

Thely. pal.
Onoc. sens.
Cal. can.
Senecio schweinit.

HERBACEOUS:
Typha lat.
Carex stricta
Gly. can.
Carex lur.

Representative Wetland Hydrology

____ Permanently Flooded (approximate depth -)
____ Seasonally Flooded (approximate depth -)
✓ Saturated

Hydrologic Indicators:
____ Silt Deposition
____ Water-Stained Leaves
____ Water Marks
____ Drift Lines
____ Surface Scouring
✓ Drainage Patterns
____ Buttressed Trees
____ Elevated Roots

Other Observations:

Representative Wetland Soils:
✓ Mineral
____ Organic

Depth	Horizon	Color	Redox Features	Texture
0-3"	A-MUCKY	10YR 3/2	C, F, P	SIL-MUCKY
3-9	Bg1	10YR 4/1	↓	SIL
9-18"+	Bg2	2.5Y 5/2	M, M, P & C, M, F	↓

Other Observations:
Meets NEIWPCC (2004) Criteria I Scantic silt loam

Stream # 1 Data:
Width (Bank-Bank): ________ Depth @ Center: ________ Peren. ________ Intermittent ________
Bank Configuration: ____Undercut ____ Vertical ____ Gradual
Channel Substrate: ___Peat-Muck ___Silt-Mud ___Sand ___Gravel/Cobble ___Boulder ___ Bedrock

Stream # 2 Data
Width (Bank-Bank): ________ Depth @ Center: ________ Peren. ________ Intermittent ________
Bank Configuration: ____Undercut ____ Vertical ____ Gradual
Channel Substrate: ___Peat-Muck ___Silt-Mud ___Sand ___Gravel/Cobble ___Boulder ___ Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):

Notes:
ATV RUTS PREVALENT;
VERY DISTURBED.

☐Cedar Swamp ☐Wetland of Special Significance

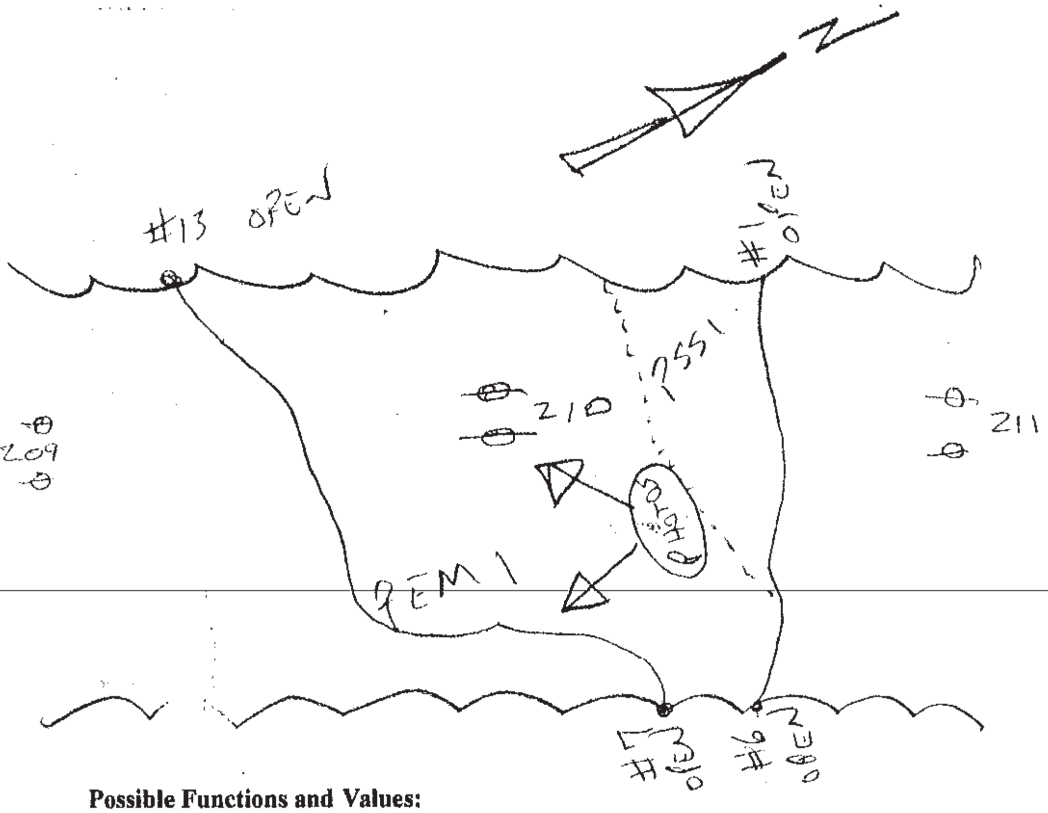
Photo # 2

SKETCH ON BACK

WETLAND SKETCH

Dorion

Line Flagging Series
1 – 6
7 – 13



Possible Functions and Values:

- ___ Groundwater Recharge/Discharge
- ___ Fish and Shellfish Habitat
- ___ Nutrient Removal
- ___ Sediment/Shoreline Stabilization
- ___ Recreation
- ___ Uniqueness/Heritage
- ___ Endangered Species Habitat
- ___ Floodflow Alteration
- ___ Sediment/Toxicant Retention
- ___ Production Export
- ✓ Wildlife Habitat
- ___ Educational/Scientific Value
- ___ Visual Quality/Aesthetics
- ___ Other

Checklist:

- ✓ **Wetland ID#** A11-392-210-1
- ✓ North arrow.
- ✓ Detailed sketch of wetland boundary and flagging sequence.
- ✓ Natural and man-made features – roads, culverts, outcrops, structures, etc.
- ✓ Photo locations.
- ✓ Location of important wildlife sign.

Maine Power Reliability Project
WETLAND SUMMARY FORM

Team A

Observers: DWP, CCD, KJW
Date: 10-16-07
Town: WHITEFIELD
Series : 1-6
Segment # : 11 CMP Section #: 392 CMP Pole #: 141 Wetland ID #: 1
Stream/Waterbody ID: 0
Corps plot : ___ Yes X No

Dominant NWI Class: PEM1
Other NWI Classes:

Representative Wetland Vegetation (by Strata):

HERB:

Viola spp.	Gly. melic.	Symphio. lance.
Carex scop.	Salix sp.	Ranun. spp.
Lyco. unif.	Agrostis sp.	Phal. arund.
Gallium palus.	Carex lurid.	

Representative Wetland Hydrology

_____ Permanently Flooded (approximate depth -)
_____ Seasonally Flooded (approximate depth -)
✓ Saturated

Hydrologic Indicators: _____ Silt Deposition _____ Water-Stained Leaves
_____ Water Marks _____ Drift Lines _____ Surface Scouring
✓ Drainage Patterns _____ Buttressed Trees _____ Elevated Roots

Other Observations: GENTLE SWALE DRAINING GOLF COURSE

Representative Wetland Soils:
✓ Mineral
_____ Organic

Depth	Horizon	Color	Redox Features	Texture
0-4 in.	Ap	10YR 4/2	M, F, P	SIL
4-10	Bg1	2.5Y 3/1	↓	↓
10-16"+	Bg2	2.5Y 5/2	M, M, P	SICL

Other Observations:
Meets NEIWPCC (2004) Criteria VI

Stream # 1 Data:
Width (Bank-Bank): ________ Depth @ Center: ________ Peren. ______ Intermittent______
Bank Configuration: ____Undercut ___ Vertical ___ Gradual
Channel Substrate: ___Peat-Muck ___Silt-Mud ___Sand ___Gravel/Cobble ___Boulder ___ Bedrock

Stream # 2 Data
Width (Bank-Bank): ________ Depth @ Center: ________ Peren. ______ Intermittent______
Bank Configuration: ____Undercut ___ Vertical ___ Gradual
Channel Substrate: ___Peat-Muck ___Silt-Mud ___Sand ___Gravel/Cobble ___Boulder
Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):

Notes:

☐Cedar Swamp ☐Wetland of Special Significance

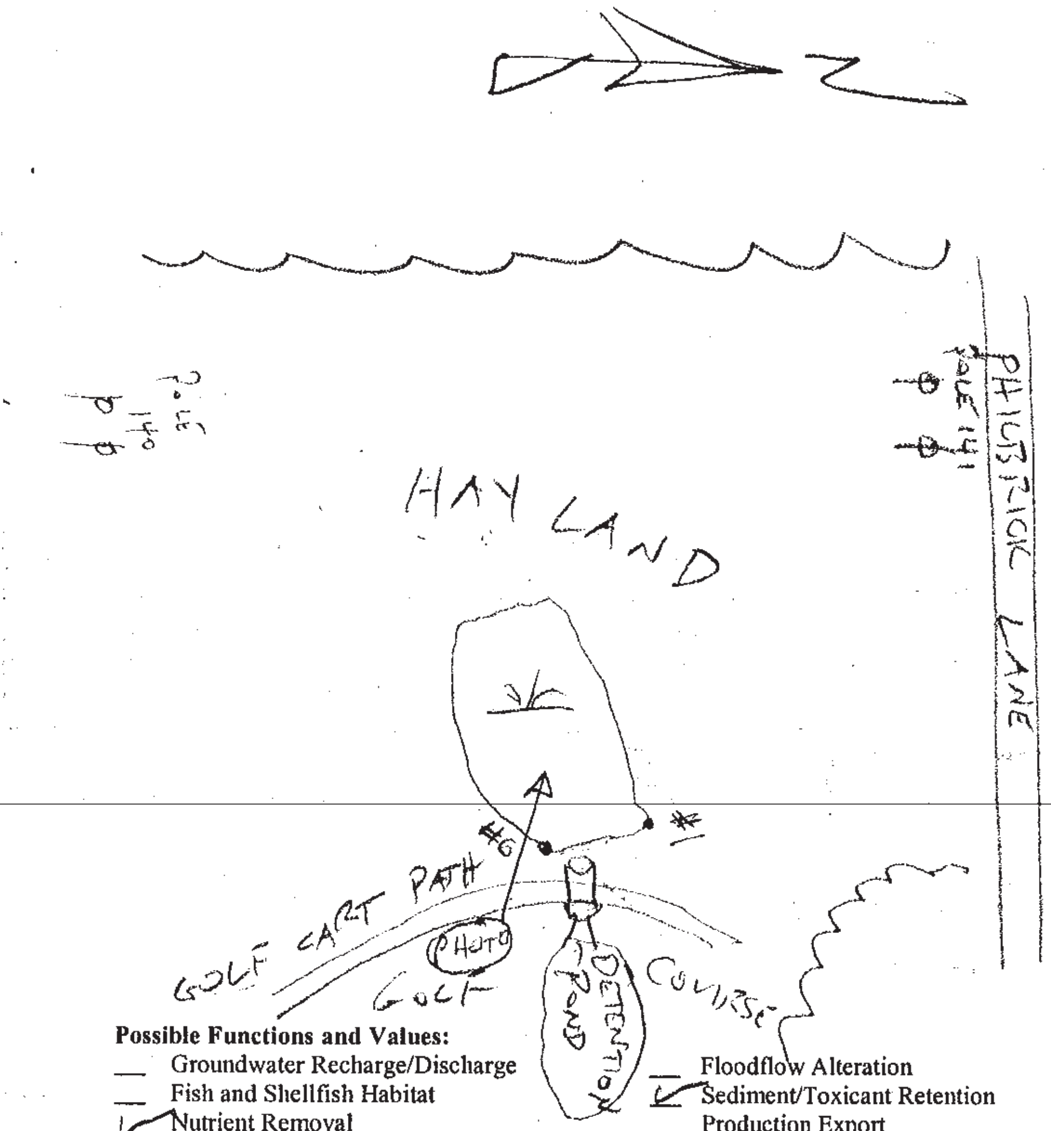
Photo # SKETCH ON BAC

WETLAND SKETCH

During

Line Flagging Series
1-6

#1 CONNECTS TO #6



Possible Functions and Values:

- ___ Groundwater Recharge/Discharge
- ___ Fish and Shellfish Habitat
- ✓ Nutrient Removal
- ___ Sediment/Shoreline Stabilization
- ___ Recreation
- ___ Uniqueness/Heritage
- ___ Endangered Species Habitat
- ___ Floodflow Alteration
- ✓ Sediment/Toxicant Retention
- ___ Production Export
- ✓ Wildlife Habitat
- ___ Educational/Scientific Value
- ___ Visual Quality/Aesthetics
- ___ Other

Checklist:

- ✓ **Wetland ID#** A11-392-141-1
- ✓ North arrow.
- ✓ Detailed sketch of wetland boundary and flagging sequence.
- ✓ Natural and man-made features – roads, culverts, outcrops, structures, etc.
- ✓ Photo locations.
- ✓ Location of important wildlife sign.

Feature(s) ID: WET-186-11

BOYLE ASSOCIATES

Routine Wetland Field Data Form

Date: 4/12/17	Project Name: QMI
Job #: 532	Cowardin Class(es) & %: PFO 1/4E
Observers: JPB, SNH	Photo(s) #: 2
Comments:	

Dominant Vegetation (by stratum):

Herbs	Herbs (cont.)	Shrubs/Saplings	Trees	Vines
Ono sens.		Abi bal	Acer rub	
Osm cinn		Bet pen	Abies bal	
Acer rub.			Bet pen	
Cor cri				
Dry car				
Sphagnum				

Wetland Hydrology Indicators:

____ Perm. Flooded (approx. depth: ____)

✓ Seasonally Flooded/Saturated (approx. depth: 3")

✓ Saturated

[✓ *A1 – Surface water]	*B5 – Iron deposits	*B15 – Marl deposits	*C7 – Thin muck surface
[✓ *A2 – High water table]	B6 – Surface soil cracks	B16 – Moss trim lines	C8 – Crayfish burrows
[✓ *A3 – Saturation]	*B7 – Inundated aerial imagery	*C1 – Hydrogen sulfide odor	C9 – Saturation visible on aerial imagery
*B1 – Water marks	*B8 – Sparse veg. concave surface	C2 – Dry-season water table	*D1 – Stunted or stressed plants
*B2 – Sediment deposits	[✓ *B9 – Water-stained leaves]	*C3 – Oxidized rhizospheres - living root	*D2 – Geomorphic position
*B3 – Drift deposits	B10 – Drainage patterns	*C4 – Presence of reduced iron	*D3 – Shallow aquitard
*B4 – Algal mat or crust	*B13 – Aquatic fauna	*C6 – Recent iron reduction in tilled soils	*D4 – Microtopographic relief
*Denotes Primary Indicator			*D5-FAC-neutral test

Representative Hydric Soils:

Depth (in)	Horizon	Texture	Color	Redox. Features	Other
0-15	A	LS	10YR 6/1	2.5Y 6/8 30%	

Hydric Soil Indicator & Reference:

Other Soil Comments:

Non-WOSS
Data Form Example

Merrill Road Converter Station

Feature(s) ID: WET-PERRON-4

BOYLE ASSOCIATES

Routine Wetland Field Data Form

Date: 4/30/17	Project Name: QMI
Job #: 532	Cowardin Class(es) & %: PFO 1/4E
Observers: S. Boyle, C. Flink	Photo(s) #: 2
Comments:	

Dominant Vegetation (by stratum):

Herbs	Herbs (cont.)	Shrubs/Saplings	Trees	Vines
Abi bal		Abi bal	Fra nig	
Sphagnum		Frax nigra	Abi bal	
			Ace rub	

Wetland Hydrology Indicators:

____ Perm. Flooded (approx. depth: ____)

✓ Seasonally Flooded/Saturated (approx. depth: 8")

___ Saturated

[✓ *A1 – Surface water]	*B5 – Iron deposits	*B15 – Marl deposits	*C7 – Thin muck surface
*A2 – High water table	B6 – Surface soil cracks	B16 – Moss trim lines	C8 – Crayfish burrows
*A3 – Saturation	*B7 – Inundated aerial imagery	*C1 – Hydrogen sulfide odor	C9 – Saturation visible on aerial imagery
*B1 – Water marks	*B8 – Sparse veg. concave surface	C2 – Dry-season water table	*D1 – Stunted or stressed plants
*B2 – Sediment deposits	[✓ *B9 – Water-stained leaves]	*C3 – Oxidized rhizospheres - living root	*D2 – Geomorphic position
*B3 – Drift deposits	B10 – Drainage patterns	*C4 – Presence of reduced iron	*D3 – Shallow aquitard
*B4 – Algal mat or crust	*B13 – Aquatic fauna	*C6 – Recent iron reduction in tilled soils	*D4 – Microtopographic relief
*Denotes Primary Indicator			*D5-FAC-neutral test

Representative Hydric Soils:

Depth (in)	Horizon	Texture	Color	Redox. Features	Other
0-8+	O	Fibric	Blk	—	—

Hydric Soil Indicator & Reference: Histic epi.

Other Soil Comments:

Exhibit 9-3: WOSS Data Form Examples

WOSS
Data Form Examples

Segment 1

MREI
WETLAND SUMMARY FORM 2015

Observers: CRP/BGP Date: 7/22/2015

Town: Bradstreet Twp Map #: 22

Wetland ID: 24-10(#1-37) (mile segment - wetland #)

Stream/Waterbody Name: Bitter Brook Corps plot: [✓ Yes] No

Dominant NWI Class: PSS4 Other NWI Classes: PFO4

Representative Wetland Vegetation:

ALN INC
PIC MAR
RHO CAN
MYR GAL
SPI LAT
CAR LAC
LAR LAR

(Ford across stream along N edge of ROW)

Representative Wetland Hydrology

X Surface Water (approximate depth - 18)
X High Water Table (approximate depth - 0)
X Saturated (approximate depth - 0)

Hydrologic Indicators:
____Water Marks
____Algal Mat or Crust
____Sediment Deposits
____Drift Deposits
____Hydrogen Sulfide Odor
____Water-Stained Leaves
____Thin Much Surface
____Oxidized Rhizospheres on Living Roots

Other Observations:

Representative Wetland Soils:

\Mineral
X Organic

Histic Epipedon
Histosol

Depth	Horizon	Color	Redox Features	Texture

Other Observations:

Meets Army Corps NE-NC Regional Supplement Criteria

Wildlife Observation/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, etc.)

Invasive Species: Yes ___ No X
Notes:

WOSS: Yes X No ___
Type: stream WWBH

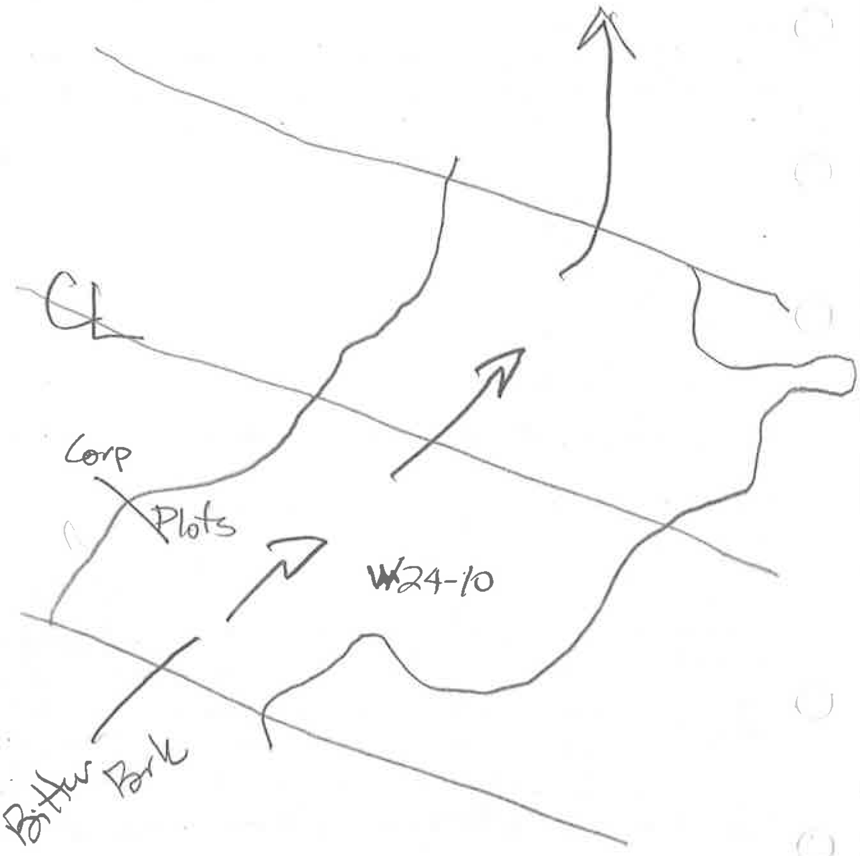
General Notes:

Photo# @15 west 33 west

SKETCH ON BACK

WETLAND SKETCH

North Arrow: ↑



MREI

WETLAND SUMMARY FORM 2015

Observers: MB - CP - KM Date: 7/2/15

Town: Map #: 31

Wetland ID: WET-33-7 (mile segment - wetland #)

Stream/Waterbody Name: Corps plot: Yes No X

Dominant NWI Class: PEM/PFO4 Other NWI Classes:

Representative Wetland Vegetation:

Trees: B. Fir

Shub: B Fir (regen)

Herbs: Cinn. Fern
Cal. Can
Carex gynandra
Bunchberry
I Woodfern
Goldthread

Representative Wetland Hydrology

___ Surface Water (approximate depth -)
X High Water Table (approximate depth - 4")
X Saturated Surface (approximate depth -)

Hydrologic Indicators:
___ Water Marks
___ Algal Mat or Crust
___ Sediment Deposits
___ Drift Deposits
X Hydrogen Sulfide Odor
___ Water-Stained Leaves
___ Thin Much Surface
___ Oxidized Rhizospheres on Living Roots

Other Observations:

Representative Wetland Soils:

X Mineral

___ Organic

Depth	Horizon	Color	Redox Features	Texture
0-2	A ~~10YR~~	10YR 3/2		
2-12+	Bg	10YR 6/1	C/D	SiL

Other Observations:

Meets Army Corps NE-NC Regional Supplement Criteria

Wildlife Observation/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, etc.)

Invasive Species: Yes ___ No X

Notes:

WOSS: Yes X No

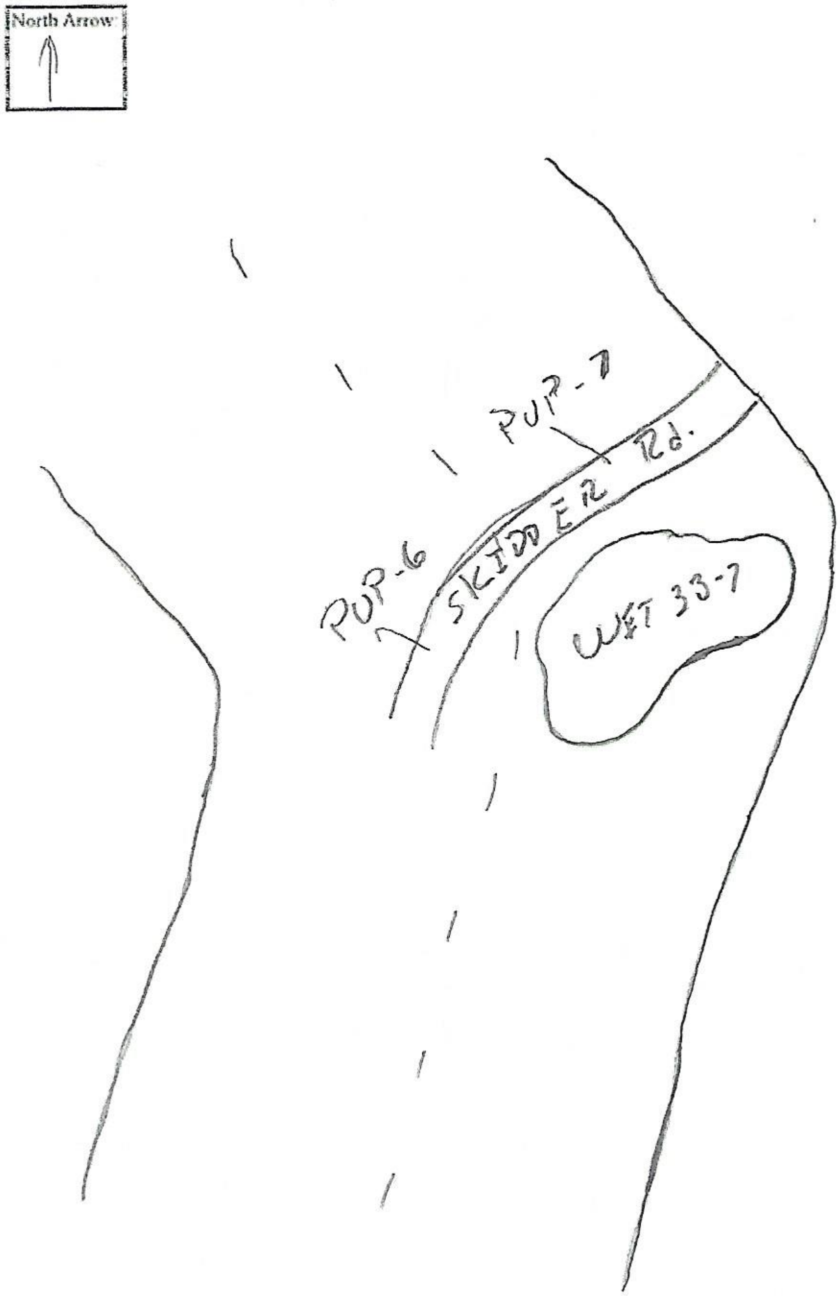
Type:

General Notes:

Photo# ___

SKETCH ON BACK

WETLAND SKETCH



MREI
WETLAND SUMMARY FORM 2015

Observers: HSW, JPB, SNH   Date: 6/4/2015

Town: West Forks   Map:

Wetland ID: WET-48-08 (mile segment - wetland #)

Stream/Waterbody Name: Corps Plot: Yes ___ No X

Dominant NWI Class: PSS   Other NWI Classes:

Representative Wetland Vegetation

Tree	S/S	Herb
Clear cut area within last 5 yrs	Rubus idaeus	Eliochris Onoclea sensibilis Solidago sp

Representative Wetland Hydrology

X Surface Water (Approximate Depth 2')
X High Water Table (Approximate Depth Surface)
X Saturated (Approximate Depth Surface)

Hydraulic Indicators:
___ Water Marks
___ Algal Mat or Crust
___ Sediment Deposits
___ Drift Deposits
___ Hydrogen Sulfide Odor
___ Water Stained Leaves
___ Thin Muck Surface
___ Oxidized Rhizospheres on Living Roots

Other Observations:

Representative Wetland Soils

X Mineral

___ Organic

Depth	Horizon	Color	Redox Features	Texture
0-2"	A	10YR3/1	N/A	SiL

Other Observations: Rock refusal at 2"

Meets Army Corps NE-NC regional Supplemental Criteria X

Wildlife Observation/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, etc.)
At least 16 SSEMs; 100's of WF tadpoles, moose droppings, moose rubs, green/bull frog

Invasive Species: Yes ___ No X
Notes:

WOSS: Yes X No ___
Type

General Notes:

Photo # 4   **SKETCH ON BACK**

WOSS
Data Form Examples

Segment 2

MREI
WETLAND SUMMARY FORM 2015

Observers: JPB Date: 8/12/2015

Town: West Forks Map:

Wetland ID: WET-54-1 (mile segment - wetland #)

Stream/Waterbody Name: Corps Plot: Yes ___ No X

Dominant NWI Class: PFO1/4E Other NWI Classes: PSS

Representative Wetland Vegetation

Tree	S/S	Herb
Thuja occidentalis	Alnus incana	Phalaris arundinacea
Fraxinus nigra	Cornus so	Carex crinita
Betula alleghaniensis	Thuja occidentalis	Osmunda claytoniana
Acer rubrum	Acer rubrum	Solidago sp
Abies balsamea	Spiraea tomentosa	Equisetum sp
		Onoclea sensibilis

Representative Wetland Hydrology

X Surface Water (Approximate Depth 3")
X High Water Table (Approximate Depth 0")
X Saturated (Approximate Depth 0)

Hydraulic Indicators:
X Sediment Deposits
X Water Stained Leaves
___ Water Marks
___ Drift Deposits
___ Thin Muck Surface
___ Algal Mat or Crust
___ Hydrogen Sulfide Odor
___ Oxidized Rhizospheres on Living Roots

Other Observations:

Representative Wetland Soils

X Mineral
___ Organic

Depth	Horizon	Color	Redox Features	Texture
0-2"	A	10YR3/2	N/A	L
2-5"	B	10YR6/1	10YR4/6	SL

Other Observations: Rock refusal at 5"

Meets Army Corps NE-NC regional Supplemental Criteria X

Wildlife Observation/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, etc.)

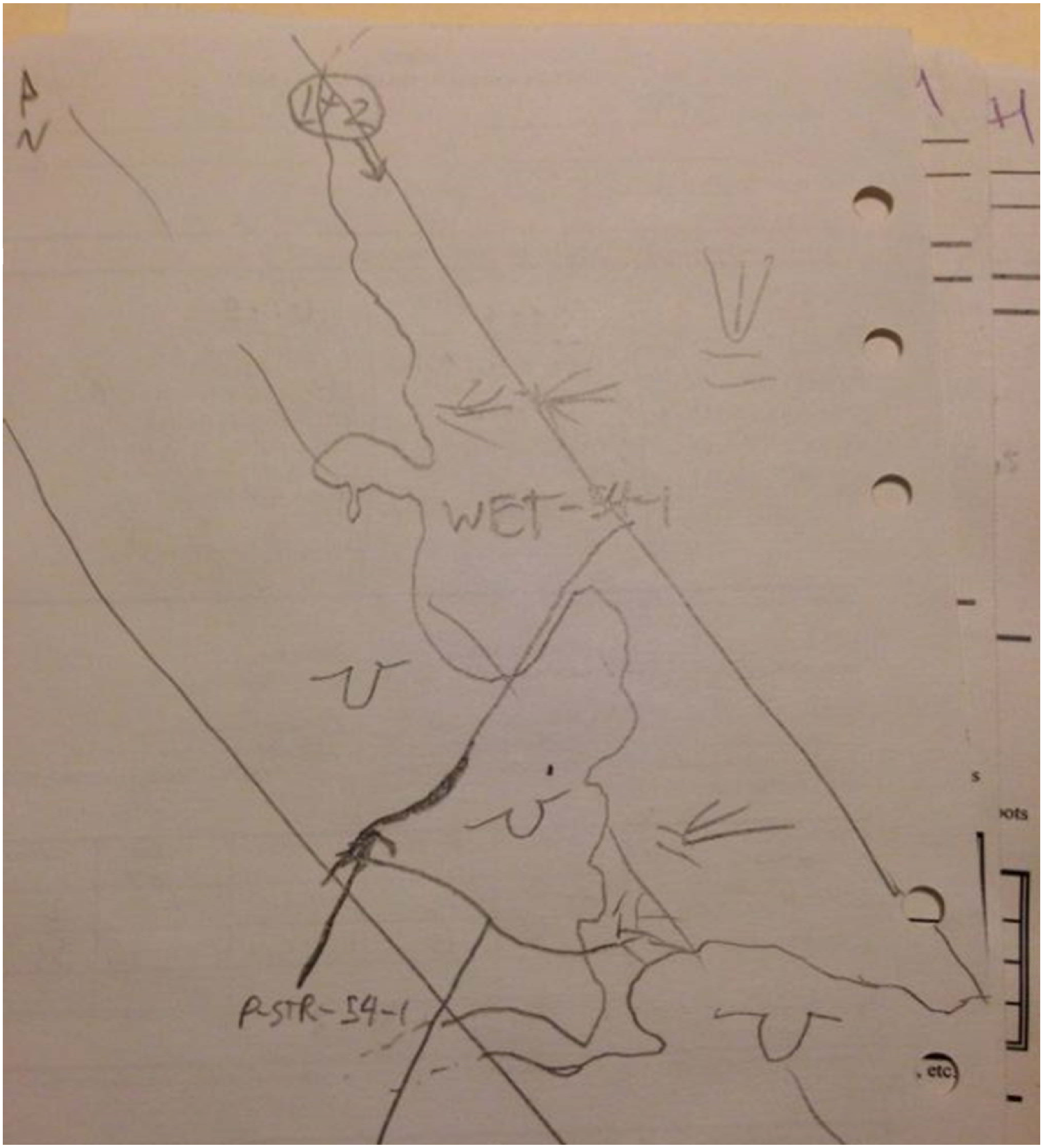
Invasive Species: Yes ___ No X
Notes:

WOSS: Yes X No ___
Type Adjacent to stream

General Notes:
PSS within cleared ROW

Photo # 2

SKETCH ON BACK


N
1+2
WET-34-1
P-STR-34-1

MREI
WETLAND SUMMARY FORM 2015

Observers: JPB Date: 8/18/2015

Town: West Forks Map:

Wetland ID: WET-56-1 (mile segment - wetland #)

Stream/Waterbody Name: Corps Plot: Yes No X

Dominant NWI Class: PFO1/4 Other NWI Classes: PEM

Representative Wetland Vegetation

Tree	S/S	Herb
Fraxinus nigra	Fraxinus nigra	Phalaris arundinacea
Acer rubrum	Betula alleghaniensis	Onoclea sensibilis
Abies balsamea	Acer rubrum	Osmunda cinnamomeum
Betula alleghaniensis		Glyceria canadensis
		Solidago sp
		Carex crinita
		Cephalanthus occidentalis

Representative Wetland Hydrology

X Surface Water (Approximate Depth 1")

X High Water Table (Approximate Depth 0)

X Saturated (Approximate Depth 0)

Hydraulic Indicators:
- ☐ Water Marks
- ☐ Algal Mat or Crust
- ☐ Sediment Deposits
- ☐ Drift Deposits
- ☐ Hydrogen Sulfide Odor
- X Water Stained Leaves
- ☐ Thin Muck Surface
- ☐ Oxidized Rhizospheres on Living Roots

Other Observations: Drainage patterns

Representative Wetland Soils

☐ Mineral

X Organic

Depth	Horizon	Color	Redox Features	Texture
0-3"	O	Black	N/A	Hemic

Other Observations: Rock refusal at 3"

Meets Army Corps NE-NC regional Supplemental Criteria X

Wildlife Observation/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, etc.)

Invasive Species: Yes ☐ No X

Notes:

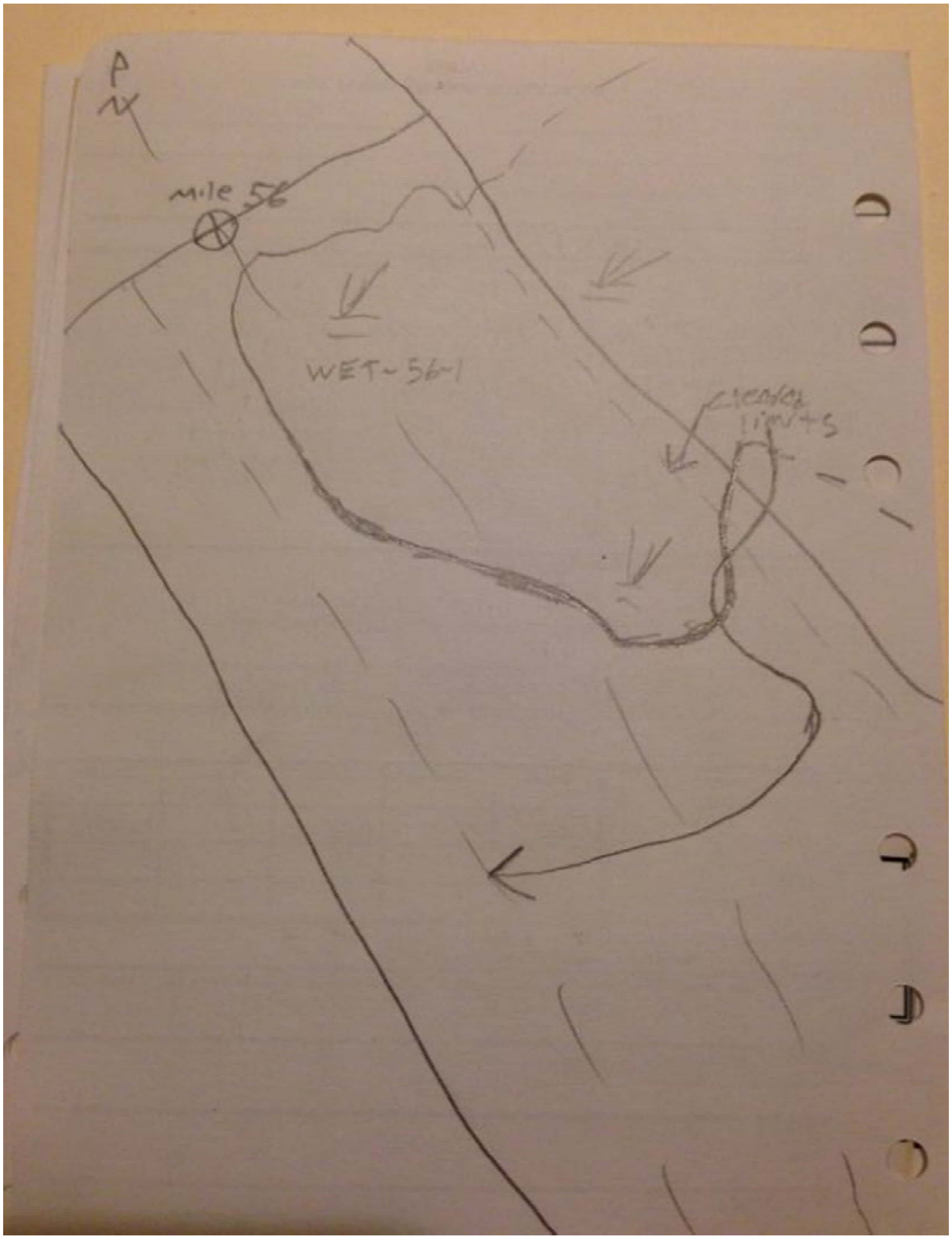
WOSS: Yes X No ☐

Type Within 250' of Moxie Pond

General Notes:

Photo # 2

SKETCH ON BACK


N
Mile 56
WET-56-1
cleared limits

MREI
WETLAND SUMMARY FORM 2015

Observers: SNH, LKH
Date: 9/16/2015

Town: Bald Mountain Twp T2 R3
Map: 58

Wetland ID: WET-64-3 (mile segment - wetland #)

Stream/Waterbody Name:
Corps Plot: Yes ___ No X

Dominant NWI Class: PFO4E
Other NWI Classes:

Representative Wetland Vegetation

Tree	S/S	Herb
Abies balsamea	Spirea alba	Carex trisperma
Thuja occidentalis	Alnus incana	Juncus alpinoarticulates
		Phalaris arundinacea
		Glyceria canadense
		Sphagnum

Representative Wetland Hydrology

___ Surface Water (Approximate Depth)
X High Water Table (Approximate Depth 2")
X Saturated (Approximate Depth surface)

Hydraulic Indicators:
___ Water Marks
X Algal Mat or Crust
___ Sediment Deposits
___ Drift Deposits
___ Hydrogen Sulfide Odor
___ Water Stained Leaves
___ Thin Muck Surface
___ Oxidized Rhizospheres on Living Roots

Other Observations: Rivulets

Representative Wetland Soils

___ Mineral
X Organic

Depth	Horizon	Color	Redox Features	Texture
0-14"	O	10YR2/2	N/A	Hemic
RR				

Other Observations:
Meets Army Corps NE-NC regional Supplemental Criteria X

Wildlife Observation/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, etc.)
Moose sign/bear sign

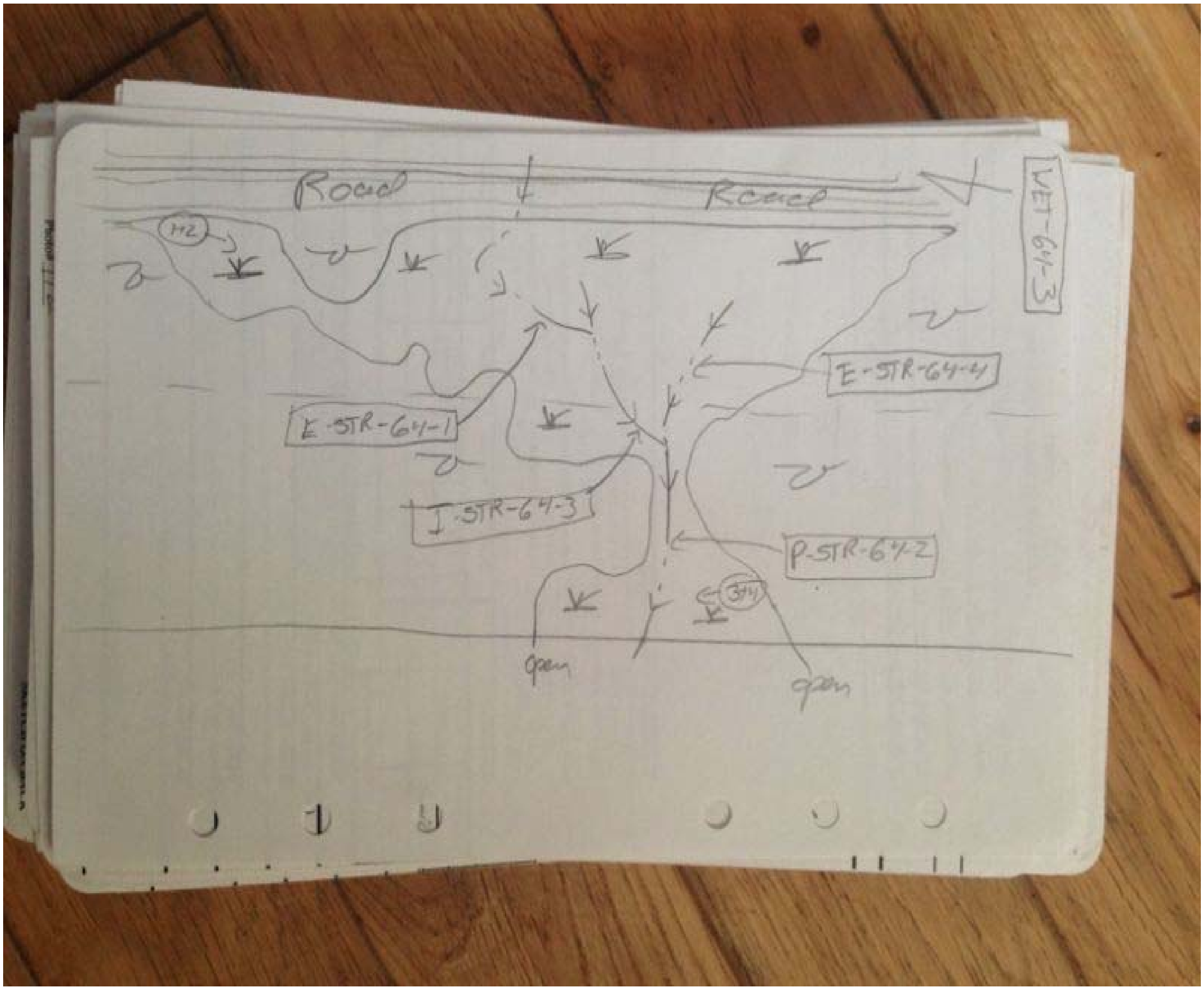
Invasive Species: Yes ___ No X
Notes:

WOSS: Yes X No ___
Type

General Notes:
Within transmission lines Right of Way, flags pulled along road

Photo # 4

SKETCH ON BACK


Road
Road
VET-64-3
H2
E-STR-64-1
E-STR-64-4
I-STR-64-3
P-STR-64-2
3-4
open
open

MREI
WETLAND SUMMARY FORM 2015

Observers: SNH, LKH
Date: 9/16/2015

Town: Bald Mountain Twp T2 R3
Map: 58

Wetland ID: WET-64-6 (mile segment - wetland #)

Stream/Waterbody Name:
Corps Plot: Yes ___ No X

Dominant NWI Class: PSS4E
Other NWI Classes:

Representative Wetland Vegetation

Tree	S/S	Herb
	Picea mariana	Juncus effusus
	Alnus incana	Barber pole rush?
	Spirea alba	Carex trisperma

Representative Wetland Hydrology

X Surface Water (Approximate Depth)
X High Water Table (Approximate Depth 2")
X Saturated (Approximate Depth surface)

Hydraulic Indicators:
___ Water Marks
___ Algal Mat or Crust
___ Sediment Deposits
___ Drift Deposits
X Hydrogen Sulfide Odor
X Water Stained Leaves
___ Thin Muck Surface
___ Oxidized Rhizospheres on Living Roots

Other Observations: Rivulets

Representative Wetland Soils

X Mineral
___ Organic

Depth	Horizon	Color	Redox Features	Texture
0-8"	O	10YR2/2	N/A	Sap
8-14"	A	10YR4/1	N/A	L
RR				

Other Observations:

Meets Army Corps NE-NC regional Supplemental Criteria X

Wildlife Observation/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, etc.)
Moose sign

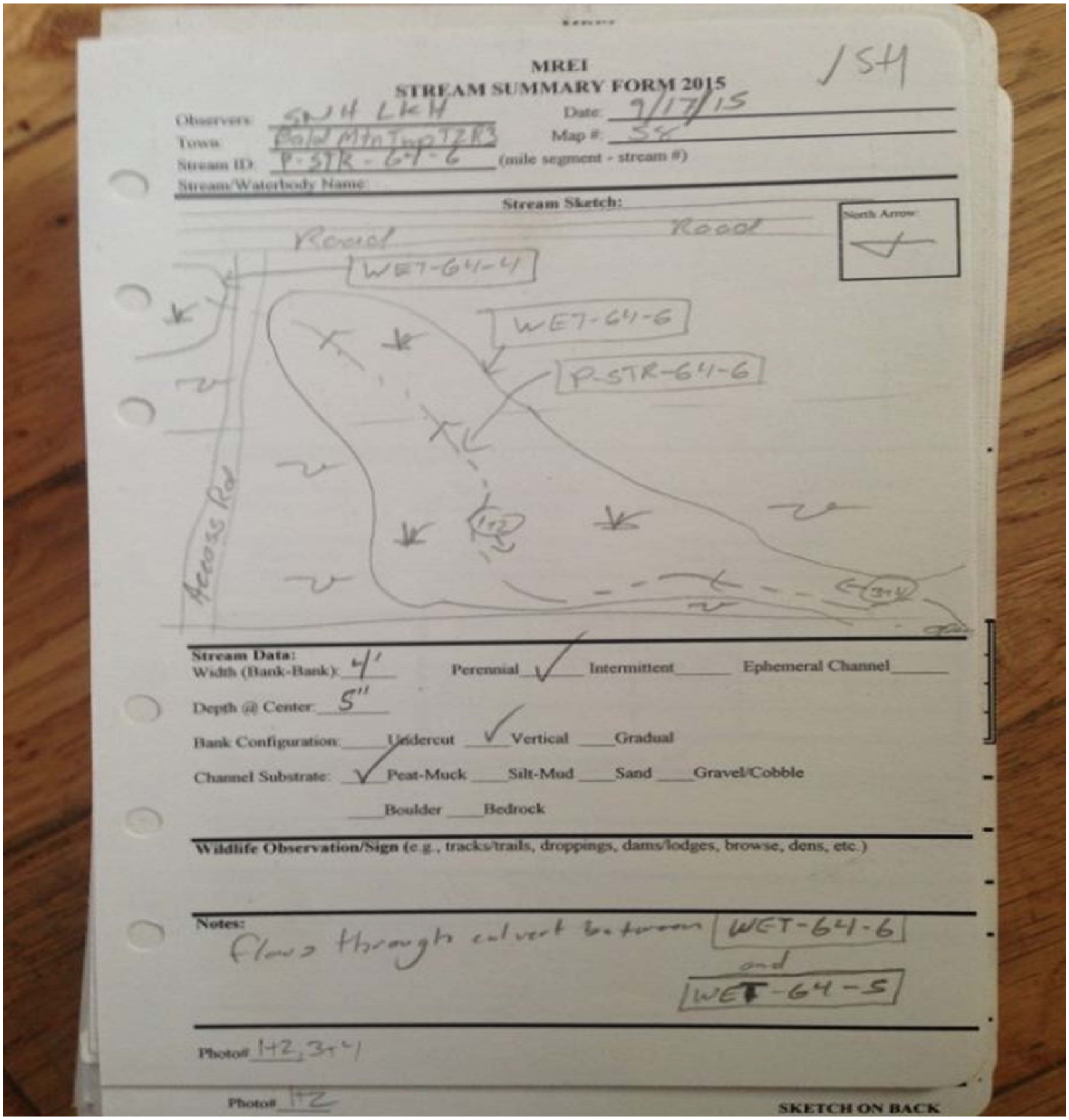
Invasive Species: Yes ___ No X
Notes:

WOSS: Yes X No ___
Type

General Notes:
Area outside project corridor has been recently harvested

Photo # 4

SKETCH ON BACK



1S4

MREI

STREAM SUMMARY FORM 2015

Observers: SWH LKH

Date: 9/17/15

Town: Bald Mtn Twp T2R3

Map #: 58

Stream ID: P-STR-64-6 (mile segment - stream #)

Stream/Waterbody Name:

Stream Sketch:

Stream Data:

Width (Bank-Bank): 4'

Perennial ✓ Intermittent ___ Ephemeral Channel ___

Depth @ Center: 5"

Bank Configuration: ___ Undercut ✓ Vertical ___ Gradual

Channel Substrate: ✓ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble

___ Boulder ___ Bedrock

Wildlife Observation/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, etc.)

Notes: Flows through culvert between WET-64-6 and WET-64-5

Photo# 1+2, 3+4

Photo# 1+2

SKETCH ON BACK

MREI
WETLAND SUMMARY FORM 2015

Observers: SNH, LKH
Date: 9/17/2015

Town: Bald Mountain Twp T2 R3
Map: 58

Wetland ID: WET-64-10 (mile segment - wetland #)

Stream/Waterbody Name:
Corps Plot: Yes __ No X

Dominant NWI Class: PEM1E
Other NWI Classes: PF4E

Representative Wetland Vegetation

Tree	S/S	Herb
Abies balsamea	Chumnaedaphne calyculutus	Typha latifolia
Picea mariana	Spirea alba	Glyceria canadense
	Picea mariana	Juncus effusus

Representative Wetland Hydrology

X Surface Water (Approximate Depth)
__ High Water Table (Approximate Depth)
X Saturated (Approximate Depth to surface)

Hydraulic Indicators:
__ Water Marks
__ Algal Mat or Crust
__ Sediment Deposits
__ Drift Deposits
X Hydrogen Sulfide Odor
__ Water Stained Leaves
__ Thin Muck Surface
__ Oxidized Rhizospheres on Living Roots

Other Observations: Rivulets

Representative Wetland Soils

__ Mineral
X Organic

Depth	Horizon	Color	Redox Features	Texture
0-30"	O	10YR2/2	N/A	Sap

Other Observations:
Meets Army Corps NE-NC regional Supplemental Criteria X

Wildlife Observation/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, etc.)

Invasive Species: Yes __ No X
Notes:

WOSS: Yes X No __
Type Peatland

General Notes:
Flags pulled near/in sigh of road

Photo # 4

SKETCH ON BACK

Feature(s) ID: WET-74-102

Routine Wetland Field Data Form

Date: 5/20/17	Project Name: QMI
Job #: 532	Cowardin Class(es) & %: PEM, PSS
Observers: J. Boyle, C. Flinkst	Photo(s) #: 2
Comments: WOSS (Deer Wintering Area)	

Dominant Vegetation (by stratum):

Herbs	Herbs (cont.)	Shrubs/Saplings	Trees	Vines
Pha aru		Aln inc		
Ono sen				
Osm cin				
Aln inc				

Wetland Hydrology Indicators:

____ Perm. Flooded (approx. depth: ____)

___ Seasonally Flooded/Saturated (approx. depth: ______)

✓ Saturated

[✓ *A1 – Surface water]	*B5 – Iron deposits	*B15 – Marl deposits	*C7 – Thin muck surface
*A2 – High water table	B6 – Surface soil cracks	B16 – Moss trim lines	C8 – Crayfish burrows
*A3 – Saturation	*B7 – Inundated aerial imagery	*C1 – Hydrogen sulfide odor	C9 – Saturation visible on aerial imagery
*B1 – Water marks	*B8 – Sparse veg. concave surface	C2 – Dry-season water table	*D1 – Stunted or stressed plants
*B2 – Sediment deposits	*B9 – Water-stained leaves	*C3 – Oxidized rhizospheres - living root	*D2 – Geomorphic position
*B3 – Drift deposits	B10 – Drainage patterns	*C4 – Presence of reduced iron	*D3 – Shallow aquitard
[✓ *B4 – Algal mat or crust]	*B13 – Aquatic fauna	*C6 – Recent iron reduction in tilled soils	*D4 – Microtopographic relief
*Denotes Primary Indicator			*D5-FAC-neutral test

Representative Hydric Soils:

Depth (in)	Horizon	Texture	Color	Redox. Features	Other
0-8	A	10YR 2/2	SiL	–	–
		ROCK	Refusal	at 8"	

Hydric Soil Indicator & Reference:

Other Soil Comments:

WOSS
Data Form Examples

Segment 3

Woss - Stream

Feature(s) ID: ~~95-5~~

BOYLE ASSOCIATES

Routine Wetland Field Data Form

WET-78-05

Date: 5.25.17	Project Name: QMI		
Job #: 532	Cowardin Class(es) & %: PFO4E(80) / PEM/SS (20)		
Observers: HSW CJF		Photo(s) #:	
Comments: Cedar swamp			

Dominant Vegetation (by stratum):

Herbs	Herbs (cont.)	Shrubs/Saplings	Trees	Vines
rub pub		thu occ	thu occ	Ø
mai can		bet all	bet all	

Wetland Hydrology Indicators:

____ Perm. Flooded (approx. depth: ____)

___ Seasonally Flooded/Saturated (approx. depth: ______)

X Saturated

*A1 – Surface water	*B5 – Iron deposits	*B15 – Marl deposits	*C7 – Thin muck surface
[✓ *A2 – High water table]	B6 – Surface soil cracks	B16 – Moss trim lines	C8 – Crayfish burrows
[✓ *A3 – Saturation]	*B7 – Inundated aerial imagery	*C1 – Hydrogen sulfide odor	C9 – Saturation visible on aerial imagery
*B1 – Water marks	*B8 – Sparse veg. concave surface	C2 – Dry-season water table	*D1 – Stunted or stressed plants
*B2 – Sediment deposits	[✓ *B9 – Water-stained leaves]	*C3 – Oxidized rhizospheres - living root	*D2 – Geomorphic position
*B3 – Drift deposits	B10 – Drainage patterns	*C4 – Presence of reduced iron	*D3 – Shallow aquitard
*B4 – Algal mat or crust	*B13 – Aquatic fauna	*C6 – Recent iron reduction in tilled soils	*D4 – Microtopographic relief
*Denotes Primary Indicator			*D5-FAC-neutral test

Representative Hydric Soils:

Depth (in)	Horizon	Texture	Color	Redox. Features	Other
0-16+	1	org	blk	—	

Hydric Soil Indicator & Reference:

Other Soil Comments: A1 Nat'l Ind.

Functions & Values: place an * next to primary f&v & circle all that apply
■Groundwater Recharge/Discharge ■Floodwater Alteration ■Fish & Shellfish Habitat
■Sed./Tox./Pathogen Retention ■Nutrient R/R/T ■[✓ Production Export]
■[✓ Sediment/Shoreline Stabilization] ■[✓ Wildlife Habitat] ■Recreation
■Educational/Scientific Value ■Uniqueness/Heritage ■Visual Quality/Aesthetics
■RTE Habitat

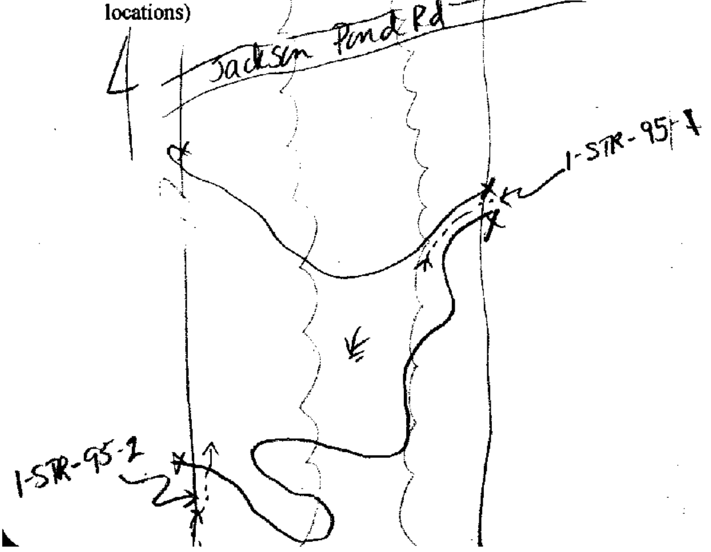
GPS Tech: CJF GPS File:

Stream Data:
Stream Name: 1-STR-95-2 Wetland: ___no wetland
X wetland: 95-5
Max Width: 36" Max Depth: 6" Per:___ Int: X
Bank Type: ___vertical ___ gradual X undercut ___other:
Substrate (>30%): X mud ___gravel ___sand ___bedrock X rock
___peat/muck

Stream Name: 1-STR-95-1 Wetland: ___no wetland
X wetland: 95-5
Max Width: 36" Max Depth: 6" Per:___ Int: X
Bank Type: ___vertical ___ gradual X undercut ___other:
Substrate (>30%): X mud X gravel ___sand ___bedrock X rock
___peat/muck

Notes:

SKETCH: wetland (&) stream ID:
(include: North Arrow, Photo # and Location/Direction, Landmarks, Flag locations)



WET-100-05

Maine Power Reliability Project Team F

WETLAND SUMMARY FORM

Observers: GE, KF Date: 10-4-07

Town: Starks Series: 1-43

Segment #: 12 CMP Section #: 68 CMP Pole #: 336 Wetland ID #: 1

Stream/Waterbody ID:

Corps plot: ___ Yes X No

Dominant NWI Class: PFO1/4 - PEM1 Other NWI Classes: PSS1

Representative Wetland Vegetation (by Strata):

Gray birch (T, Sapl) Col can Rough avens

Acer rub (T, Sapl) Ostrich fern Foamflower

Sen. aurg. NY fern

Ono sens. Hemlock (Sapl)

Representative Wetland Hydrology

___ Permanently Flooded (approximate depth -) X Seasonally Flooded (approximate depth -) ___ Saturated

Hydrologic Indicators: ___ Silt Deposition ___ Water-Stained Leaves ___ Water Marks ___ Drift Lines X Surface Scouring X Drainage Patterns ___ Buttressed Trees ___ Elevated Roots

Other Observations:

Representative Wetland Soils:

X Mineral

___ Organic

Depth	Horizon	Color	Redox Features	Texture
0-3	A	5Y2.5/1	—	Sa Lo
3-10	Bw1	5Y5/2	2.5Y4/4	Sa Lo
10-15+	Bw2	5Y5/2	" "	Co Lo Sa

Other Observations:

Meets NEIWPCC (2004) Criteria VI >10% redox

Stream # 1 Data:

Width (Bank-Bank): ___ Depth @ Center: ___ Peren. ___ Intermittent ___

Bank Configuration: ___ Undercut ___ Vertical ___ Gradual

Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder ___ Bedrock

Stream # 2 Data

Width (Bank-Bank): ___ Depth @ Center: ___ Peren. ___ Intermittent ___

Bank Configuration: ___ Undercut ___ Vertical ___ Gradual

Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder ___ Bedrock

73-2

5.16.17

HSW

checked

veg/soils/hydro

good ✓

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):

Notes: Couple of spring seeps disappear into W. W is in natural drainage way. W drains to NW

☐ Cedar Swamp ☐ Wetland of Special Significance

Photo # 1 (Flag), 2, 3

SKETCH ON BACK

Maine Power Reliability Project

Team F

WETLAND SUMMARY FORM

Observers: GE, KF
Date: 10-4-07
Town: Starks
Series: 1-43
Segment # : 12 CMP Section #: 68 CMP Pole #: 336 Wetland ID #: 1
Stream/Waterbody ID:
Corps plot : ____Yes X No

Dominant NWI Class: PFO1/4 - PEM1 Other NWI Classes: PSS1

Representative Wetland Vegetation (by Strata):

Gray birch (T, Sapl)	Cal can	Rough avens
Acer rub (T, Sapl)	Ostrich fern	Foamflower
Sen. vulg.	NY fern	
Onoc. sens.	Hemlock (Sapl)	

Representative Wetland Hydrology

_____ Permanently Flooded (approximate depth -)
X Seasonally Flooded (approximate depth -)
_____ Saturated

Hydrologic Indicators:
_____ Silt Deposition
_____ Water-Stained Leaves
_____ Water Marks
_____ Drift Lines
X Surface Scouring
X Drainage Patterns
_____ Buttressed Trees
_____ Elevated Roots

Other Observations:

Representative Wetland Soils:
X Mineral
_____ Organic

Depth	Horizon	Color	Redox Features	Texture
0-3	A	5Y2.5/1	—	Sa Lo
3-10	Bw1	5Y5/2	2.5Y4/4	Sa Lo
10-15+	Bw2	5Y5/2	" "	Co Lo Sa

Other Observations:
Meets NEIWPCC (2004) Criteria VI >10% redox

Stream # 1 Data:
Width (Bank-Bank): ________ Depth @ Center: ________ Peren. ______ Intermittent______
Bank Configuration: ____Undercut ___ Vertical ___ Gradual
Channel Substrate: ___Peat-Muck ___Silt-Mud ___Sand ___Gravel/Cobble ___Boulder ___ Bedrock

Stream # 2 Data
Width (Bank-Bank): ________ Depth @ Center: ________ Peren. ______ Intermittent______
Bank Configuration: ____Undercut ___ Vertical ___ Gradual
Channel Substrate: ___Peat-Muck ___Silt-Mud ___Sand ___Gravel/Cobble ___Boulder ___ Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):

Notes: Couple of spring seeps dissappear into ɯ. ɯ is in natural drainage way. ɯ drains to NW

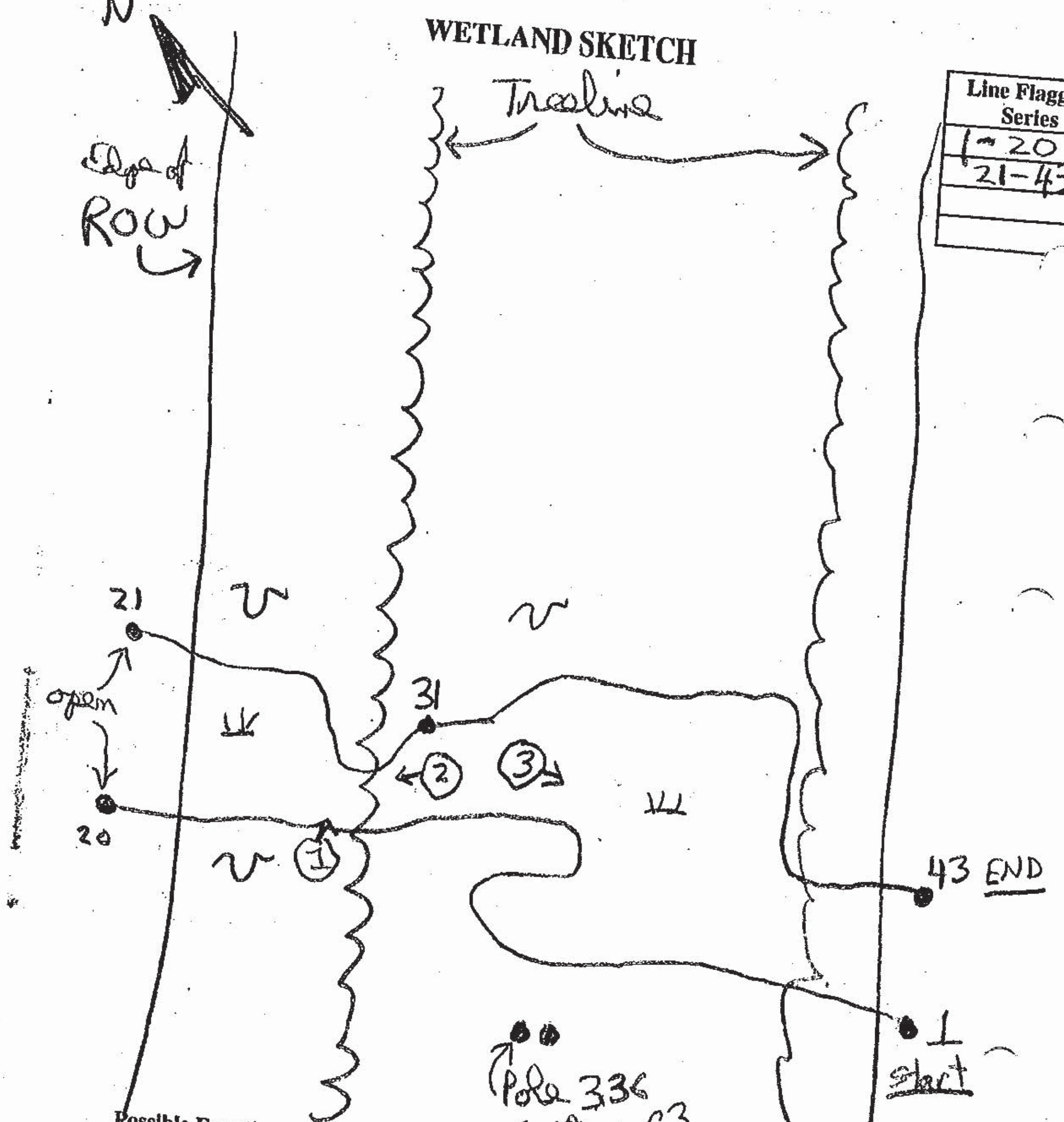
☐Cedar Swamp ☐Wetland of Special Significance

Photo # 1 (Flag), 2, 3

SKETCH ON BACK

WETLAND SKETCH

Line Flagging Series
1-20
21-43



Possible Functions and Values:

- ☒ Groundwater Recharge/[✓ Discharge]
- — Fish and Shellfish Habitat
- — Nutrient Removal
- — Sediment/Shoreline Stabilization
- — Recreation
- — Uniqueness/Heritage
- — Endangered Species Habitat
- — Floodflow Alteration
- — Sediment/Toxicant Retention
- — Production Export
- ☒ Wildlife Habitat
- — Educational/Scientific Value
- — Visual Quality/Aesthetics
- — Other

Checklist:

- ✓ Wetland ID# FI2-63-336-1
- ✓ North arrow.
- ✓ Detailed sketch of wetland boundary and flagging sequence.
- ✓ Natural and man-made features – roads, culverts, outcrops, structures, etc.
- Photo locations.
- Location of important wildlife sign.

WET-103-11

Maine Power Reliability Project
WETLAND SUMMARY FORM

Team 5

Observers: JG MW
Date: 6-1-07 26-31
Town: NEW SHARON
Series: 1-3 9-13 14-18 19-27
Segment #: 12 CMP Section #: 63 CMP Pole #: 380 Wetland ID #: 1
Stream/Waterbody ID: F12-103-380-1-1,2 Corps plot: ___Yes ✓ No
Dominant NWI Class: PSS 45% PFO1/4 45% Other NWI Classes: PEM 10

Representative Wetland Vegetation (by Strata):

Herb. Shrubs Trees
Gly mel Eup mac Ace rub Bet all
Tha pub Ast sim Aln rug. Ab bal
Ono sen Gal tri
Imp cap Poly sag
Cal can

Representative Wetland Hydrology

___ Permanently Flooded (approximate depth -)
___ Seasonally Flooded (approximate depth -)
✓ Saturated

Hydrologic Indicators:
___ Silt Deposition
___ Water-Stained Leaves
___ Water Marks
___ Drift Lines
___ Surface Scouring
✓ Drainage Patterns
___ Buttressed Trees
✓ Elevated Roots

Other Observations:

Representative Wetland Soils:
✓ Mineral
___ Organic

Depth	Horizon	Color	Redox Features	Texture
0-5	Oa	–	–	
5-20	A	10YR 3/1	10YR 4/4 CMD	VFSL
20+	B	10YR 4/1	↓ CMD	↓

Other Observations:
Meets NEIWPCC (2004) Criteria YES

Stream # 1 Data:
Width (Bank-Bank): 15 Depth @ Center: 2' Peren. ✓ Intermittent___
Bank Configuration: ___Undercut ___Vertical ___Gradual
Channel Substrate: ___Peat-Muck ✓Silt-Mud ✓Sand ✗Gravel/Cobble ✓Boulder ___Bedrock

Stream # 2 Data
Width (Bank-Bank): 7' Depth @ Center: 2' Peren. ✓ Intermittent___
Bank Configuration: ___Undercut ___Vertical ___Gradual
Channel Substrate: ___Peat-Muck ___Silt-Mud ✓Sand ✓Gravel/Cobble ___Boulder ___Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP): Black nosed dace, Chubs Fish

Notes: Ruts in Northern tree line Flood plain wetland
Snow mobile trail [illegible] Road.

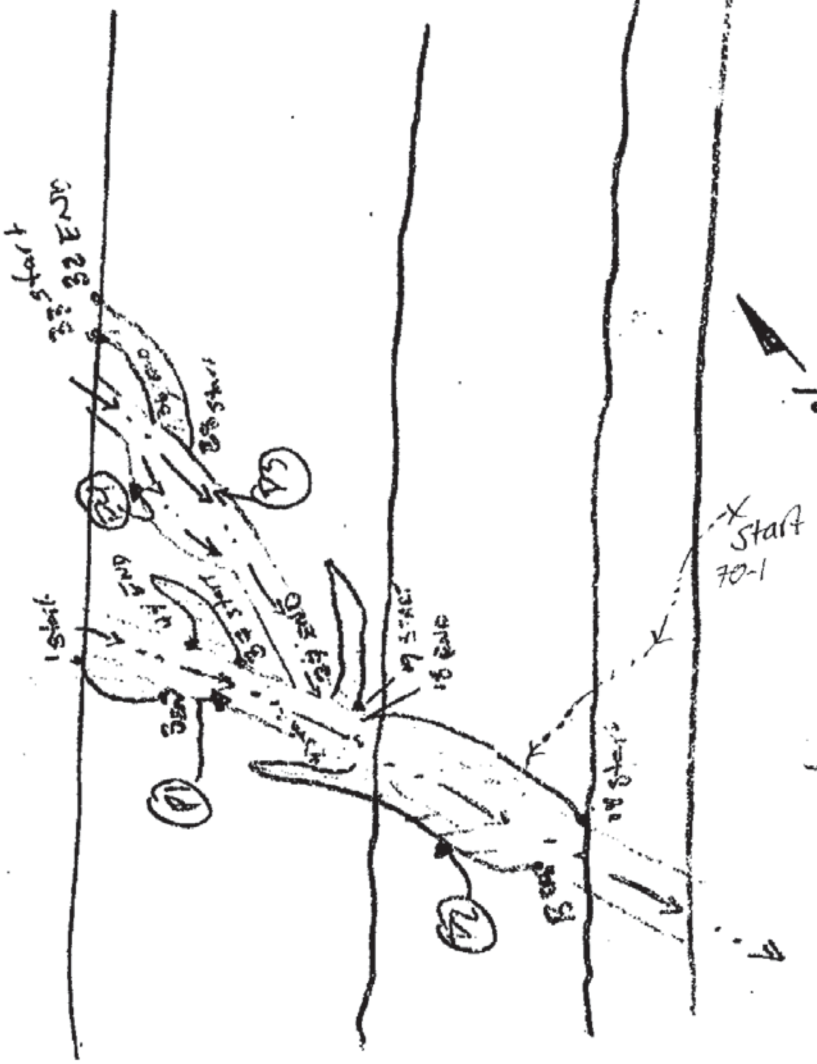
☐ Cedar Swamp ☑ Wetland of Special Significance

Photo # 1#2-4

SKETCH ON BACK

5.14.17
HSW
checked hydro/veg/soils ✓
added stream #3
width: 18"
depth: 6"
intermittent
substrate: sand/gravel/cobble

WETLAND SKETCH



Line Flagging Series
1 - 3
4 - 12
13 - 18
19 - 25

26 - 32
33 - 36
37 - 44

STREAM 1

1 - 17
18 - 35

STREAM 2

1 - 13

STREAM 3

1 - 3

Stream #4

1 - 5

Possible Functions and Values:

- ☐ Groundwater Recharge/Discharge
- ☐ Fish and Shellfish Habitat
- ☐ Nutrient Removal
- ☐ Sediment/Shoreline Stabilization
- ☑ Recreation
- ☐ Uniqueness/Heritage
- ☐ Endangered Species Habitat
- ☐ Floodflow Alteration
- ☑ Sediment/Toxicant Retention
- ☐ Production Export
- ☑ Wildlife Habitat
- ☐ Educational/Scientific Value
- ☐ Visual Quality/Aesthetics
- ☐ Other

Checklist:

- ☐ Wetland ID# F-17-13-380-1 Cont.
- ☐ North arrow.
- ☐ Detailed sketch of wetland boundary and flagging sequence.
- ☐ Natural and man-made features – roads, culverts, outcrops, structures, etc.
- ☐ Photo locations.
- ☐ Location of important wildlife sign.

Maine Power Reliability Project

Team E

WETLAND SUMMARY FORM

Observers: JG MW
Date: 10-1-07 28-31
Town: NEW SHARON
Series: 1-3 9-13 14-18 19-27
Segment #: 12 CMP Section #: 63 CMP Pole #: 380 Wetland ID #: 1
Stream/Waterbody ID: F12-63-380-1-1,2
Corps plot: ____Yes ✓ No

Dominant NWI Class: PSS 45%, PFO1/4 45% Other NWI Classes: PEM 10

Representative Wetland Vegetation (by Strata):

Herb.		~~Shrubs~~	Trees
Gly mel	Eup mac	Acr rub	Bet all
Tha pub	Ast vim	Aln rug.	Ab bal
Ono sen	Gal tri		
Imp Cap	Poly sag		
Cal can			

Representative Wetland Hydrology

____ Permanently Flooded (approximate depth -)
____ Seasonally Flooded (approximate depth -)
✓ Saturated

Hydrologic Indicators:
____ Silt Deposition
____ Water-Stained Leaves
____ Water Marks
____ Drift Lines
____ Surface Scouring
✓ Drainage Patterns
____ Buttressed Trees
✓ Elevated Roots

Other Observations:

Representative Wetland Soils:
✓ Mineral
____ Organic

Depth	Horizon	Color	Redox Features	Texture
0-5	Oa	~	~	
5-20"	A	10YR 2/2	10YR4/4 CMD	VFSL
20+	B	10YR 4/1	↓ CMD	↓

Other Observations:
Meets NEIWPCC (2004) Criteria Y

Stream # 1 Data:
Width (Bank-Bank): ≈15 Depth @ Center: 2' Peren. ✓ Intermittent____
Bank Configuration: ____Undercut ____ Vertical ____ Gradual
Channel Substrate: ____Peat-Muck ✓Silt-Mud ✓Sand ____Gravel/Cobble ✓Boulder ____ Bedrock

Stream # 2 Data
Width (Bank-Bank): 7' Depth @ Center: 2' Peren. ✓ Intermittent____
Bank Configuration: ____Undercut ____ Vertical ____ Gradual
Channel Substrate: ____Peat-Muck ____Silt-Mud ✓Sand ✓Gravel/Cobble ____Boulder ____ Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP): Blacknose dace, Chubs Fish

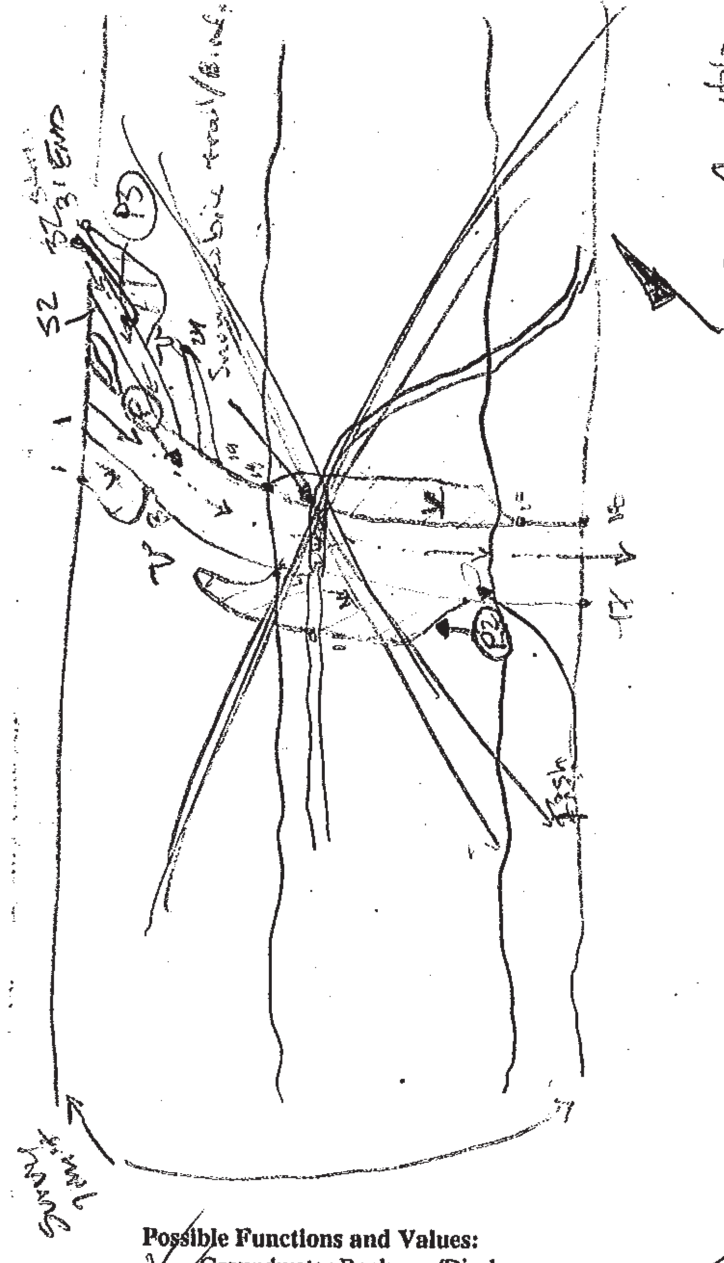
Notes: Ruts in Northern tree line Flood plain wetland
Snow mobile via the Road.

☐ Cedar Swamp ☑ Wetland of Special Significance

Photo # 1#2-4

SKETCH ON BACK

WETLAND SKETCH



N

37 - Connect to 51-34
44 - Connect 51-35

Line Flagging Series
1-3
4-13
10-18
19-27

28-31
32-36
Stream OB 37-
1-17
18-

STREAM 2 &
1-13 PAD

WETLAND Flags connect to stream
3 connect to Stream Flag 7
4 connect to " " 12
13 " " " " 16
18 " " " " 21
27 " " Stream 2 " 10
37 " " " " 17

1-3

Possible Functions and Values:

✓ Groundwater Recharge/Discharge
✓ Fish and Shellfish Habitat
___ Nutrient Removal
___ Sediment/Shoreline Stabilization
✓ Recreation Snow mobile
___ Uniqueness/Heritage
___ Endangered Species Habitat

✓ Floodflow Alteration
✓ Sediment/Toxicant Retention
___ Production Export
✓ Wildlife Habitat
___ Educational/Scientific Value
___ Visual Quality/Aesthetics
___ Other

Checklist:

✓ **Wetland ID#** F-12-63-390-1 + S1
✓ North arrow.
✓ Detailed sketch of wetland boundary and flagging sequence.
✓ Natural and man-made features – roads, culverts, outcrops, structures, etc.
✓ Photo locations.
✓ Location of important wildlife sign.

Cont.

Maine Power Reliability Project
WETLAND SUMMARY FORM

Team F

Observers: JG MW
Date: 10-1-07
Town:
Series :
Segment # : 12 CMP Section #: 63 CMP Pole #: 380 Wetland #: 1
Stream/Waterbody ID:
Corps plot : ___Yes X No

Dominant NWI Class:
Other NWI Classes:

Representative Wetland Vegetation (by Strata):

Stream 1
Wetland Flag 3 Connect to S1 Flag 9
" " 4 " to S1 " 12
" " 13 " to S1 " 16
" " 14 " to S1 " 19
" " 19 " to S1 " 23
" " 27 " " S1 " 24
" " 37 " " S1 " 34

Stream 2
Flag 28 Connect to S2 10
~~Flag 27 " " S2 "~~
Flag 36 " " S2 18

Wetland Flag 44 Connect to S1 35

Representative Wetland Hydrology

_____ Permanently Flooded (approximate depth -)
_____ Seasonally Flooded (approximate depth -)
_____ Saturated

Hydrologic Indicators: _____ Silt Deposition _____ Water-Stained Leaves
_____ Water Marks _____ Drift Lines _____ Surface Scouring
_____ Drainage Patterns _____ Buttressed Trees _____ Elevated Roots

Other Observations:

Representative Wetland Soils:
_____ Mineral
_____ Organic

Depth	Horizon	Color	Redox Features	Texture

Other Observations:
Meets NEIWPCC (2004) Criteria _____

Stream # 1 Data: S3 Photo 4
Width (Bank-Bank): _____ Depth @ Center: 1' Peren. _____ Intermittent ✓
Bank Configuration: ___Undercut ✓ Vertical ✓ Gradual
Channel Substrate: ___Peat-Muck ___Silt-Mud ✓ Sand ✓ Gravel/Cobble ___Boulder ___ Bedrock

Stream # 2 Data
Width (Bank-Bank): _____ Depth @ Center: _____ Peren. _____ Intermittent _____
Bank Configuration: ___Undercut ___ Vertical ___ Gradual
Channel Substrate: ___Peat-Muck ___Silt-Mud ___Sand ___Gravel/Cobble ___Boulder ___ Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):

Continued Form

Notes:

Sketch on Back

☐Cedar Swamp ☐Wetland of Special Significance

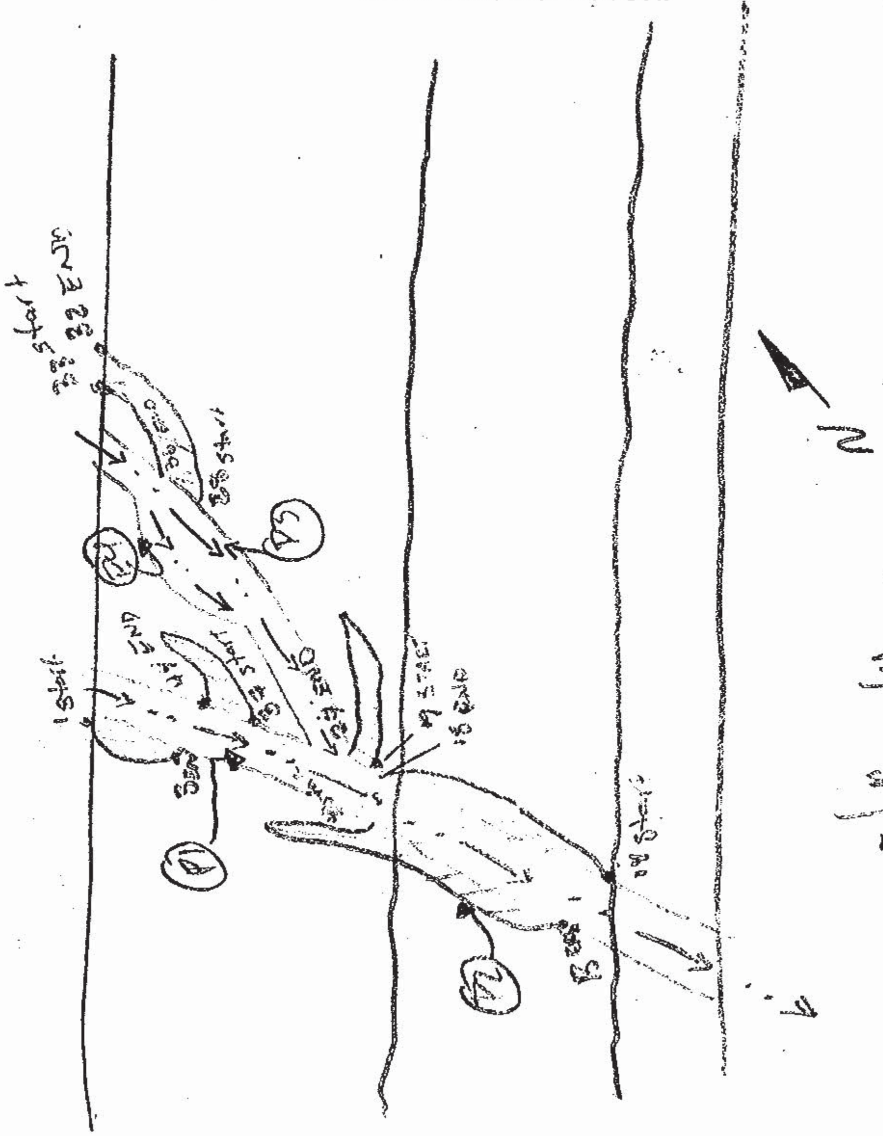
Photo # _____

SKETCH ON BACK

WETLAND SKETCH

Line Flagging Series
1 - 3
4 - 13
14 - 18
19 - 23

24 - 32
33 - 36
37 - 44



STREAM 1
1 - 17
18 - 35

STREAM 2
1 - 13

STREAM 3
1 - 3

Possible Functions and Values:

___ Groundwater Recharge/Discharge
___ Fish and Shellfish Habitat
___ Nutrient Removal
___ Sediment/Shoreline Stabilization
✓ Recreation
___ Uniqueness/Heritage
___ Endangered Species Habitat
___ Floodflow Alteration
✓ Sediment/Toxicant Retention
___ Production Export
✓ Wildlife Habitat
___ Educational/Scientific Value
___ Visual Quality/Aesthetics
___ Other

Checklist:

— **Wetland ID#** F-17-63-380-1 Cont.
— North arrow.
— Detailed sketch of wetland boundary and flagging sequence.
— Natural and man-made features -- roads, culverts, outcrops, structures, etc.
— Photo locations.
— Location of important wildlife sign.

WET-116-05

Running hard

Maine Power Reliability Project
WETLAND SUMMARY FORM

E

Observers: SE/EF/ML
Town: JAY
Date: 8.15.06
Segment #: 14 CMP Section #: 63
Series:
Stream/Waterbody ID: F.14.63.584.S1 CMP Pole #: 534 Wetland #: 1
Dominant NWI Class: PFO1E
Corps plot: [✓ Yes] No
Other NWI Classes: PEM1E/POW

Representative Wetland Vegetation (by Strata):

PFO
Ⓣ ACERUB
BETALE
FRANIG
FRAPEN

Ⓟ ACERUB
BETALE
FRANIG

PSS
SPITOM
SPIALB
NEMMUC
ILEVER

(PEM)
TYPLAT
SCICYP
CARSCO
SARLUE
CAR sp.

LYSTER
CALCAN
ONOSEN
OSMCIN
THEPAL
Sphag

ERIVIR

POW
Pond lily
ERICAUL.
MYRGAL
TRIVIR
osm reg

Representative Wetland Hydrology

X Permanently Flooded (approximate depth - 6")
X Seasonally Flooded (approximate depth - 8")
X Saturated

Hydrologic Indicators: X Silt Deposition
X Water Marks
Drift Lines
Water-Stained Leaves
X Drainage Patterns
Surface Scouring
X Buttressed Trees
X Elevated Roots

Other Observations:
inundation -

Representative Wetland Soils:
X Mineral
Organic

freewater @ 12"
saturated to surface

Depth	Horizon	Color	Redox Features	Texture
2-0	Oi			fibric
0-5	A	10YR3/1		SiL
3-9	B1g	2.5Y 4/1		Coarse sand
9-14	B2g	4/N	organic	FSiL firm
14-24	Cg	6/10%.	streaky	FSiL

Other Observations:
Meets NEIWPCC (2004) Criteria Y

Stream # 1 Data: Avg
Width (Bank-Bank): 5' Depth @ Center: 5" Peren. X Intermittent
Bank Configuration: Undercut X Vertical Gradual
Channel Substrate: Peat-Muck Silt-Mud Sand X Gravel/Cobble X Boulder Bedrock
Small areas of →

Stream # 2 Data
Width (Bank-Bank): Depth @ Center: Peren. Intermittent
Bank Configuration: Undercut Vertical Gradual
Channel Substrate: Peat-Muck Silt-Mud Sand Gravel/Cobble Boulder Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):
Coyote
moose
deer
Songbird
Red Sq.
GB Heron

Notes:
This is a large wetland system - pristine w/in treeline - Pond was noted in Spring as a SVP. Thick organic soil in much of area - rocky - pit/mound.

☐ Cedar Swamp
☒ Wetland of Special Significance

Photo # 6

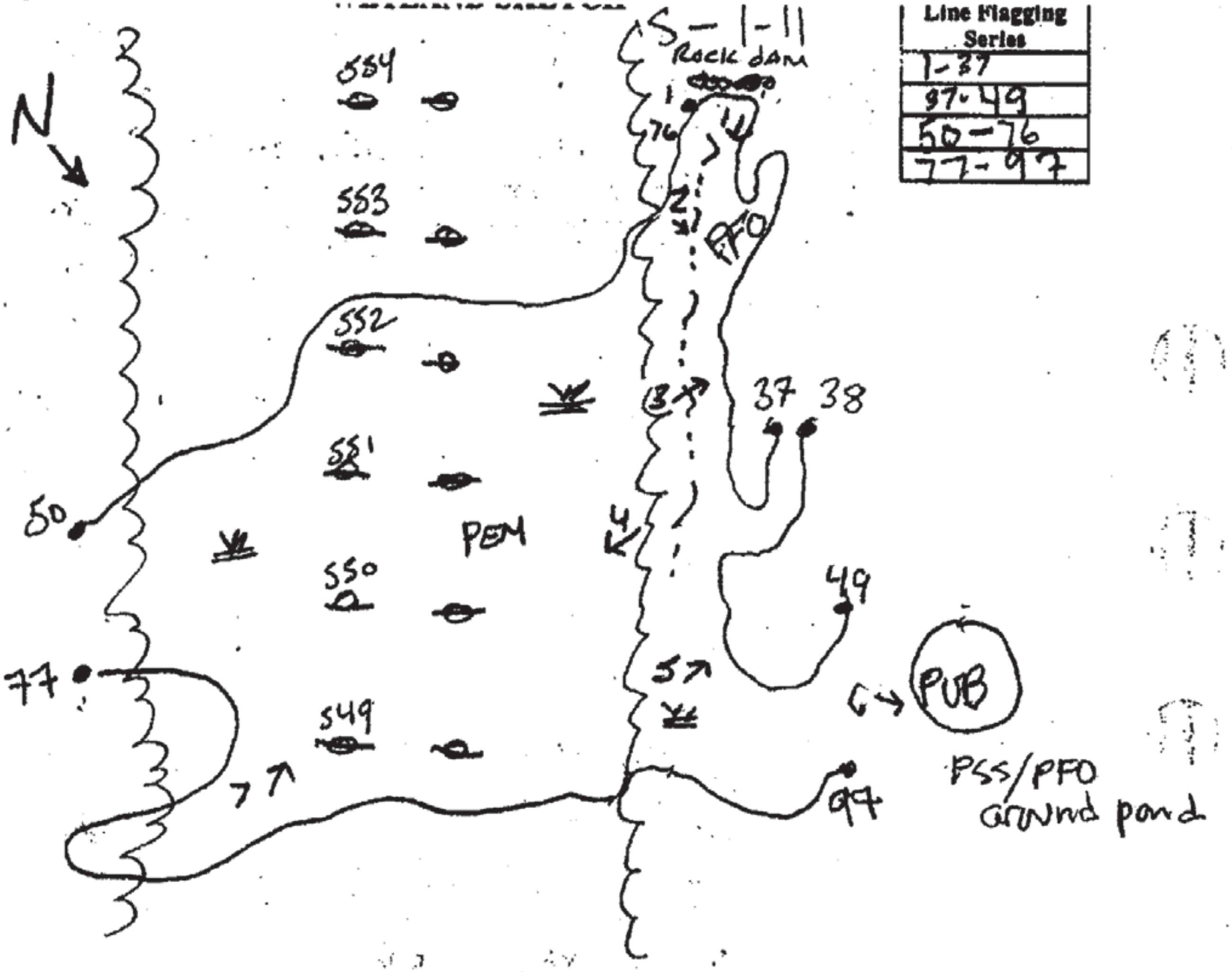
SKETCH ON BACK

Rock Dam separates 14-63-555 S1 from
14-63-554 S1

Sam Hayden
5/2/17

Veg, soil, hydro good. Extended W bound on E side

S.H.



Line Flagging Series
1-37
37-49
50-76
77-97

Not to Scale!!!

Possible Functions and Values:

☒ Groundwater Recharge/Discharge
☒ Fish and Shellfish Habitat
☒ Nutrient Removal
☒ Sediment/Shoreline Stabilization
☒ Recreation Hunting
— Uniqueness/Heritage
— Endangered Species Habitat
☒ Floodflow Alteration
☒ Sediment/Toxicant Retention
☒ Production Export
☒ Wildlife Habitat
— Educational/Scientific Value
☒ Visual Quality/Aesthetics
— Other

Checklist:

✓ Wetland ID# F.14.63.554 W1/S1
✓ North arrow.
✓ Detailed sketch of wetland boundary and flagging sequence.
✓ Natural and man-made features – roads, culverts, outcrops, structures, etc.
✓ Photo locations.
— Location of important wildlife sign.

Sam Hayden 5/2/17
Plot data matches field conditions.
S.H.

F.14.63.554 W1

PROJECT TITLE: MPRP **TRANSECT:** 1 **PLOT:** A

DELINEATOR(S): E. Francine/S. Everett **DATE:** 8.15.07

VEGETATION Stratum and Species		Dominance Ratio	Percent Dominance	DOM	NWI Status
T 0					
P 0					
S ALN INC	40%	40/60	67		FACW
ACE RUB	20%	20/60	37		FAC
H OSM CIN	75%	75/95	79		FACW
EQU SYL	10%	10/95	11		
ONO SEN	10%	10/95	11		

HYDROPHYTES

OBL	FACW	FAC	*OTHER
	2	1	

Hydrophytes Subtotal (A): 3

NON-HYDROPHYTES

FAC-	FACU	UPL

Non-hydrophytes Subtotal (B): 0

PERCENT HYDROPHYTES (100A/A+B): 100%

HYDROLOGY

☐ RECORDED DATA
Stream, lake, or tidal gage Identification:
Aerial photography Identification:
Other: Identification:

☐ NO RECORDED DATA

☐ OBSERVATIONS:
Depth to Free Water: @ 12"
Depth to Saturation (including capillary fringe): @ surface
Altered Hydrology (explain):

☐ Inundated ☒ Saturated in upper 12" ☒ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☒ Drainage Patterns within Wetland

☐ OTHER (explain):

Maine Power Reliability Project

Team F

WETLAND SUMMARY FORM

Observers: SE/ML/EF Date: 7·18·07

Town: Livermore Falls Series :

Segment # : 39 CMP Section #: 89 CMP Pole #: 11 Wetland ID #: 1

Stream/Waterbody ID: SAme As F39896·1 Corps plot : Yes X N

Dominant NWI Class: PEM1 Other NWI Classes:

Representative Wetland Vegetation (by Strata):

(H) cal can
Pha aru
Jun eff
gly can
Typ lat

CaR ste
CaR sco
CaR flav
osm reg
Lysim terr

ver has
pel vir (A)
lem min (A)
(S) Spi alb
Spi tom

Aln inc

Representative Wetland Hydrology

X Permanently Flooded (approximate depth - 6")

X Seasonally Flooded (approximate depth -)

___ Saturated

Hydrologic Indicators: X Silt Deposition ___ Water-Stained Leaves

___ Water Marks ___ Drift Lines ___ Surface Scouring

X Drainage Patterns ___ Buttressed Trees ___ Elevated Roots

Other Observations: obvious inundation

Representative Wetland Soils:

✓ Mineral

✓ Organic

Depth	Horizon	Color	Redox Features	Texture
3-0	Oi			fibric
0-7	A	10YR 3/1	10YR 5/1	silt loam
7-20	B	2.5Y 4/1	many	fine sandy
			redox	loam

Other Observations:

Meets NEIWPCC (2004) Criteria ✓ poorly drained

Stream # 1 Data:

Width (Bank-Bank): 2-3' Depth @ Center: 4"-6" Peren. ✓ Intermittent___

Bank Configuration: ✓ Undercut ✓ Vertical ___ Gradual

Channel Substrate: ___ Peat-Muck ✓ Silt-Mud ___ Sand ✓ Gravel/Cobble ___ Boulder ___ Bedrock

SAme stream as F39896151

Stream # 2 Data

Width (Bank-Bank): ___ Depth @ Center: ___ Peren. ___ Intermittent___

Bank Configuration: ___ Undercut ___ Vertical ___ Gradual

Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder ___ Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP): Deer songbirds
Beaver
muskrat

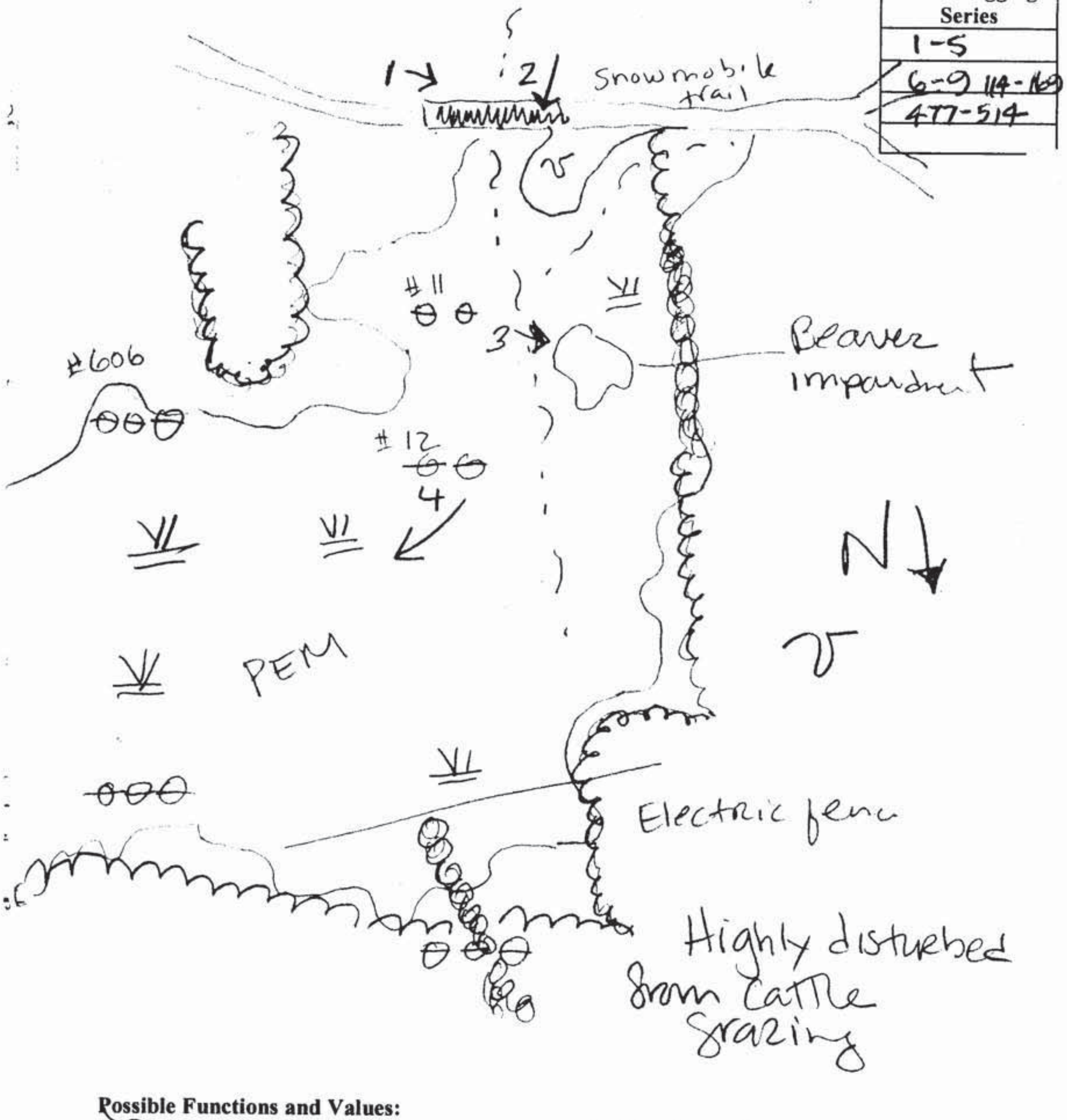
* Cows actively grazing w/in ROW

Notes: very large wetland system which is contiguous to F39896.1 outside project area

☐Cedar Swamp ☒Wetland of Special Significance

WETLAND SKETCH

Line Flagging Series
1-5
6-9 114-169
477-514



Possible Functions and Values:

- ✓ Groundwater Recharge/Discharge
- ✓ Fish and Shellfish Habitat
- ___ Nutrient Removal
- ✓ Sediment/Shoreline Stabilization
- ___ Recreation
- ___ Uniqueness/Heritage
- ___ Endangered Species Habitat
- ✓ Floodflow Alteration
- ✓ Sediment/Toxicant Retention
- ___ Production Export
- ✓ Wildlife Habitat
- ___ Educational/Scientific Value
- ✓ Visual Quality/Aesthetics
- ___ Other

Checklist:

- ✓ **Wetland ID#** F398911-1
- — North arrow.
- ✓ Detailed sketch of wetland boundary and flagging sequence.
- ✓ Natural and man-made features – roads, culverts, outcrops, structures, etc.
- — Photo locations.
- — Location of important wildlife sign.

Extension

Maine Power Reliability Project

Team F

WETLAND SUMMARY FORM

Observers: RK & TD
Date: 8-5-8
Town: JAY
Series : 1x → [illegible]x, 10x → 16
Segment # : 39 CMP Section #: 89 CMP Pole #: 11 Wetland #: 1
Stream/Waterbody ID:
Corps plot : Yes x

Dominant NWI Class: Other NWI Classes:

Representative Wetland Vegetation (by Strata):

- See F39-89-11-1 original notes

Representative Wetland Hydrology

_____ Permanently Flooded (approximate depth -)
_____ Seasonally Flooded (approximate depth -)
_____ Saturated

Hydrologic Indicators: _____ Silt Deposition _____ Water-Stained Leaves
_____ Water Marks _____ Drift Lines _____ Surface Scouring
_____ Drainage Patterns _____ Buttressed Trees _____ Elevated Roots

Other Observations:

Representative Wetland Soils:

_____ Mineral
_____ Organic

Depth	Horizon	Color	Redox Features	Texture

Other Observations:

Meets NEIWPCC (2004) Criteria _____

Stream # 1 Data:

Width (Bank-Bank): ________ Depth @ Center: ________ Peren. ________ Intermittent ______
Bank Configuration: ____Undercut ____ Vertical ____ Gradual
Channel Substrate: ___Peat-Muck ___Silt-Mud ___Sand ___Gravel/Cobble ___Boulder ___Bedrock

Stream # 2 Data

Width (Bank-Bank): ________ Depth @ Center: ________ Peren. ________ Intermittent ______
Bank Configuration: ____Undercut ____ Vertical ____ Gradual
Channel Substrate: ___Peat-Muck ___Silt-Mud ___Sand ___Gravel/Cobble ___Boulder ___Bedrock

---

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):

Notes: 1-1x connect to 11-12

Connected to >20,000 EM

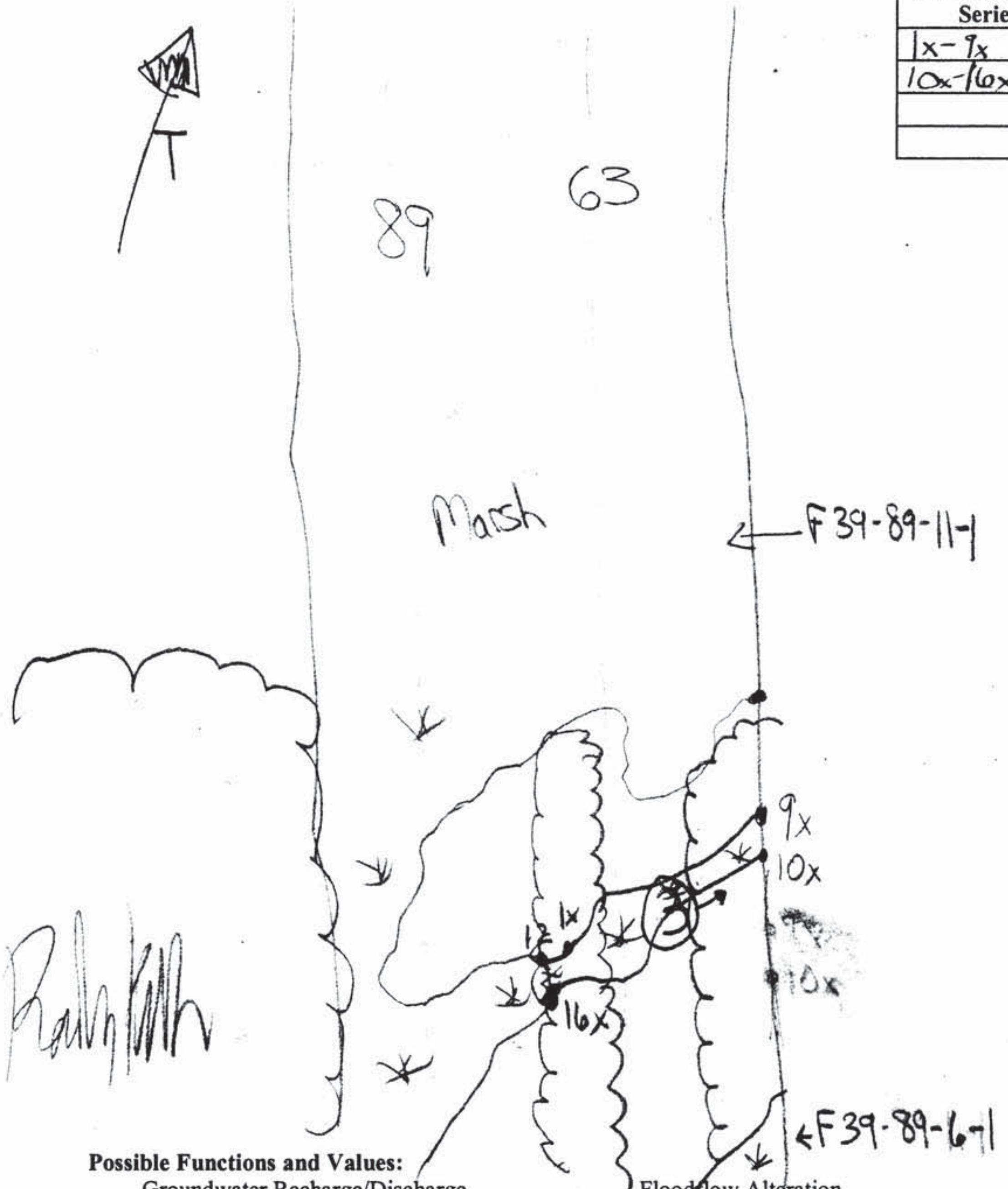
☐Cedar Swamp ☒Wetland of Special Significance

Photo # 3

SKETCH ON BAC

WETLAND SKETCH

Line Flagging Series
1x-9x
10x-16x



Possible Functions and Values:

__ Groundwater Recharge/Discharge
__ Fish and Shellfish Habitat
__ Nutrient Removal
__ Sediment/Shoreline Stabilization
__ Recreation
__ Uniqueness/Heritage
__ Endangered Species Habitat
__ Floodflow Alteration
__ Sediment/Toxicant Retention
__ Production Export
__ Wildlife Habitat
__ Educational/Scientific Value
__ Visual Quality/Aesthetics
__ Other

Checklist:

— **Wetland ID#** F39-89-11-1 extension
— North arrow.
— Detailed sketch of wetland boundary and flagging sequence.
— Natural and man-made features – roads, culverts, outcrops, structures, etc.
— Photo locations.
— Location of important wildlife sign.

Sam Hayden 4/30/17
Veg, soil, Hydro, delineation good.

WET-122-03

Maine Power Reliability Project
WETLAND SUMMARY FORM

Team E

Observers: SE, MB, JG
Date: 8/21/07
Town: Jay
Series:
Segment #: 14 CMP Section #: 200 CMP Pole #: 5 Wetland #: 1
Stream/Waterbody ID: E14-200-5-1-1,2 Corps plot: ✓ Yes No

Dominant NWI Class: PSS 100% Other NWI Classes:

Representative Wetland Vegetation (by Strata):

HERBS

GLY CAN CAR CRI OSM CIN
ONO SEN COR LUR CAL CAN
POA PRE SCI MIC PHALARIS

SHRUBS

RED-OSIER DOGWOOD
ULN RUG VIB DEN
RHA FRA
A

Representative Wetland Hydrology

____ Permanently Flooded (approximate depth -)
✓ Seasonally Flooded (approximate depth - 2')
____ Saturated

Hydrologic Indicators: ✓ Silt Deposition ____ Water-Stained Leaves
____ Water Marks ____ Drift Lines ✓ Surface Scouring
✓ Drainage Patterns ____ Buttressed Trees ____ Elevated Roots

Other Observations:

Representative Wetland Soils:
✓ Mineral
____ Organic

Depth	Horizon	Color	Redox Features	Texture
0-3	OA	10YR 3/1	—	Lo Sa
3-20"	B	10YR 5/1	10% 7.5YR 5/6	Si Lo

Other Observations:
Meets NEIWPCC (2004) Criteria X///

Stream # 1 Data: CH1,
Width (Bank-Bank): 5' Depth @ Center: .5' Peren. ✓ Intermittent ____
Bank Configuration: ____ Undercut ✓ Vertical ✓ Gradual
Channel Substrate: ____ Peat-Muck ✓ Silt-Mud ✓ Sand ____ Gravel/Cobble ____ Boulder ____ Bedrock

Stream # 2 Data CH2,
Width (Bank-Bank): 3' Depth @ Center: .5' Peren. ✓ Intermittent ____
Bank Configuration: ____ Undercut ____ Vertical ____ Gradual
Channel Substrate: ____ Peat-Muck ____ Silt-Mud ____ Sand ____ Gravel/Cobble ____ Boulder ____ Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):

SONG BIRDS
BEAVER ACTIVITY

Notes:

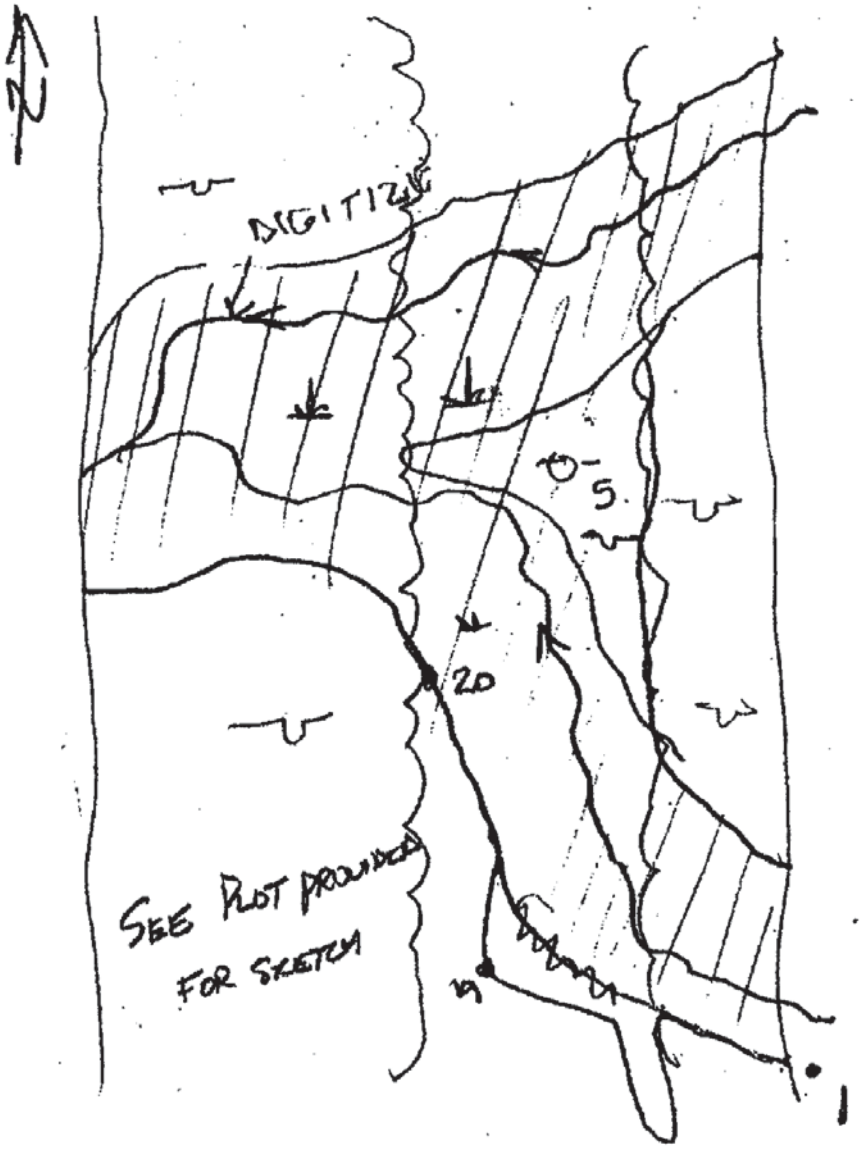
☐ Cedar Swamp ☒ Wetland of Special Significance

Photo # ____

SKETCH ON BACK

WETLAND SKETCH

Line Flagging Series



Possible Functions and Values:

- ✓ Groundwater Recharge/Discharge
- ✓ Fish and Shellfish Habitat
- ___ Nutrient Removal
- ✓ Sediment/Shoreline Stabilization
- ___ Recreation
- ___ Uniqueness/Heritage
- ___ Endangered Species Habitat
- ✓ Floodflow Alteration
- ✓ Sediment/Toxicant Retention
- ✓ Production Export
- ✓ Wildlife Habitat
- ___ Educational/Scientific Value
- ___ Visual Quality/Aesthetics
- ___ Other

Checklist:

— Wetland ID# F14-200-5-1
— North arrow.
— Detailed sketch of wetland boundary and flagging sequence.
— Natural and man-made features – roads, culverts, outcrops, structures, etc.
— Photo locations.
— Location of important wildlife sign.

Sam Hayden 4/30/17
large ψ w/ different conditions
Majority is PSS w/ Alnus incana
otherwise it matches field conditions
Sam, H.

F14-200-5-1

PROJECT TITLE: MPRP TRANSECT: PLOT: WET

DELINEATOR(S): ML, VG, SE DATE: 8/21/07

VEGETATION Stratum and Species	Dominance Ratio	Percent Dominance	DOM	NWI Status
Herbs				
TYP LAT - 60%				
COL CAN - 40%				

HYDROPHYTES

1	1		
OBL	FACW	FAC	*OTHER

Hydrophytes Subtotal (A): 2

NON-HYDROPHYTES

FAC-	FACU	UPL

Non-hydrophytes Subtotal (B): ___

PERCENT HYDROPHYTES (100A/A+B): 100%

HYDROLOGY

☐ RECORDED DATA
Stream, lake, or tidal gage Identification: ___
Aerial photography Identification: ___
Other Identification: ___

☐ NO RECORDED DATA

☐ OBSERVATIONS:
Depth to Free Water: SATURATED TO SURFACE
Depth to Saturation (including capillary fringe): ___
Altered Hydrology (explain): ___

☑ Inundated ☐ Saturated in upper 12" ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns within Wetland

☐ OTHER (explain):

SOIL Sketch landscape position of this plot. Indicate relative position of other plot(s) and the wetland flag if not on plan.

Submission of photo of plot is encouraged.

DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES (color, abundance, size, contrast)	COMMENTS (USDA texture, nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.)
0-4"	O	10YR 2/1	—	Muck
4-20"	A	2.5YR 5/1	Few Fine 7.5YR 5/6	Fine Silty Loam

HYDRIC SOIL INDICATOR(S): REFERENCE(S):

IV

OPTIONAL SOIL DATA

REFERENCE(S):

Taxonomic subgroup:
Soil drainage class:
Depth to active water table:
NTCHS hydric soil criterion:

CONCLUSIONS

	YES	NO	REMARKS:
Hydrophytic vegetation criterion met?	☒	☐	
Hydric soils criterion met?	☒	☐	
Wetland hydrology criterion met?	☒	☐	
IS THIS DATAPOINT IN A WETLAND?	☒	☐	

CENAE-CO-R-PT Version 7/1/98 Page 2

PROJECT TITLE: MPRP EH-200-5-1 TRANSECT: PLOT: WET

F14-200-S-1

PROJECT TITLE: MPRP TRANSECT: PLOT: Dry

DELINEATOR(S): SE.JG.ML DATE: 6/21/07

VEGETATION Stratum and Species	Dominance Ratio	Percent Dominance	DOM	NWI Status
HERBS				
FIELD POTENTILLA -20%				
POA sp. 80%				
WHITE CLOVER 10%				
SOLIDAGO sp. -10%				
SAPS.				
RHA FRA - 40%				
SPI TOM - 10%				

HYDROPHYTES:

OBL	FACW	FAC	*OTHER
	1	1	

Hydrophytes Subtotal (A): ___

NON-HYDROPHYTES:

FAC-	FACU	UPL
		3

Non-hydrophytes Subtotal (B): ___

PERCENT HYDROPHYTES (100A/A+B): 30%

HYDROLOGY Absent

☐ RECORDED DATA
Stream, lake, or tidal gage Identification: ___
Aerial photography Identification: ___
Other Identification: ___

☐ NO RECORDED DATA

☐ OBSERVATIONS:
Depth to Free Water: ___
Depth to Saturation (including capillary fringe): ___
Altered Hydrology (explain): ___

☐ Inundated ☐ Saturated in upper 12" ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns within Wetland

☐ OTHER (explain):

SOIL Sketch landscape position of this plot. Indicate relative position of other plot(s) and the wetland flag if not on plan.

Submission of photo of plot is encouraged.

DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES (color, abundance, size, contrast)	COMMENTS (USDA texture, nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.)
0-8"	A	2.5y 5/4	—	Sandy Loam
8-15"	B	2.5y 6/8	FC 10yR 5/8	Sandy Loam

HYDRIC SOIL INDICATOR(S): NONE

REFERENCE(S):

OPTIONAL SOIL DATA

REFERENCE(S):

Taxonomic subgroup:
Soil drainage class:
Depth to active water table:
NTCHS hydric soil criterion:

CONCLUSIONS

	YES	NO	REMARKS:
Hydrophytic vegetation criterion met?	☐	☒	
Hydric soils criterion met?	☐	☒	
Wetland hydrology criterion met?	☐	☒	
IS THIS DATAPOINT IN A WETLAND?	☐	☒	

CENAE-CO-R-PT Version 7/1/00 Page 2

PROJECT TITLE: MPRP F14-200-5-1 TRANSECT: PLOT: UP

BOYLE ASSOCIATES

Feature(s) ID: ~~WET-46-1~~ WET-127-01

Routine Wetland Field Data Form

Date: 4/26/17	Project Name: QMI
Job #: 532	Cowardin Class(es) & %: PFO1/4E
Observers: J. Boyle, CJF	Photo(s) #: 2
Comments:	

Dominant Vegetation (by stratum):

Herbs	Herbs (cont.)	Shrubs/Saplings	Trees	Vines
ono sens		Abies bal	Abi bal	
osm cinn		Acer rub	Bet penn	
lady fern			Acer rub	

Wetland Hydrology Indicators:

____ Perm. Flooded (approx. depth: ____)

_✓_ Seasonally Flooded/Saturated (approx. depth: 1")

___ Saturated

[✓ *A1 – Surface water]	*B5 – Iron deposits	*B15 – Marl deposits	*C7 – Thin muck surface
*A2 – High water table	B6 – Surface soil cracks	B16 – Moss trim lines	C8 – Crayfish burrows
[✓ *A3 – Saturation]	*B7 – Inundated aerial imagery	*C1 – Hydrogen sulfide odor	C9 – Saturation visible on aerial imagery
*B1 – Water marks	*B8 – Sparse veg. concave surface	C2 – Dry-season water table	*D1 – Stunted or stressed plants
*B2 – Sediment deposits	[✓ *B9 – Water-stained leaves]	*C3 – Oxidized rhizospheres - living root	*D2 – Geomorphic position
*B3 – Drift deposits	[✓ B10 – Drainage patterns]	*C4 – Presence of reduced iron	*D3 – Shallow aquitard
*B4 – Algal mat or crust	*B13 – Aquatic fauna	*C6 – Recent iron reduction in tilled soils	*D4 – Microtopographic relief
*Denotes Primary Indicator			*D5-FAC-neutral test

Representative Hydric Soils:

Depth (in)	Horizon	Texture	Color	Redox. Features	Other
0-2	A	SL	10YR 2/2	—	
2-15+	B	CL	10YR 5/1	7.5YR 4/4 10%	

Hydric Soil Indicator & Reference:

Other Soil Comments:

SKETCH ↗

Maine Power Reliability Project

WETLAND SUMMARY FORM

Team F

Observers: MOORE, PETERS, LASHER

Date: 5 SEP 2007

Town: LIVERMORE FALLS

Series: 1-37, 38-51, 52-1

Segment #: 14 CMP Section #: 200 CMP Pole #: 88 Wetland ID #: 2

Stream/Waterbody ID: F-14-200-88-2.

Corps plot: ____Yes X No

Dominant NWI Class: PFO4 (50%) Other NWI Classes: PEM1, PSS1

Representative Wetland Vegetation (by Strata):

HERBS		SHRUBS	TREES
• ONO SEN	• CAR FLA	• ILE VER	• FRA PEN
• OSM CIN	• CAL CAN	• SPI LAT	• ACR RUB
• OSM REG	• CAR CRI	• SPI TOM	• BET POP
• SPHAGNUM SP.	• SCI MAS	• LYO LIG	• LAR LAR
• EQU VAR	• GLY CAN	• COR AMO	
• ERI VIR	• POL SAG	• KAL ANG	
		• RHO CAN	

Representative Wetland Hydrology

_____ Permanently Flooded (approximate depth -)

_____ Seasonally Flooded (approximate depth -)

X Saturated

Hydrologic Indicators:

_____ Silt Deposition

X Water-Stained Leaves

_____ Water Marks

_____ Drift Lines

_____ Surface Scouring

X Drainage Patterns

_____ Buttressed Trees

X Elevated Roots

Other Observations:

- PIT & MOUND TOPO IN FORESTED AREA

Representative Wetland Soils:

X Mineral

_____ Organic

Depth	Horizon	Color	Redox Features	Texture
3-0	O	DARK BR.		FIBRIC
0-1	A	5YR3/1	—	SIL
1-6	B	2.5Y5/2	—	M SAND
6+	B	2.5Y4/2	10YR5/8	M SAND

REDOX: C, M, D ←

Other Observations:

Meets NEIWPCC (2004) Criteria X B * (NOTES)

Stream # 1 Data:

Width (Bank-Bank): ________ Depth @ Center: ________ Peren. ______ Intermittent______

Bank Configuration: ____Undercut ____ Vertical ___ Gradual

Channel Substrate: ___Peat-Muck ___Silt-Mud ___Sand ___Gravel/Cobble ___Boulder ___ Bedrock

N/A

Stream # 2 Data

Width (Bank-Bank): ________ Depth @ Center: ________ Peren. ______ Intermittent______

Bank Configuration: ____Undercut ____ Vertical ___ Gradual

Channel Substrate: ___Peat-Muck ___Silt-Mud ___Sand ___Gravel/Cobble ___Boulder ___ Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):

- DEER TRACKS

Notes:

*: SOILS - APPEARS ~~TO [illegible]~~, BUT STRIPPED TE LAYER IS BETWEEN DARK A AND SAND W/ REDOX FEATURES. PLANT COMM. & HYDROLOGY DEMONSTRATE WETLAND CONDITION.

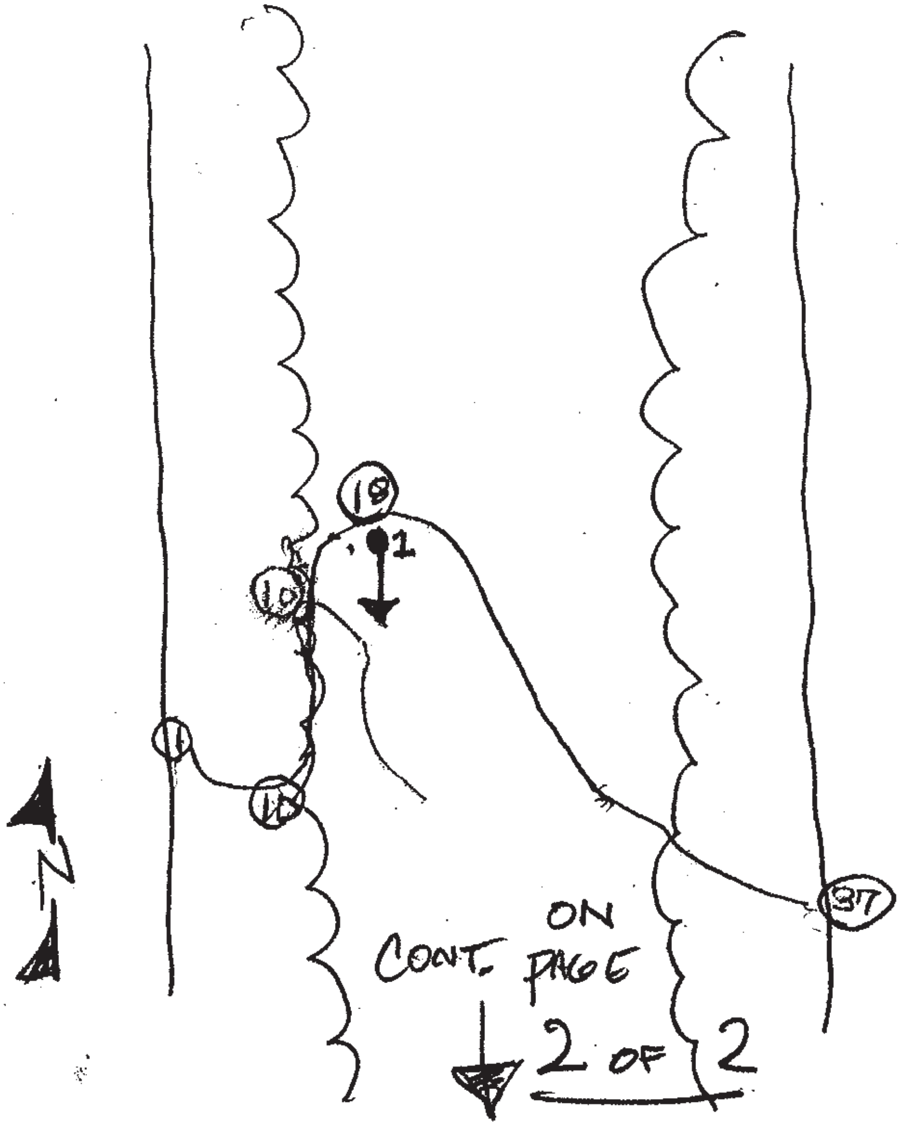
☐ Cedar Swamp ☐ Wetland of Special Significance

Photo # ________

SKETCH ON BACK

WETLAND SKETCH

Line Flagging Series
1-37
28-51
52-1



Possible Functions and Values:

- ☑ Groundwater Recharge/Discharge
- ☐ Fish and Shellfish Habitat
- ☐ Nutrient Removal
- ☐ Sediment/Shoreline Stabilization
- ☐ Recreation
- ☐ Uniqueness/Heritage
- ☐ Endangered Species Habitat
- ☐ Floodflow Alteration
- ☐ Sediment/Toxicant Retention
- ☐ Production Export
- ☐ Wildlife Habitat
- ☐ Educational/Scientific Value
- ☐ Visual Quality/Aesthetics
- ☐ Other

Checklist:

- — **Wetland ID#** F-14-200-88-2
- — North arrow.
- — Detailed sketch of wetland boundary and flagging sequence.
- — Natural and man-made features – roads, culverts, outcrops, structures, etc.
- — Photo locations.
- — Location of important wildlife sign.

Maine Power Reliability Project

Team F

WETLAND SUMMARY FORM

Observers: PETERS/ MOORE / LASHER Date: 15 SEP 2004

Town: LIV. FALLS Series : 1-37, 38-51, 52-1

Segment # : 14 CMP Section #: 200 CMP Pole #: 88 Wetland ID #: 2

Stream/Waterbody ID: [illegible] Corps plot : ____ Yes [✓ No]

Dominant NWI Class: Other NWI Classes:

Representative Wetland Vegetation (by Strata):

CONT.

* PAGE 2 OF 2 *

Representative Wetland Hydrology

_____ Permanently Flooded (approximate depth -)

_____ Seasonally Flooded (approximate depth -)

_____ Saturated

Hydrologic Indicators: _____ Silt Deposition _____ Water-Stained Leaves

_____ Water Marks _____ Drift Lines _____ Surface Scouring

_____ Drainage Patterns _____ Buttressed Trees _____ Elevated Roots

Other Observations:

Representative Wetland Soils:

_____ Mineral

_____ Organic

Depth	Horizon	Color	Redox Features	Texture

Other Observations:

Meets NEIWPCC (2004) Criteria _____

Stream # 1 Data:

Width (Bank-Bank): ________ Depth @ Center: ________ Peren. ______ Intermittent ______

Bank Configuration: ____Undercut ___ Vertical ___ Gradual

Channel Substrate: ___Peat-Muck ___Silt-Mud ___Sand ___Gravel/Cobble ___Boulder ___ Bedrock

Stream # 2 Data

Width (Bank-Bank): ________ Depth @ Center: ________ Peren. ______ Intermittent ______

Bank Configuration: ____Undercut ___ Vertical ___ Gradual

Channel Substrate: ___Peat-Muck ___Silt-Mud ___Sand ___Gravel/Cobble ___Boulder ___ Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):

Notes: * SKETCH CONT. ON BACK →

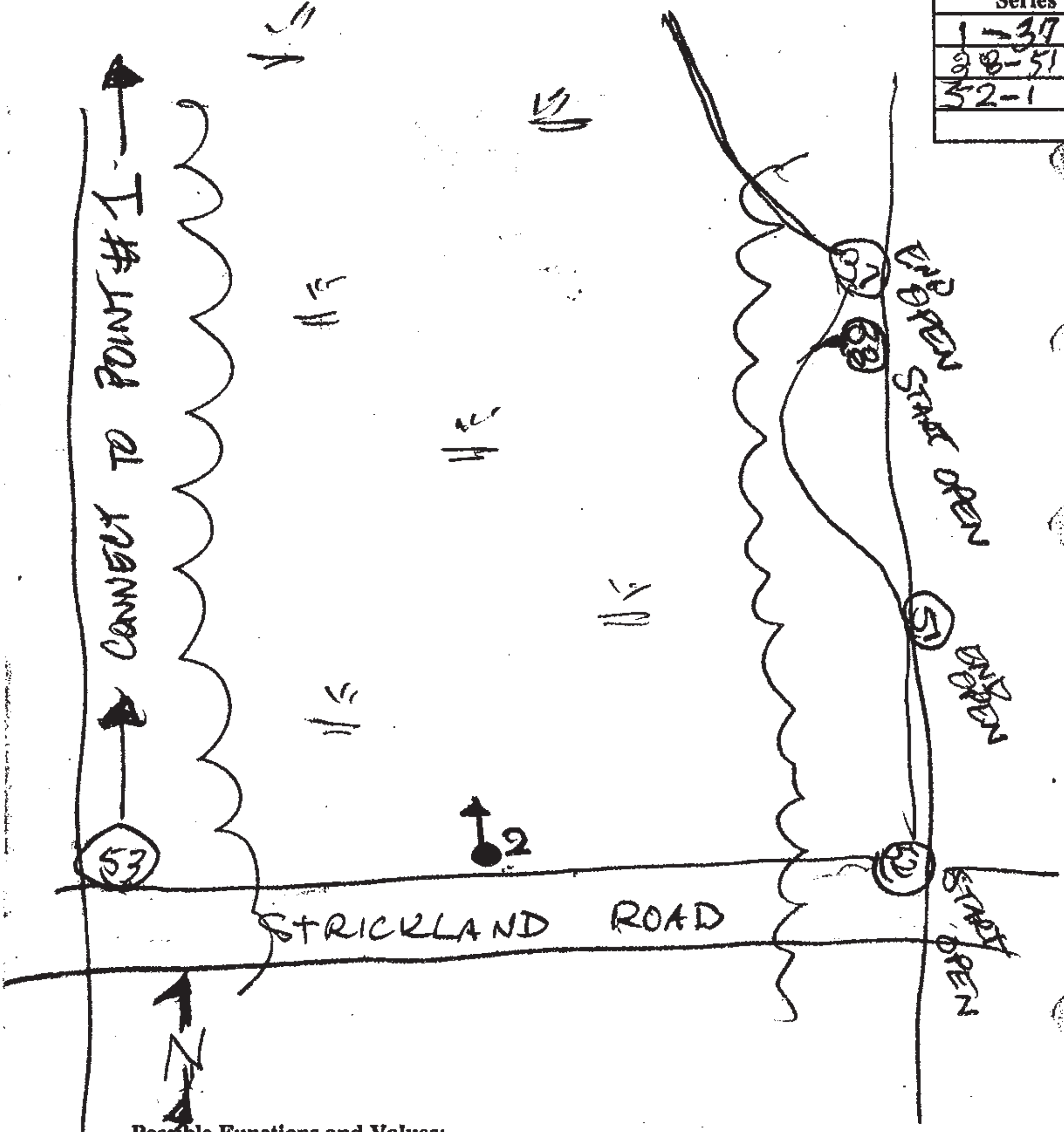
☐Cedar Swamp ☐Wetland of Special Significance

Photo # ________

SKETCH ON BACK

WETLAND SKETCH

Line Flagging Series
1-37
38-51
52-1



Possible Functions and Values:

- ☒ Groundwater Recharge/Discharge
- ☐ Fish and Shellfish Habitat
- ☐ Nutrient Removal
- ☐ Sediment/Shoreline Stabilization
- ☐ Recreation
- ☐ Uniqueness/Heritage
- ☐ Endangered Species Habitat
- ☐ Floodflow Alteration
- ☐ Sediment/Toxicant Retention
- ☐ Production Export
- ☒ Wildlife Habitat
- ☐ Educational/Scientific Value
- ☐ Visual Quality/Aesthetics
- ☐ Other

Checklist:

- — **Wetland ID#** F-14-200-88-2
- — North arrow.
- — Detailed sketch of wetland boundary and flagging sequence.
- — Natural and man-made features – roads, culverts, outcrops, structures, etc.
- — Photo locations.
- — Location of important wildlife sign.

WET-131-01

Sam Hayden 4/29/17
Veg, soil, hydro, delineation: good.
correct S.H.

Maine Power Reliability Project
WETLAND SUMMARY FORM

Team F

Observers: SE ML MW
Date: 9/10/07
Town: LEEDS
Series :
Segment # : 14 CMP Section #: 200 CMP Pole #: 115 Wetland #: 1
Stream/Waterbody ID: E14-200-115-1-1
Corps plot : X Yes ___ No

Dominant NWI Class: PFO1
Other NWI Classes: PEM1

Representative Wetland Vegetation (by Strata):

HERBS	SHRUBS	TREES
JEWEL WEED	POA PRE SILKY DOGWOOD	FRA PEN
ONO SEN	ULN RUG	AM. ELM
OSM CIN		ACE RUB

Representative Wetland Hydrology

___ Permanently Flooded (approximate depth -)
✓ Seasonally Flooded (approximate depth - 2')
___ Saturated

Hydrologic Indicators:
___ Silt Deposition
___ Water-Stained Leaves
✓ Water Marks
✓ Drift Lines
✓ Surface Scouring
✓ Drainage Patterns
___ Buttressed Trees
✓ Elevated Roots

Other Observations:

Representative Wetland Soils:
✓ Mineral
___ Organic

Depth	Horizon	Color	Redox Features	Texture
0-6	A	10yr 3/2	—	S. Loam
6-18"	B	2.5y 4/2	10% 10yr 4/6	S. Loam

Other Observations:
Meets NEIWPCC (2004) Criteria XII

Stream # 1 Data:
Width (Bank-Bank): 4' Depth @ Center: 2' Peren. ___ Intermittent ✓
Bank Configuration: ___ Undercut ✓ Vertical ✓ Gradual
Channel Substrate: ___ Peat-Muck ✓ Silt-Mud ✓ Sand ___ Gravel/Cobble ___ Boulder ___ Bedrock

Stream # 2 Data
Width (Bank-Bank): ___ Depth @ Center: ___ Peren. ___ Intermittent ___
Bank Configuration: ___ Undercut ___ Vertical ___ Gradual
Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder ___ Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):

DEER TRACKS

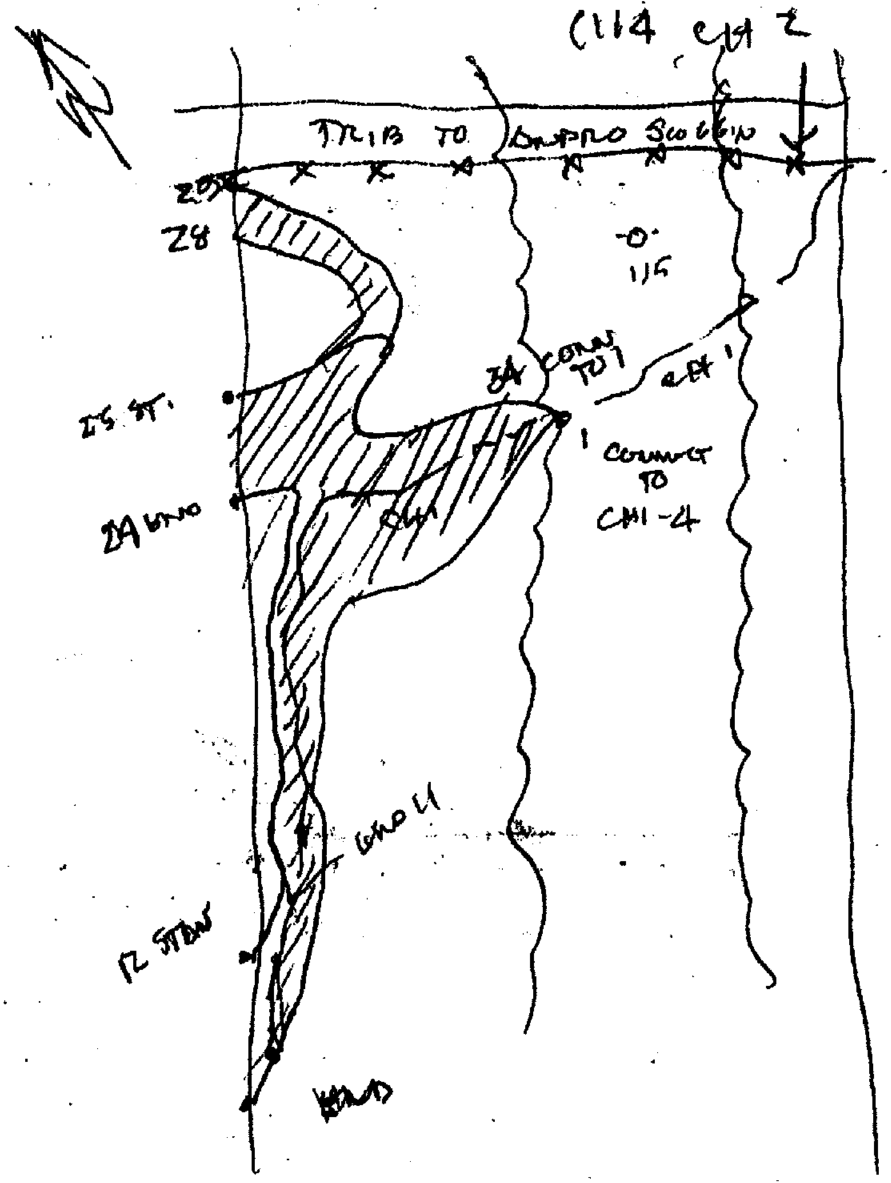
Notes:

☐ Cedar Swamp
☒ Wetland of Special Significance

Photo # ___

SKETCH ON BACK

WETLAND SKETCH



Line Flagging Series
1-11
12-24
25-28
29-34

Possible Functions and Values:

- ___ Groundwater Recharge/Discharge
- ___ Fish and Shellfish Habitat
- ___ Nutrient Removal
- ✓ Sediment/Shoreline Stabilization
- ✓ Recreation
- ___ Uniqueness/Heritage
- ___ Endangered Species Habitat
- ✓ Floodflow Alteration
- ✓ Sediment/Toxicant Retention
- ✓ Production Export
- ✓ Wildlife Habitat
- ___ Educational/Scientific Value
- ✓ Visual Quality/Aesthetics
- ___ Other

Checklist:

- Wetland ID# F14-200-115-1
- North arrow.
- Detailed sketch of wetland boundary and flagging sequence.
- Natural and man-made features – roads, culverts, outcrops, structures, etc.
- Photo locations.
- Location of important wildlife sign.

Sam Hayden 4/29/17
Field conditions match form data
Correct SH.

EIA-200-115-1

PROJECT TITLE: MPRP TRANSECT: PLOT: WET

DELINEATOR(S): SE ML MW DATE: 9/10/07

VEGETATION Stratum and Species	Dominance Ratio	Percent Dominance	DOM	NWI Status
HERBS				
JEWEL WEED - 80%				
ONO SEN - 10%				
SHRUBS				
SILKY DOGWOOD - 10%				
ALN RUG - 10%				
SAPS.				
AM. ELM. - 5%				
FRA PEN - 5%				
TREES				
FRA PEN - 80%				

HYDROPHYTES

___ OBL ___ FACW ___ FAC ___ *OTHER

Hydrophytes Subtotal (A): ___

NON-HYDROPHYTES

___ FAC- ___ FACU ___ UPL

Non-hydrophytes Subtotal (B): ___

PERCENT HYDROPHYTES (100A/A+B): ______

HYDROLOGY

☐ RECORDED DATA
Stream, lake, or tidal gage Identification: ______
Aerial photography Identification: ______
Other Identification: ______

☐ NO RECORDED DATA

☐ OBSERVATIONS:
Depth to Free Water: ______
Depth to Saturation (including capillary fringe): ______
Altered Hydrology (explain): ______

☐ Inundated ☐ Saturated in upper 12" ☑ Water Marks ☑ Drift Lines ☑ Sediment Deposits ☑ Drainage Patterns within Wetland

☐ OTHER (explain):

CEMVE-CO-R-PT. Version 1/V00 Page 1

SOIL Sketch landscape position of this plot. Indicate relative position of other plot(s) and the wetland flag if not on plan.

Submission of photo of plot is encouraged.

DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES (color, abundance, size, contrast)	COMMENTS (USDA texture, nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.)
0-6	A	10yR 3/2	—	S. Loam
6-18	B	2.5y 4/2	10% 10yR 4/6	S Loam

HYDRIC SOIL INDICATOR(S):

REFERENCE(S):

OPTIONAL SOIL DATA

REFERENCE(S):

Taxonomic subgroup:
Soil drainage class:
Depth to active water table:
NTCHS hydric soil criterion:

CONCLUSIONS

	YES	NO	REMARKS:
Hydrophytic vegetation criterion met?	☐	☐	
Hydric soils criterion met?	☐	☐	
Wetland hydrology criterion met?	☐	☐	
IS THIS DATAPOINT IN A WETLAND?	☐	☐	

CENAE-COR-PT Version 7/1/09 Page 2

PROJECT TITLE: MPRP FH-800-115-1 TRANSECT: PLOT: ✱

E74-200-115-1

PROJECT TITLE: MPRP **TRANSECT:** **PLOT:** Dry

DELINEATOR(S): SE ML MW **DATE:** 9/10/07

VEGETATION

Stratum and Species	Dominance Ratio	Percent Dominance	DOM	NWI Status
<u>HERBS</u>				
ONO SEN 5%				
FALSE SOLOMSEAL - 10%				
TRILLIUM - 2%				
POISON IVY - 10%				
<u>Saps</u>				
CHOCK CHERRY - 50%				
ACE SUG - 5%				
QUE RES - 15%				
<u>TREES</u>				
PIN STR - 20%				
QUE RES - 20%				
BASS WOOD - 15%				

HYDROPHYTES

___ OBL ___ FACW ___ FAC ___ *OTHER

Hydrophytes Subtotal (A): ___

NON-HYDROPHYTES

___ FAC ___ FACU ___ UPL

Non-hydrophytes Subtotal (B): ___

PERCENT HYDROPHYTES (100A/A+B): ________

HYDROLOGY

Absent

☐ RECORDED DATA

Stream, lake, or tidal gage Identification: ________

Aerial photography Identification: ________

Other Identification: ________

☐ NO RECORDED DATA

☐ OBSERVATIONS:

Depth to Free Water: ________

Depth to Saturation (including capillary fringe): ________

Altered Hydrology (explain): ________

☐ Inundated ☐ Saturated in upper 12" ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns within Wetland

☐ OTHER (explain):

SOIL Sketch landscape position of this plot. Indicate relative position of other plot(s) and the wetland flag if not on plan.

Submission of photo of plot is encouraged.

DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES (color, abundance, size, contrast)	COMMENTS (USDA texture, nodules, concretions; masses, pore linings, restrictive layers, root distribution, soil water, etc.)
0-6	A	10YR 3/3	—	Sandy Loam
8-20"	B	2.5y 5/6	—	F Sandy Loam

HYDRIC SOIL INDICATOR(S): NONE -

REFERENCE(S):

OPTIONAL SOIL DATA

REFERENCE(S):

Taxonomic subgroup:
Soil drainage class: XB
Depth to active water table:
NTCHS hydric soil criterion:

CONCLUSIONS

	YES	NO	REMARKS:
Hydrophytic vegetation criterion met?	~~☒~~	☒	
Hydric soils criterion met?	~~☒~~	☒	
Wetland hydrology criterion met?	~~☒~~	☒	
IS THIS DATAPOINT IN A WETLAND?	~~☒~~	☒	

PROJECT TITLE: MPRP TRANSECT: FM-200-115-1 PLOT: DP

Maine Power Reliability Project

Team B

WETLAND SUMMARY FORM

Observers: MC, MP
Date: 10-2-07
Town: Greene
Series: over
Segment # : 14 CMP Section #: 200 CMP Pole #: 236 Wetland #: 1
Stream/Waterbody ID: CH1
Corps plot : ✓ Yes No

Dominant NWI Class: PSS 1
Other NWI Classes: PFO 1/4

Representative Wetland Vegetation (by Strata):

Ile vert (Sh)
Vib dent (Sh)
Ace rub (Sh)
Aln rug (Sh)

Gly can
Cranberry
Ler ory
Onotens
Sci cyp

Osm cin
Spi lat
Sol gig
Cal lur
Car crin

Ace rub
Ace spi
Bet all
Bet pop
Abi bal
Ulm Amer

Representative Wetland Hydrology

✓ Permanently Flooded Center
(approximate depth - 12-24")

✓ Seasonally Flooded upper portions
(approximate depth - 6")

___ Saturated

Hydrologic Indicators: ___ Silt Deposition ✓ Water-Stained Leaves
___ Water Marks ___ Drift Lines ✓ Surface Scouring
✓ Drainage Patterns ___ Buttressed Trees ___ Elevated Roots
Other Observations:

Representative Wetland Soils:
✓ Mineral
___ Organic

Depth	Horizon	Color	Redox Features	Texture
0-15	A1	5y 4/1		Silt
15-18	B1	5y 4/2		Silt
18-+	B2	5y 5/2	10YR 4/6	Silt

Other Observations:
Meets NEIWPCC (2004) Criteria VII

Stream # 1 Data:
Width (Bank-Bank): 6' Depth @ Center: 12" Peren. ✓ Intermittent ___
Bank Configuration: ✓ Undercut ___ Vertical ___ Gradual
Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ✓ Boulder ___ Bedrock

Stream # 2 Data
Width (Bank-Bank): ___ Depth @ Center: ___ Peren. ___ Intermittent ___
Bank Configuration: ___ Undercut ___ Vertical ___ Gradual
Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):
moose
deer

Notes: Streamside
flows into ~~[illegible]~~ Allen Pond

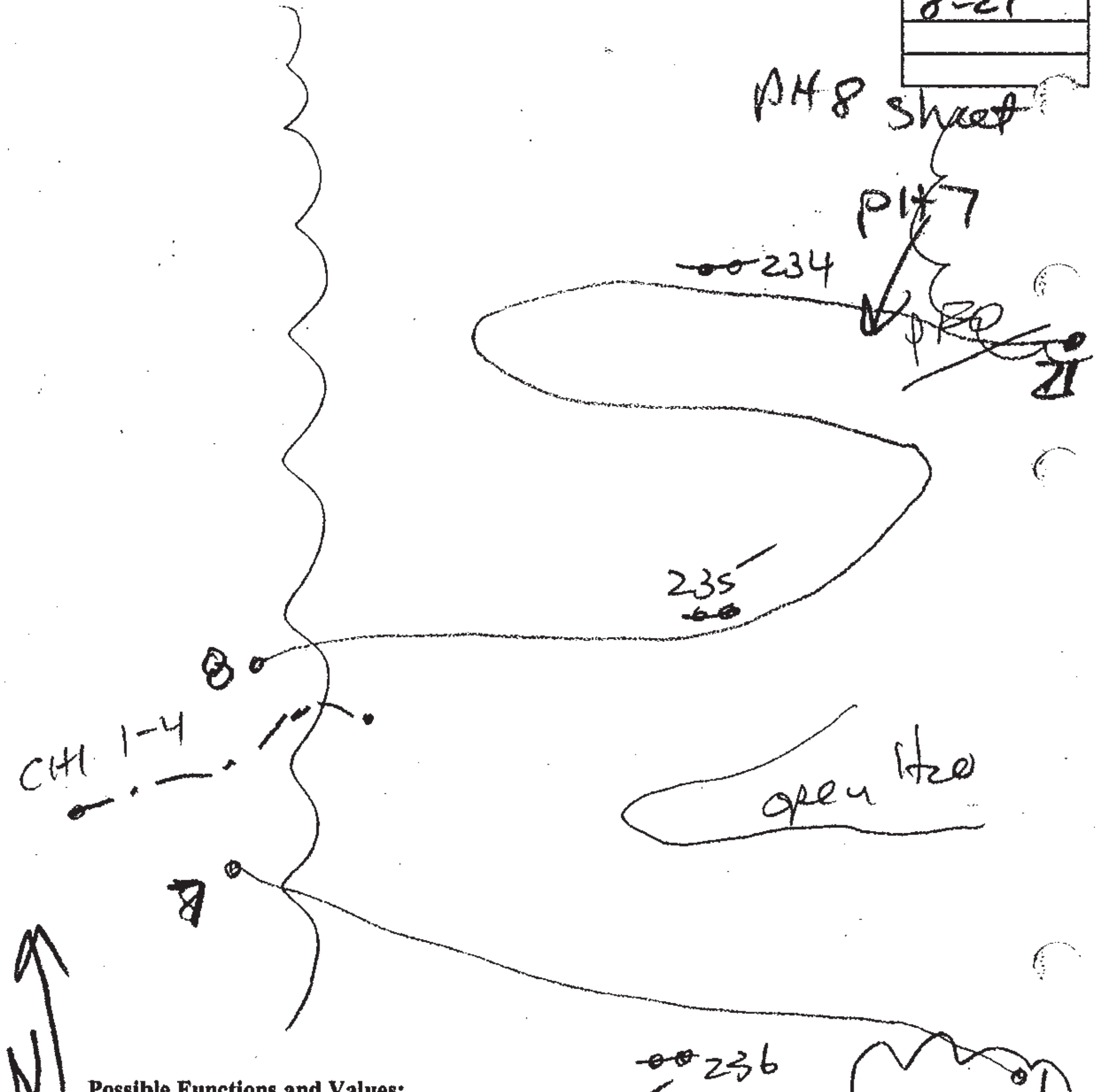
☐ Cedar Swamp ☑ Wetland of Special Significance

Photo # 7/8

SKETCH ON BACK

WETLAND SKETCH

Line Flagging Series
1-7
8-21



Possible Functions and Values:

- ✓ Groundwater Recharge/Discharge
- ✓ Fish and Shellfish Habitat
- ✓ Nutrient Removal
- ___ Sediment/Shoreline Stabilization
- ___ Recreation
- ___ Uniqueness/Heritage
- ___ Endangered Species Habitat
- ✓ Floodflow Alteration
- ___ Sediment/Toxicant Retention
- ✓ Production Export
- ✓ Wildlife Habitat
- ___ Educational/Scientific Value
- ___ Visual Quality/Aesthetics
- ___ Other

Checklist:

- ✓ **Wetland ID#** B14-200-236-1
- ✓ North arrow.
- ✓ Detailed sketch of wetland boundary and flagging sequence.
- ✓ Natural and man-made features – roads, culverts, outcrops, structures, etc.
- ✓ Photo locations.
- ✗ Location of important wildlife sign.

Maine Power Reliability Project

Team B

WETLAND SUMMARY FORM

Observers: KF, MC
Date: 9/28/07
Town: Greene
Series: Ovak
Segment # : 14 CMP Section #: 2eN CMP Pole #: 267 Wetland #: 1
Stream/Waterbody ID: —
Corps plot : Yes No

Dominant NWI Class: PEM1
Other NWI Classes: PFO

Representative Wetland Vegetation (by Strata):

Sci cyp	Vib dent (sh)	Spi lat	Ace rub
Car lac	Aln rug (sh)		Aln rug
Sol gig	Spi tom		Larch
Typ lat	Cal can		Bet all
			Abi bal

1/4

Representative Wetland Hydrology

___ Permanently Flooded (approximate depth -)
✓ Seasonally Flooded (approximate depth - 12")
___ Saturated

Hydrologic Indicators: ___ Silt Deposition ✓ Water-Stained Leaves
✓ Water Marks ___ Drift Lines ✓ Surface Scouring
✓ Drainage Patterns ___ Buttressed Trees ___ Elevated Roots
Other Observations:

Representative Wetland Soils:
✓ Mineral
✓ Organic

Depth	Horizon	Color	Redox Features	Texture
18-0	Oe	10yr2/2	—	Hemic
0-1	B1	5gy5/1	—	Si lo

Other Observations:
Meets NEIWPCC (2004) Criteria III

Stream # 1 Data:
Width (Bank-Bank): ___ Depth @ Center: ___ Peren. ___ Intermittent ___
Bank Configuration: ___ Undercut ___ Vertical ___ Gradual
Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder ___ Bedrock

Stream # 2 Data
Width (Bank-Bank): ___ Depth @ Center: ___ Peren. ___ Intermittent ___
Bank Configuration: ___ Undercut ___ Vertical ___ Gradual
Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):

Notes: prob. connects to Dagget Bog
✓ w/ IFW re DWA

☐ Cedar Swamp ☑ Wetland of Special Significance

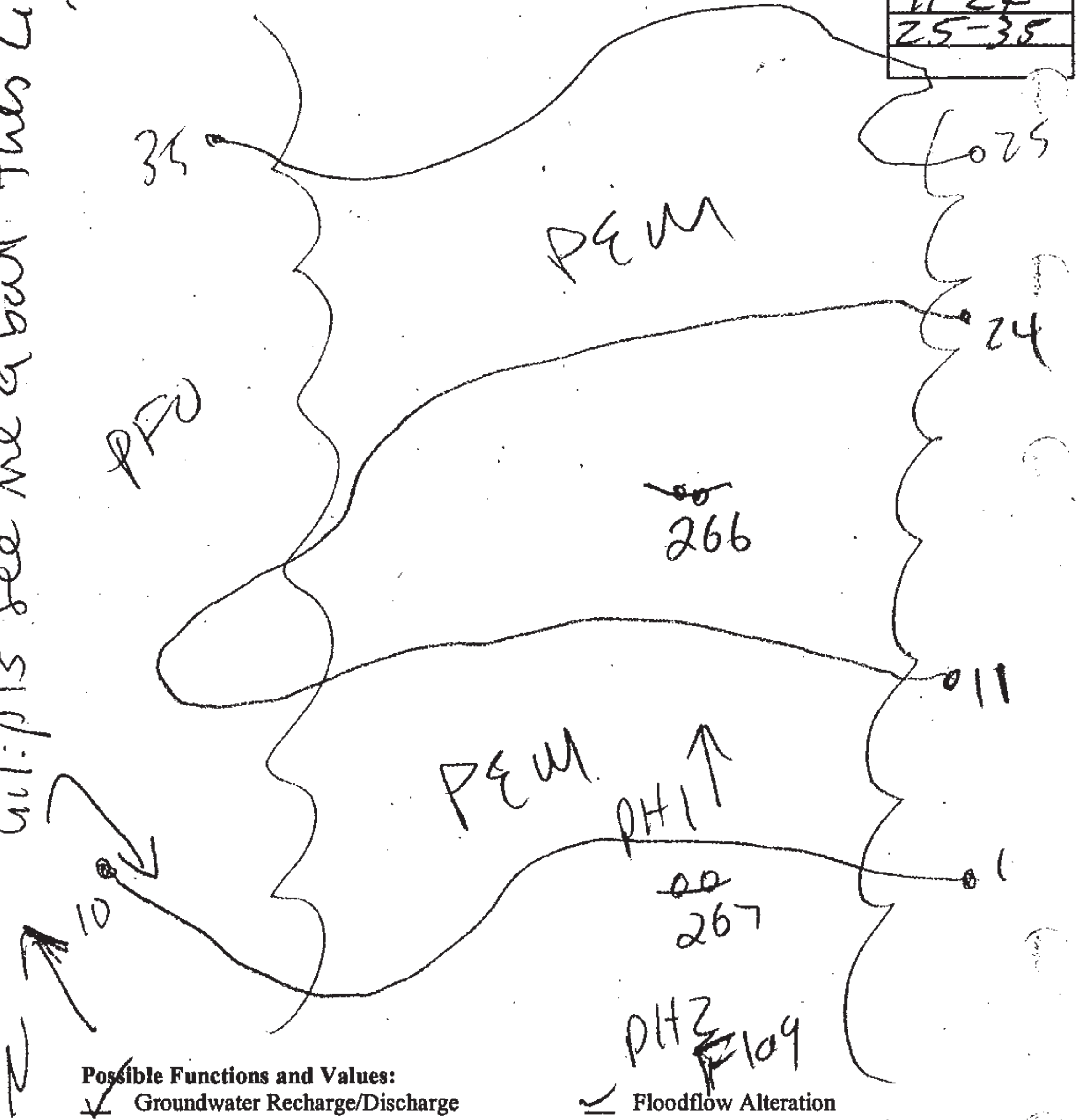
Photo # 1/2 ? 5

SKETCH ON BACK

WETLAND SKETCH

Line Flagging Series
1-10
11-24
25-35

Gil: pls see me about this line MC



Possible Functions and Values:

- ✓ Groundwater Recharge/Discharge
- __ Fish and Shellfish Habitat
- ✓ Nutrient Removal
- __ Sediment/Shoreline Stabilization
- __ Recreation
- __ Uniqueness/Heritage
- __ Endangered Species Habitat
- ✓ Floodflow Alteration
- __ Sediment/Toxicant Retention
- ✓ Production Export
- ✓ Wildlife Habitat
- __ Educational/Scientific Value
- __ Visual Quality/Aesthetics
- __ Other

Checklist:

- ✓ **Wetland ID#** B14.200.267-1
- ✓ North arrow.
- ✓ Detailed sketch of wetland boundary and flagging sequence.
- ✓ Natural and man-made features – roads, culverts, outcrops, structures, etc.
- __ Photo locations.
- __ Location of important wildlife sign.

WOSS
Data Form Examples

Segment 4

WET-146-04

Sam Hayden 5/14/17

Veg, soil, hydro good. Extended B-17-64-24-1 to entirely encompass this ~~K~~ area.

C-17-64-24-2

Maine Power Reliability Project

Team C

WETLAND SUMMARY FORM

Observers: L.LECLERC, D.GLENNEMAN Date: 8-8-08
Town: LEWISTON Series: 1-16
Segment #: 139 CMP Section #: 10 CMP Pole #: 0 Wetland ID #: 1
Stream/Waterbody ID: NA Corps plot: Yes X

Dominant NWI Class: PSS1E 100% Other NWI Classes:

Representative Wetland Vegetation (by Strata):

H/Rubpub
Equsyl
Carint
Vibden, Athang

Sh/Acerub
Ilever

Sa/Fraper
Acerub

T/Acerub

Representative Wetland Hydrology

___ Permanently Flooded (approximate depth -)

X Seasonally Flooded (approximate depth - 2-0")

X Saturated generally

Hydrologic Indicators: ___ Silt Deposition X Water-Stained Leaves
___ Water Marks ___ Drift Lines ___ Surface Scouring
___ Drainage Patterns ___ Buttressed Trees X Elevated Roots

Other Observations: sat to soil surface

Representative Wetland Soils:
X Mineral
___ Organic

Depth	Horizon	Color	Redox Features	Texture
0-6	A	25Y3/2		SiL
6-9+	B	2.5Y4/2	2.5Y5/6-10%	SiL

Other Observations:
Meets NEIWPCC (2004) Criteria VI

Stream # 1 Data:
Width (Bank-Bank): NA Depth @ Center: ___ Peren. ___ Intermittent ___
Bank Configuration: ___ Undercut ___ Vertical ___ Gradual
Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder ___ Bedrock

Stream # 2 Data
Width (Bank-Bank): ___ Depth @ Center: ___ Peren. ___ Intermittent ___
Bank Configuration: ___ Undercut ___ Vertical ___ Gradual
Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder ___ Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):

Notes:

☐ Cedar Swamp ☐ Wetland of Special Significance

Photo # 82 Facs

SKETCH ON BAC

WET-
146-04

B-17-64-24-2

Maine Power Reliability Project

Team 12

WETLAND SUMMARY FORM

Observers: MP AG MC
Date: 10-17-07
Town: Lewiston
Series: Over
Segment #: 17 CMP Section #: 64 CMP Pole #: 24 Wetland ID #: 2
Stream/Waterbody ID: —
Corps plot: Yes [✓ No]

Dominant NWI Class: PSS1
Other NWI Classes:

Representative Wetland Vegetation (by Strata):

Shrub
Lyolig
Ilevert
Spitom
Spilat

Scicyp
Juw spp.
Kalang
Calcan

Alycan
Swt vern grass
Reb hcs

Representative Wetland Hydrology

____ Permanently Flooded (approximate depth -)
____ Seasonally Flooded (approximate depth -)
✓ Saturated

Hydrologic Indicators:
____ Silt Deposition
____ Water-Stained Leaves
____ Water Marks
____ Drift Lines
✓ Surface Scouring
✓ Drainage Patterns
____ Buttressed Trees
____ Elevated Roots

Other Observations: Wouli 10"

Representative Wetland Soils:
X Mineral
____ Organic

Depth	Horizon	Color	Redox Features	Texture
0-6	A.	5Y 2/1	—	SaLo
6-12+	B1	5Y 6/1	5Y 7/1	SaLo

Other Observations:
Meets NEIWPCC (2004) Criteria VI

Stream # 1 Data:
Width (Bank-Bank): ________ Depth @ Center: ________ Peren. ______ Intermittent______
Bank Configuration: ____Undercut ___ Vertical ___ Gradual
Channel Substrate: ___Peat-Muck ___Silt-Mud ___Sand ___Gravel/Cobble ___Boulder ___Bedrock

Stream # 2 Data
Width (Bank-Bank): ________ Depth @ Center: ________ Peren. ______ Intermittent______
Bank Configuration: ____Undercut ___ Vertical ___ Gradual
Channel Substrate: ___Peat-Muck ___Silt-Mud ___Sand ___Gravel/Cobble ___Boulder Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):
POT VP or ABt in Ruts

Notes:

☐Cedar Swamp ☐Wetland of Special Significance

Photo # 6/7

SKETCH ON BAC'

Sam Hayden 5/19/17 Veg, soil, hydro good. It extends S. and connects with B-17-64-24-1

S.H.

Sam Hayden. 5/19/17 Veg, soil, hydro look good. **WET-146-04**
Added ✓ areas along N boundary and removed ✓ areas that had been filled by substation construction. B-17-64-24-2 wasconnected.

~~B-17-64-24-1~~

Maine Power Reliability Project
WETLAND SUMMARY FORM
Team —

Observers: MP, AG, MC
Date: 10-17-07
Town: Lewiston
Series: OV6-2
Segment # : 17 CMP Section #: 64 CMP Pole #: 24 Wetland ID #: 1
Stream/Waterbody ID: —
Corps plot : ✓ Yes No

Dominant NWI Class: PSS1
Other NWI Classes:

Representative Wetland Vegetation (by Strata):

Shrub
Lyolig
Ilevert
Spilat
Vibdent

Herb
Colcan
Onoden
Solrug
Carlur

Thelpal
Scicyp
Spitom
Equarv

Representative Wetland Hydrology

____ Permanently Flooded (approximate depth -)
____ Seasonally Flooded (approximate depth -)
✓ Saturated

Hydrologic Indicators:
____ Silt Deposition
____ Water-Stained Leaves
____ Water Marks
____ Drift Lines
✓ Surface Scouring
✓ Drainage Patterns
____ Buttressed Trees
____ Elevated Roots

Other Observations:

Representative Wetland Soils:
✓ Mineral
____ Organic

Depth	Horizon	Color	Redox Features	Texture
0-6	A	5Y 3/2	–	Sa lo.
6-10+	B	5Y 4/2	5Y4 5/4	Si lo
			5Y 5/2	

Other Observations:
Meets NEIWPCC (2004) Criteria VI

Stream # 1 Data:
Width (Bank-Bank): ____ Depth @ Center: ____ Peren. ____ Intermittent ____
Bank Configuration: ____ Undercut ____ Vertical ____ Gradual
Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder ___ Bedrock

Stream # 2 Data
Width (Bank-Bank): ____ Depth @ Center: ____ Peren. ____ Intermittent ____
Bank Configuration: ____ Undercut ____ Vertical ____ Gradual
Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):
Pot VP or ABA in Tree Ruts

Notes:

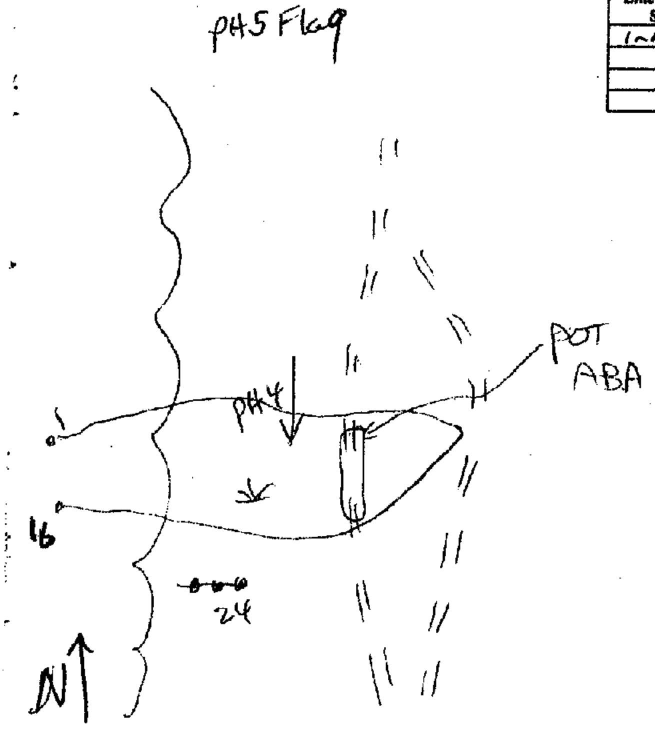
☐ Cedar Swamp
☐ Wetland of Special Significance

Photo # 4/5

SKETCH ON BAC

WETLAND SKETCH

Line Flagging Series
1-15



Possible Functions and Values:
✓ Groundwater Recharge/Discharge
__ Fish and Shellfish Habitat
__ Nutrient Removal
__ Sediment/Shoreline Stabilization
__ Recreation
__ Uniqueness/Heritage
__ Endangered Species Habitat
__ Floodflow Alteration
__ Sediment/Toxicant Retention
__ Production Export
__ Wildlife Habitat
__ Educational/Scientific Value
__ Visual Quality/Aesthetics
__ Other

Checklist:
✓ Wetland ID# B17-64-24-1
✓ North arrow.
✓ Detailed sketch of wetland boundary and flagging sequence.
✓ Natural and man-made features – roads, culverts, outcrops, structures, etc.
✓ Photo locations.
__ Location of important wildlife sign.

Sam Hayden, 5/19/17

Sprawling ⊻ encompasses many cover types and hydrology regimes. I was able to find sections that match each of the Wet corps Plot data.

SH.

PROJECT TITLE: MPRP TRANSECT: PLOT: ⊻

DELINEATOR(S): MP AG MC DATE: 10-17-07

VEGETATION Stratum and Species		Dominance Ratio	Percent Dominance	DOM	NWI Status
Shrub					
Vib dent	10	10/60	16		
Lyo lig	20	20/60	33	✓	FACW
Spi lat	10	10/60	16		<
Ile vert	20	20/60	33	✓	FACW
Herb					
Gly can	25	25/60	[illegible]	✓	FACW
Sol rug	10	10/60	16		
Sci cyp	15	15/60	24	✓	FACW
Rub his	10	10/60	16		

HYDROPHYTES

OBL FACW 4 FAC OTHER

Hydrophytes Subtotal (A): 4

NON-HYDROPHYTES

FAC FACU UPL

Non-hydrophytes Subtotal (B): 0

PERCENT HYDROPHYTES (100A/A+B): 4/4 = 100%

HYDROLOGY

☐ RECORDED DATA

Stream, lake, or tidal gage Identification:

Aerial photography Identification:

Other Identification:

☑ NO RECORDED DATA

☐ OBSERVATIONS:

Depth to Free Water:

Depth to Saturation (including capillary fringe):

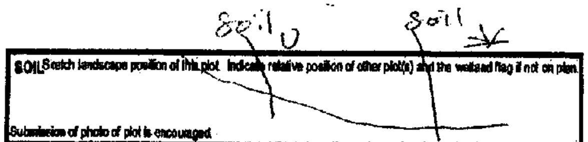
Altered Hydrology (explain):

☐ Inundated ☑ Saturated in upper 12" ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☑ Drainage Patterns within Wetland

☐ OTHER (explain):

CENAE-CO-R-PE Version 7/1/03 Page 1

SOIL Sketch landscape position of this plot. Indicate relative position of other plot(s) and the wetland flag if not on plan.



Submission of photo of plot is encouraged.

DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES (color, abundance, size, contrast)	COMMENTS (USDA texture, nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.)
0-6	A1	5Y 3/2	—	Sa Lo
6-10 +	B1	5Y 4/2	5GY 5/1 5Y 5/2 .5cm ± 15%	Si Lo

HYDRIC SOIL INDICATOR(S): VI REFERENCE(S): NE Hydric Soils

OPTIONAL SOIL DATA REFERENCE(S):

Taxonomic subgroup:

Soil drainage class:

Depth to active water table:

NTCHS hydric soil criterion:

CONCLUSIONS

	YES	NO	REMARKS:
Hydrophytic vegetation criterion met?	☑	☐	
Hydric soils criterion met?	☑	☐	
Wetland hydrology criterion met?	☑	☐	
IS THIS DATAPOINT IN A WETLAND?	☑	☐	

CENAE-CO-R-PE Version 7/1/03 Page 2

PROJECT TITLE: MPRP ~~TRANSECT:~~ ~~PLOT:~~

B17-64-24-1-WGT

C-17-64-24-2

Maine Power Reliability Project

Team S

WETLAND SUMMARY FORM

Observers: L.LECLERC, D.BRENNEMAN Date: 8-8-08

Town: LEWISTON Series : 1- 16

Segment # : 139 CMP Section #: 10 CMP Pole #: 0 Wetland ID #: 1

Stream/Waterbody ID: NA Corps plot :____Yes X N

Dominant NWI Class: PSS1E 100% Other NWI Classes:

Representative Wetland Vegetation (by Strata):

H/Rubpub
Equsyl
Carint
Vibden, Athfar

Sh/Acerub
Ilever

Sa/Fraper
Acerub

T/Acerub

Representative Wetland Hydrology

____ Permanently Flooded (approximate depth -)

X Seasonally Flooded (approximate depth - 2-6")

X Saturated generally

Hydrologic Indicators: ____ Silt Deposition X Water-Stained Leaves ____ Water Marks ____ Drift Lines ____ Surface Scouring ____ Drainage Patterns ____ Buttressed Trees X Elevated Roots

Other Observations: sat to soil surface

Representative Wetland Soils:

X Mineral

____ Organic

Depth	Horizon	Color	Redox Features	Texture
0-6	A	25Y3/2		SiL
6-9+	B	2.5Y4/2	2.5Y5/6-10%	SiL

Other Observations:

Meets NEIWPCC (2004) Criteria VI

Stream # 1 Data:

Width (Bank-Bank): NA Depth @ Center: ____ Peren. ____ Intermittent ____

Bank Configuration: ____ Undercut ____ Vertical ____ Gradual

Channel Substrate: ____ Peat-Muck ____ Silt-Mud ____ Sand ____ Gravel/Cobble ____ Boulder ____ Bedrock

Stream # 2 Data

Width (Bank-Bank): ____ Depth @ Center: ____ Peren. ____ Intermittent ____

Bank Configuration: ____ Undercut ____ Vertical ____ Gradual

Channel Substrate: ____ Peat-Muck ____ Silt-Mud ____ Sand ____ Gravel/Cobble ____ Boulder ____ Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):

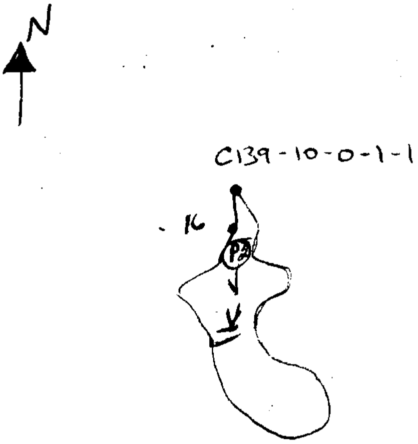
Notes:

☐ Cedar Swamp ☐ Wetland of Special Significance

Photo # P2 Facs **SKETCH ON BAC**

WETLAND SKETCH

Line Flagging Series
1-16



Possible Functions and Values:

- ___ Groundwater Recharge/Discharge
- ___ Fish and Shellfish Habitat
- ___ Nutrient Removal
- ___ Sediment/Shoreline Stabilization
- ___ Recreation
- ___ Uniqueness/Heritage
- ___ Endangered Species Habitat
- ___ Floodflow Alteration
- ___ Sediment/Toxicant Retention
- ___ Production Export
- [✓ Wildlife Habitat]
- ___ Educational/Scientific Value
- ___ Visual Quality/Aesthetics
- ___ Other

Checklist:

- [✓ **Wetland ID#** C139-10-0-1]
- [✓ North arrow.]
- [✓ Detailed sketch of wetland boundary and flagging sequence.]
- [✓ Natural and man-made features – roads, culverts, outcrops, structures, etc.]
- [✓ Photo locations.]
- [✓ Location of important wildlife sign.]

WET-152-01 Sam Hayden 5/21/17
Veg, soil, hydro good Added section onto N boundary SH

B-17-64-105-1

Maine Power Reliability Project   Team 5

WETLAND SUMMARY FORM

Observers: SE, AG, MC   Date: 10/25/07
Town: Lewiston   Series: OVER
Segment #: 17 CMP Section #: 64 CMP Pole #: 105 Wetland #: 1
Stream/Waterbody ID: —   Corps plot: Yes ✓No

Dominant NWI Class: PEM1   Other NWI Classes: PFO1

Representative Wetland Vegetation (by Strata):

Sci cyp Ono sens Car wgles Shrub
Car lur Jun com Phalaru Spi alb
Car crin Spi tom Pol sag Ile ver
Sol gig Thy lat Aln rug
Thel pal Gly can Vib dent

Bet pop
Ulm amer
Ace rub
Abi bal

Representative Wetland Hydrology

___ Permanently Flooded (approximate depth -)   ✓ Seasonally Flooded (approximate depth - 2")   ___ Saturated

Hydrologic Indicators: ___ Silt Deposition ___ Water-Stained Leaves
✓ Water Marks ___ Drift Lines ✓ Surface Scouring
✓ Drainage Patterns ___ Buttressed Trees ___ Elevated Roots
Other Observations: Saturated 6-8"

Representative Wetland Soils:
✓ Mineral
___ Organic

Depth	Horizon	Color	Redox Features	Texture
0-12"	B	5Y5/2	10YR4/6	Silo
			[illegible]	

Other Observations:
Meets NEIWPCC (2004) Criteria VI   no apparent "A"

Stream # 1 Data:
Width (Bank-Bank): ___ Depth @ Center: ___ Peren. ___ Intermittent ___
Bank Configuration: ___ Undercut ___ Vertical ___ Gradual
Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder ___ Bedrock

Stream # 2 Data
Width (Bank-Bank): ___ Depth @ Center: ___ Peren. ___ Intermittent ___
Bank Configuration: ___ Undercut ___ Vertical ___ Gradual
Channel Substrate: Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):

Notes:

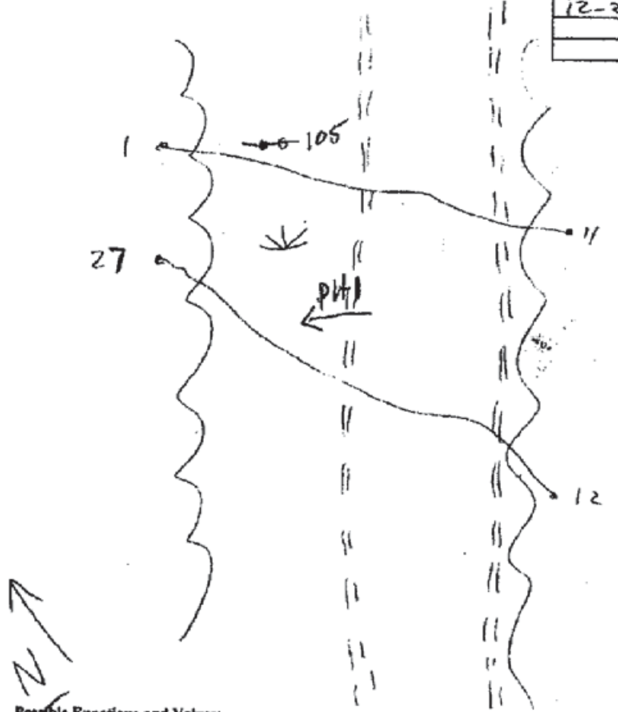
☐ Cedar Swamp   ☐ Wetland of Special Significance

Photo # 1|2   SKETCH ON BACK

PH2 flag

WETLAND SKETCH

Line Flagging Series
1-11
12-27



Possible Functions and Values:
✓ Groundwater Recharge/Discharge
___ Fish and Shellfish Habitat
___ Nutrient Removal
___ Sediment/Shoreline Stabilization
___ Recreation
___ Uniqueness/Heritage
___ Endangered Species Habitat
___ Floodflow Alteration
___ Sediment/Toxicant Retention
___ Production Export
___ Wildlife Habitat
___ Educational/Scientific Value
___ Visual Quality/Aesthetics
___ Other

Checklist:
✓ Wetland ID# B17-64-105-1
✓ North arrow.
✓ Detailed sketch of wetland boundary and flagging sequence.
✓ Natural and man-made features – roads, culverts, outcrops, structures, etc.
✓ Photo locations.
— ~~Location of important wildlife sign.~~

Maine Power Reliability Project

Team B

WETLAND SUMMARY FORM

Observers: SE, AG, MC Date: 10/25/07

Town: Lewiston Series: OVER

Segment # : 17 CMP Section #: 64 CMP Pole #: 105 Wetland #: 1

Stream/Waterbody ID: – Corps plot: ___ Yes ✓ No

Dominant NWI Class: PEM1 Other NWI Classes: PFO1

Representative Wetland Vegetation (by Strata):

Sci cyp
Car lur
Car crin
Sol gig
Thel pal

Ono sens
Jun com
Spi tom
Thy lat
Gly can

Cotwgras
Phalaru
Pol sag

Shrb
Spi alb
Ile ver
Aln rug
V.b dent

Bet pop
Ulm Amer
Ace rub
Abi bal

Representative Wetland Hydrology

_____ Permanently Flooded (approximate depth -   )

✓ Seasonally Flooded (approximate depth - 2")

_____ Saturated

Hydrologic Indicators: _____ Silt Deposition _____ Water-Stained Leaves

✓ Water Marks _____ Drift Lines ✓ Surface Scouring

✓ Drainage Patterns _____ Buttressed Trees _____ Elevated Roots

Other Observations: Saturated 6-8"

Representative Wetland Soils:

✓ Mineral

_____ Organic

Depth	Horizon	Color	Redox Features	Texture
0-12+	B	5Y5/2	10YR4/6	Si Lo
			5Y4 5/1	

Other Observations:

Meets NEIWPCC (2004) Criteria VI no apparent "A"

Stream # 1 Data:

Width (Bank-Bank): ________ Depth @ Center: ________ Peren. ________ Intermittent ________

Bank Configuration: ____Undercut ___ Vertical ___ Gradual

Channel Substrate: ___Peat-Muck ___Silt-Mud ___Sand ___Gravel/Cobble ___Boulder ___ Bedrock

Stream # 2 Data

Width (Bank-Bank): ________ Depth @ Center: ________ Peren. ________ Intermittent ________

Bank Configuration: ____Undercut ___ Vertical ___ Gradual

Channel Substrate: ___Peat-Muck ___Silt-Mud ___Sand ___Gravel/Cobble ___Boulder Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):

Notes:

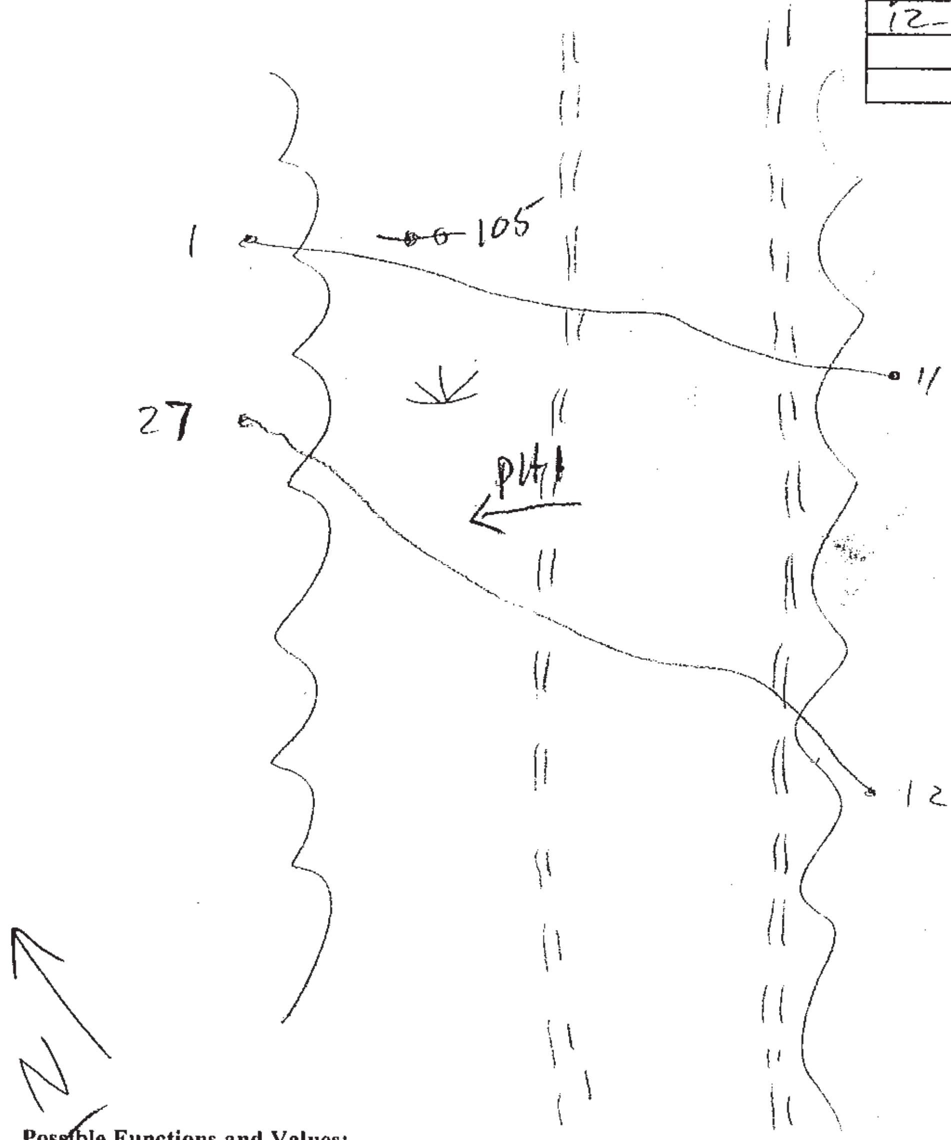
☐Cedar Swamp ☐Wetland of Special Significance

Photo # 1/2

SKETCH ON BACK

PH2 Flag WETLAND SKETCH

Line Flagging Series
1-11
12-27



Possible Functions and Values:

- ☑ Groundwater Recharge/Discharge
- ☐ Fish and Shellfish Habitat
- ☐ Nutrient Removal
- ☐ Sediment/Shoreline Stabilization
- ☐ Recreation
- ☐ Uniqueness/Heritage
- ☐ Endangered Species Habitat
- ☐ Floodflow Alteration
- ☐ Sediment/Toxicant Retention
- ☐ Production Export
- ☐ Wildlife Habitat
- ☐ Educational/Scientific Value
- ☐ Visual Quality/Aesthetics
- ☐ Other

Checklist:

- ☑ **Wetland ID#** B17-64-105-1
- ☑ North arrow.
- ☑ Detailed sketch of wetland boundary and flagging sequence.
- ☑ Natural and man-made features – roads, culverts, outcrops, structures, etc.
- ☑ Photo locations.
- ☐ ~~Location of important wildlife sign.~~

~~B 17 64 148~~ -1 / WET-155-03

WET-155-03

Sam Hayden 5/23/17

Veg, soil, hydro, delineation good. S.H.

Maine Power Reliability Program

WETLAND SUMMARY FORM

Observers: Ak Mc
Date: 10/30/07
Town: Lewiston
Series: Orer
Segment #: 17 CMP Section #: 64 CMP Pole #: 148 Wetland #: 1
Stream/Waterbody ID: —
Corps plot: ✓ Yes ___ No

Dominant NWI Class: PEM1
Other NWI Classes:

Representative Wetland Vegetation (by Strata):

Phalaris (5) verhast (5) sci cyp (5)
Ly+ sal (5)
Bdy Aster (5) Car lac
Jun eff Car lur

Representative Wetland Hydrology

___ Permanently Flooded (approximate depth -)
✓ Seasonally Flooded (approximate depth - 6")
___ Saturated

Hydrologic Indicators:
___ Silt Deposition
___ Water-Stained Leaves
___ Water Marks
___ Drift Lines
✓ Surface Scouring
✓ Drainage Patterns
___ Buttressed Trees
___ Elevated Roots

Other Observations:

Representative Wetland Soils:
✓ Mineral
___ Organic

Depth	Horizon	Color	Redox Features	Texture
0-6	A	5Y 3/2		Sa Lo
6-12+	Bg	5Y 4/1	5G4 5/1 <0.5cm 15%	Si Lo

Other Observations:
Meets NEIWPCC (2004) Criteria VI

Stream # 1 Data:
Width (Bank-Bank): ___ Depth @ Center: ___ Peren. ___ Intermittent ___
Bank Configuration: ___ Undercut ___ Vertical ___ Gradual
Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder ___ Bedrock

Stream # 2 Data
Width (Bank-Bank): ___ Depth @ Center: ___ Peren. ___ Intermittent ___
Bank Configuration: ___ Undercut ___ Vertical ___ Gradual
Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder ___ Bedrock

Wildlife Observations/Sign (e.g. tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):
Agric. Swale

Notes:

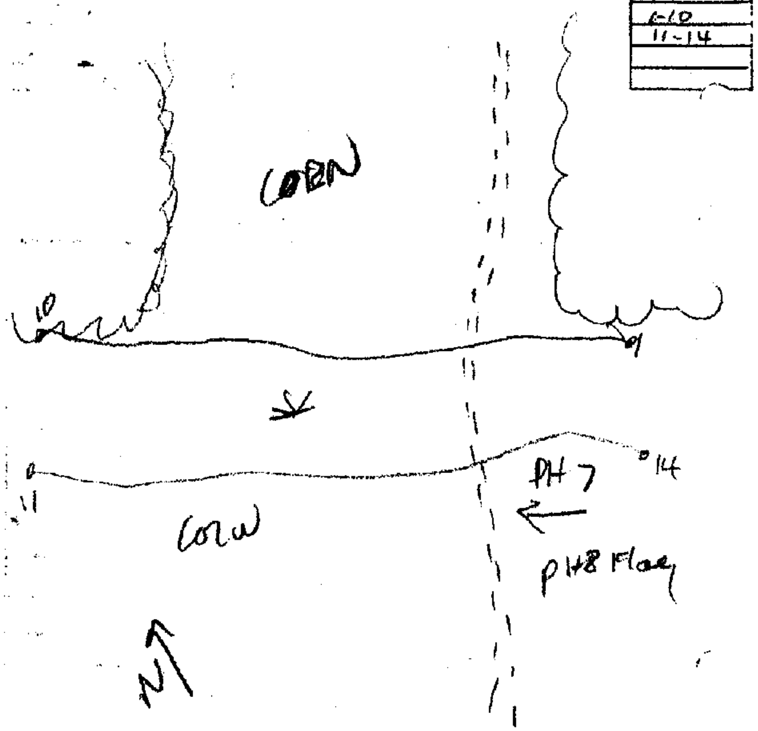
☐ Cedar Swamp
☐ Wetland of Special Significance

Photo # 7 8

SKETCH ON BACK

WETLAND SKETCH

Line Flagging Series
1-10
11-14



Possible Functions and Values:
✓ Groundwater Recharge/Discharge
___ Fish and Shellfish Habitat
___ Nutrient Removal
___ Sediment/Shoreline Stabilization
___ Recreation
___ Uniqueness/Heritage
___ Endangered Species Habitat
___ Floodflow Alteration
___ Sediment/Toxicant Retention
___ Production Export
___ Wildlife Habitat
___ Educational/Scientific Value
___ Visual Quality/Aesthetics
___ Other

Checklist:
✓ Wetland ID# B17-64-148-1
✓ North arrow.
✓ Detailed sketch of wetland boundary and flagging sequence.
✓ Natural and man-made features – roads, culverts, outcrops, structures, etc.
✓ Photo locations.
— ~~Location of important wildlife sign.~~

1

Sam Hyde 5/23/17
field conditions match plot data. SH

PROJECT TITLE: MPRP TRANSECT: PLOT:
DELINEATOR(S): AL ML DATE: 10-30-07

VEGETATION Stratum and Species		Dominance Ratio	Percent Dominance	DOM	NWI Status
Herb					
Phal arw	85	85/105	82	✓	FACW
Lyr Sal	5	5/105	5		
Bushy Aster	5	5/105	5		
Ver hast	5	5/105	5		
Scicyp	5	5/105	5		

HYDROPHYTES

OBL	FACW	FAC	*OTHER
	1		

Hydrophytes Subtotal (A): 1

NON-HYDROPHYTES

FAC-	FACU	UPL

Non-hydrophytes Subtotal (B): 0

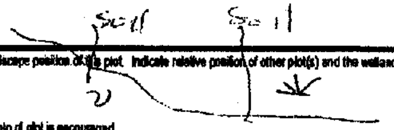
PERCENT HYDROPHYTES (100A/A+B): 1/1 = 100%

HYDROLOGY

☐ RECORDED DATA
Stream, lake, or tidal gage Identification:
Aerial photography Identification:
Other Identification:
☑ NO RECORDED DATA
☐ OBSERVATIONS:
Depth to Free Water: @ surface
Depth to Saturation (including capillary fringe):
Altered Hydrology (explain):

☐ Inundated ☑ Saturated in upper 12" ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☑ Drainage Patterns within Wetland
☐ OTHER (explain):

SOIL Sketch landscape position of this plot. Indicate relative position of other plot(s) and the wetland flag if not on plan.



Submission of photo of plot is encouraged.

DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES (color, abundance, size, contrast)	COMMENTS (USDA texture, nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.)
0-6	A	5Y3/2		SaLo
6-12+	B1	5Y4/1	5Y5/1 L.5cm ± 10%	SiLo

HYDRIC SOIL INDICATOR(S): VI REFERENCE(S): NE Hydric Soils

OPTIONAL SOIL DATA
REFERENCE(S):
Taxonomic subgroup:
Soil drainage class:
Depth to active water table:
NTCHS hydric soil criterion:

CONCLUSIONS

	YES	NO	REMARKS:
Hydrophytic vegetation criterion met?	☑	☐	
Hydric soils criterion met?	☑	☐	
Wetland hydrology criterion met?	☑	☐	
IS THIS DATAPOINT IN A WETLAND?	☑	☐	

PROJECT TITLE: MPRP TRANSECT: PLOT:

817-64-148-1-WET

PROJECT TITLE: MPRP TRANSECT: PLOT:

DELINEATOR(S): DATE: 10/30/07

VEGETATION Stratum and Species		Dominance Ratio	Percent Dominance	DOM	NWI Status
Shrb					
SHor n Sumac	65	65/65	100	✓	upl
Herb					
phalaru	20	20/45	43	✓	FACW
Solcan	10	10/45	21	✓	FACU
Sol rug	5	5/45	5		
Swt vern gr.	10	10/45	21	✓	FAC[illegible]

HYDROPHYTES

OBL	FACW	FAC	OTHER
	1		

Hydrophytes Subtotal (A): 1

NON-HYDROPHYTES

FAC-	FACU	UPL
	2	1

Non-hydrophytes Subtotal (B): 3

PERCENT HYDROPHYTES (100A/A+B): 1/4 = 25%

HYDROLOGY Hillside/knoll

☐ RECORDED DATA
Stream, lake, or tidal gage Identification:
Aerial photography Identification:
Other Identification:

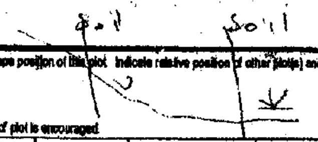
☑ NO RECORDED DATA

☐ OBSERVATIONS:
Depth to Free Water:
Depth to Saturation (including capillary fringe):
Altered Hydrology (explain):

☐ Inundated ☐ Saturated in upper 12" ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns within Wetland

☐ OTHER (explain): N/A

SOIL Sketch landscape position of this plot. Indicate relative position of other plot(s) and the wetland flag if not on plan.



Submission of photo of plot is encouraged.

DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES (color, abundance, size, contrast)	COMMENTS (USDA texture, nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.)
0-6	A1	10YR 3/2	–	SaLo
6-18	B1	10YR 6/6		SaLo

HYDRIC SOIL INDICATOR(S): N/A REFERENCE(S):

OPTIONAL SOIL DATA REFERENCE(S):
Taxonomic subgroup:
Soil drainage class:
Depth to active water table:
NTCHS hydric soil criterion:

CONCLUSIONS

	YES	NO	REMARKS:
Hydrophytic vegetation criterion met?	☐	☑	
Hydric soils criterion met?	☐	☑	
Wetland hydrology criterion met?	☐	☑	
IS THIS DATAPOINT IN A WETLAND?	☐	☑	

PROJECT TITLE: MPRP TRANSECT: PLOT:

B12-64-148-1-upl

Maine Power Reliability Project

WETLAND SUMMARY FORM

Observers: AG MC
Date: 10/30/07
Town: Lewiston
Series : Ajor
Segment # : 17 CMP Section #: 64 CMP Pole #: 148 Wetland #: 1
Stream/Waterbody ID: —
Corps plot : [✓ Yes] ___ No

Dominant NWI Class: PEM1 Other NWI Classes:

Representative Wetland Vegetation (by Strata):

Phalaris ~~(8)~~ (5) Verhast (5) Scicyp (5)
Lyt Sal (5)
Bushy Aster (5) Car lac
Jun eff Car lur

Representative Wetland Hydrology

___ Permanently Flooded (approximate depth -)
[✓] Seasonally Flooded (approximate depth - 6")
___ Saturated

Hydrologic Indicators: ___ Silt Deposition ___ Water-Stained Leaves
___ Water Marks ___ Drift Lines [✓] Surface Scouring
[✓] Drainage Patterns ___ Buttressed Trees ___ Elevated Roots
Other Observations:

Representative Wetland Soils:
[✓] Mineral
___ Organic

Depth	Horizon	Color	Redox Features	Texture
0-6	A1	5Y 3/2		SaLo
6-12+	Bg	5Y 4/1	5GY 5/1	SiLo
			<.5cm	
			±5%	

Other Observations:
Meets NEIWPCC (2004) Criteria VI

Stream # 1 Data:
Width (Bank-Bank): ___ Depth @ Center: ___ Peren. ___ Intermittent ___
Bank Configuration: ___ Undercut ___ Vertical ___ Gradual
Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder ___ Bedrock

Stream # 2 Data
Width (Bank-Bank): ___ Depth @ Center: ___ Peren. ___ Intermittent ___
Bank Configuration: ___ Undercut ___ Vertical ___ Gradual
Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder ___ Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):

Agric. Swale —

Notes:

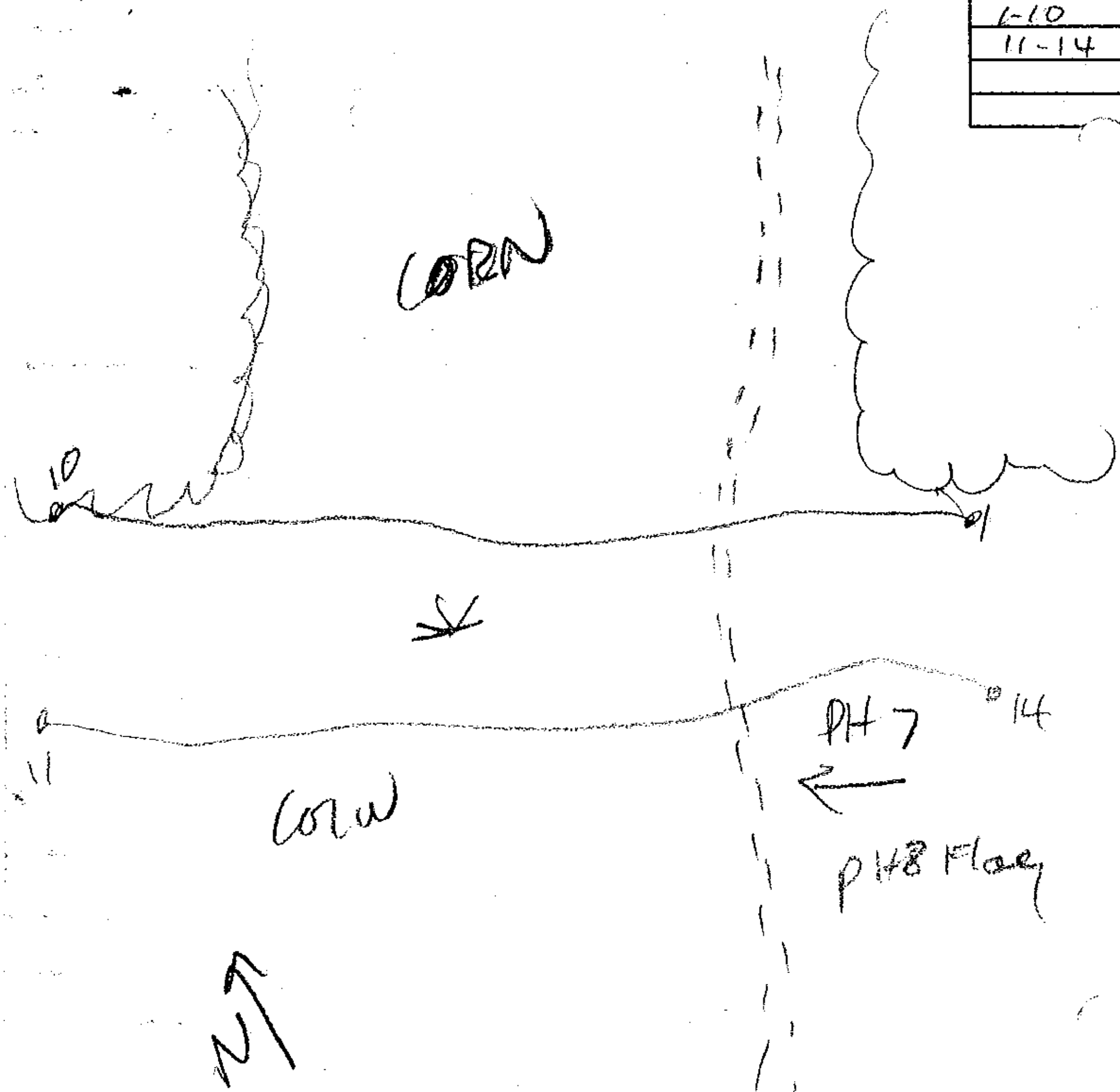
☐ Cedar Swamp ☐ Wetland of Special Significance

Photo # 7 8

SKETCH ON BACK

WETLAND SKETCH

Line Flagging Series
1-10
11-14



Possible Functions and Values:

- ✓ Groundwater Recharge/Discharge
- __ Fish and Shellfish Habitat
- __ Nutrient Removal
- __ Sediment/Shoreline Stabilization
- __ Recreation
- __ Uniqueness/Heritage
- __ Endangered Species Habitat
- __ Floodflow Alteration
- __ Sediment/Toxicant Retention
- __ Production Export
- __ Wildlife Habitat
- __ Educational/Scientific Value
- __ Visual Quality/Aesthetics
- __ Other

Checklist:

- ✓ **Wetland ID#** B17-64-148-1
- ✓ North arrow.
- ✓ Detailed sketch of wetland boundary and flagging sequence.
- ✓ Natural and man-made features – roads, culverts, outcrops, structures, etc.
- ✓ Photo locations.
- __ ~~Location of important wildlife sign~~

PROJECT TITLE: MPRP

TRANSECT: ______ PLOT:

DELINEATOR(S): AG MC

DATE: 10-20-07

VEGETATION Stratum and Species		Dominance Ratio	Percent Dominance	DOM	NWI Status
Herb					
Phal arun	85	85/105	82	✓	FACW
Lyt Sal	5	5/105	5		
Bushy Aster	5	5/105	5		
Verhast	5	5/105	5		
Sci cyp	5	5/105	5		

HYDROPHYTES

OBL	FACW	FAC	*OTHER
	1		

Hydrophytes Subtotal (A): 1

NON-HYDROPHYTES

FAC-	FACU	UPL

Non-hydrophytes Subtotal (B): 0

PERCENT HYDROPHYTES (100A/A+B): 1/1 = 100%

HYDROLOGY

☐ RECORDED DATA
Stream, lake, or tidal gage Identification: ______
Aerial photography Identification: ______
Other Identification: ______

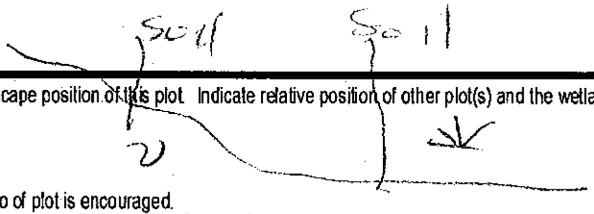
☑ NO RECORDED DATA

☐ OBSERVATIONS:
Depth to Free Water: @ surface
Depth to Saturation (including capillary fringe): ______
Altered Hydrology (explain): ______

☐ Inundated ☑ Saturated in upper 12" ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☑ Drainage Patterns within Wetland

☐ OTHER (explain):

SOIL Sketch landscape position of this plot Indicate relative position of other plot(s) and the wetland flag if not on plan.



Submission of photo of plot is encouraged.

DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES (color, abundance, size, contrast)	COMMENTS (USDA texture, nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.)
0-6	A	5Y3/2		SaLo
6-12 +	B_1	5Y4/1	5Y5/1 <.5cm ±10%	SiLo

HYDRIC SOIL INDICATOR(S): VI

REFERENCE(S): NE Hydric Soils

OPTIONAL SOIL DATA

REFERENCE(S):

Taxonomic subgroup:
Soil drainage class:
Depth to active water table:
NTCHS hydric soil criterion:

CONCLUSIONS

	YES	NO	REMARKS:
Hydrophytic vegetation criterion met?	☑	☐	
Hydric soils criterion met?	☑	☐	
Wetland hydrology criterion met?	☑	☐	
IS THIS DATAPOINT IN A WETLAND?	☑	☐	

PROJECT TITLE: MPRP TRANSECT: PLOT:

812-64-148-1-WET

PROJECT TITLE: MPRP TRANSECT: PLOT:

DELINEATOR(S): DATE: 10/30/07

VEGETATION Stratum and Species		Dominance Ratio	Percent Dominance	DOM	NWI Status
<u>Shrb</u>					
SHorn Sumac	65	65/65	100	✓	upl
<u>Herb</u>					
phalaru	20	20/45	43	✓	FACW
Sol can	10	10/45	21	✓	FACU
Sol rug	5	5/45	5		
Swt vern gr.	10	10/45	21	✓	FACU

HYDROPHYTES

OBL	FACW	FAC	*OTHER
	1		

Hydrophytes Subtotal (A): 1

NON-HYDROPHYTES

FAC-	FACU	UPL
	2	1

Non-hydrophytes Subtotal (B): 3

PERCENT HYDROPHYTES (100A/A+B): 1/4 = 25%

HYDROLOGY Hillside / Knoll

☐ RECORDED DATA
Stream, lake, or tidal gage Identification:
Aerial photography Identification:
Other Identification:

☑ NO RECORDED DATA

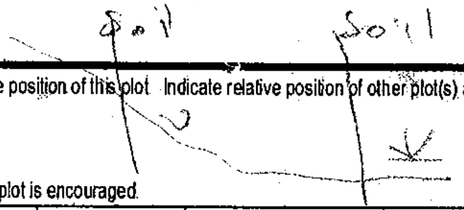
☐ OBSERVATIONS:
Depth to Free Water:
Depth to Saturation (including capillary fringe):
Altered Hydrology (explain):

☐ Inundated ☐ Saturated in upper 12" ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns within Wetland

☐ OTHER (explain): N/A

CENAE-CO-R-PT Version 7/1/00 Page 1

SOIL Sketch landscape position of this plot Indicate relative position of other plot(s) and the wetland flag if not on plan.



Submission of photo of plot is encouraged.

DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES (color, abundance, size, contrast)	COMMENTS (USDA texture, nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.)
0-6	A_1	10YR 3/2	—	SaLo
6-18	B_1	10YR 6/6		SaLo

HYDRIC SOIL INDICATOR(S): N/A

REFERENCE(S):

OPTIONAL SOIL DATA

REFERENCE(S):

Taxonomic subgroup:
Soil drainage class:
Depth to active water table:
NTCHS hydric soil criterion:

CONCLUSIONS

	YES	NO	REMARKS:
Hydrophytic vegetation criterion met?	☐	☑	
Hydric soils criterion met?	☐	☑	
Wetland hydrology criterion met?	☐	☑	
IS THIS DATAPOINT IN A WETLAND?	☐	☑	

PROJECT TITLE: MPRP ~~TRANSECT:~~ PLOT:

B12-64-148-1-upl

WET-159-08 Sam Hayden 5/24/17

Veg, soil, hydro good delineation good. SH

D-17-62-99-1 / ~~WET-159-12~~

Maine Power Reliability Project

WETLAND SUMMARY FORM

Observers: Gulbaso/Bayha/Boothby Date: 10/18/07
Town: Durham Series: 1-15, 19-38, 39-82, 83-100
Segment # : 17 CMP Section #: 62 CMP Pole #: 99 Wetland ID #: D17-62-99-1
Stream/Waterbody ID: N/A Corps plot: ___ Yes ✓ No

Dominant NWI Class: PEM 65% Other NWI Classes: PSS 30%, PFO 5%

Representative Wetland Vegetation (by Strata):

Y4

Herbs		Shrubs	Trees
Sci cyp	Bugleweed	Aln inc	Acr rub
Ton aff	Rub his	Sp. lat	Abi bal
Car sco	Eut gra	Ace rub	
Car vul		Meleberry	
Sphag spp			
Ver has			

Representative Wetland Hydrology

___ Permanently Flooded (approximate depth -)
___ Seasonally Flooded (approximate depth -)
✓ Saturated

Hydrologic Indicators: ___ Silt Deposition ✓ Water-Stained Leaves ___ Water Marks ___ Drift Lines ___ Surface Scouring ___ Drainage Patterns ___ Buttressed Trees ___ Elevated Roots

Other Observations: Some sections of wetland inundated w/ 1-3" of standing H2O

Representative Wetland Soils:
X Mineral
___ Organic

Depth	Horizon	Color	Redox Features	Texture
8-0	Oi	–	–	SAPRIC
[illegible]	A	10YR 2/1	10YR 3/4	[illegible]
4-18+	Bt	10YR 4/1	10YR 3/6	Clay

Other Observations: WATER @ 6"
Meets NEIWPCC (2004) Criteria XI A

Stream # 1 Data:
Width (Bank-Bank): ___ Depth @ Center: ___ Peren. ___ Intermittent ___
Bank Configuration: ___ Undercut ___ Vertical ___ Gradual
Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder ___ Bedrock

Stream # 2 Data
Width (Bank-Bank): ___ Depth @ Center: ___ Peren. ___ Intermittent ___
Bank Configuration: ___ Undercut ___ Vertical ___ Gradual
Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder ___ Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP): Deer sign

Notes: wetland recieves hydrology from Pownal/Durham Rd at road crossing. Large wetland complex stretching for many poles

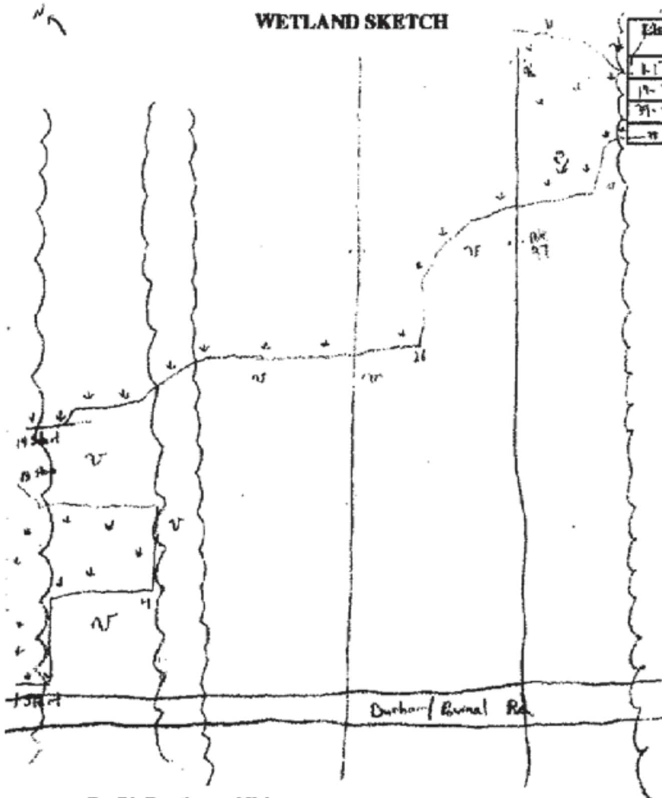
☐ Cedar Swamp ☐ Wetland of Special Significance

P 3 4 WL SW

Photo # ___

SKETCH ON BACK

WETLAND SKETCH



Possible Functions and Values:
___ Groundwater Recharge/Discharge
___ Fish and Shellfish Habitat
___ Nutrient Removal
___ Sediment/Shoreline Stabilization
___ Recreation
___ Uniqueness/Heritage
___ Endangered Species Habitat
___ Floodflow Alteration
___ Sediment/Toxicant Retention
___ Production Export
✓ Wildlife Habitat
___ Educational/Scientific Value
___ Visual Quality/Aesthetics
___ Other

Checklist:
✓ Wetland ID# D17-62-99-1
✓ North arrow.
✓ Detailed sketch of wetland boundary and flagging sequence.
✓ Natural and man-made features – roads, culverts, outcrops, structures, etc.
✓ Photo locations.
___ Location of important wildlife sign.

Maine Power Reliability Project Team ___

WETLAND SUMMARY FORM

Observers: Galkasso / Battaglia / Boothby Date: 10/18/07

Town: Durham 1 Series : 1-13, 14-38, 39-82, 83-190

Segment # : 17 CMP Section #: 62 CMP Pole #: 99 Wetland ID #: 017-62-99-1

Stream/Waterbody ID: N/A Corps plot : ___Yes ✓ No

Dominant NWI Class: PEM 65% Other NWI Classes: PSS, 20%
PFO 10%
Y4

Representative Wetland Vegetation (by Strata):

Herbs		Shrubs	Trees
Sci cyp	Bugleweed	Aln inc	Ace rub
Tan eff	Rub his	Spi lat	Abi bal
Car sco	Eut gra	Ace rub	
Car vul		Maleberry	
Sphag. spp			
Ver has			

Representative Wetland Hydrology

_____ Permanently Flooded (approximate depth -) _____ Seasonally Flooded (approximate depth -) ✓ Saturated

Hydrologic Indicators: _____ Silt Deposition ✓ Water-Stained Leaves
_____ Water Marks _____ Drift Lines _____ Surface Scouring
_____ Drainage Patterns _____ Buttressed Trees _____ Elevated Roots

Other Observations: Some sections of wetland inundated w/ 1-3" of standing H2O

Representative Wetland Soils:
X Mineral
_____ Organic

Depth	Horizon	Color	Redox Features	Texture
8-0	Oi	–	–	SAPRIC
[illegible]	A	10YR 2/1	10YR 3/4	Mucky
4-18+	Bt	10YR 4/1	10YR 3/6	Clay

Other Observations: WATER @ 6"

Meets NEIWPCC (2004) Criteria XI A

Stream # 1 Data:
Width (Bank-Bank): _____ Depth @ Center: _____ Peren. _____ Intermittent_____
Bank Configuration: ___Undercut ___Vertical ___Gradual
Channel Substrate: ___Peat-Muck ___Silt-Mud ___Sand ___Gravel/Cobble ___Boulder ___Bedrock

Stream # 2 Data
Width (Bank-Bank): _____ Depth @ Center: _____ Peren. _____ Intermittent_____
Bank Configuration: ___Undercut ___Vertical ___Gradual
Channel Substrate: ___Peat-Muck ___Silt-Mud ___Sand ___Gravel/Cobble ___Boulder ___Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):
Deer sign

Notes: wetland recieves hydrology from Pownal/Durham Rd at road crossing.
Large wetland complex stretching for many poles

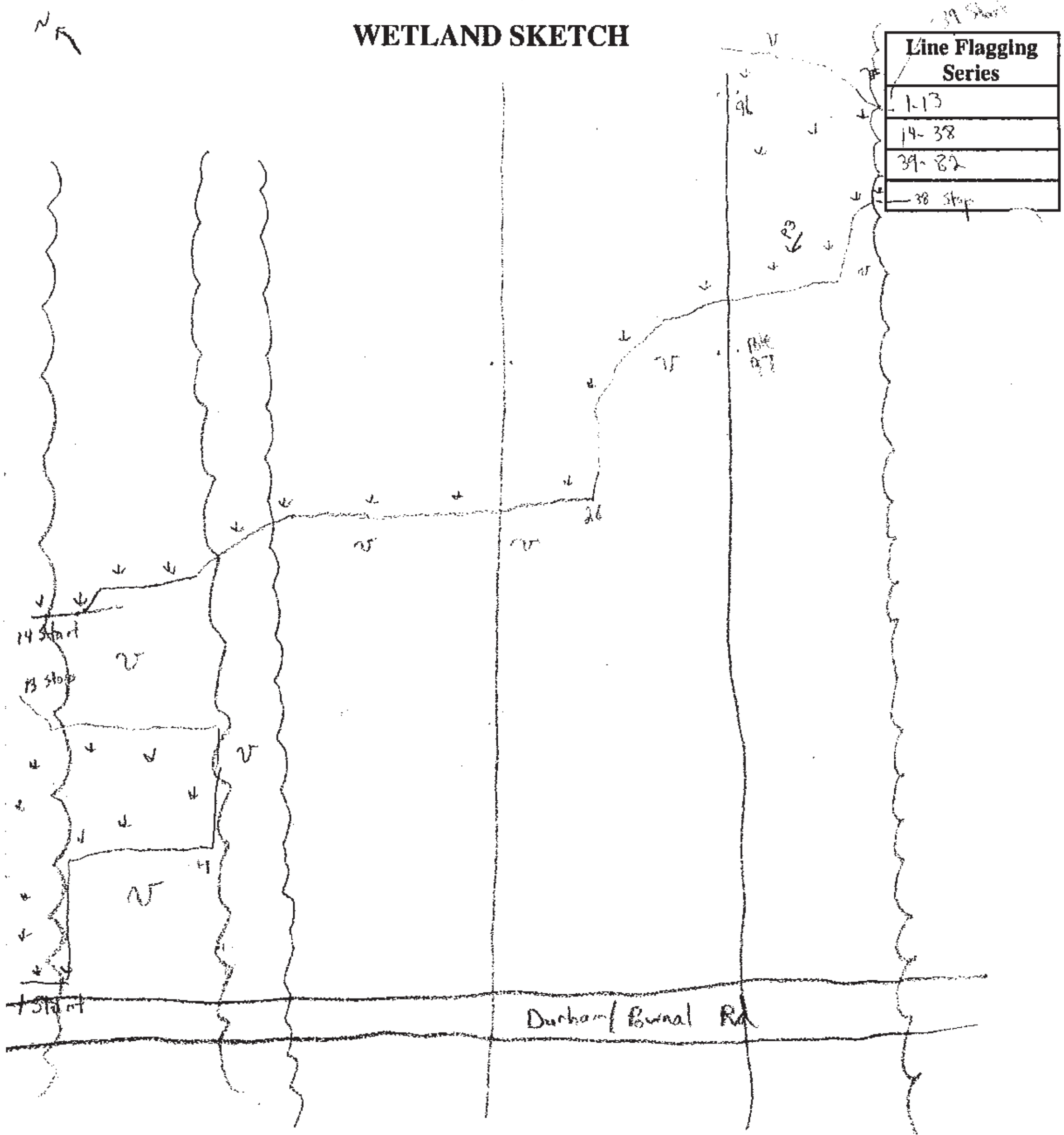
☐ Cedar Swamp ☐ Wetland of Special Significance

P 3 of WL SW

Photo # _____

SKETCH ON BACK

WETLAND SKETCH



Line Flagging Series
1-13
14-38
39-82
—38 Stop

Possible Functions and Values:

- ___ Groundwater Recharge/Discharge
- ___ Fish and Shellfish Habitat
- ___ Nutrient Removal
- ___ Sediment/Shoreline Stabilization
- ___ Recreation
- ___ Uniqueness/Heritage
- ___ Endangered Species Habitat
- ___ Floodflow Alteration
- ___ Sediment/Toxicant Retention
- ___ Production Export
- [✓] Wildlife Habitat
- ___ Educational/Scientific Value
- ___ Visual Quality/Aesthetics
- ___ Other

Checklist:

- [✓] **Wetland ID#** D17-62-99-1
- [✓] North arrow.
- [✓] Detailed sketch of wetland boundary and flagging sequence.
- [✓] Natural and man-made features – roads, culverts, outcrops, structures, etc.
- [✓] Photo locations.
- ___ Location of important wildlife sign.

WOSS
Data Form Examples

Segment 5

G-10-67-422-1
Maxey's SUB
CHECK

Boyle

Maine Power Reliability Project
WETLAND SUMMARY FORM

Team C

Observers: RJ TLD Date: 14 NOV 2008
Town: Windsor Series : SEE Back Notes
Segment # : 10 CMP Section #: 67 CMP Pole #: 422 Wetland #: 1
Stream/Waterbody ID: 1 Corps plot : X Yes ___ No

Dominant NWI Class: PEM1E 80 PFO2E 10 Other NWI Classes: PSS1E 10

Representative Wetland Vegetation (by Strata):

T	SL	H
Acerub	Alninc	onosen
Fraper	Ilver	osmcin
Abibal	Vib cass	Typlat
		Calcan

Representative Wetland Hydrology
(Portions)

___ Permanently Flooded (approximate depth -)
X Seasonally Flooded (approximate depth - 12")
X Saturated

Hydrologic Indicators: ___ Silt Deposition X Water-Stained Leaves
___ Water Marks X Drift Lines ___ Surface Scouring
X Drainage Patterns X Buttressed Trees X Elevated Roots
Other Observations: sphagnum, sat'd to 0"

Representative Wetland Soils:
___ Mineral
___ Organic

Depth	Horizon	Color	Redox Features	Texture
0-8	Ap	2.5y 4/1	5% conc	S-lo
8-20+	Bg	Gl 4/5y	40% conc	S-lo

Other Observations:
Meets NEIWPCC (2004) Criteria ___

Stream # 1 Data:
Width (Bank-Bank): 6-10' Depth @ Center: 3' Peren. X Intermittent ___
Bank Configuration: ___ Undercut ___ Vertical X Gradual
Channel Substrate: ___ Peat-Muck 50 Silt-Mud 50 Sand ___ Gravel/Cobble ___ Boulder ___ Bedrock

Stream # 2 Data
Width (Bank-Bank): ___ Depth @ Center: ___ Peren. ___ Intermittent ___
Bank Configuration: ___ Undercut ___ Vertical ___ Gradual
Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder ___ Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP): Deer sign, dead porcupine

Notes: Re collection of data for Maxey's

stream
A20k
EM

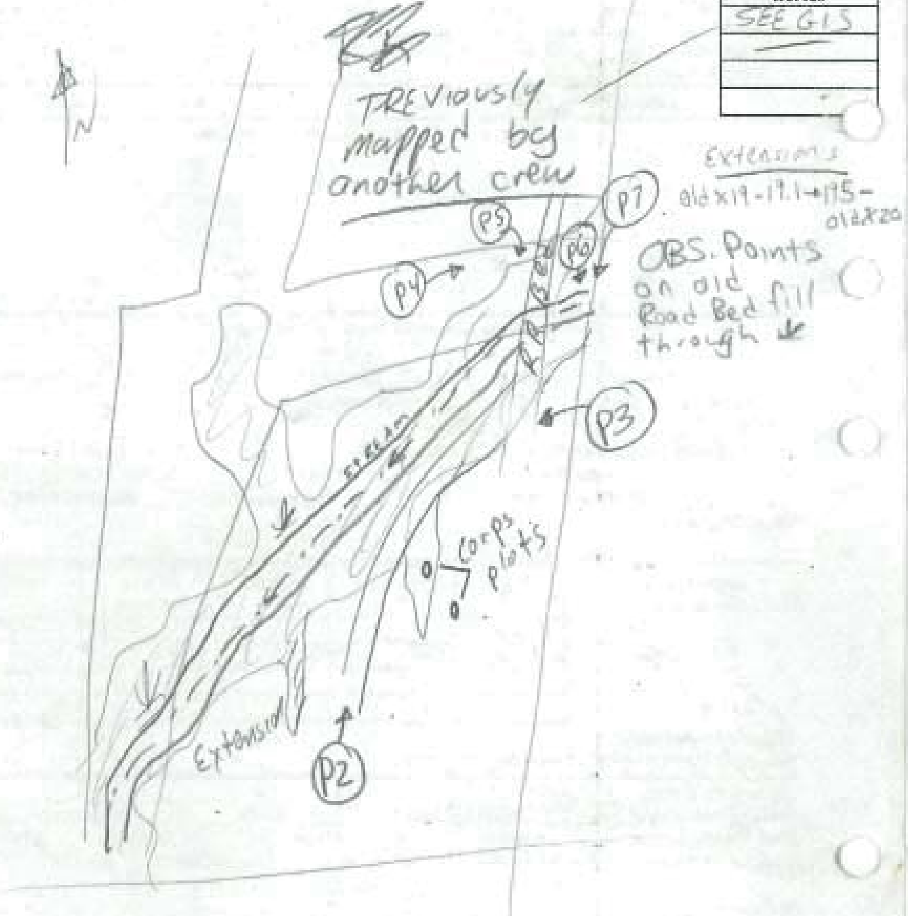
☐ Cedar Swamp NO ☐ Wetland of Special Significance yes

Photo # 462-7

SKETCH ON BACK

WETLAND SKETCH

Line Flagging Series
SEE GIS
—



Possible Functions and Values:

- ☒ Groundwater Recharge/Discharge
- ☒ Fish and Shellfish Habitat
- ☒ Nutrient Removal
- ☐ Sediment/Shoreline Stabilization
- ☐ Recreation
- ☐ Uniqueness/Heritage
- ☐ Endangered Species Habitat
- ☒ Floodflow Alteration
- ☒ Sediment/Toxicant Retention
- ☒ Production Export
- ☒ Wildlife Habitat
- ☐ Educational/Scientific Value
- ☐ Visual Quality/Aesthetics
- ☐ Other

Checklist:

- ☒ **Wetland ID#** G-10-67-422-1
- ☐ North arrow.
- ☐ Detailed sketch of wetland boundary and flagging sequence.
- ☐ Natural and man-made features – roads, culverts, outcrops, structures, etc.
- ☐ Photo locations.
- ☐ Location of important wildlife sign.

Maine Power Reliability Project

WETLAND SUMMARY FORM

Team A

Observers: DWP, CCD, KJW
Date: 9/5/07
Town: WHITEFIELD
Series : 1-10; 11-34; 35-40; 41-
Segment # : 11 CMP Section #: 392 CMP Pole #: 183 Wetland ID #:
Stream/Waterbody ID:
Corps plot : [✓ Yes] No

Dominant NWI Class: PEM1
Other NWI Classes: PSS1

Representative Wetland Vegetation (by Strata):

Shrubs
Rho gro
Spi tom
Aln inc (scattered)

Herbs
Sci spp
Carex spp
Eup spp
Doe umb
Cal can
Gly can
Lythrum salicarea

Representative Wetland Hydrology

___ Permanently Flooded (approximate depth -)
✓ Seasonally Flooded (approximate depth -)
✓ Saturated

Hydrologic Indicators:
___ Silt Deposition
___ Water-Stained Leaves
✓ Water Marks
___ Drift Lines
___ Surface Scouring
✓ Drainage Patterns
___ Buttressed Trees
___ Elevated Roots

Other Observations:

Representative Wetland Soils:
___ Mineral
✓ Organic

Depth	Horizon	Color	Redox Features	Texture
0-16	Oa	10YR2/2		Muck

Other Observations:
Meets NEIWPCC (2004) Criteria III Taken near #9

Stream # 1 Data:
Width (Bank-Bank): ___ Depth @ Center: ___ Peren. ___ Intermittent ___
Bank Configuration: ___ Undercut ___ Vertical ___ Gradual
Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder ___ Bedrock

Stream # 2 Data
Width (Bank-Bank): ___ Depth @ Center: ___ Peren. ___ Intermittent ___
Bank Configuration: ___ Undercut ___ Vertical ___ Gradual
Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):

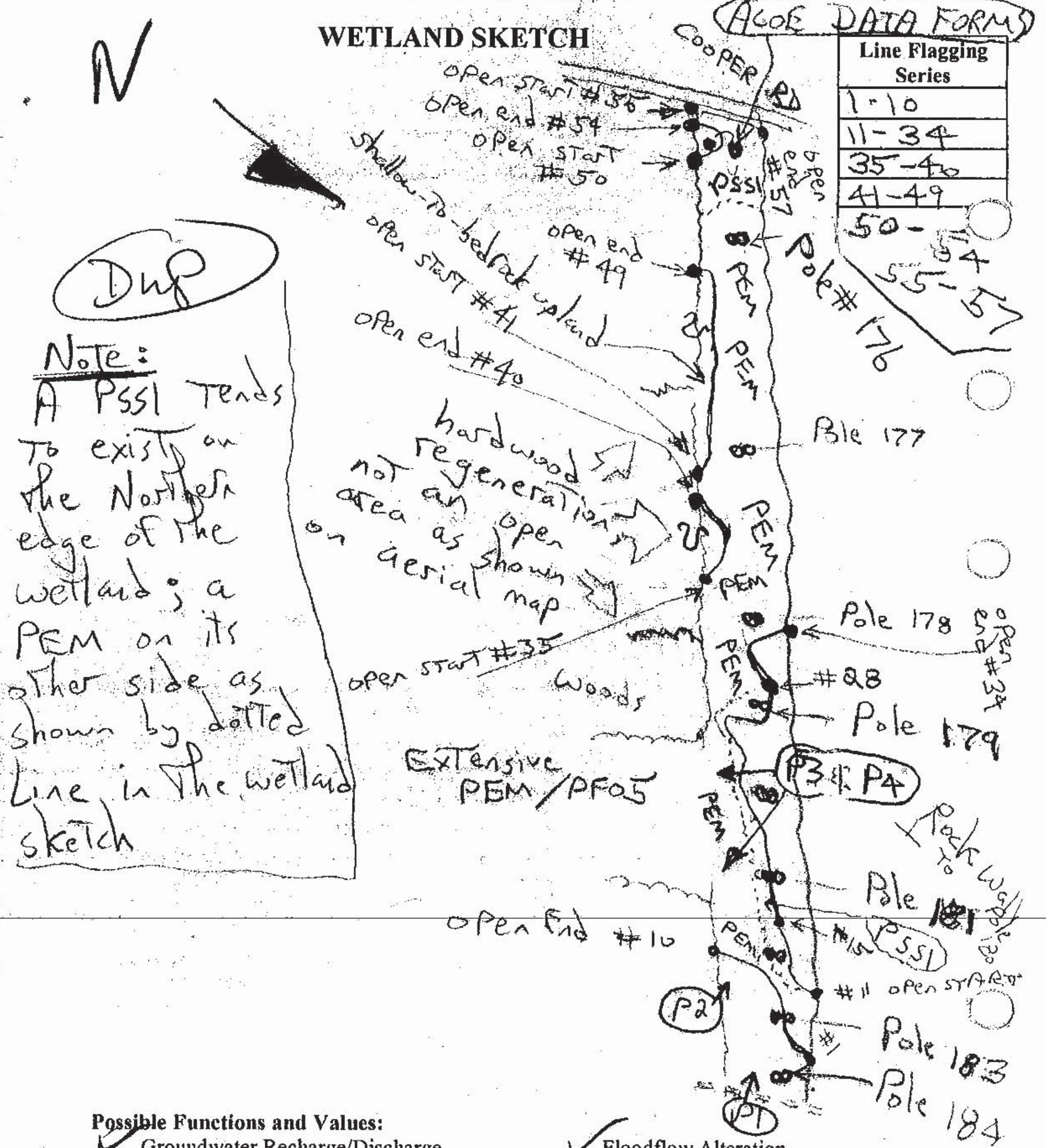
Osprey nest on Pole #176

Notes:

☐ Cedar Swamp
☒ Wetland of Special Significance

Photo # 111

WETLAND SKETCH



(ACOE DATA FORMS)

Line Flagging Series
1-10
11-34
35-40
41-49
50-54
55-57

Dup

Note: A PSS1 Tends To exist on the Northern edge of the wetland; a PEM on its other side as shown by dotted Line in the wetland sketch

Possible Functions and Values:

✓ Groundwater Recharge/Discharge
__ Fish and Shellfish Habitat
✓ Nutrient Removal
__ Sediment/Shoreline Stabilization
__ Recreation
__ Uniqueness/Heritage
__ Endangered Species Habitat
✓ Floodflow Alteration
✓ Sediment/Toxicant Retention
__ Production Export
✓ Wildlife Habitat
__ Educational/Scientific Value
__ Visual Quality/Aesthetics
__ Other

Checklist:

✓ **Wetland ID#** A11-392-183-1
✓ North arrow.
✓ Detailed sketch of wetland boundary and flagging sequence.
✓ Natural and man-made features – roads, culverts, outcrops, structures, etc.
— Photo locations.
— Location of important wildlife sign.

Maine Power Reliability Project
WETLAND SUMMARY FORM

Team A

Observers: DWP, CCD, KW
Date: 10/11/07
Town: WHITEFIELD
Series: 1-9, 10-36, 37-47, 48-62
Segment #: 11
CMP Section #: 392
CMP Pole #: 161
Wetland #: 1
Stream/Waterbody ID: A11-392-161-1-CH1
Corps plot: Yes [✓ No]

Dominant NWI Class: PSS1 -
Other NWI Classes:

Representative Wetland Vegetation (by Strata):

PSS1

Aln inc (s)	Sci cyp (h)	Gly str	Bro cil
Cic mac	Eupatorium sp	Eup gra	Sym lan
Sambucus sp	Sci mac	Car gyn	Typ lat
	Gly can	Solidago spp	Cal can

Representative Wetland Hydrology

___ Permanently Flooded (approximate depth -)
___ Seasonally Flooded (approximate depth -)
✓ Saturated

Hydrologic Indicators:
___ Silt Deposition
✓ Water-Stained Leaves
✓ Water Marks
___ Drift Lines
✓ Surface Scouring
___ Drainage Patterns
___ Buttressed Trees
___ Elevated Roots

Other Observations:

Representative Wetland Soils:

✓ Mineral
___ Organic

Depth	Horizon	Color	Redox Features	Texture
0-4	10YR4/2	Ap	None	SiL
4-10	Bg	2.5Y4/1	CMF 2.5Y5/1	SiL
10-14+	Cg	5Y3/1	-	SiL

Other Observations:
Meets NEIWPCC (2004) Criteria XIII "Problem Area" (no A horizon)

CH1:
Stream # 1 Data:
Width (Bank-Bank): 2'
Depth @ Center: 6"
Peren. ___
Intermittent ✓
Bank Configuration: ✓ Undercut ___ Vertical ✓ Gradual
Channel Substrate: ___ Peat-Muck ✓ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder ___ Bedrock

CH2:
Stream # 2 Data
Width (Bank-Bank): 1'
Depth @ Center: 6"
Peren. ___
Intermittent ✓
Bank Configuration: ___ Undercut ✓ Vertical ___ Gradual
Channel Substrate: ___ Peat-Muck ✓ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder Bedrock

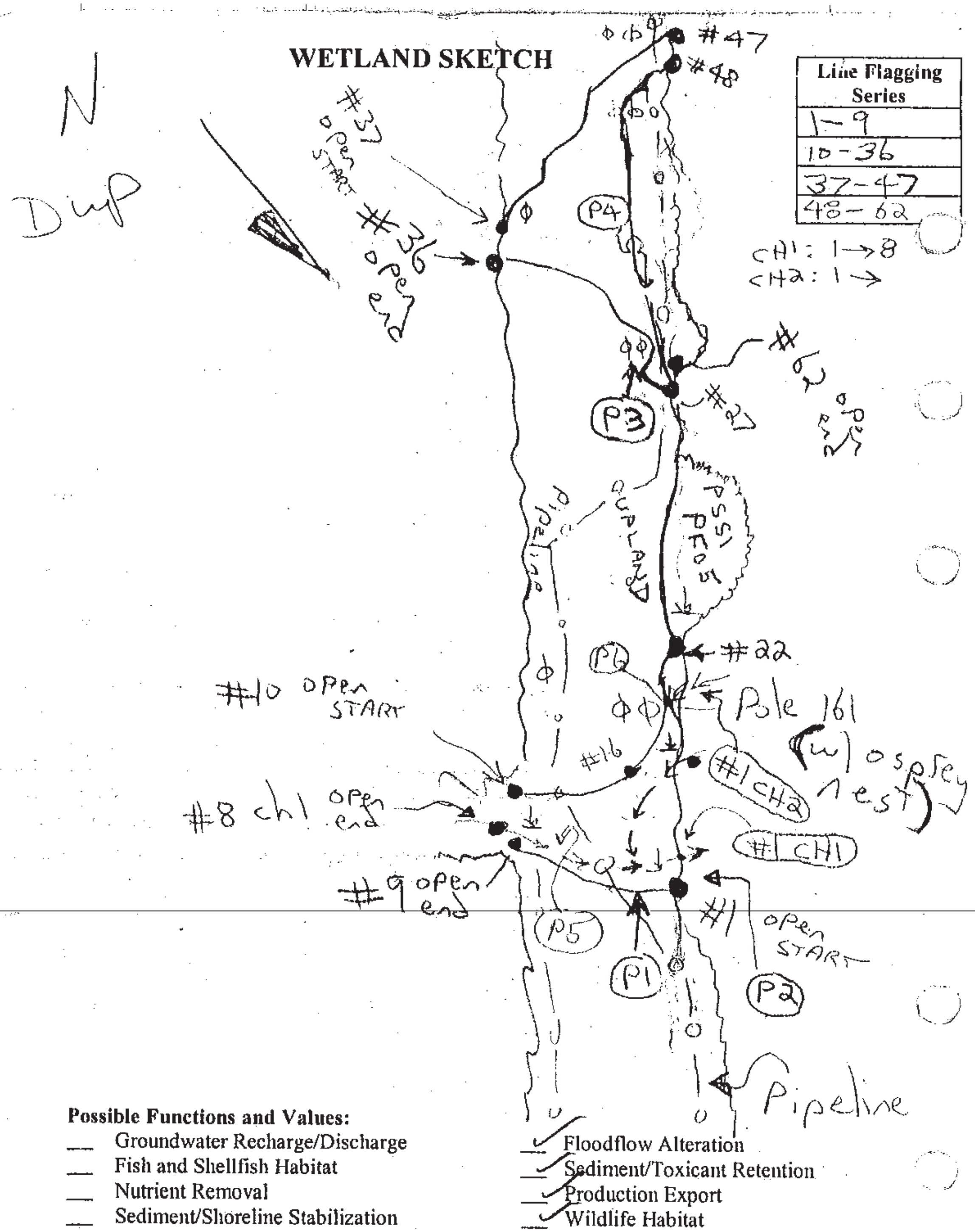
Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):
deer sign, osprey nest on Pole,

Notes:

☐ Cedar Swamp ☒ Wetland of Special Significance

Photo # A + 2 stream photos (5 & 6)

WETLAND SKETCH



Line Flagging Series
1-9
10-36
37-47
48-62

CH1: 1→8
CH2: 1→

Possible Functions and Values:

- ___ Groundwater Recharge/Discharge
- ___ Fish and Shellfish Habitat
- ___ Nutrient Removal
- ___ Sediment/Shoreline Stabilization
- ___ Recreation
- ___ Uniqueness/Heritage
- ___ Endangered Species Habitat
- ✓ Floodflow Alteration
- ✓ Sediment/Toxicant Retention
- ✓ Production Export
- ✓ Wildlife Habitat
- ___ Educational/Scientific Value
- ___ Visual Quality/Aesthetics
- ___ Other

Checklist:

- ✓ **Wetland ID#** A-11-392-161-1-1
- ✓ North arrow.
- ✓ Detailed sketch of wetland boundary and flagging sequence.
- ✓ Natural and man-made features – roads, culverts, outcrops, structures, etc.
- ✓ Photo locations.
- — Location of important wildlife sign.

Feature(s) ID: [illegible]
~~#4~~
WET-178-06

BOYLE ASSOCIATES

Routine Wetland Field Data Form

Date: 4.14.17	Project Name: QM1
Job #: 532	Cowardin Class(es) & %: PSS1E
Observers: HSW SH	Photo(s) #:

Comments: re-flagged a portion of WL. 11-1 thru 11-14 added. tie flag 11-14 to existing bnd.

Dominant Vegetation (by stratum):

Herbs	Herbs (cont.)	Shrubs/Saplings	Trees	Vines
	SEE	FORM	A	

Wetland Hydrology Indicators:

____ Perm. Flooded (approx. depth: ____)
___ Seasonally Flooded/Saturated (approx. depth: ______)
___ Saturated

*A1 – Surface water	*B5 – Iron deposits	*B15 – Marl deposits	*C7 – Thin muck surface
*A2 – High water table	B6 – Surface soil cracks	B16 – Moss trim lines	C8 – Crayfish burrows
*A3 – Saturation	*B7 – Inundated aerial imagery	*C1 – Hydrogen sulfide odor	C9 – Saturation visible on aerial imagery
*B1 – Water marks	*B8 – Sparse veg. concave surface	C2 – Dry-season water table	*D1 – Stunted or stressed plants
*B2 – Sediment deposits	*B9 – Water-stained leaves	*C3 – Oxidized rhizospheres - living root	*D2 – Geomorphic position
*B3 – Drift deposits	B10 – Drainage patterns	*C4 – Presence of reduced iron	*D3 – Shallow aquitard
*B4 – Algal mat or crust	*B13 – Aquatic fauna	*C6 – Recent iron reduction in tilled soils	*D4 – Microtopographic relief
*Denotes Primary Indicator			*D5-FAC-neutral test

Representative Hydric Soils:

Depth (in)	Horizon	Texture	Color	Redox. Features	Other

Hydric Soil Indicator & Reference:
Other Soil Comments:

Maine Power Reliability Project
WETLAND SUMMARY FORM

Team A

Observers: KJW, CCD, DWP
Date: 10/23/07
Town: ALNA
Series: 1-7; 8-29
Segment # : 11 CMP Section #: 392 CMP Pole #: 85 Wetland ID #: 1
Stream/Waterbody ID: A-11-392-85-1-CH1, 2 Corps plot : ___Yes [✓ ___No]

Dominant NWI Class: PSS1 Other NWI Classes:

Representative Wetland Vegetation (by Strata):

Shrub
Aln inc
Spi alb, Tom

Herb/Graminoid
Gly can Dul aru
Cal can Car sco, str
Sci cyp
Jun eff

Representative Wetland Hydrology

___ Permanently Flooded (approximate depth -)
✓ Seasonally Flooded (approximate depth -)
✓ Saturated

Hydrologic Indicators: ✓ Silt Deposition ✓ Water-Stained Leaves
✓ Water Marks ✓ Drift Lines ✓ Surface Scouring
✓ Drainage Patterns ___ Buttressed Trees ___ Elevated Roots
Other Observations:

Representative Wetland Soils:
✓ Mineral
___ Organic

Depth	Horizon	Color	Redox Features	Texture
0-2	Oa	7.5YR3/2	–	Mucky
2-8	Cg1	2.5Y3/2	CFP 10YR4/3	Mucky SiL
8-14	Cg2	5Y3/1	–	Mucky SiL

Other Observations:
Meets NEIWPCC (2004) Criteria I Frequently ponded/Flooded

CH1
Stream # 1 Data:
Width (Bank-Bank): 8-25' Depth @ Center: 5' Peren. ✓ Intermittent___ Too Rocky
Bank Configuration: ✓ Undercut ✓ Vertical ✓ Gradual
Channel Substrate: ___Peat-Muck ___Silt-Mud ___Sand ✓ Gravel/Cobble ✓ Boulder
see photos P7, P8, P9 ___ Bedrock

~ During high water

CH2
Stream # 2 Data
Width (Bank-Bank): 10' Depth @ Center: 3' Peren. ✓ Intermittent___
Bank Configuration: ___Undercut ✓ Vertical ✓ Gradual
Channel Substrate: ___Peat-Muck ___Silt-Mud ___Sand ✓ Gravel/Cobble ___Boulder
___ Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):

Beaver sign - nibbled alders; Coyote scat; ABA (see Photo 5)

Notes: CH1 width varies; 25' to 8' TROUT BROOK

☐ Cedar Swamp ☒ Wetland of Special Significance

Photo # ________

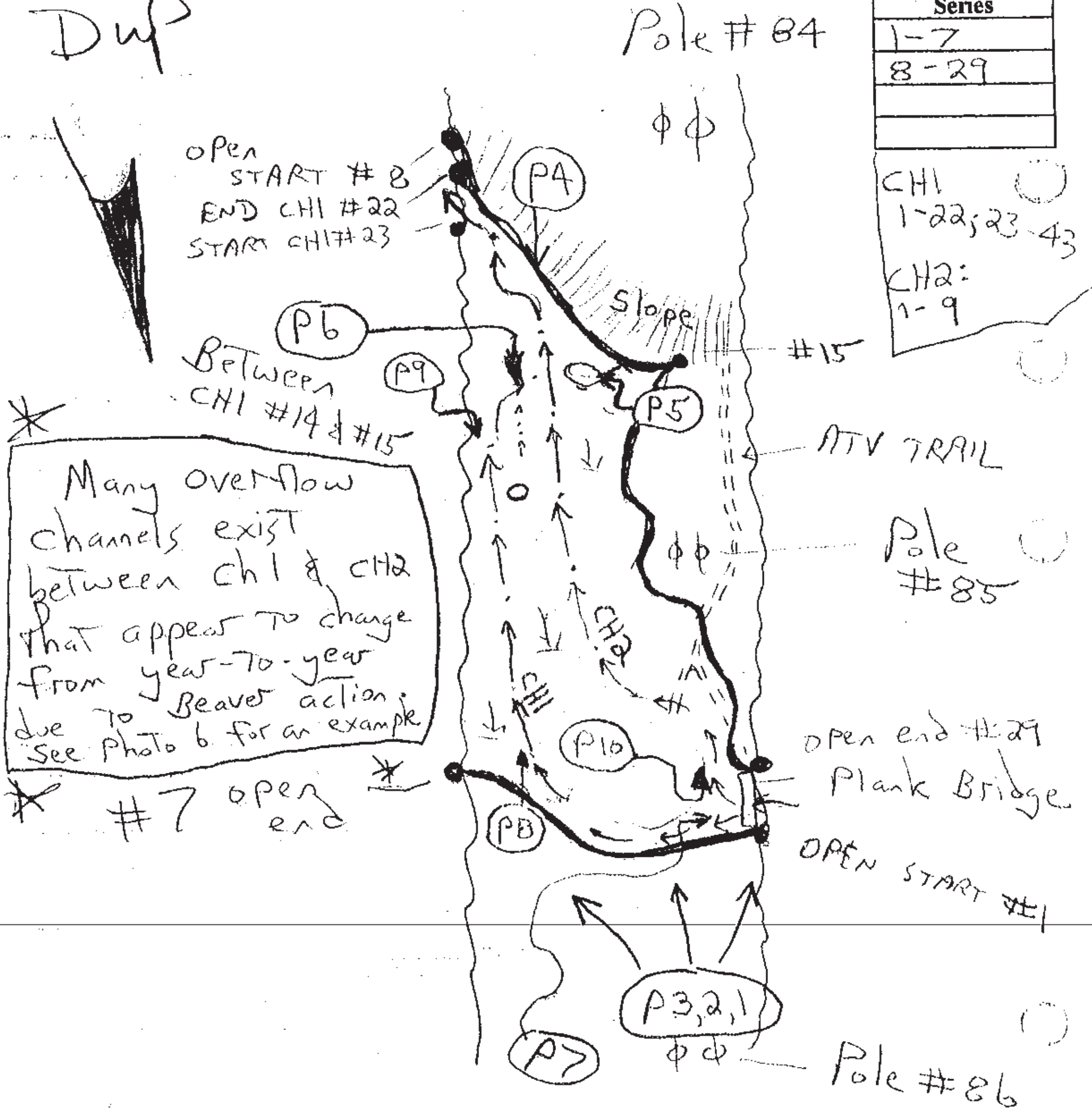
SKETCH ON BACK

WETLAND SKETCH

Dup

Line Flagging Series
1-7
8-29

CH1
1-22; 23-43
CH2:
1-9



Many overflow channels exist between Ch1 & CH2 that appear to change from year-to-year due to Beaver action. See Photo 6 for an example

Possible Functions and Values:

- __ Groundwater Recharge/Discharge
- ✓ Fish and Shellfish Habitat
- __ Nutrient Removal
- ✓ Sediment/Shoreline Stabilization
- ✓ Recreation ATV USAGE etc
- __ Uniqueness/Heritage
- __ Endangered Species Habitat
- ✓ Floodflow Alteration
- ✓ Sediment/Toxicant Retention
- ✓ Production Export
- ✓ Wildlife Habitat
- __ Educational/Scientific Value
- __ Visual Quality/Aesthetics
- __ Other

Checklist:

- ✓ **Wetland ID#** A-11-392-85-1
- ✓ North arrow.
- ✓ Detailed sketch of wetland boundary and flagging sequence.
- ✓ Natural and man-made features – roads, culverts, outcrops, structures, etc.
- ✓ Photo locations.
- __ Location of important wildlife sign.

A-29-392-1-1

Maine Power Reliability Project
WETLAND SUMMARY FORM

Team F/A

Observers: JLM, DAB
Date: 10/23/08
Town: Wiscassett
Series: X1 - X12
Segment #: 29 CMP Section #: 392 CMP Pole #: 1 Wetland ID #: 1
Stream/Waterbody ID: N/A
Corps plot: ___ Yes X No

Dominant NWI Class: PEM1 859. Other NWI Classes: PSS1

Representative Wetland Vegetation (by Strata):

Typ. lat (H)
Spi. lat (Sh, H)
-Jun. eff (H)
Ono. sen (H)
Sci. atr (H)
Sci. cyp (H)
Car. sco (H)

Representative Wetland Hydrology

___ Permanently Flooded (approximate depth -)
X Seasonally Flooded (approximate depth - 6" ?) full
___ Saturated

Hydrologic Indicators:
___ Silt Deposition
___ Water-Stained Leaves
___ Water Marks
___ Drift Lines
___ Surface Scouring
X Drainage Patterns
___ Buttressed Trees
___ Elevated Roots

Other Observations:
Impounded by road

Representative Wetland Soils:
X Mineral
___ Organic

Depth	Horizon	Color	Redox Features	Texture
0-4"	Bg	2.5Y 3/2	7.5YR 3/3	Sa Lo
4-16"	Cg	10Y 3/1	10YR 4/4	Sa Lo w/G
16+	refusal			

Disturbed soil

Other Observations: Gravel in Cg from ditch.
top soil gone

Meets NEIWPCC (2004) Criteria ___ Swanton

Stream # 1 Data: Ditch: not stream
Width (Bank-Bank): ___ Depth @ Center: ___ Peren. ___ Intermittent ___
Bank Configuration: ___ Undercut ___ Vertical ___ Gradual
Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder ___ Bedrock

Stream # 2 Data
Width (Bank-Bank): ___ Depth @ Center: ___ Peren. ___ Intermittent ___
Bank Configuration: ___ Undercut ___ Vertical ___ Gradual
Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder ___ Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):

deer tracks

Notes:
free water @ 2"
saturated to surface

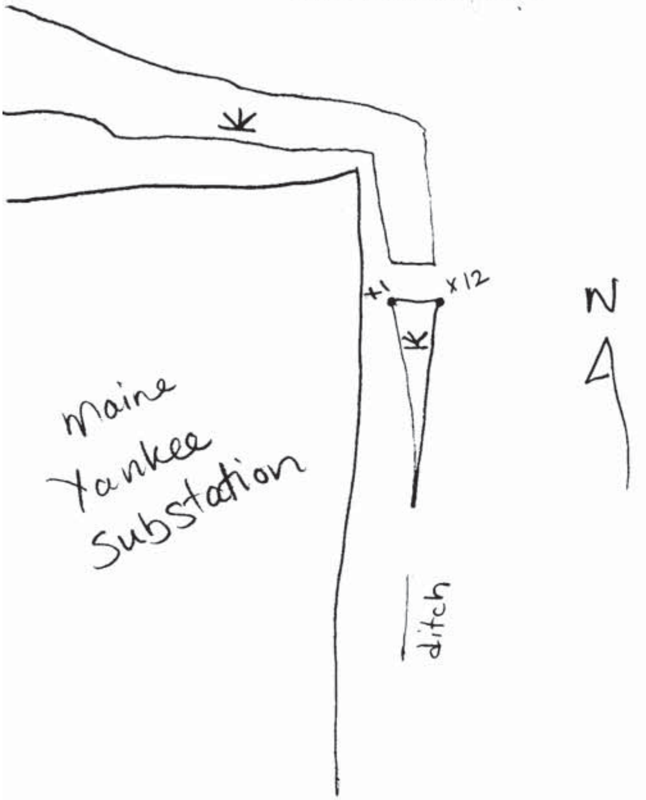
☐ Cedar Swamp
Wetland of Special Significance

Photo #

SKETCH ON BACK

WETLAND SKETCH

Line Flagging Series
X1-X12



Possible Functions and Values:

- __ Groundwater Recharge/Discharge
- __ Fish and Shellfish Habitat
- __ Nutrient Removal
- __ Sediment/Shoreline Stabilization
- __ Recreation
- __ Uniqueness/Heritage
- __ Endangered Species Habitat
- __ Floodflow Alteration
- __ Sediment/Toxicant Retention
- __ Production Export
- X Wildlife Habitat
- __ Educational/Scientific Value
- __ Visual Quality/Aesthetics
- __ Other

Checklist:

- — **Wetland ID#** F-29-392-1-1
- — North arrow.
- — Detailed sketch of wetland boundary and flagging sequence.
- — Natural and man-made features – roads, culverts, outcrops, structures, etc.
- — Photo locations.
- — Location of important wildlife sign.

WOSS
Data Form Examples

Merrill Road Converter Station

Maine Power Reliability Project
WETLAND SUMMARY FORM

Team: B

Observers: KF, MC
Date: 9/25/07
Town: Lewiston
Series:
Segment #: 14 CMP Section #: 200 CMP Pole #: 299 Wetland #: 1
Stream/Waterbody ID:
Corps plot: [✓ Yes] No

Dominant NWI Class: PEM1
Other NWI Classes: PSS1

Representative Wetland Vegetation (by Strata):

Cal can Sci cyp
Thy lat Ono sen
Ast umb
Sol gig

Aln rug
Vib dent
Spi lat

Representative Wetland Hydrology

_____ Permanently Flooded (approximate depth -)
✓ Seasonally Flooded (approximate depth - 4")
_____ Saturated

Hydrologic Indicators:
_____ Silt Deposition
✓ Water-Stained Leaves
✓ Water Marks
_____ Drift Lines
✓ Surface Scouring
✓ Drainage Patterns
_____ Buttressed Trees
_____ Elevated Roots

Other Observations:

Representative Wetland Soils:
✓ Mineral
_____ Organic

Depth	Horizon	Color	Redox Features	Texture
2-0	O	10YR2/2		Fibric
0-6	B1	5Y 4/1		S.Lo
6-10	B2	5Y 5/1	10YR4/6 5Y 6/1	

Other Observations:
Meets NEIWPCC (2004) Criteria VI

Stream # 1 Data:
Width (Bank-Bank): ________ Depth @ Center: ________ Peren. ________ Intermittent ________
Bank Configuration: ____Undercut ___ Vertical ___ Gradual
Channel Substrate: ___Peat-Muck ___Silt-Mud ___Sand ___Gravel/Cobble ___Boulder ___Bedrock

Stream # 2 Data
Width (Bank-Bank): ________ Depth @ Center: ________ Peren. ________ Intermittent ________
Bank Configuration: ____Undercut ___ Vertical ___ Gradual
Channel Substrate: ___Peat-Muck ___Silt-Mud ___Sand ___Gravel/Cobble ___Boulder Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):

Notes:

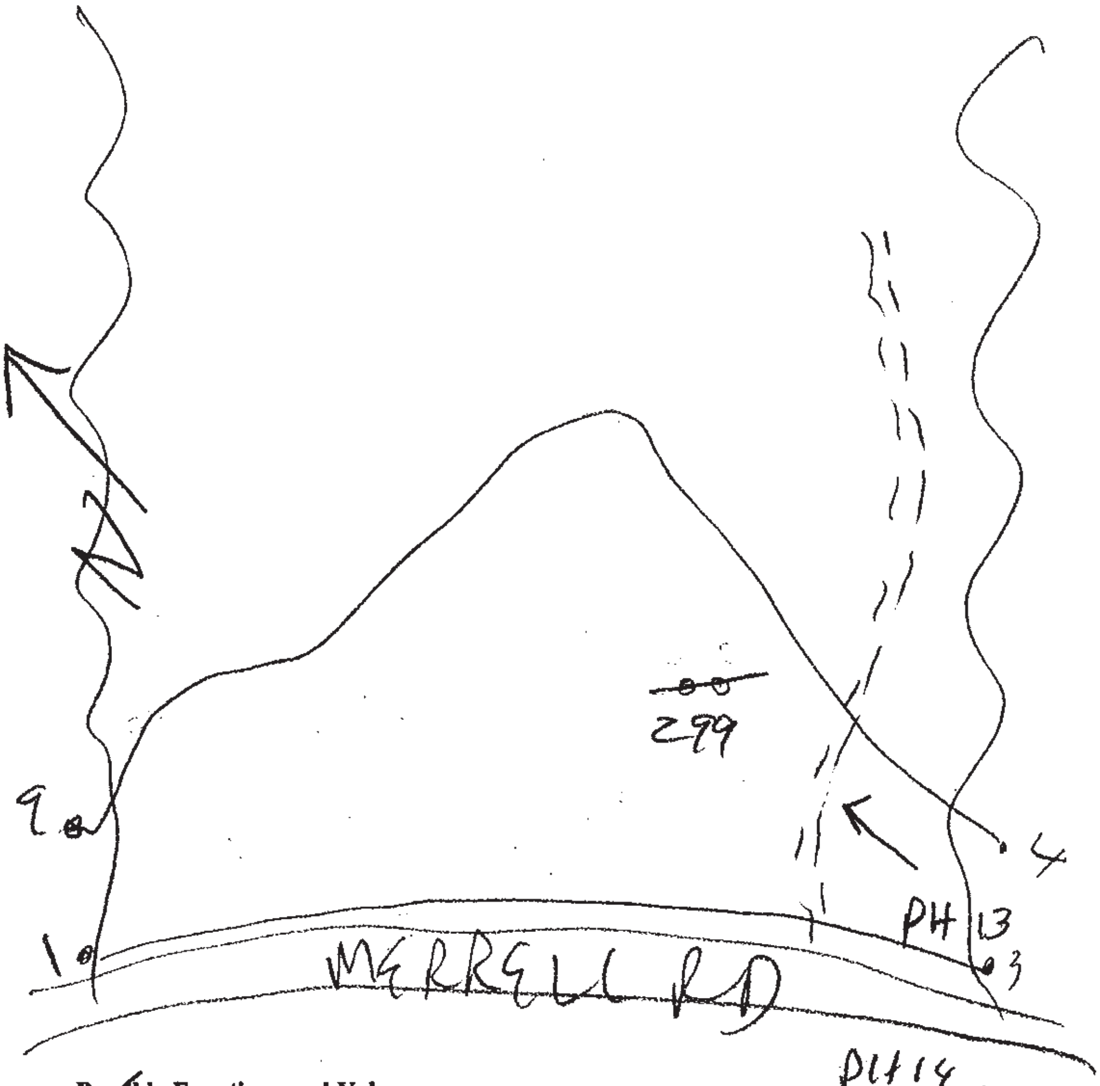
☐ Cedar Swamp ☐ Wetland of Special Significance

Photo # 13/14

SKETCH ON BACK

WETLAND SKETCH

Line Flagging Series
1-3
4-9



Possible Functions and Values:

- ✓ Groundwater Recharge/Discharge
- __ Fish and Shellfish Habitat
- __ Nutrient Removal
- __ Sediment/Shoreline Stabilization
- __ Recreation
- __ Uniqueness/Heritage
- __ Endangered Species Habitat
- __ Floodflow Alteration
- __ Sediment/Toxicant Retention
- __ Production Export
- __ Wildlife Habitat
- __ Educational/Scientific Value
- __ Visual Quality/Aesthetics
- __ Other

Checklist:

- ✓ **Wetland ID#** B14-20D-299-1
- ✓ North arrow.
- ✓ Detailed sketch of wetland boundary and flagging sequence.
- — Natural and man-made features – roads, culverts, outcrops, structures, etc.
- ✓ Photo locations.
- — Location of important wildlife sign.

Feature(s) ID: WET-PERRON-1

BOYLE ASSOCIATES

Routine Wetland Field Data Form

Date: 4/30/17	Project Name: QMI
Job #: 532	Cowardin Class(es) & %: PFO 1/4 E
Observers: J. Boyle, C. Flink	Photo(s) #: 2
Comments: linear V containing 2 VPs. (1 significant)	

Dominant Vegetation (by stratum):

Herbs	Herbs (cont.)	Shrubs/Saplings	Trees	Vines
Osm cin	Abi bal	Abi bal	Ace rub	
Ono sen	Sphagnum	Acer rub	Thu occ	
Car cri		Bet pen	Fra nig	
Car str			Bet pen	
			Abi bal	

Wetland Hydrology Indicators:

____ Perm. Flooded (approx. depth: ____)

✓ Seasonally Flooded/Saturated (approx. depth: 10")

___ Saturated

[✓ *A1 – Surface water]	*B5 – Iron deposits	*B15 – Marl deposits	*C7 – Thin muck surface
*A2 – High water table	B6 – Surface soil cracks	B16 – Moss trim lines	C8 – Crayfish burrows
*A3 – Saturation	*B7 – Inundated aerial imagery	*C1 – Hydrogen sulfide odor	C9 – Saturation visible on aerial imagery
*B1 – Water marks	*B8 – Sparse veg. concave surface	C2 – Dry-season water table	[✓ *D1 – Stunted or stressed plants]
*B2 – Sediment deposits	[✓ *B9 – Water-stained leaves]	*C3 – Oxidized rhizospheres - living root	[✓ *D2 – Geomorphic position]
*B3 – Drift deposits	[✓ B10 – Drainage patterns]	*C4 – Presence of reduced iron	*D3 – Shallow aquitard
*B4 – Algal mat or crust	*B13 – Aquatic fauna	*C6 – Recent iron reduction in tilled soils	[✓ *D4 – Microtopographic relief]
*Denotes Primary Indicator			*D5-FAC-neutral test

Representative Hydric Soils:

Depth (in)	Horizon	Texture	Color	Redox. Features	Other
0-20+	O	Sapric	Blk	–	very deep in
					center of
					wetland.
					full auger
					length +.

Hydric Soil Indicator & Reference: A1. Histosol.

Other Soil Comments:

WOSS
Data Form Example

Fickett Road Substation

Maine Power Reliability Project
WETLAND SUMMARY FORM

Team F

Observers: MW, SE
Date: 10/9/07
Town: POWNAL
Series: 1-19, 51 (1-14)
Segment # : 16
CMP Section #: 375
CMP Pole #: 240
Wetland #: 1
Stream/Waterbody ID: F16-375-240-1-1
Corps plot : ___Yes X No

Dominant NWI Class: PSS1/PEM1
Other NWI Classes:

Representative Wetland Vegetation (by Strata):

winterberry
arrowwood
alnus
meadowsweet
3-way sedge

dark green bulrush
wool grass
typha lat
carex crinita
carex lurida

eleocharis obtusa
blue flag
Solidago rugosa

Representative Wetland Hydrology

_____ Permanently Flooded (approximate depth -)
_____ Seasonally Flooded (approximate depth -)
X Saturated

Hydrologic Indicators:
_____ Silt Deposition
_____ Water-Stained Leaves
X Water Marks
_____ Drift Lines
_____ Surface Scouring
X Drainage Patterns
_____ Buttressed Trees
_____ Elevated Roots

Other Observations:

Representative Wetland Soils:
X Mineral
_____ Organic

Depth	Horizon	Color	Redox Features	Texture
0-3	O	–	–	ORGANICS
3-18	Bg	5/5B6	10% 10YR 4/6	SiLo

Other Observations:
Meets NEIWPCC (2004) Criteria VI

Stream # 1 Data:
Width (Bank-Bank): 5'
Depth @ Center: 1.5'
Peren. X
Intermittent ________
Bank Configuration: ____Undercut ___ Vertical X Gradual
Channel Substrate: ___Peat-Muck X Silt-Mud ___Sand ___Gravel/Cobble ___Boulder ___ Bedrock

Stream # 2 Data
Width (Bank-Bank): ________
Depth @ Center: ________
Peren. ________
Intermittent ________
Bank Configuration: ____Undercut ___ Vertical ___ Gradual
Channel Substrate: ___Peat-Muck ___Silt-Mud ___Sand ___Gravel/Cobble ___Boulder ___ Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):

DEER BEDS & TRACKS

Notes:

Peren. STREAM Buffered by PSS/PEM WETLAND

☐ Cedar Swamp
☑ Wetland of Special Significance

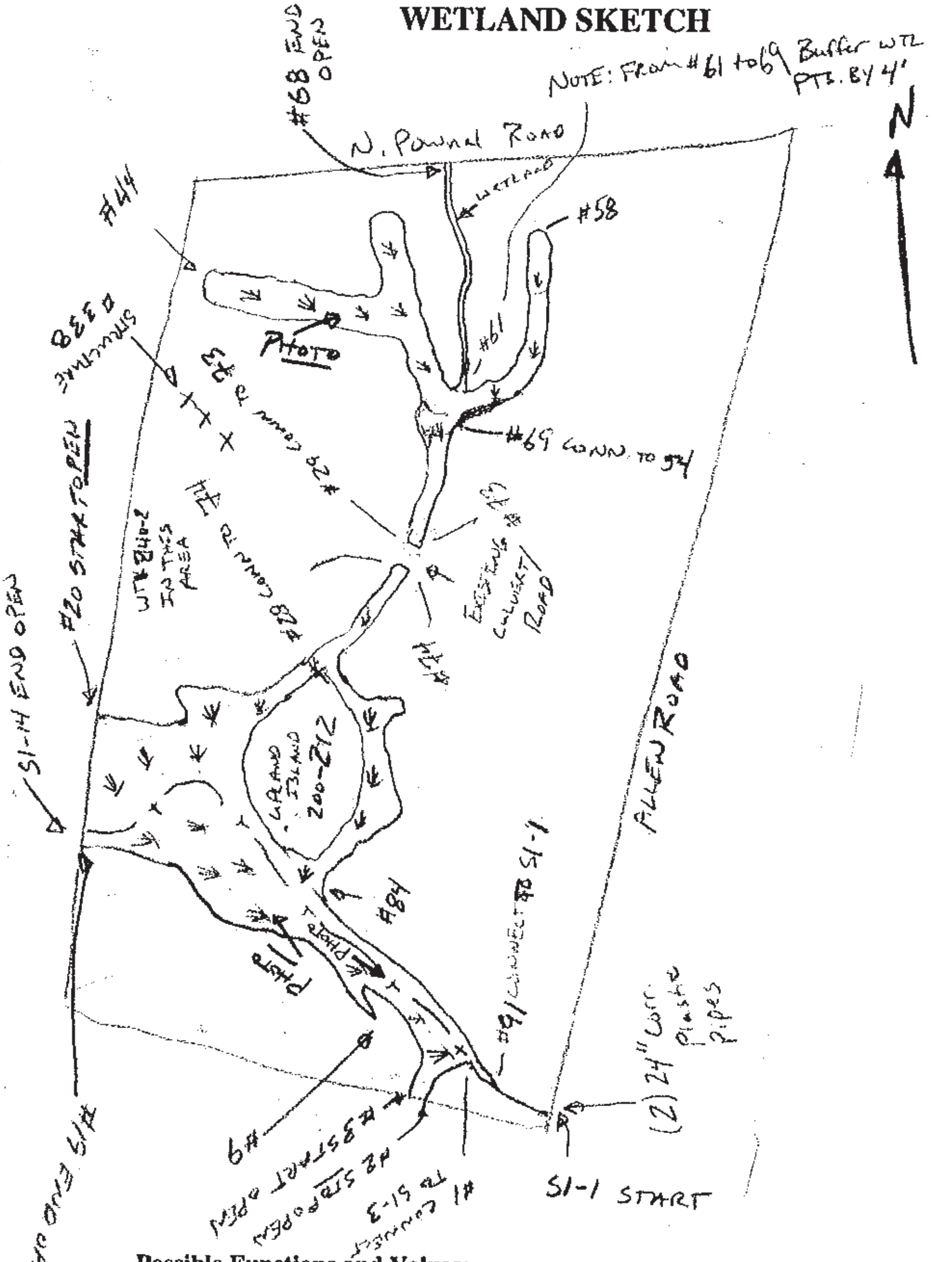
Photo # 3 PHOTOS, 2 OF WTL, 1 OF STREAM

SKETCH ON BACK

WETLAND SKETCH

Line Flagging Series
1-19
S1(1-14)
20-28, 69-73
29-68, 74-91

200-212



Possible Functions and Values:

☒ Groundwater Recharge/Discharge
☒ Fish and Shellfish Habitat
☐ Nutrient Removal
☐ Sediment/Shoreline Stabilization
☐ Recreation
☐ Uniqueness/Heritage
☐ Endangered Species Habitat
☒ Floodflow Alteration
☐ Sediment/Toxicant Retention
☒ Production Export
☒ Wildlife Habitat
☐ Educational/Scientific Value
☐ Visual Quality/Aesthetics
☐ Other

Checklist:

☒ **Wetland ID#** F-16-375-240-1
☒ North arrow.
☒ Detailed sketch of wetland boundary and flagging sequence.
☒ Natural and man-made features – roads, culverts, outcrops, structures, etc.
☒ Photo locations.
☒ Location of important wildlife sign.

Maine Power Reliability Project

Team F

WETLAND SUMMARY FORM

Observers: MW, SE Date: 10/9/07

Town: POWNAL Series: 1-25

Segment #: 16 CMP Section #: 375 CMP Pole #: 240 Wetland #: 3

Stream/Waterbody ID: Corps plot: ____Yes X No

Dominant NWI Class: PSS1 Other NWI Classes:

Representative Wetland Vegetation (by Strata):

Red maple
BLACK WILLOWS
Arrow wood
Spirea
Alnus

typha lat
Juncus eff.
Juncus can.
blue flag

sol. rug.
Sen. fern
Carex lur.
Carex crin.

wool grass

Representative Wetland Hydrology

_____ Permanently Flooded (approximate depth -)

_____ Seasonally Flooded (approximate depth -)

X Saturated

Hydrologic Indicators: _____Silt Deposition X Water-Stained Leaves
_____ Water Marks _____ Drift Lines _____ Surface Scouring
X Drainage Patterns _____ Buttressed Trees _____ Elevated Roots

Other Observations:

Representative Wetland Soils:

X Mineral

_____ Organic

Depth	Horizon	Color	Redox Features	Texture
0-4	O	-	-	ORG
4-17	Bg	5/5GY	7% 10YR 4/6	SiLo

Other Observations:

Meets NEIWPCC (2004) Criteria VI

Stream # 1 Data:

Width (Bank-Bank): ________ Depth @ Center: ________ Peren. ________ Intermittent ________

Bank Configuration: ____Undercut ___ Vertical ___ Gradual

Channel Substrate: ___Peat-Muck ___Silt-Mud ___Sand ___Gravel/Cobble ___Boulder ___Bedrock

Stream # 2 Data

Width (Bank-Bank): ________ Depth @ Center: ________ Peren. ________ Intermittent ________

Bank Configuration: ____Undercut ___ Vertical ___ Gradual

Channel Substrate: ___Peat-Muck ___Silt-Mud ___Sand ___Gravel/Cobble ___Boulder ___ Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):

DEER TRACKS

Notes:

N/A

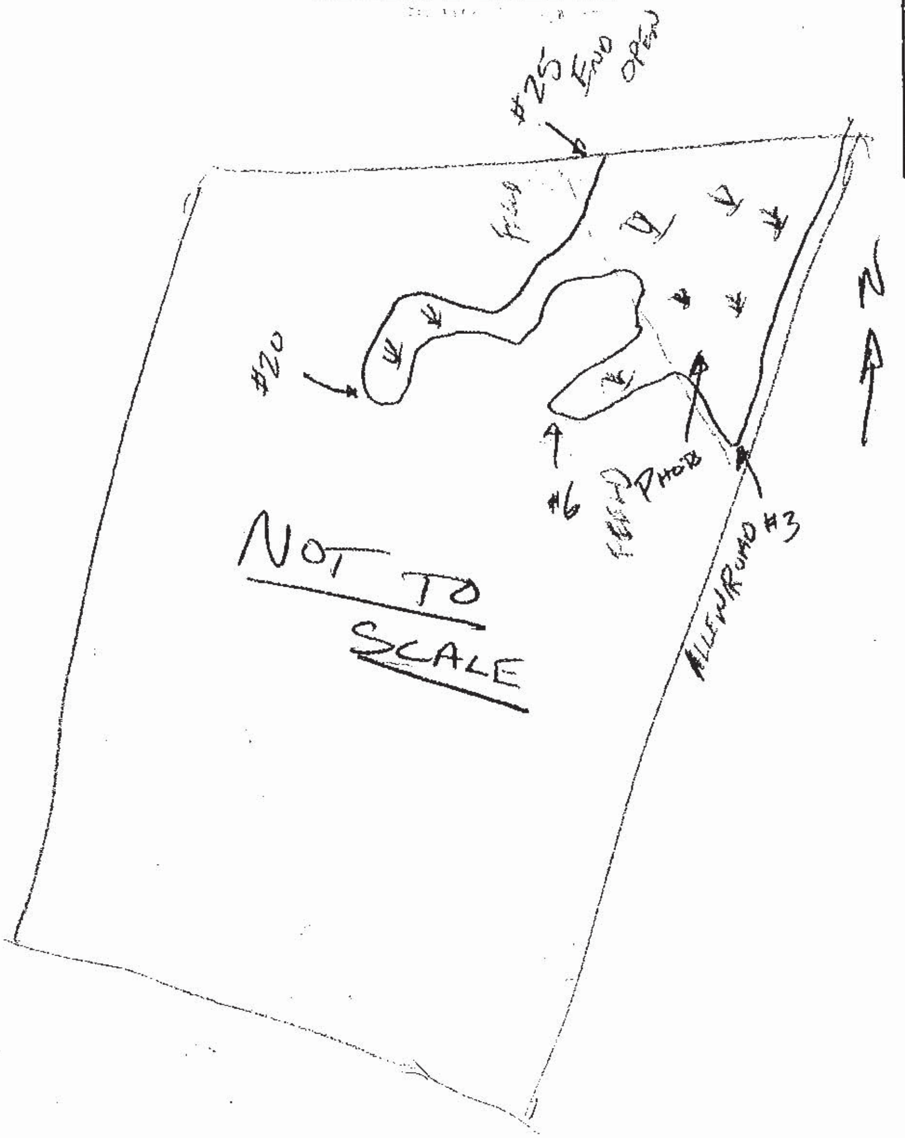
☐Cedar Swamp ☐Wetland of Special Significance

Photo #

SKETCH ON BACK

WETLAND SKETCH

Line Flagging Series
1-25



Possible Functions and Values:

☒ Groundwater Recharge/Discharge
☐ Fish and Shellfish Habitat
☐ Nutrient Removal
☐ Sediment/Shoreline Stabilization
☐ Recreation
☐ Uniqueness/Heritage
☐ Endangered Species Habitat
☐ Floodflow Alteration
☐ Sediment/Toxicant Retention
☒ Production Export
☒ Wildlife Habitat
☐ Educational/Scientific Value
☐ Visual Quality/Aesthetics
☐ Other

Checklist:

☒ **Wetland ID#** F-16-375-240-3
☒ North arrow.
☒ Detailed sketch of wetland boundary and flagging sequence.
☒ Natural and man-made features – roads, culverts, outcrops, structures, etc.
☒ Photo locations.
☒ Location of important wildlife sign.

Exhibit 9-4: USACE Data Plot Examples

USACE
Data Plot Examples

Segment 1

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: QMI City/County: ______ Sampling Date: 4/13/17

Applicant/Owner: CMP State: ME Sampling Point: Plot-4-5-UP

Investigator(s): SNH HSW Section, Township, Range: ______

Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): none

Slope (%): 3% Lat: 425875.78 FtN Long: 3072163.01 FtE Datum: NAD83

Soil Map Unit Name: ______ NWI classification: ______

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ______ (If no, explain in Remarks.)

Are Vegetation ✓, Soil ______, or Hydrology ______ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ______

Are Vegetation ______, Soil ______, or Hydrology ______ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No ~~X~~
Hydric Soil Present?	Yes ______	No X
Wetland Hydrology Present?	Yes ______	No X

Is the Sampled Area within a Wetland? Yes ______ No X

If yes, optional Wetland Site ID: ______

Remarks: (Explain alternative procedures here or in a separate report.)

in cleared ROW

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ Microtopographic Relief (D4)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ______ No ______ Depth (inches): ______

Water Table Present? Yes ______ No ______ Depth (inches): ______

Saturation Present? (includes capillary fringe) Yes ______ No ______ Depth (inches): ______

Wetland Hydrology Present? Yes ______ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

SOIL

Sampling Point: Plot-4-5-UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-13	10YR 3/3	100					L	
13-18+	2.5Y 5/4	100					SiL	

[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:

☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Dark Surface (S7) (**LRR R, MLRA 149B**)
☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
☐ Dark Surface (S7) (**LRR K, L**)
☐ Polyvalue Below Surface (S8) (**LRR K, L**)
☐ Thin Dark Surface (S9) (**LRR K, L**)
☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
☐ Red Parent Material (TF2)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: ____________

Depth (inches): ____________

Hydric Soil Present? Yes ______ **No** X

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: QMI City/County: ______ Sampling Date: 4/13/17

Applicant/Owner: CMP State: ME Sampling Point: Plot-4-5-WET

Investigator(s): SNH HSW Section, Township, Range: ______

Landform (hillslope, terrace, etc.): valley Local relief (concave, convex, none): concave

Slope (%): 1% Lat: 425855.06 ft N Long: 3072277ftE Datum: NAD83

Soil Map Unit Name: ______ NWI classification: PSS1E

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ______ No ______ (If no, explain in Remarks.)

Are Vegetation ✓, Soil ______, or Hydrology ______ significantly disturbed? Are "Normal Circumstances" present? Yes ______ No ______

Are Vegetation ______, Soil ______, or Hydrology ______ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ✓ No ______

Hydric Soil Present? Yes ✓ No ______

Wetland Hydrology Present? Yes ✓ No ______

Is the Sampled Area within a Wetland? Yes ✓ No ______

If yes, optional Wetland Site ID: ______

Remarks: (Explain alternative procedures here or in a separate report.)

in cleared ROW

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ✓ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ✓ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ______ No ______ Depth (inches): ______

Water Table Present? Yes ✓ No ______ Depth (inches): ______

Saturation Present? (includes capillary fringe) Yes ✓ No ______ Depth (inches): ______

Wetland Hydrology Present? Yes ✓ No ______

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: Plot-4-5-WET

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. —			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1. Rosa multiflora	7		
2. Alnus incana	30	✓	facW
3. Lyonia ligustrina	20	✓	facW
4.			
5. Pastur rosel	3		
6.			
7.			
	60 = Total Cover		
Herb Stratum (Plot size: 5')			
1. Onoclea sensibilis	15		
2. Carex lupulina	20	✓	Obl
3. Solidago rugosa	45	✓	Fac
4. Doellingeria umbellata	10		
5. Agrostis gigantea	30	✓	FacW
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	120 = Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: ________ (A)

Total Number of Dominant Species Across All Strata: ________ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: ________ (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x 1 =
FACW species		x 2 =
FAC species		x 3 =
FACU species		x 4 =
UPL species		x 5 =
Column Totals:	(A)	(B)

Prevalence Index = B/A = ________

Hydrophytic Vegetation Indicators:

✓ Rapid Test for Hydrophytic Vegetation

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✓ No ______

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: Plot-4-5-WET

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-2	2.5Y 3/3	95	7.5YR 4/3	5	C	PL	L	Oxidized Rhizospheres
2-8	2.5Y 4/2	95	7.5YR 4/3	5	C	PL	L	Oxidized Rhizo
8-14	2.5Y 4/2	75	10YR 5/6	20	C	M	L	
			2.5Y 5/1	5				

[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:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) **(LRR R, MLRA 149B)**
___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
___ Loamy Mucky Mineral (F1) **(LRR K, L)**
___ Loamy Gleyed Matrix (F2)
✓ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
___ Coast Prairie Redox (A16) **(LRR K, L, R)**
___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
___ Dark Surface (S7) **(LRR K, L)**
___ Polyvalue Below Surface (S8) **(LRR K, L)**
___ Thin Dark Surface (S9) **(LRR K, L)**
___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: ______________________
Depth (inches): ______________________

Hydric Soil Present? Yes ✓ No ______

Remarks:

WET - 49-04

Wetland ID: MGWHSW25
DP-UP

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Moxie Gore - Dirigo Partners City/County: Moxie Gore Sampling Date: 7-9-14

Applicant/Owner: CMP Co State: ME Sampling Point: UP-1

Investigator(s): ASW Section, Township, Range: Moxie gore

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): ______ Slope (%): 3

Subregion (LRR or MLRA): LRR Lat: ______ Long: ______ Datum: ______

Soil Map Unit Name: ______ NWI classification: ______

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ______ No ______ (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ______

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ______ No X	**Is the Sampled Area within a Wetland?**	**Yes** ______ **No** X
Hydric Soil Present?	Yes ______ No X		
Wetland Hydrology Present?	Yes ______ No X	If yes, optional Wetland Site ID: ______	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): ______

Water Table Present? Yes _____ No _____ Depth (inches): ______

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): ______

Wetland Hydrology Present? Yes ______ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland ID: MGWHSW25

VEGETATION – Use scientific names of plants.

Sampling Point: ____________

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. Red maple	10		
2. Sugar maple	10		
3. Balsam fir	40		
4. White birch	10		
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15)	Absolute % Cover	Dominant Species?	Indicator Status
1. Red Maple	10		
2. Balsam fir	5		
3. Am Hazelnut	1		
4. White birch	10		
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5)	Absolute % Cover	Dominant Species?	Indicator Status
1. Starflower	75		
2. moss spp.	20		
3. Club moss	5		
4. Mia can	5		
5. Viola spp.	1		
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	= Total Cover		

Woody Vine Stratum (Plot size: ____________)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	= Total Cover		

Remarks: (Include photo numbers here or on a separate sheet.)

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: ____________ (A)

Total Number of Dominant Species Across All Strata: ____________ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: ____________ (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	(A)		(B)

Prevalence Index = B/A = ____________

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ______ No X

Wetland ID: MGW HSW 25

SOIL

Sampling Point: ___________

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
1-0	10 yr 3/2	100					organic	duff
0-5	7.5yr3/4	100					silt loam	
								refusal @ 6"

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: ____________________

Depth (inches): ____________________

Hydric Soil Present? Yes ______ No ______

Remarks:

Refusal @ 6"

WET-49-04

Wetland ID: MGWHSW25
DP-Wet

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Moxie Gore - Dirigo Partners City/County: Moxie Gore Sampling Date: 7-9-14

Applicant/Owner: CMPCO State: ME Sampling Point: Wet-1

Investigator(s): ASW JFM SMG Section, Township, Range: MG

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): ____ Slope (%): ____

Subregion (LRR or MLRA): LRR Lat: ____ Long: ____ Datum: ____

Soil Map Unit Name: ____ NWI classification: ____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ____ (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes X No ____

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? **Yes** X **No** ____

If yes, optional Wetland Site ID: MGWHSW25

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Marl Deposits (B15)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Moss Trim Lines (B16)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☒ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☒ Microtopographic Relief (D4)
- ☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No ____ Depth (inches): 1

Water Table Present? Yes X No ____ Depth (inches): 0

Saturation Present? (includes capillary fringe) Yes X No ____ Depth (inches): 0

Wetland Hydrology Present? Yes X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland ID: MGWHSW25

VEGETATION – Use scientific names of plants.

Sampling Point: wet-1

Tree Stratum (Plot size: 30ft)

	Absolute % Cover	Dominant Species?	Indicator Status
1. Silver Maple	2		
2. Cedar	5		
3. Black Ash	5		
4. Red Spruce	5		
5. Balsam fir	20		
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15ft)

	Absolute % Cover	Dominant Species?	Indicator Status
1. Balsam fir	75		
2. Red Maple	1		
3. Un-ID'd shrub	10		
4. Yellow birch	1		
5. White birch	1		
6. Cedar	1		
7. Red Spruce	1		
	= Total Cover		

Herb Stratum (Plot size: 5ft)

	Absolute % Cover	Dominant Species?	Indicator Status
1. Spagnum moss	98	Y	
2. Bunchberry	10		
3. Bidens	45	Y	
4. Jewelweed	2		
5. Sarsparilla	5		
6. Bristly dewberry	2		
7. Goldthread	2		
8. Ladyfern	>1		
9. Cleaver	>1		
10. Carex Spp.	15		
11.			
12.			
	= Total Cover		

Woody Vine Stratum (Plot size: ____)

	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: ____ (A)

Total Number of Dominant Species Across All Strata: ____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x 1 =
FACW species		x 2 =
FAC species		x 3 =
FACU species		x 4 =
UPL species		x 5 =
Column Totals:	(A)	(B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ____

Remarks: (Include photo numbers here or on a separate sheet.)

Wetland ID: MGWHSW25

SOIL

Sampling Point: ___________

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
16+	10yr3/2	100	N/A				Organic	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

X Histosol (A1)
__ Histic Epipedon (A2)
X Black Histic (A3)
X Hydrogen Sulfide (A4)
__ Stratified Layers (A5)
__ Depleted Below Dark Surface (A11)
__ Thick Dark Surface (A12)
__ Sandy Mucky Mineral (S1)
__ Sandy Gleyed Matrix (S4)
__ Sandy Redox (S5)
__ Stripped Matrix (S6)
__ Dark Surface (S7) (**LRR R, MLRA 149B**)
__ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
__ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
__ Loamy Mucky Mineral (F1) (**LRR K, L**)
__ Loamy Gleyed Matrix (F2)
__ Depleted Matrix (F3)
__ Redox Dark Surface (F6)
__ Depleted Dark Surface (F7)
__ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

__ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
__ Coast Prairie Redox (A16) (**LRR K, L, R**)
__ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
__ Dark Surface (S7) (**LRR K, L**)
__ Polyvalue Below Surface (S8) (**LRR K, L**)
__ Thin Dark Surface (S9) (**LRR K, L**)
__ Iron-Manganese Masses (F12) (**LRR K, L, R**)
__ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
__ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
__ Red Parent Material (F21)
__ Very Shallow Dark Surface (TF12)
__ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: ____________________

Depth (inches): ____________________

Hydric Soil Present? Yes X No ______

Remarks:

USACE
Data Plot Examples

Segment 2

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: CMP - MREI City/County: Somerset County Sampling Date: 9/22/2015
Applicant/Owner: CMP State: ME Sampling Point: UPL-72-10
Investigator(s): M. Banaitis / K. Maloney Section, Township, Range: Moscow
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): 2%
Subregion (LRR or MLRA): LRR R Lat: 45, 6, 18.502 Long: 69, 50, 18.890 Datum: WGS 84
Soil Map Unit Name Colonel-Dixfield-Pillsbury association, 3 to 15 percent slopes NWI Classification: N/A
Are climatic / hydrologic conditions of the site typical for this time of the year? **Yes** X **No** ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? **Yes** X **No** ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? **Yes** ___ **No** X
Hydric Soil Present? **Yes** ___ **No** X
Wetland Hydrology Present? **Yes** ___ **No** X

Is the Sampled Area within a Wetland? **Yes** ___ **No** X
If yes, optional Wetland Site ID: ___

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Yes ___ No ___ Depth (inches): ___
Water Table Present? Yes ___ No ___ Depth (inches): ___
Saturation Present? Yes ___ No ___ Depth (inches): ___
(includes capillary fringe)

Wetland Hydrology Present? Yes ___ No X

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: UPL-72-10

Tree Stratum (Plot Size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Populus tremuloides*	40	Y	FACU
2. *Betula papyrifera*	20	Y	FACU
3. *Betula populifolia*	20	Y	FAC
4. *Acer rubrum*	10	N	FAC
5.			
6.			
7.			
8.			
9.			
10.			
	90	= Total Cover	

Sapling/Shrub Stratum (Plot Size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Corylus cornuta*	30	Y	FACU
2. *Betula populifolia*	10	Y	FAC
3. *Populus tremuloides*	10	Y	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	50	= Total Cover	

Herb Stratum (Plot Size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Eurybia macrophylla*	10	Y	UPL
2. *Aralia nudicaulis*	10	Y	FACU
3. *Rubus idaeus*	5	Y	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
	25	= Total Cover	

Woody Vine Stratum (Plot Size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 9 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 22.22% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	40	x 3 =	120
FACU species	115	x 4 =	460
UPL species	10	x 5 =	50
Column Totals:	165 (A)		630 (B)

Prevalence Index = B/A = 3.82

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: UPL-72-10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features				Texture	Remarks
(Inches)	Color (moist)	%	Color (moist)	%	Type^1	Loc^2		
0-4	10YR 4/4	100					sl	
4-16+	2.5Y 5/6	90					sl	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2] Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histisol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Suface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)

___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B)**
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B)**
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L)**
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):
Type: ______________________
Depth (inches): ______________________

Hydric Soil Present? Yes ______ **No** X

Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: CMP - MREI
City/County: Somerset County
Sampling Date: 9/22/2015
Applicant/Owner: CMP
State: ME
Sampling Point: WET-72-10
Investigator(s): M. Banaitis / K. Maloney
Section, Township, Range: Moscow
Landform (hillslope, terrace, etc.): terrace
Local relief (concave, convex, none): Concave
Slope (%): 0%
Subregion (LRR or MLRA): LRR R
Lat: 45, 6, 17.802
Long: 69, 50, 19.188
Datum: WGS 84
Soil Map Unit Name Colonel-Dixfield-Pillsbury association, 3 to 15 percent slopes
NWI Classification: PSS
Are climatic / hydrologic conditions of the site typical for this time of the year? **Yes** X **No** ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed?
Are "Normal Circumstances" present? **Yes** X **No** ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic?
(If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? **Yes** X **No** ___
Hydric Soil Present? **Yes** X **No** ___
Wetland Hydrology Present? **Yes** X **No** ___

Is the Sampled Area within a Wetland? **Yes** X **No** ___
If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

___ Surface Water (A1)
X High Water Table (A2)
X Saturation (A3)
___ Water Marks (B1)
___ Sediment Deposits (B2)
___ Drift Deposits (B3)
___ Algal Mat or Crust (B4)
___ Iron Deposits (B5)
___ Inundation Visible on Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
X Water-Stained Leaves (B9)
___ Aquatic Fauna (B13)
___ Marl Deposits (B15)
X Hydrogen Sulfide Odor (C1)
___ Oxidized Rhizospheres on Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Tilled Soils (C6)
___ Thin Muck Surface (C7)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface Soil Cracks (B6)
___ Drainage Patterns (B10)
___ Moss Trim Lines (B16)
___ Dry-Season Water Table (C2)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Stunted or Stressed Plants (D1)
___ Geomorphic Position (D2)
___ Shallow Aquitard (D3)
___ Microtopographic Relief (D4)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches):
Water Table Present? Yes X No ___ Depth (inches): 10
Saturation Present? Yes X No ___ Depth (inches): 6
(includes capillary fringe)

Wetland Hydrology Present? Yes X No ___

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants

Sampling Point: WET-72-10

Tree Stratum (Plot Size: ______)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0	= Total Cover	

Sapling/Shrub Stratum (Plot Size: ______)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Salix bebbiana*	40	Y	FACW
2. *Fraxinus nigra*	15	Y	FACW
3. *Alnus incana*	10	N	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	65	= Total Cover	

Herb Stratum (Plot Size: ______)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Osmundastrum cinnamomeum*	30	Y	FACW
2. *Epilobium ciliatum*	15	Y	FACW
3. *Persicaria sagittata*	10	N	OBL
4. *Equisetum fluviatile*	10	N	OBL
5. *Galium asprellum*	5	N	OBL
6. *Dryopteris intermedia*	5	N	FAC
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
	75	= Total Cover	

Woody Vine Stratum (Plot Size: ______)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.00% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	25	x 1 =	25
FACW species	110	x 2 =	220
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	140 (A)		260 (B)

Prevalence Index = B/A = 1.86

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ______

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: WET-72-10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features				Texture	Remarks
(Inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
4+	10YR 2/1	100					Saturated OM	
0-8	10YR 2/2	95	10YR 5/6	2	C	PL/M	sl	
8-16+	10YR 5/1	90	10YR 5/8	10	C	PL/M	sl	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2] Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- X Depleted Below Dark Suface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L)**
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):
Type: ______________________
Depth (inches): ______________________

Hydric Soil Present? Yes X **No** ______

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: QMI City/County: ______ Sampling Date: 5/17/17

Applicant/Owner: CMP State: ME Sampling Point: Plot-71-102-UP

Investigator(s): SNH CJF Section, Township, Range: ______

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): — Slope (%): 4%

Subregion (LRR or MLRA): ______ Lat: 829810,65 ft N Long: 3029929 ft E Datum: NAD 83

Soil Map Unit Name: ______ NWI classification: —

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ______ (If no, explain in Remarks.)

Are Vegetation ______, Soil ______, or Hydrology ______ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ______

Are Vegetation ______, Soil ______, or Hydrology ______ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ______ No X

Hydric Soil Present? Yes ______ No X

Wetland Hydrology Present? Yes ______ No X

Is the Sampled Area within a Wetland? Yes ______ No X

If yes, optional Wetland Site ID: ______

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ______ No ______ Depth (inches): ______

Water Table Present? Yes ______ No ______ Depth (inches): ______

Saturation Present? (includes capillary fringe) Yes ______ No ______ Depth (inches): ______

Wetland Hydrology Present? Yes ______ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No Hydrology indicators present

VEGETATION – Use scientific names of plants.

Sampling Point: Plot 71-102-UP

Tree Stratum (Plot size: 30'R)	Absolute % Cover	Dominant Species?	Indicator Status
1. Fagus grandifolia	10	✓	FacU
2. Acer rubrum	20	✓	Fac
3. Fraxinus pennsylvanica	7		Fac
4.			
5.			
6.			
7.			
	37	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15')	Absolute % Cover	Dominant Species?	Indicator Status
1. Abies balsamea	15	✓	Fac
2. Acer rubrum	10	✓	Fac
3. Ostrya virginiana	5		FacU
4.			
5.			
6.			
7.			
	30	= Total Cover	

Herb Stratum (Plot size: 5')	Absolute % Cover	Dominant Species?	Indicator Status
1. Dennstaedtia punctilobula	2		FacU
2. Streptopus lanceolatus	3	✓	FacU
3. Mainthum canadense	10	✓	FacU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	15	= Total Cover	

Woody Vine Stratum (Plot size: 15')	Absolute % Cover	Dominant Species?	Indicator Status
1. –			
2.			
3.			
4.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.5 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x 1 =
FACW species		x 2 =
FAC species	52	x 3 = 156
FACU species	30	x 4 = 120
UPL species		x 5 =
Column Totals:	82 (A)	276 (B)

Prevalence Index = B/A = 3.36

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ___ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: Plot 71-102-UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-2	10YR 3/2	100					SiL	
2-16	2.5Y 5/4	100					SiL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) **(LRR R, MLRA 149B)**
___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
___ Loamy Mucky Mineral (F1) **(LRR K, L)**
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
___ Coast Prairie Redox (A16) **(LRR K, L, R)**
___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
___ Dark Surface (S7) **(LRR K, L)**
___ Polyvalue Below Surface (S8) **(LRR K, L)**
___ Thin Dark Surface (S9) **(LRR K, L)**
___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: ______

Depth (inches): ______

Hydric Soil Present? Yes ______ No X

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: QMI City/County: ______ Sampling Date: 5/17/17
Applicant/Owner: CMP State: ME Sampling Point: Plot 71-102-WET
Investigator(s): SNH CJF Section, Township, Range: ______
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 2%
Subregion (LRR or MLRA): ______ Lat: 829669.43 ft Long: 3029818.93 ft Datum: NAD 83
Soil Map Unit Name: ______ NWI classification: PFO1E
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ___ (If no, explain in Remarks.)
Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ✓ No ___
Hydric Soil Present? Yes ✓ No ___
Wetland Hydrology Present? Yes ✓ No ___

Is the Sampled Area within a Wetland? Yes ✓ No ___
If yes, optional Wetland Site ID: ______

Remarks: (Explain alternative procedures here or in a separate report.)
Plot in PFO area near I-STR-102-2

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ✓ Surface Water (A1)
- ✓ High Water Table (A2)
- ✓ Saturation (A3)
- __ Water Marks (B1)
- __ Sediment Deposits (B2)
- __ Drift Deposits (B3)
- __ Algal Mat or Crust (B4)
- __ Iron Deposits (B5)
- __ Inundation Visible on Aerial Imagery (B7)
- __ Sparsely Vegetated Concave Surface (B8)
- ✓ Water-Stained Leaves (B9)
- __ Aquatic Fauna (B13)
- __ Marl Deposits (B15)
- __ Hydrogen Sulfide Odor (C1)
- __ Oxidized Rhizospheres on Living Roots (C3)
- __ Presence of Reduced Iron (C4)
- __ Recent Iron Reduction in Tilled Soils (C6)
- __ Thin Muck Surface (C7)
- __ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- __ Surface Soil Cracks (B6)
- ✓ Drainage Patterns (B10)
- __ Moss Trim Lines (B16)
- __ Dry-Season Water Table (C2)
- __ Crayfish Burrows (C8)
- __ Saturation Visible on Aerial Imagery (C9)
- __ Stunted or Stressed Plants (D1)
- __ Geomorphic Position (D2)
- __ Shallow Aquitard (D3)
- __ Microtopographic Relief (D4)
- __ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ✓ No ___ Depth (inches): 1"
Water Table Present? Yes ✓ No ___ Depth (inches): 1"
Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): to surface

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: Plot 71-102-WET

Tree Stratum (Plot size: 30'R)	Absolute % Cover	Dominant Species?	Indicator Status
1. Fraxinus pennsylvanica	50	✓	Fac
2. Acer rubrum	5		
3. Populus tremuloides	10		
4. Betula allegheniensis	15		
5.			
6.			
7.			
	80	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15')	Absolute % Cover	Dominant Species?	Indicator Status
1. Abies balsamea	15	✓	Fac
2. Acer rub	10	✓	Fac
3. Ostrya virginiana	5		
4.			
5.			
6.			
7.			
	30	= Total Cover	

Herb Stratum (Plot size: 5')	Absolute % Cover	Dominant Species?	Indicator Status
1. Cinna latifolia	30	✓	Facw
2. Impatiens copensis	5		
3. Solidago gigantea	10		
4. Onoclea sensibilis	20	✓	facw
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	65	= Total Cover	

Woody Vine Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. —			
2.			
3.			
4.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 1 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x 1 =
FACW species		x 2 =
FAC species		x 3 =
FACU species		x 4 =
UPL species		x 5 =
Column Totals:	(A)	(B)

Prevalence Index = B/A = ______

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

✓ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✓ No ______

Remarks: (Include photo numbers here or on a separate sheet.)

Some maianthemum canadense on nearby a mound

SOIL

Sampling Point: Plot-71-102-WET

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 2/1	100					SiL	
Rock Refusal								

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.   [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ✓ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: ______________

Depth (inches): ______________

Hydric Soil Present? Yes ✓ No ______

Remarks:

USACE
Data Plot Examples

Segment 3

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: QMI City/County: Concord, Somerset Co. Sampling Date: 5.22.17

Applicant/Owner: CMP State: ME Sampling Point: Plot-76-02-UP

Investigator(s): HSW JPB Section, Township, Range: Concord

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none

Slope (%): ___ Lat: N 810511.43 Long: E 3022075.93 Datum: CONUS

Soil Map Unit Name: ___ NWI classification: n/a

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ___ (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ___

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ___ No X

Hydric Soil Present? Yes ___ No X

Wetland Hydrology Present? Yes ___ No X

Is the Sampled Area within a Wetland? Yes ___ No X

If yes, optional Wetland Site ID: ___

Remarks: (Explain alternative procedures here or in a separate report.)

WOSS due to Stream

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ___ Depth (inches): ___

Water Table Present? Yes ___ No ___ Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No ___ Depth (inches): ___

Wetland Hydrology Present? Yes ___ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

no hydrology

VEGETATION – Use scientific names of plants.

Sampling Point: Plot-76-02-UP

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Tsuga canadense	40		FACU
2. Acer pensylvanicum	10		FACU
3.			
4.			
5.			
6.			
7.			
	50 = Total Cover		

Sapling/Shrub Stratum (Plot size: 15')	Absolute % Cover	Dominant Species?	Indicator Status
1. tsuga canadense	10		FACU
2. acer pensylvanicum	10		FACU
3. fagus grandifolia	5		FACU
4.			
5.			
6.			
7.			
	25 = Total Cover		

Herb Stratum (Plot size: 5')	Absolute % Cover	Dominant Species?	Indicator Status
1. Maianthemum Canadense	10		FACU
2. tsuga canadense	5		FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	15 = Total Cover		

Woody Vine Stratum (Plot size: ______)	Absolute % Cover	Dominant Species?	Indicator Status
1. 0			
2.			
3.			
4.			
	______ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: ______ (A)

Total Number of Dominant Species Across All Strata: ______ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: ______ (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	7	x 4 =	28
UPL species	0	x 5 =	0
Column Totals:	7 (A)		28 (B)

Prevalence Index = B/A = 4

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ______ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: Pht-76-02-up

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-2	blk	100	—	—	—	—	organic	
2-3	7.5YR 4/4	100	—	—	—		Sil	
3-7	5YR 3/3	100	—	—	—		LS	
7-16	7.5YR 4/4	100	—	—	—	—	LS	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) **(LRR R, MLRA 149B)**
___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
___ Loamy Mucky Mineral (F1) **(LRR K, L)**
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
___ Coast Prairie Redox (A16) **(LRR K, L, R)**
___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
___ Dark Surface (S7) **(LRR K, L)**
___ Polyvalue Below Surface (S8) **(LRR K, L)**
___ Thin Dark Surface (S9) **(LRR K, L)**
___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: —
Depth (inches): —

Hydric Soil Present? Yes ______ No X

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: QMI City/County: Concord, Somerset Sampling Date: 5.22.17
Applicant/Owner: CMP State: ME Sampling Point: Plot-76-02-WET
Investigator(s): HSW JPB Section, Township, Range: Concord
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none
Slope (%): ______ Lat: N 810630.22 Long: E 3022118.46 Datum: ConUS
Soil Map Unit Name: ______ NWI 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 N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ___
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ___
Hydric Soil Present? Yes X No ___
Wetland Hydrology Present? Yes X No ___

Is the Sampled Area within a Wetland? Yes X No ___
If yes, optional Wetland Site ID: ______

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A[illegible]
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

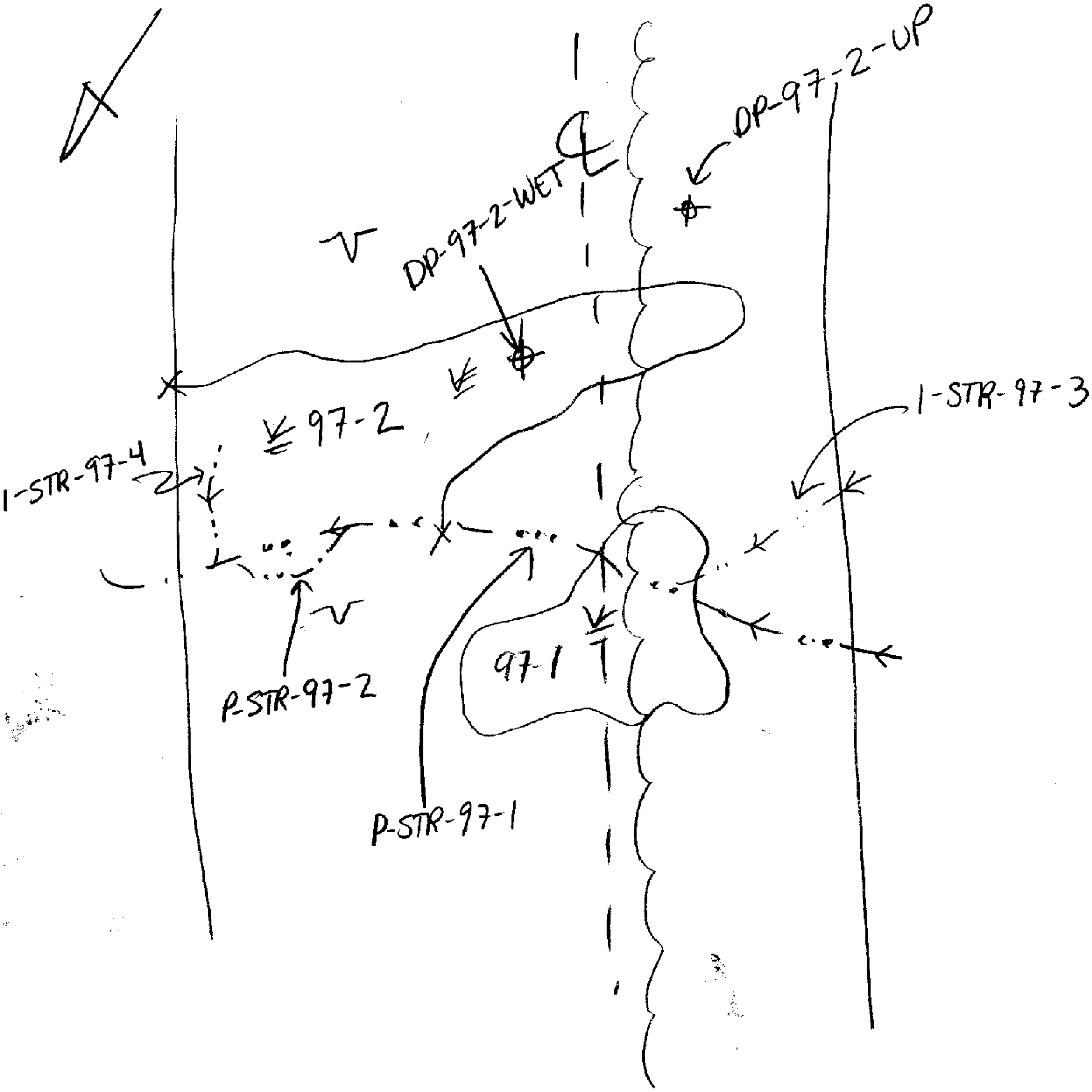
Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ______
Water Table Present? Yes X No ___ Depth (inches): 4"
Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): Surface

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:


DP-97-2-UP
DP-97-2-WET
97-2
1-STR-97-4
1-STR-97-3
P-STR-97-2
97-1
P-STR-97-1

VEGETATION – Use scientific names of plants.

Sampling Point: PlL-76-02-WE1

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Ø			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15')			
1. Alnus incana	60		FACW
2.			
3.			
4.			
5.			
6.			
7.			
	60 = Total Cover		

Herb Stratum (Plot size: 5')			
1. Rubus Pubescence	5		FACW
2. Osmundastrum cinnamomeum	2		FACW
3. carex sp.	20		
4. Maianthemum Canadense	2		FACU
5. Thalictrum dioicum			FACU
6. abies balsamea	>1		FAC
7. Tiarella cordifolia	10		FACU
8.			
9.			
10.			
11.			
12.			
	40 = Total Cover		

Woody Vine Stratum (Plot size:)			
1. Ø			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: ______ (A)

Total Number of Dominant Species Across All Strata: ______ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: ______ (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 = 0
FACW species	3	x 2 = 6
FAC species	1	x 3 = 3
FACU species	3	x 4 = 12
UPL species	0	x 5 = 0
Column Totals:	7 (A)	21 (B)

Prevalence Index = B/A = 3

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- X 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: P6t-76-02-WET

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features				Texture	Remarks
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-4	10YR 2/2	95	10YR 4/4	5			org.	
4-16	10YR 3/3	85	10YR 4/4	15			Sil	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (**LRR R, MLRA 149B**)
- Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- Loamy Mucky Mineral (F1) (**LRR K, L**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- [✓ Redox Dark Surface (F6)]
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- Coast Prairie Redox (A16) (**LRR K, L, R**)
- 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- Dark Surface (S7) (**LRR K, L**)
- Polyvalue Below Surface (S8) (**LRR K, L**)
- Thin Dark Surface (S9) (**LRR K, L**)
- Iron-Manganese Masses (F12) (**LRR K, L, R**)
- Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: —

Depth (inches): —

Hydric Soil Present? [✓ Yes] No

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: QM1 City/County: Franklin Sampling Date: 5.17.17

Applicant/Owner: CMP State: ME Sampling Point: Plot 99-06-up

Investigator(s): HSW DHP Section, Township, Range: Starks

Landform (hillslope, terrace, etc.): pit and mound Local relief (concave, convex, none): concave Slope (%): 1%

Subregion (LRR or [✓ MLRA]): ______ Lat: 701351.60 Long: 3602361.85 Datum: NAD 83/CONUS

Soil Map Unit Name: ______ NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ______ No ______ (If no, explain in Remarks.)

Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes X No ______

Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ______ No X

Hydric Soil Present? Yes ______ No X

Wetland Hydrology Present? Yes ______ No X

Is the Sampled Area within a Wetland? Yes X No ______

If yes, optional Wetland Site ID: ______

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

N/A

Surface Water Present? Yes ______ No ______ Depth (inches): ______

Water Table Present? Yes ______ No ______ Depth (inches): ______

Saturation Present? (includes capillary fringe) Yes ______ No ______ Depth (inches): ______

Wetland Hydrology Present? Yes ______ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Sampling Point: WET - 99-06 - up

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' R)

	Absolute % Cover	Dominant Species?	Indicator Status
1. Betula papyrifera	10%		FACU
2. abies balsamea	2%		FAC
3. populus tremuloides	20%		FACU
4. Acer Spicatum	10%		FACU
5. Acer rubrum	15%		FAC
6. Tsuga canadense	10%		FACU
7.			
	67% = Total Cover		

Sapling/Shrub Stratum (Plot size: 15' R)

	Absolute % Cover	Dominant Species?	Indicator Status
1. Abies balsamea	10%		FAC
2. Acer spicatum	15%		FACU
3. Fagus grandifolia	1%		FACU
4.			
5.			
6.			
7.			
	26% = Total Cover		

Herb Stratum (Plot size: 5' R)

	Absolute % Cover	Dominant Species?	Indicator Status
1. Miamanthum Canadense	3%		FACU
2. Erythronium rostratum.	<1%		—
3. Trientalis borealis	2%		FAC
4. Aralia nudicaulis	<1%		FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	6% = Total Cover		

Woody Vine Stratum (Plot size:)

	Absolute % Cover	Dominant Species?	Indicator Status
1. Ø			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: ______ (A)

Total Number of Dominant Species Across All Strata: ______ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: ______ (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	4	x 3 =	12
FACU species	8	x 4 =	32
UPL species	0	x 5 =	0
Column Totals:	12 (A)		44 (B)

Prevalence Index = B/A = 44/12 = 3.66

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ______ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: Plot - 99-06 - up

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-1	5YR 2.5/1	100	—	—	—	—	Organic	—
1-13	10YR 3/6	100	—	—	—	—	Sil	—
	refusal	@	13" - rock					

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

__ Histosol (A1)
__ Histic Epipedon (A2)
__ Black Histic (A3)
__ Hydrogen Sulfide (A4)
__ Stratified Layers (A5)
__ Depleted Below Dark Surface (A11)
__ Thick Dark Surface (A12)
__ Sandy Mucky Mineral (S1)
__ Sandy Gleyed Matrix (S4)
__ Sandy Redox (S5)
__ Stripped Matrix (S6)
__ Dark Surface (S7) **(LRR R, MLRA 149B)**
__ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
__ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
__ Loamy Mucky Mineral (F1) **(LRR K, L)**
__ Loamy Gleyed Matrix (F2)
__ Depleted Matrix (F3)
__ Redox Dark Surface (F6)
__ Depleted Dark Surface (F7)
__ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

__ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
__ Coast Prairie Redox (A16) **(LRR K, L, R)**
__ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
__ Dark Surface (S7) **(LRR K, L)**
__ Polyvalue Below Surface (S8) **(LRR K, L)**
__ Thin Dark Surface (S9) **(LRR K, L)**
__ Iron-Manganese Masses (F12) **(LRR K, L, R)**
__ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
__ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
__ Red Parent Material (F21)
__ Very Shallow Dark Surface (TF12)
__ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):
Type: rock
Depth (inches): 13"

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

need to transfer info (or V plot

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: QMI City/County: Franklin Sampling Date: 5.17.17
Applicant/Owner: CMP State: ME Sampling Point: Plot-99-06-WET
Investigator(s): HSW DHP Section, Township, Range: Starks
Landform (hillslope, terrace, etc.): flat basin Local relief (concave, convex, none): concave Slope (%): 1%
Subregion (LRR or [✓ MLRA]): ______ Lat: 701394.08' Long: 3002431.98' E Datum: ______
Soil Map Unit Name: ______ NWI classification: PFO 1/4 E
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____
Hydric Soil Present?	Yes X	No ____
Wetland Hydrology Present?	Yes X	No ____

Is the Sampled Area within a Wetland? Yes X No ____
If yes, optional Wetland Site ID: ______

Remarks: (Explain alternative procedures here or in a separate report.)
morphological adaptations observed among over 50% of tsuga + populus trem.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)
X Surface Water (A1)
X High Water Table (A2)
X Saturation (A3)
__ Water Marks (B1)
__ Sediment Deposits (B2)
__ Drift Deposits (B3)
__ Algal Mat or Crust (B4)
__ Iron Deposits (B5)
__ Inundation Visible on Aerial Imagery (B7)
__ Sparsely Vegetated Concave Surface (B8)
X Water-Stained Leaves (B9)
__ Aquatic Fauna (B13)
__ Marl Deposits (B15)
__ Hydrogen Sulfide Odor (C1)
__ Oxidized Rhizospheres on Living Roots (C3)
__ Presence of Reduced Iron (C4)
__ Recent Iron Reduction in Tilled Soils (C6)
__ Thin Muck Surface (C7)
__ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)
__ Surface Soil Cracks (B6)
__ Drainage Patterns (B10)
__ Moss Trim Lines (B16)
__ Dry-Season Water Table (C2)
__ Crayfish Burrows (C8)
__ Saturation Visible on Aerial Imagery (C9)
__ Stunted or Stressed Plants (D1)
__ Geomorphic Position (D2)
__ Shallow Aquitard (D3)
__ Microtopographic Relief (D4)
__ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ____	Depth (inches): 4"
Water Table Present?	Yes X	No ____	Depth (inches): Surface
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): ______

Wetland Hydrology Present? Yes X No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
N/A

Remarks:
Pit + Mound micro-topo w/water in pits
free Water in pit 1" below soil surface

VEGETATION – Use scientific names of plants.

Sampling Point: Plot-99-06-WET

Tree Stratum (Plot size: 30' R)	Absolute % Cover	Dominant Species?	Indicator Status
1. Populus tremuloides	20%		FAC*
2. Abies balsamea	2%		FAC
3. Tsuga canadensis	2%		FAC*
4. Acer rubrum	3%		FAC
5. Betula populifolia	<1%		FAC
6.			
7.			
	27% = Total Cover		

Sapling/Shrub Stratum (Plot size: 15' R)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	5%		FAC
2. Viburnum dentatum	<1%		FAC
3. Spirea latifola	<1%		FACW
4.			
5.			
6.			
7.			
	7% = Total Cover		

Herb Stratum (Plot size: 5' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Miamanthem canadense	15%		FACU
2. Cornus canadensis	8%		FAC
3. Dryopteris carthusiana	1%		FACW
4. abies balsamea	<1%		FAC
5. acer rubrum	1%		FAC
6. Pinus strobus	<1%		FACU
7. Betula alleghanensis	<1%		FAC
8. Sphagnum			—
9.			
10.			
11.			
12.			
	27% = Total Cover		

Woody Vine Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: ______ (A)

Total Number of Dominant Species Across All Strata: ______ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: ______ (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 = 0
FACW species	2	x 2 = 4
FAC species	11	x 3 = 33
FACU species	2	x 4 = 8
UPL species	0	x 5 = 0
Column Totals:	15 (A)	45 (B)

Prevalence Index = B/A = 45/15 = 3

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- ___ 2 - Dominance Test is >50%
- X 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes X No ____

Remarks: (Include photo numbers here or on a separate sheet.)

*pop trem & tsu can have morphological adaptations status Δ'd to FAC.

SOIL

Sampling Point: Plot - 99 - 06 - WET

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features				Texture	Remarks
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
1-0	blk.	100%	—	—	—	—	org.	
0-7	2.5Y 4/1	100%	—	—	—	—	SL	
7-11	2.5Y 4/1	85%	10YR 4/4	15%	C	M	LS	
11								Refusal @ 11"

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☒ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Dark Surface (S7) **(LRR R, MLRA 149B)**
☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
☐ Loamy Mucky Mineral (F1) **(LRR K, L)**
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
☐ Coast Prairie Redox (A16) **(LRR K, L, R)**
☐ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
☐ Dark Surface (S7) **(LRR K, L)**
☐ Polyvalue Below Surface (S8) **(LRR K, L)**
☐ Thin Dark Surface (S9) **(LRR K, L)**
☐ Iron-Manganese Masses (F12) **(LRR K, L, R)**
☐ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
☐ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

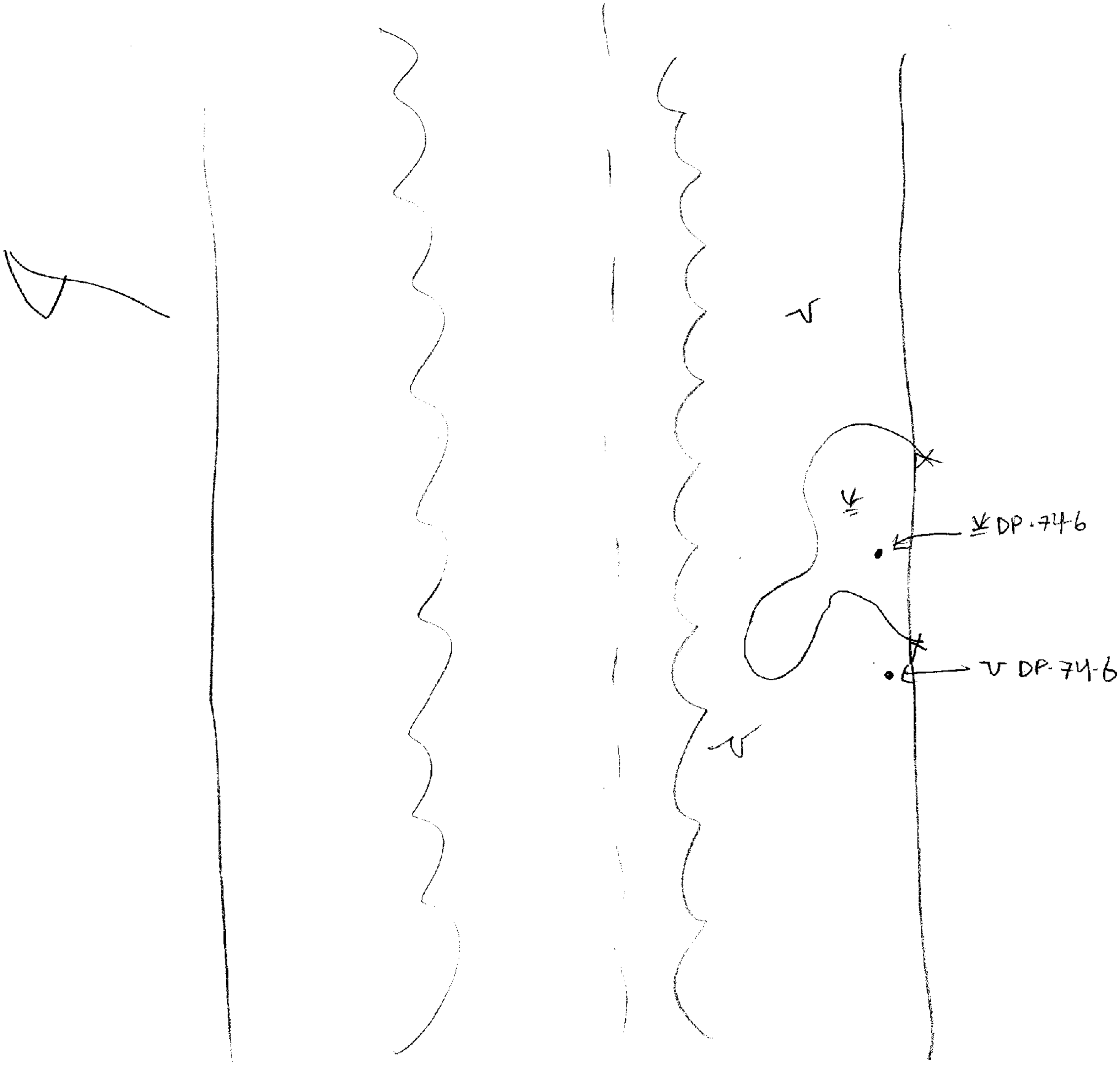
Restrictive Layer (if observed):

Type: rock @ 11"

Depth (inches): 11"

Hydric Soil Present? Yes X No ___

Remarks:



DP·74-6
DP-74-6

USACE
Data Plot Examples

Segment 4

Team ✓

Maine Power Reliability Project
WETLAND SUMMARY FORM

Observers: MP, AG, MC Date: 10-18-07
Town: Lewiston Series : DWR
Segment # : 17 CMP Section #: 64 CMP Pole #: 60 Wetland ID #: L
Stream/Waterbody ID: CH1 Corps plot : ✓ Yes ___ No

Dominant NWI Class: PSS1 Other NWI Classes: PFO1/4

Representative Wetland Vegetation (by Strata):

Shrub
Ilever
Vibden
Spialba
Alnrug

Osmcin
Onosen
Osmreg
Thelpal

Acerub
Abibal
Pinstro

Representative Wetland Hydrology

___ Permanently Flooded (approximate depth -)
___ Seasonally Flooded (approximate depth -)
✓ Saturated

Hydrologic Indicators: ___ Silt Deposition ___ Water-Stained Leaves
___ Water Marks ___ Drift Lines ✓ Surface Scouring
✓ Drainage Patterns ___ Buttressed Trees ___ Elevated Roots
Other Observations:

Representative Wetland Soils:
✓ Mineral
___ Organic

Depth	Horizon	Color	Redox Features	Texture
0-8	A	10YR 6/6	—	SaLo
8-16	Oa	10yr 2/1	—	Sap

Other Observations:
Meets NEIWPCC (2004) Criteria UNK problem soil Alluvial?

Stream # 1 Data:
Width (Bank-Bank): 3-4' Depth @ Center: 6-12" Peren. ✓ Intermittent ___
Bank Configuration: ___ Undercut ___ Vertical ✓ Gradual
Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ✓ Gravel/Cobble ___ Boulder ___ Bedrock

Stream # 2 Data
Width (Bank-Bank): ___ Depth @ Center: ___ Peren. ___ Intermittent ___
Bank Configuration: ___ Undercut ___ Vertical ___ Gradual
Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder
Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):
Moose -
Beaver

Notes:

Streamside

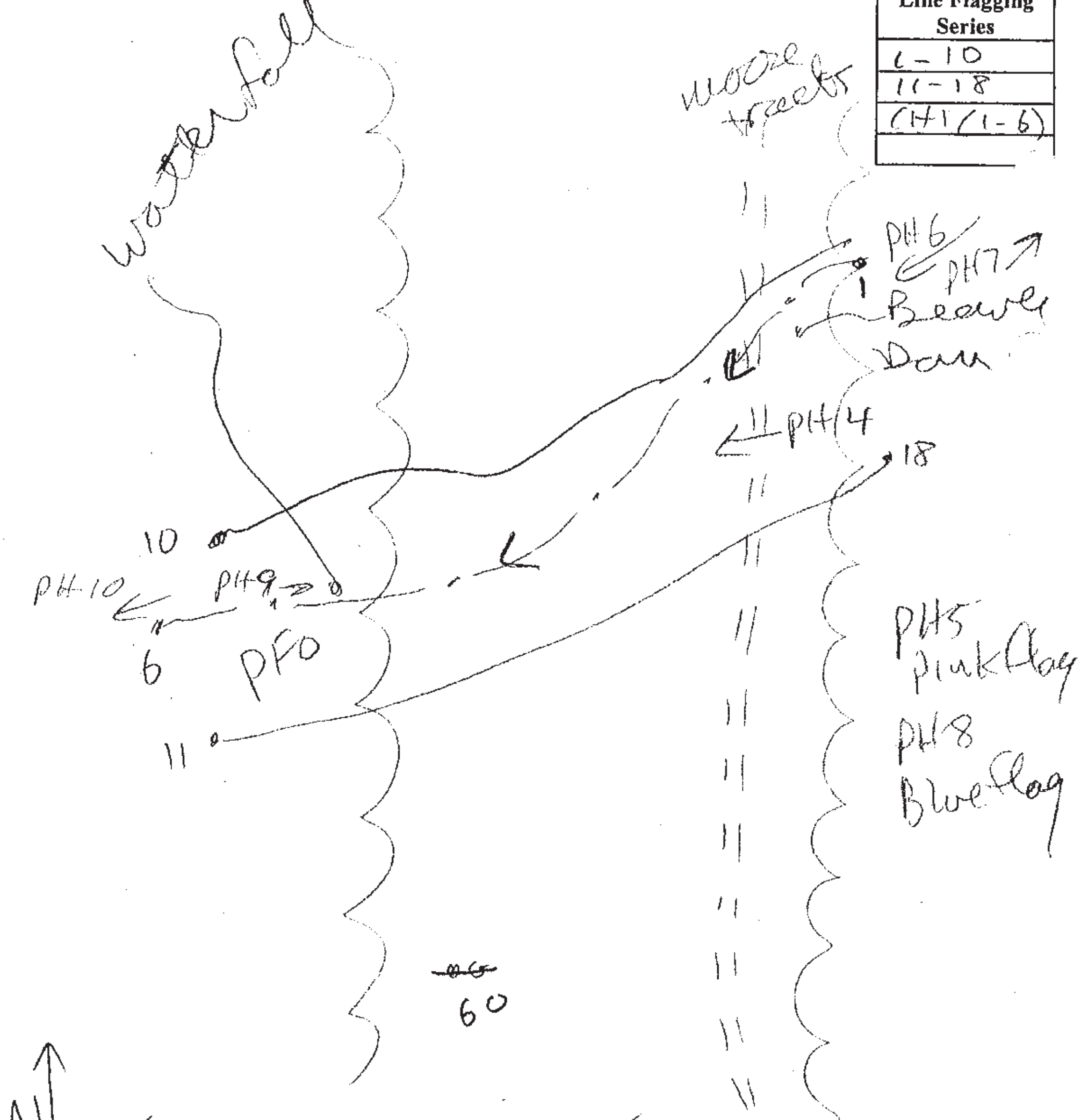
☐ Cedar Swamp ☑ Wetland of Special Significance

Photo # 4/5 6/7/8 9/10

SKETCH ON BACK

WETLAND SKETCH

Line Flagging Series
1-10
11-18
(H)(1-6)



Possible Functions and Values:

- ✓ Groundwater Recharge/Discharge
- ✓ Fish and Shellfish Habitat
- ✓ Nutrient Removal
- ☐ Sediment/Shoreline Stabilization
- ☐ Recreation
- ☐ Uniqueness/Heritage
- ☐ Endangered Species Habitat
- ✓ Floodflow Alteration
- ☐ Sediment/Toxicant Retention
- ✓ Production Export
- ✓ Wildlife Habitat
- ☐ Educational/Scientific Value
- ☐ Visual Quality/Aesthetics
- ☐ Other

Checklist:

- ✓ **Wetland ID#** B17-64-60-1
- ✓ North arrow.
- ✓ Detailed sketch of wetland boundary and flagging sequence.
- ✓ Natural and man-made features -- roads, culverts, outcrops, structures, etc.
- ☐ Photo locations.
- ☐ Location of important wildlife sign.

PROJECT TITLE: MPRP TRANSECT:________ PLOT:

DELINEATOR(S): MP, AG, MC DATE: 10-19-07

VEGETATION

Stratum and Species		Dominance Ratio	Percent Dominance	DOM	NWI Status
Shrub					
Ilever	60	60/115	50	✓	FACW
Spi alb	40	40/115	32	✓	FAC+
Aln rug	5	5/115	4		
Vis dent	10	10/115	8		
Herb					
Osm cin	10	10/26	40	✓	FACW
Ono sens	3	3/26	12		
Thel pal	3	3/26	12		
Osm reg	10	10/26	40	✓	FACW

HYDROPHYTES

OBL	FACW	FAC	OTHER
	4	1	/

Hydrophytes Subtotal (A): 5

NON-HYDROPHYTES

FAC-	FACU	UPL

Non-hydrophytes Subtotal (B): 0

PERCENT HYDROPHYTES (100A/A+B): 5/5 = 100%

HYDROLOGY

☐ RECORDED DATA
Stream, lake, or tidal gage Identification: ________
Aerial photography Identification: ________
Other Identification: ________

☑ NO RECORDED DATA

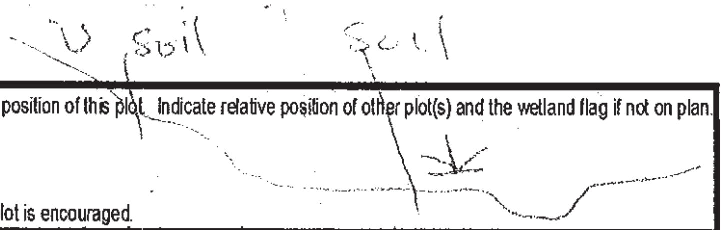
☐ OBSERVATIONS:
Depth to Free Water: ________
Depth to Saturation (including capillary fringe): ✓ @ surface
Altered Hydrology (explain): ________

☐ Inundated ☑ Saturated in upper 12" ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☑ Drainage Patterns within Wetland

☐ OTHER (explain):

CENAE-CO-R-PT Version 7/1/00 Page 1

SOIL Sketch landscape position of this plot. Indicate relative position of other plot(s) and the wetland flag if not on plan.



Submission of photo of plot is encouraged.

DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES (color, abundance, size, contrast)	COMMENTS (USDA texture, nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.)
0-6	A1	10YR 6/6	—	yellow-brown coarse sand layered with 10YR 4/2 10YR 4/6 above Sapric
6-12+	Oa	10YR 2/1	—	

HYDRIC SOIL INDICATOR(S): Alluvial layer above Oa

REFERENCE(S):

OPTIONAL SOIL DATA

REFERENCE(S):

Taxonomic subgroup:
Soil drainage class:
Depth to active water table:
NTCHS hydric soil criterion:

CONCLUSIONS

	YES	NO	REMARKS:
Hydrophytic vegetation criterion met?	☑	☐	
Hydric soils criterion met?	☑	☐	
Wetland hydrology criterion met?	☑	☐	
IS THIS DATAPOINT IN A WETLAND?	☑	☐	

CENAE-CO-R-PT Version 7/1/00 Page 2

PROJECT TITLE: MPRP
TRANSECT:
PLOT:

B17-64-60-1-WGT

DP 04-00-1-Upl

PROJECT TITLE: MPRP
~~TRANSECT:~~ ~~PLOT:~~

DELINEATOR(S): MP, AG, MC
DATE: 10-19-07

VEGETATION

Stratum and Species		Dominance Ratio	Percent Dominance	DOM	NWI Status
Shrub					
Jun com	65	65/75	87	✓	FACU
Spi alba	10	10/75	13		
Herb					
Ptr agu	20	20/55	37	✓	FACU
Kal ang	5	5/55	10		
Cor can	15	15/55	29	✓	FAC-
Dog Bane	5	5/55	10		
Mit rep	10	10/55	19	✓	FACU

HYDROPHYTES

OBL	FACW	FAC	*OTHER

NON-HYDROPHYTES

FAC-	FACU	UPL
1	3	

Hydrophytes Subtotal (A): 0
Non-hydrophytes Subtotal (B): 4
PERCENT HYDROPHYTES (100A/A+B): 0/4 = 0 %

HYDROLOGY Hillside above

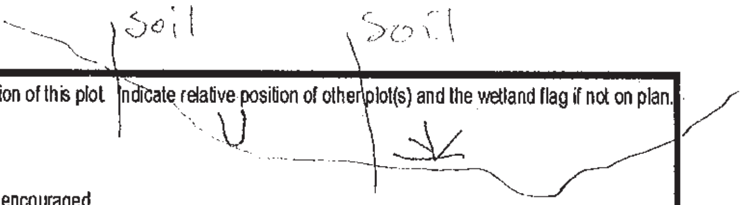
☐ RECORDED DATA
Stream, lake, or tidal gage Identification:
Aerial photography Identification:
Other Identification:
☒ NO RECORDED DATA
☐ OBSERVATIONS:
Depth to Free Water:
Depth to Saturation (including capillary fringe):
Altered Hydrology (explain):

☐ Inundated ☐ Saturated in upper 12" ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns within Wetland

☐ OTHER (explain): N/A

CENVE-CO-R-PT Version 7/V00 Page 1

SOIL Sketch landscape position of this plot. Indicate relative position of other plot(s) and the wetland flag if not on plan.



Submission of photo of plot is encouraged.

DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES (color, abundance, size, contrast)	COMMENTS (USDA texture, nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.)
0-6	A1	10YR 4/2	—	Sa Lo
6-15+	B2	10YR 6/6	—	Sa Lo

HYDRIC SOIL INDICATOR(S): N/A

REFERENCE(S):

OPTIONAL SOIL DATA

REFERENCE(S):

Taxonomic subgroup:
Soil drainage class:
Depth to active water table:
NTCHS hydric soil criterion:

CONCLUSIONS

	YES	NO	REMARKS:
Hydrophytic vegetation criterion met?	☐	☑	
Hydric soils criterion met?	☐	☑	
Wetland hydrology criterion met?	☐	☑	
IS THIS DATAPOINT IN A WETLAND?	☐	☑	

CENAE-COR-PT Version 7/1/00 Page 2

PROJECT TITLE: MPRP
TRANSECT:
PLOT:

BM-64-60-1-WPT

Maine Power Reliability Project
WETLAND SUMMARY FORM

68-95

Observers: Galasso / Pattaglia / Boothby
Date: 10-25-07
Town: Durham
Series: 1-15, 16-33, 34-37, 38-67
Segment # : 17 CMP Section #: 62 CMP Pole #: 60 Wetland #: 017-62-60-1
Stream/Waterbody ID: ~~N/A~~ 017-62-60-1-1
Corps plot: ✓ Yes ___ No

Dominant NWI Class: PSS | 70%
Other NWI Classes: PEM | 20%
PFO 10%

Representative Wetland Vegetation (by Strata):

Herbs		Shrubs	Trees
Sci cyp	Car cri	Ile ver	Ace rub
Jun eff	Car lur	Spi tom	Abi bal
Shagnum spp	ver has	Spi lat	
Typ lat		Aln inc	
Ono sen			

Representative Wetland Hydrology

_____ Permanently Flooded (approximate depth -)
_____ Seasonally Flooded (approximate depth -)
✓ Saturated

Hydrologic Indicators: _____ Silt Deposition ✓ Water-Stained Leaves
_____ Water Marks _____ Drift Lines _____ Surface Scouring
✓ Drainage Patterns _____ Buttressed Trees _____ Elevated Roots

Other Observations: Floodplane wetland near pole 60

Representative Wetland Soils:
✗ Mineral
_____ Organic

Depth	Horizon	Color	Redox Features	Texture
1-0	Oi	--	--	Mucky
0-4	A	10YR 4/1	7.5YR 3/4	SiC
4-20"	B	G1 3/10Y		SiC

Other Observations:
Meets NEIWPCC (2004) Criteria VI

Stream # 1 Data:
Width (Bank-Bank): 2 Depth @ Center: 6 Peren. ✓ Intermittent ____
Bank Configuration: ____ Undercut ✓ Vertical ___ Gradual
Channel Substrate: ___ Peat-Muck ✓ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder ___ Bedrock

Stream # 2 Data
Width (Bank-Bank): ____ Depth @ Center: ____ Peren. ____ Intermittent ____
Bank Configuration: ____ Undercut ___ Vertical ___ Gradual
Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder ___ Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):

Deer trails

Beaver activity / Beaver Dam on eastern edge of ROW

Notes: ATV trail on M+N ROW crosses channel

Beaver Dam at edge of ROW

P 3 of waterbody upstream SE

P 4 of WL Flag

☐ Cedar Swamp ☒ Wetland of Special Significance

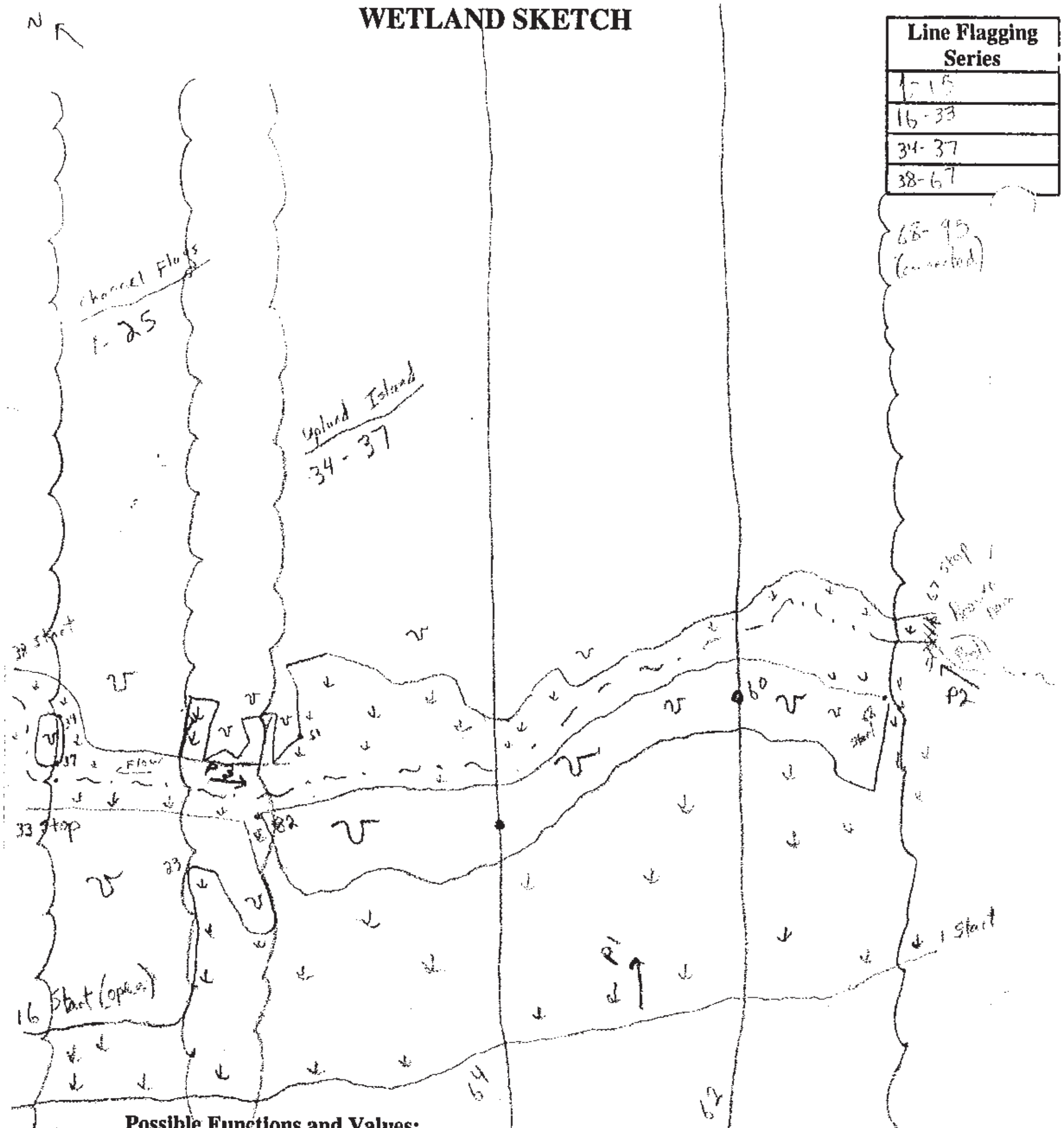
P 1 of WL NE

Photo # ____ P 2 of Beaver Dam / stream NW

SKETCH ON BACK

WETLAND SKETCH

Line Flagging Series
1-15
16-33
34-37
38-67



Possible Functions and Values:

___ Groundwater Recharge/Discharge
___ Fish and Shellfish Habitat
___ Nutrient Removal
___ Sediment/Shoreline Stabilization
✓ Recreation
___ Uniqueness/Heritage
___ Endangered Species Habitat

✓ Floodflow Alteration
✓ Sediment/Toxicant Retention
✓ Production Export
✓ Wildlife Habitat
___ Educational/Scientific Value
___ Visual Quality/Aesthetics
___ Other

Checklist:

✓ **Wetland ID#** D17-62-60-1
✓ North arrow.
✓ Detailed sketch of wetland boundary and flagging sequence.
✓ Natural and man-made features -- roads, culverts, outcrops, structures, etc.
✓ Photo locations.
✓ Location of important wildlife sign.

PROJECT TITLE: MPRP Project
TRANSECT: D17-62-60-1
PLOT: Wet Plot
DELINEATOR(S): Galasso/Battaglia/Boothby
DATE: 10-25-07

VEGETATION

Stratum and Species	Dominance Ratio	Percent Dominance	DOM	NWI Status
Seedlings/Herbs				
Pha aru	60/110	55	X	FACW+
Car lur	20/110	18		
Pol sag	15/110	14		
Car cri	16/110	9		
Spi lat	5/110	5		
Shrubs				
Salix spp	40/70	57	X	FAC or wetter
Abi bal	30/70	43	X	FAC
Saps				
Abi bal	40/70	57	X	FAC
Ace rub	30/70	43	X	FAC
Trees				
Abi bal	24"/44	55	X	FAC
Ace rub	20"/44	45	X	FAC

HYDROPHYTES

OBL	FACW	FAC	*OTHER
	1	6	

Hydrophytes Subtotal (A): 7

NON-HYDROPHYTES

FAC-	FACU	UPL

Non-hydrophytes Subtotal (B): 0

PERCENT HYDROPHYTES (100A/A+B): 100%

HYDROLOGY

☐ RECORDED DATA
Stream, lake, or tidal gage Identification: /
Aerial photography Identification:
Other Identification:

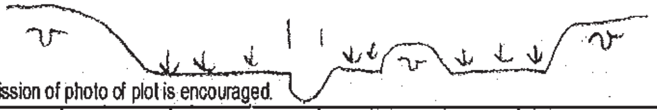
☐ NO RECORDED DATA

☐ OBSERVATIONS:
Depth to Free Water: water in pit at 11"
Depth to Saturation (including capillary fringe): At surface
Altered Hydrology (explain): N/A

☑ Inundated ☑ Saturated in upper 12" ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☑ Drainage Patterns within Wetland

☐ OTHER (explain): wetland associated w/ waterbody and located w/ in floodplane

SOIL Sketch landscape position of this plot. Indicate relative position of other plot(s) and the wetland flag if not on plan.



Submission of photo of plot is encouraged.

DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES (color, abundance, size, contrast)	COMMENTS (USDA texture, nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.)
1-0	Oi	- -	- -	Mucky
0-4	A	10YR 4/1	7.5YR 3/4 m4D	SiC
4-20"+	B	G1 3/10Y	10YR 4/4 c3P	SiC

HYDRIC SOIL INDICATOR(S): VI

REFERENCE(S): NEIWPCC 2004

OPTIONAL SOIL DATA

REFERENCE(S):

Taxonomic subgroup:
Soil drainage class:
Depth to active water table:
NTCHS hydric soil criterion:

CONCLUSIONS

	YES	NO	REMARKS:
Hydrophytic vegetation criterion met?	☑	☐	
Hydric soils criterion met?	☑	☐	
Wetland hydrology criterion met?	☑	☐	
IS THIS DATAPOINT IN A WETLAND?	☑	☐	

CENAE-COR-PT Version 7/1/00 Page 2

PROJECT TITLE: MPRP Project
TRANSECT: D17-62-60-1
PLOT: wet plot

PROJECT TITLE: MPRP Project

TRANSECT: 017-62-60-1

PLOT: Up Plot

DELINEATOR(S): Galasso/ Battaglia/ Boothby

DATE: 10-25-07

VEGETATION

Stratum and Species	Dominance Ratio	Percent Dominance	DOM	NWI Status
Herbs/ Seedlings				
Sol rug	40/90	44	X	FAC
Que rub	30/90	33	X	FACU
Chi macu	10/90	11		
Tsu can	10/90	11		
Shrubs				
Tsu can	40/120	33	X	FACU
Que rub	30/120	25	X	FACU
Ace rub	30/120	25	X	FAC
Frag gra	20/120	17		
Saplings				
Tsu can	~~40~~60/100	60	X	FACU
Pin stro	20/100	20	X	FACU
Abi bal	20/100	20	X	FAC
Trees				
Tsu can	42/70	60	X	FACU
Abi bal	28/70	40	X	FAC

HYDROPHYTES

OBL	FACW	FAC	*OTHER
		4	

NON-HYDROPHYTES

FAC-	FACU	UPL
	6	

Hydrophytes Subtotal (A): 4

Non-hydrophytes Subtotal (B): 6

PERCENT HYDROPHYTES (100A/A+B): 40%

HYDROLOGY

☐ RECORDED DATA
Stream, lake, or tidal gage Identification: ______
Aerial photography Identification: ______
Other Identification: ______

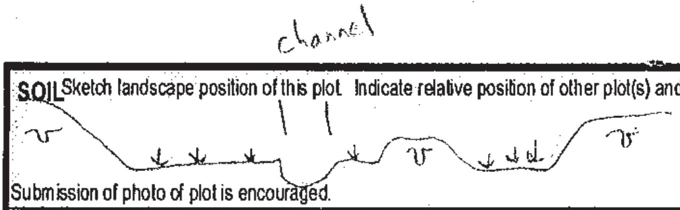
☐ NO RECORDED DATA

☐ OBSERVATIONS:
Depth to Free Water: ______
Depth to Saturation (including capillary fringe): ______
Altered Hydrology (explain): ______

☐ Inundated ☐ Saturated in upper 12" ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns within Wetland

☐ OTHER (explain):

SOIL Sketch landscape position of this plot. Indicate relative position of other plot(s) and the wetland flag if not on plan.



Submission of photo of plot is encouraged.

DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES (color, abundance, size, contrast)	COMMENTS (USDA texture, nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.)
1-0	Oi	--	--	Duff
0-2	A	10YR 3/4	--	SiL
2-18"	B	10YR 4/6	--	SiL

HYDRIC SOIL INDICATOR(S): REFERENCE(S):

OPTIONAL SOIL DATA

REFERENCE(S):

Taxonomic subgroup:
Soil drainage class:
Depth to active water table:
NTCHS hydric soil criterion:

CONCLUSIONS

	YES	NO	REMARKS:
Hydrophytic vegetation criterion met?	☐	☑	
Hydric soils criterion met?	☐	☑	
Wetland hydrology criterion met?	☐	☑	
IS THIS DATAPOINT IN A WETLAND?	☐	☑	

CENAE-COR-PT Version 7/1/00 Page 2

PROJECT TITLE: MPRP Project TRANSECT: 017-62-60-1 PLOT: Up Plot

USACE
Data Plot Examples

Segment 5

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: QMZ City/County: ______ Sampling Date: 4/26/17

State: ME Sampling Point: Plot-185-02 - UP

Applicant/Owner: CMP

Investigator(s): SNH DHP Section, Township, Range: ______

Landform (hillslope, terrace, etc.): gentle slope Local relief (concave, convex, none): none

Slope (%): 4% Lat: 429062.61 ftN Long: 3076124.36 ftE Datum: NAD 83

Soil Map Unit Name: ______ NWI classification: –

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ______ No ______ (If no, explain in Remarks.)

Are Vegetation ______, Soil ______, or Hydrology ______ significantly disturbed? Are "Normal Circumstances" present? Yes ______ No x

Are Vegetation ______, Soil ______, or Hydrology ______ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ______ No x

Hydric Soil Present? Yes ______ No x

Wetland Hydrology Present? Yes ______ No x

Is the Sampled Area within a Wetland? Yes ______ No x

If yes, optional Wetland Site ID: ______

Remarks: (Explain alternative procedures here or in a separate report.)

Data gathered during heavy rain event

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ______ No ______ Depth (inches): ______

Water Table Present? Yes ______ No ______ Depth (inches): ______

Saturation Present? (includes capillary fringe) Yes ✓ No ______ Depth (inches): surface

Wetland Hydrology Present? Yes ______ No x

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

During normal conditions saturation would not be present.

VEGETATION – Use scientific names of plants.

Sampling Point: Plot-185-02-UP

Tree Stratum (Plot size: 30'R)	Absolute % Cover	Dominant Species?	Indicator Status
1. Pinus strobus	70	✓	FacU
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15'R)			
1. Abies balsamea	45	✓	Fac
2. Quercus grandifolia	20	✓	FacU
3. Corylus cornuta	7		
4.			
5.			
6.			
7.			
	72 = Total Cover		
Herb Stratum (Plot size: 5'R)			
1. —			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	= Total Cover		
Woody Vine Stratum (Plot size: 30'R)			
1. —			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: ______ (A)

Total Number of Dominant Species Across All Strata: ______ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: ______ (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x 1 =
FACW species		x 2 =
FAC species		x 3 =
FACU species		x 4 =
UPL species		x 5 =
Column Totals:	(A)	(B)

Prevalence Index = B/A = ______

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ______ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: Plot-185-02-UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-4	10YR 3/3	100					L	
4-8	10YR 4/4	80	2.5Y 5/2	20	D	m	L	
8-17+	5Y 5/3	95	10YR 4/4	5	C	m	L	

[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:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) **(LRR R, MLRA 149B)**
___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
___ Loamy Mucky Mineral (F1) **(LRR K, L)**
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
___ Coast Prairie Redox (A16) **(LRR K, L, R)**
___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
___ Dark Surface (S7) **(LRR K, L)**
___ Polyvalue Below Surface (S8) **(LRR K, L)**
___ Thin Dark Surface (S9) **(LRR K, L)**
___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: ______

Depth (inches): ______

Hydric Soil Present? **Yes** ______ **No** X

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: QMI City/County: ______ Sampling Date: 4/26/17

Applicant/Owner: CMP State: ME Sampling Point: Plot-184-05-WET

Investigator(s): SNH DHP Section, Township, Range: ______

Landform (hillslope, terrace, etc.): slight slope Local relief (concave, convex, none): none

Slope (%): 2 Lat: 428889.53 ft N Long: 3075982.71 ft E Datum: NAD 83

Soil Map Unit Name: ______ NWI classification: PFO1/4E

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ___ (If no, explain in Remarks.)

Are Vegetation ___, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes ___ No ✓

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ✓ No ___

Hydric Soil Present? Yes ✓ No ___

Wetland Hydrology Present? Yes ✓ No ___

Is the Sampled Area within a Wetland? **Yes** ✓ **No** ___

If yes, optional Wetland Site ID: ______

Remarks: (Explain alternative procedures here or in a separate report.)

Data for this plot taken during heavy rain event

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ✓ Surface Water (A1)
- __ High Water Table (A2)
- ✓ Saturation (A3)
- __ Water Marks (B1)
- __ Sediment Deposits (B2)
- __ Drift Deposits (B3)
- __ Algal Mat or Crust (B4)
- __ Iron Deposits (B5)
- __ Inundation Visible on Aerial Imagery (B7)
- __ Sparsely Vegetated Concave Surface (B8)
- __ Water-Stained Leaves (B9)
- __ Aquatic Fauna (B13)
- __ Marl Deposits (B15)
- __ Hydrogen Sulfide Odor (C1)
- __ Oxidized Rhizospheres on Living Roots (C3)
- __ Presence of Reduced Iron (C4)
- __ Recent Iron Reduction in Tilled Soils (C6)
- __ Thin Muck Surface (C7)
- __ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- __ Surface Soil Cracks (B6)
- ✓ Drainage Patterns (B10)
- __ Moss Trim Lines (B16)
- __ Dry-Season Water Table (C2)
- __ Crayfish Burrows (C8)
- __ Saturation Visible on Aerial Imagery (C9)
- ✓ Stunted or Stressed Plants (D1)
- __ Geomorphic Position (D2)
- __ Shallow Aquitard (D3)
- __ Microtopographic Relief (D4)
- __ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ✓ No ___ Depth (inches): 1

Water Table Present? Yes ___ No ___ Depth (inches): ______

Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): surface

Wetland Hydrology Present? Yes ✓ **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Root buttressing observed on all trees in plot

VEGETATION – Use scientific names of plants.

Sampling Point: Plot-184-05-WET

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	50	✓	Fac
2. Pinus strobus	10		
3. Abies balsamea	15	✓	Fac
4. Fraxinus pennsylvanica	5		
5.			
6.			
7.			
	65 = Total Cover		

Sapling/Shrub Stratum (Plot size: 15')	Absolute % Cover	Dominant Species?	Indicator Status
1. –			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Herb Stratum (Plot size: 5'R)	Absolute % Cover	Dominant Species?	Indicator Status
1. Dryopteris carthusiana	30	✓	Fac
2. Phalaris arundinacea	5		
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	35 = Total Cover		

Woody Vine Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. –			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 1 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x 1 =
FACW species		x 2 =
FAC species		x 3 =
FACU species		x 4 =
UPL species		x 5 =
Column Totals:	(A)	(B)

Prevalence Index = B/A = ______

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- ✓ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ______ No ______

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: Plot-184-05-WET

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 5/1	95	10YR 4/6	5	C	M	L	
4-9	10YR 4/1	75	10YR 4/6	15	C	M	L	
			Gley 1 5/N	10		M		
9-20+	5Y 5/4	40	10YR 4/4	30	C	M	L	
			Gley 2 5/5B	30		M		

[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:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ☐ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ☐ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ☐ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ☑ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ☐ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ☐ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ☐ Dark Surface (S7) **(LRR K, L)**
- ☐ Polyvalue Below Surface (S8) **(LRR K, L)**
- ☐ Thin Dark Surface (S9) **(LRR K, L)**
- ☐ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ☐ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ☐ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: ____

Depth (inches): ____

Hydric Soil Present? **Yes** ✓ **No** ____

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: QMI City/County: ______ Sampling Date: 4/26/17
Applicant/Owner: CMP State: ME Sampling Point: Plot-185-02-UP
Investigator(s): SNH DHP Section, Township, Range: ______
Landform (hillslope, terrace, etc.): hill slope/shoulder Local relief (concave, convex, none): none
Slope (%): 4% Lat: 424179.32 ft N Long: 3072295.57 ft E Datum: NAD 83
Soil Map Unit Name: ______ NWI classification: —
Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ___ (If no, explain in Remarks.)
Are Vegetation ✓, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes ___ No ✓
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ___ No ✓	**Is the Sampled Area within a Wetland?** Yes ___ No ✓
Hydric Soil Present?	Yes ___ No ✓	
Wetland Hydrology Present?	Yes ___ No ✓	If yes, optional Wetland Site ID: ______

Remarks: (Explain alternative procedures here or in a separate report.)

Data for form recorded during rain event.

Plot within cleared ROW

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No ___ Depth (inches): ______
Water Table Present? Yes ___ No ___ Depth (inches): ______
Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): ______

Wetland Hydrology Present? Yes ___ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Saturation present due to rain during survey. Saturation would not be present in normal circumstances

Sampling Point: Plot-185-02-UP

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30'R)	Absolute % Cover	Dominant Species?	Indicator Status
1. –			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15'R)	Absolute % Cover	Dominant Species?	Indicator Status
1. Pteridium aq.	30	✓	facU
2. Ilex ver.	7		
3. Pinus strobus	2		
4.			
5.			
6.			
7.			
	39 = Total Cover		

Herb Stratum (Plot size: 5'R)	Absolute % Cover	Dominant Species?	Indicator Status
1. Solidago rugosa	45	✓	fac
2. Aster sp.	40	✓	
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	= Total Cover		

Woody Vine Stratum (Plot size: 30'R)	Absolute % Cover	Dominant Species?	Indicator Status
1. –			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: ______ (A)

Total Number of Dominant Species Across All Strata: ______ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: ______ (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x 1 =
FACW species		x 2 =
FAC species		x 3 =
FACU species		x 4 =
UPL species		x 5 =
Column Totals:	(A)	(B)

Prevalence Index = B/A = ______

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ______ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: Plot-185-02-UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-4	2.5Y 4/3	100					SiL	
4-18+	5Y 5/3	95	2.5Y 4/3	5	C	M	SiL	

[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:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7) (**LRR R, MLRA 149B**)
___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
___ Loamy Mucky Mineral (F1) (**LRR K, L**)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
___ Coast Prairie Redox (A16) (**LRR K, L, R**)
___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
___ Dark Surface (S7) (**LRR K, L**)
___ Polyvalue Below Surface (S8) (**LRR K, L**)
___ Thin Dark Surface (S9) (**LRR K, L**)
___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
___ Red Parent Material (TF2)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: ______________________

Depth (inches): ______________________

Hydric Soil Present? **Yes** ______ **No** X

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: QMI City/County: ______ Sampling Date: 4/26/17

Applicant/Owner: CMP State: ME Sampling Point: Plot-185-02-WET

Investigator(s): SNH DHP Section, Township, Range: ______

Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): concave

Slope (%): 2% Lat: 424189.03 ftN Long: 3072201.41 ftE Datum: NAD 83

Soil Map Unit Name: ______ NWI classification: PEM1E

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No ___ (If no, explain in Remarks.)

Are Vegetation ✓, Soil ___, or Hydrology ___ significantly disturbed? Are "Normal Circumstances" present? Yes ___ No ✓

Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ✓ No ___

Hydric Soil Present? Yes ✓ No ___

Wetland Hydrology Present? Yes ✓ No ___

Is the Sampled Area within a Wetland? Yes ✓ No ___

If yes, optional Wetland Site ID: ______

Remarks: (Explain alternative procedures here or in a separate report.)

Data for Forms collected in heavy rain.

Plot situated in cleared and maintained ROW

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ✓ Surface Water (A1)
- __ High Water Table (A2)
- ✓ Saturation (A3)
- __ Water Marks (B1)
- __ Sediment Deposits (B2)
- __ Drift Deposits (B3)
- __ Algal Mat or Crust (B4)
- __ Iron Deposits (B5)
- __ Inundation Visible on Aerial Imagery (B7)
- __ Sparsely Vegetated Concave Surface (B8)
- __ Water-Stained Leaves (B9)
- __ Aquatic Fauna (B13)
- __ Marl Deposits (B15)
- __ Hydrogen Sulfide Odor (C1)
- __ Oxidized Rhizospheres on Living Roots (C3)
- __ Presence of Reduced Iron (C4)
- __ Recent Iron Reduction in Tilled Soils (C6)
- __ Thin Muck Surface (C7)
- __ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- __ Surface Soil Cracks (B6)
- ✓ Drainage Patterns (B10)
- __ Moss Trim Lines (B16)
- __ Dry-Season Water Table (C2)
- __ Crayfish Burrows (C8)
- __ Saturation Visible on Aerial Imagery (C9)
- __ Stunted or Stressed Plants (D1)
- ✓ Geomorphic Position (D2)
- __ Shallow Aquitard (D3)
- __ Microtopographic Relief (D4)
- __ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ✓ No ___ Depth (inches): 2

Water Table Present? Yes ___ No ___ Depth (inches): ______

Saturation Present? (includes capillary fringe) Yes ✓ No ___ Depth (inches): surface

Wetland Hydrology Present? Yes ✓ No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Data collected during rain event.

VEGETATION – Use scientific names of plants.

Sampling Point: Plot-185-02-WET

Tree Stratum (Plot size: 30'R)	Absolute % Cover	Dominant Species?	Indicator Status
1. —			
2.			
3.			
4.			
5.			
6.			
7.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: 15'R)	Absolute % Cover	Dominant Species?	Indicator Status
1. Alnus incana	7%	✓	facW
2. Ilex verticillata	4%	✓	FacW
3.			
4.			
5.			
6.			
7.			
	11% = Total Cover		

Herb Stratum (Plot size: 5'R)	Absolute % Cover	Dominant Species?	Indicator Status
1. Agrostis gigantea	50%	✓	facW
2. Typha latifolia	70%	✓	Obl
3. Carex sp.	20%		
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	140% = Total Cover		

Woody Vine Stratum (Plot size: ______)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: ______ (A)

Total Number of Dominant Species Across All Strata: ______ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: ______ (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	______	x 1 =	______
FACW species	______	x 2 =	______
FAC species	______	x 3 =	______
FACU species	______	x 4 =	______
UPL species	______	x 5 =	______
Column Totals:	______ (A)		______ (B)

Prevalence Index = B/A = ______

Hydrophytic Vegetation Indicators:

- ✓ Rapid Test for Hydrophytic Vegetation
- ___ Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ✓ No ______

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: Plot-185-02-WET

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-6	2.5Y 4/2	95	10YR 4/4	5	c	m	SiL	
6-30+	5Y 4/1	85	10YR 4/6	15	c	m	SiL	

[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:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: ______

Depth (inches): ______

Hydric Soil Present? **Yes** ✓ **No** ______

Remarks:

USACE
Data Plot Examples

Merrill Road Converter Station

Maine Power Reliability Project

Team B

WETLAND SUMMARY FORM

Observers: KF, MC
Date: 9/25/07
Town: Lewiston
Series :
Segment # : 14 CMP Section #: 200 CMP Pole #: 299 Wetland #: 1
Stream/Waterbody ID:
Corps plot : ✓ Yes No

Dominant NWI Class: PEM 1 Other NWI Classes: PSS1

Representative Wetland Vegetation (by Strata):

Calcan Sci cyp
Thy lat Ono sen
Asi ums
Sol gig

Aln rug
Vib dent
Spi lat

Representative Wetland Hydrology

_____ Permanently Flooded (approximate depth -)
✓ Seasonally Flooded (approximate depth - 4")
_____ Saturated

Hydrologic Indicators:
_____ Silt Deposition
_____ Water-Stained Leaves
✓ Water Marks
_____ Drift Lines
✓ Surface Scouring
✓ Drainage Patterns
_____ Buttressed Trees
_____ Elevated Roots

Other Observations:

Representative Wetland Soils:
✓ Mineral
_____ Organic

Depth	Horizon	Color	Redox Features	Texture
2-0	O	10YR2/2		Fibric
0-6	B1	5Y4/1		Si Lo
6-10	B2	5Y 5/1	10YR4/6 5Y 6/1	

Other Observations:
Meets NEIWPCC (2004) Criteria VI

Stream # 1 Data:
Width (Bank-Bank): _____ Depth @ Center: _____ Peren. _____ Intermittent _____
Bank Configuration: _____ Undercut _____ Vertical _____ Gradual
Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder ___ Bedrock

Stream # 2 Data
Width (Bank-Bank): _____ Depth @ Center: _____ Peren. _____ Intermittent _____
Bank Configuration: _____ Undercut _____ Vertical _____ Gradual
Channel Substrate: ___ Peat-Muck ___ Silt-Mud ___ Sand ___ Gravel/Cobble ___ Boulder Bedrock

Wildlife Observations/Sign (e.g., tracks/trails, droppings, dams/lodges, browse, dens, egg masses, potential VP):

Notes:

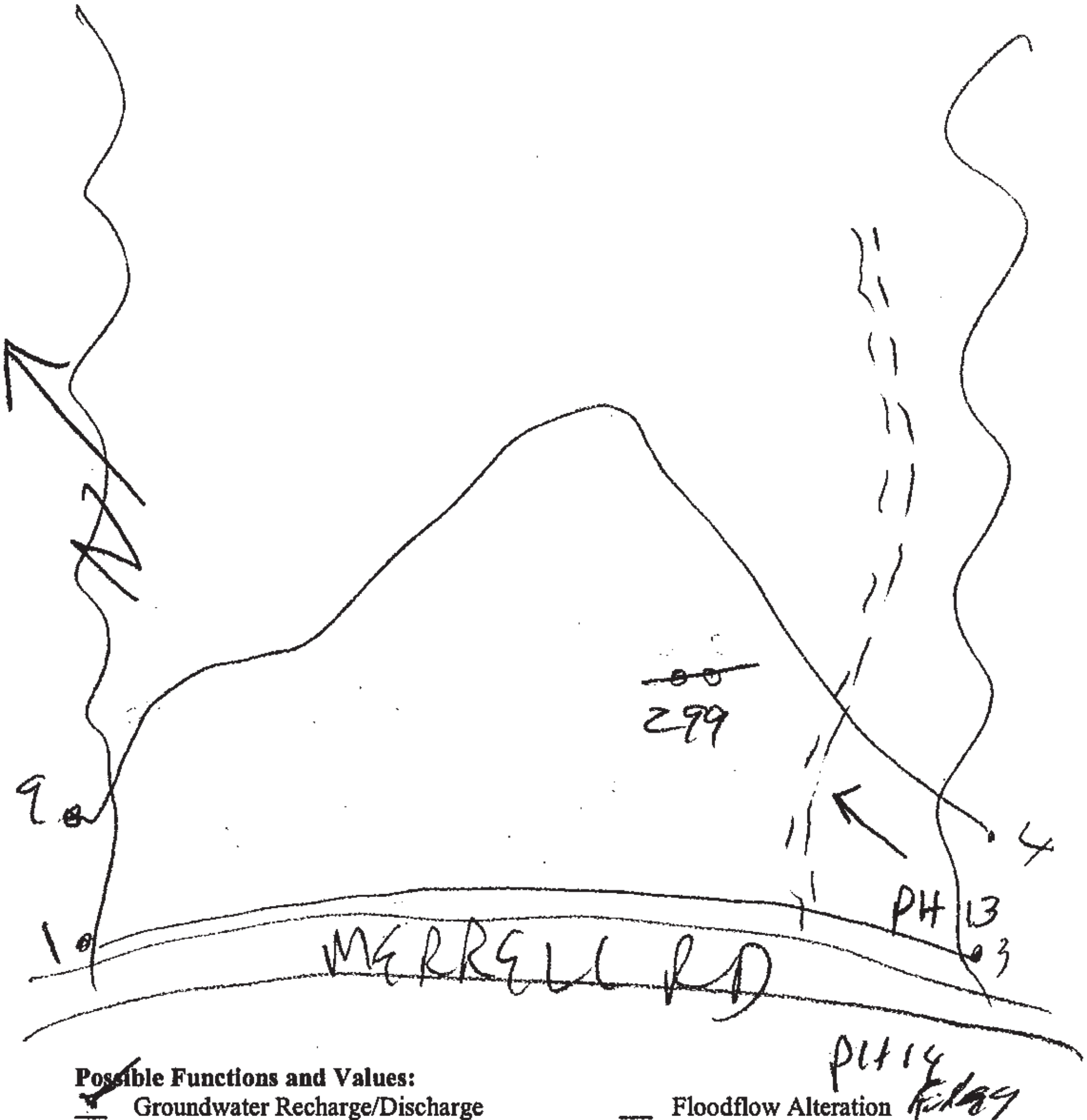
☐ Cedar Swamp ☐ Wetland of Special Significance

Photo # 13/14

SKETCH ON BACK

WETLAND SKETCH

Line Flagging Series
1-3
4-9



Possible Functions and Values:

- ✓ Groundwater Recharge/Discharge
- __ Fish and Shellfish Habitat
- __ Nutrient Removal
- __ Sediment/Shoreline Stabilization
- __ Recreation
- __ Uniqueness/Heritage
- __ Endangered Species Habitat
- __ Floodflow Alteration
- __ Sediment/Toxicant Retention
- __ Production Export
- __ Wildlife Habitat
- __ Educational/Scientific Value
- __ Visual Quality/Aesthetics
- __ Other

Checklist:

- ✓ **Wetland ID#** B14-20D-299-1
- ✓ North arrow.
- ✓ Detailed sketch of wetland boundary and flagging sequence.
- — Natural and man-made features – roads, culverts, outcrops, structures, etc.
- ✓ Photo locations.
- — Location of important wildlife sign.

B14-200-299-1-WGT

PROJECT TITLE: MPRP ~~TRANSECT: PLOT:*~~

DELINEATOR(S): KF MC DATE: 9/25/07

VEGETATION Stratum and Species		Dominance Ratio	Percent Dominance	DOM	NWI Status
PSS					
Aln rug	35	35/35	100	✓	FACW
Pem					
Cal can	30	30/100	30	✓	FACW
ono sens	5	5/100			
Sci cyp	15	15/100			
Thy lat	50	50/100	50	✓	FACW

HYDROPHYTES

OBL	FACW	FAC	*OTHER
	3		

Hydrophytes Subtotal (A): 3

NON-HYDROPHYTES

FAC-	FACU	UPL

Non-hydrophytes Subtotal (B): 0

PERCENT HYDROPHYTES (100A/A+B): 3/3 = 100%

HYDROLOGY

☐ RECORDED DATA
- Stream, lake, or tidal gage Identification:
- Aerial photography Identification:
- Other Identification:

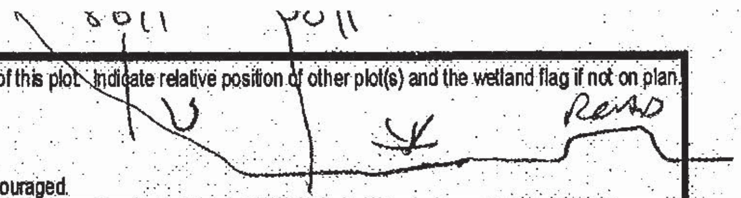
☒ NO RECORDED DATA

☒ OBSERVATIONS:
- Depth to Free Water:
- Depth to Saturation (including capillary fringe): ±10"
- Altered Hydrology (explain):

☐ Inundated ☒ Saturated in upper 12" ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☒ Drainage Patterns within Wetland

☐ OTHER (explain):

SOIL Sketch landscape position of this plot. Indicate relative position of other plot(s) and the wetland flag if not on plan.



Submission of photo of plot is encouraged.

DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES (color, abundance, size, contrast)	COMMENTS (USDA texture, nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.)
2-0"	Oi	10YR 2/2	—	Fibric
0-6	B1	5Y 4/1	-	SiLo
6-10 +	B2 or Bg	5GY 5/1	10YR 4/6 5GY 6/1	SiLo

HYDRIC SOIL INDICATOR(S): VI

REFERENCE(S): NE Hydric Soils

OPTIONAL SOIL DATA

REFERENCE(S):

Taxonomic subgroup:
Soil drainage class:
Depth to active water table:
NTCHS hydric soil criterion:

CONCLUSIONS

	YES	NO	REMARKS:
Hydrophytic vegetation criterion met?	☑	☐	
Hydric soils criterion met?	☑	☐	
Wetland hydrology criterion met?	☑	☐	
IS THIS DATAPOINT IN A WETLAND?	☑	☐	

PROJECT TITLE: MPRP TRANSECT: PLOT:

B14-200-299-1-WGF

B14-200-299-1-upl

PROJECT TITLE: MPPR TRANSECT: PLOT:

DELINEATOR(S): KF, MC DATE: 9-25-07

VEGETATION Stratum and Species		Dominance Ratio	Percent Dominance	DOM	NWI Status
cam per	20	20/75	27	✓	upl
cal can	10	10/75	13		
jun com	40	40/75	53	✓	FAC U
spi lat	5	5/75	7		

HYDROPHYTES

___ OBL ___ FACW ___ FAC ___ *OTHER

Hydrophytes Subtotal (A): ___

NON-HYDROPHYTES

___ FAC- 1 FACU 1 UPL

Non-hydrophytes Subtotal (B): ___

PERCENT HYDROPHYTES (100A/A+B): ________

HYDROLOGY Hillside

☐ RECORDED DATA
Stream, lake, or tidal gage Identification: ________
Aerial photography Identification: ________
Other Identification: ________

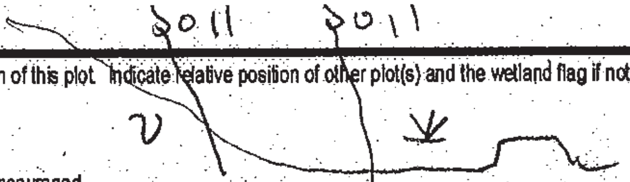
☑ NO RECORDED DATA

☐ OBSERVATIONS:
Depth to Free Water: N/A
Depth to Saturation (including capillary fringe): ________
Altered Hydrology (explain): ________

☐ Inundated ☐ Saturated in upper 12" ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns within Wetland

☐ OTHER (explain):

SOIL Sketch landscape position of this plot. Indicate relative position of other plot(s) and the wetland flag if not on plan.



Submission of photo of plot is encouraged.

DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES (color, abundance, size, contrast)	COMMENTS (USDA texture, nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.)
0-6	A_1	10YR 3/2		Salo
6-8	B_1	5YR 4/6		Salo
Refusal				

HYDRIC SOIL INDICATOR(S): N/A

REFERENCE(S):

OPTIONAL SOIL DATA

REFERENCE(S):

Taxonomic subgroup:
Soil drainage class:
Depth to active water table:
NTCHS hydric soil criterion:

CONCLUSIONS

	YES	NO	REMARKS:
Hydrophytic vegetation criterion met?	☐	☑	
Hydric soils criterion met?	☐	☑	
Wetland hydrology criterion met?	☐	☑	
IS THIS DATAPOINT IN A WETLAND?	☐	☑	

PROJECT TITLE: MPRP TRANSECT: PLOT:

B14-200-299-1-UPL

10.0 PUBLIC NOTICE

For the public notice, refer to **Section 25** of the Site Law Application.

11.0 MAINE HISTORIC PRESERVATION COMMISSION AND OUTREACH TO INDIAN TRIBES

For information regarding historic, cultural, or archeological values, refer to **Section 8** of the Site Law Application.

12.0 WETLAND FUNCTIONS AND VALUES ASSESSMENT

12.1 Introduction

This functions and values assessment ("FVA") is designed to evaluate all wetland areas under state or federal jurisdiction that may be impacted by the NECEC Project and demonstrate that wetland and surface water alterations or impacts that will result from construction and maintenance of the proposed NECEC facilities will not have an unreasonable adverse effect on existing uses, wildlife habitats, natural water flow, water quality, flooding, or outstanding river segments.

The area of wetland impacts associated with the NECEC Project will be minimized to the extent feasible during planning and construction. All stream and wetland crossings will be executed in accordance with *CMP's Environmental Guidelines for Construction and Maintenance Activities on Transmission Line and Substation Projects* (see Section 14 of the Site Law Application for a detailed description of erosion and sedimentation control best management practices that will be employed during construction of the NECEC Project).

Three general categories of wetland alteration will occur as a result of construction and maintenance of the NECEC Project; forested wetland conversion, permanent wetland fill, and temporary wetland fill. These impacts are based on the construction type of the project component. Habitat conversion (i.e., forested wetland conversion) will occur where forested wetlands are permanently converted to open, scrub-shrub, or emergent habitats to accommodate new transmission corridor or to widen the cleared expanse of existing transmission corridors.

Permanent wetland fill will occur where structure installation or substation development requires permanent fill in wetland areas.

Temporary wetland fill will occur during the use of temporary construction access roads and structure preparation areas, typically when equipment mats are placed in wetlands.

The ways in which the proposed NECEC Project may affect wetlands, via these activities, are further described below.

12.1.1 Habitat Conversion

Portions of the transmission components of the NECEC Project will require habitat cover type conversion in some wetland areas through the establishment of a new transmission corridor and from the widening of the cleared maintained portion of the existing transmission line corridors needed to accommodate the new

NECEC Project facilities. Forested wetlands that are within the area of newly cleared corridor will be permanently converted to emergent and shrub or scrub-shrub wetlands. Forested wetlands within the limits of clearing for the project will require initial trimming or removal of tree species and specimens that are capable of interfering with overhead transmission lines (so-called “capable species”). Further, transmission line operations and maintenance requires periodic control of capable species; this practice will result in the permanent maintenance of early successional plant communities and habitat.

This assessment provides a general comparison of the functions and values provided by existing forested wetlands versus scrub-shrub and emergent wetlands that will be maintained after construction of NECEC facilities.

12.1.2 Permanent Wetland Fill

Certain activities necessary to the development of the transmission and substation components of the NECEC will require fill. In some instances, areas that must be filled coincide with wetlands. In such instances, wetlands (or portions of wetlands) will be permanently filled and thereby, permanently transformed to uplands. Siting of the transmission line structures is designed to avoid permanent wetland fill to the maximum extent practicable. NECEC activities that will require permanent fill in wetland areas include transmission structure installation, including backfill, and, in some instances, concrete foundations and guy wire anchors, and, the development of new substations.

12.1.2.1 Structure Installation

Structure installation will require areas of permanent fill associated with the foundation of each structure. In instances where structures occur in wetlands, this fill will constitute a limited area of permanent wetland habitat loss. Permanent fill will consist of the structure itself and backfill materials, which may include native spoil, stone, concrete, or a combination thereof. Direct embed structures will typically have a cone of crushed stone around their base. Ground that is disturbed during direct-embed structure installation will be restored by replacing the topsoil; mulch will then be placed over the exposed soil and herbaceous vegetation will be allowed to establish naturally. For permitting assessment purposes, it is assumed that functions in wetlands associated with structure installations are lost within the entire area of disturbed soil, even though emergent wetland conditions are reestablished.

12.1.2.2 Substation Development

NECEC substation development will require fill. Permanent wetland fill will be required in locations where the proposed footprint of the substation development includes wetlands. The proposed NECEC substations that will require fill in wetland areas, and the extent of wetland fill associated with each development is presented in **Table 12-1** below and discussed in further detail in Section 12.3.2.

Table 12-1: Wetland Impact Summary for Substations

Station	Wetland Impact Areas (Fill) (ac. & sq. ft.)
Fickett Road Substation	1.33 acres / 57,935 sq. ft.
Merrill Road Converter Station	3.16 acres / 137,650 sq. ft.
Total	**4.49 acres / 195,584 sq. ft.**

12.1.3 Temporary Wetland Fill

The establishment of temporary access ways and transmission structure preparation pads will require the placement of temporary fill in wetlands in order to accommodate construction equipment access for tree cutting and structure installation activities. This temporary fill will typically consist of equipment mats placed on the ground surface. On occasion, when very soft mineral or organic soils are encountered, it may be necessary to construct these access ways utilizing geo-textile fabric overlain with equipment mats or clean gravel. The purposes of using mats include (1) providing a flat safe surface upon which construction equipment can traverse and work from, (2) protecting vegetation and root zones, (3) minimizing the extent of disturbed soils, and (4) reducing excessive soil compaction and protecting soil horizons. For permitting assessment purposes, it is assumed that functions in wetlands associated with temporary fill are only temporarily unavailable and are not permanently lost (i.e., these areas will be fully restored following the completion of construction). Areas of temporary fill for access road placement will be comprised of relatively narrow (around 20 feet wide) linear areas . Areas of temporary fill for structure preparation pads will range in size from approximately 2,000 to 8,000 square feet, depending on structure type. Impacts from temporary fill associated with access road and structure preparation pad installation are relatively small and do not significantly, or permanently, impact wetland functions and values. These temporary fill areas will be found throughout the NECEC project area.

12.2 Methodology

Wetland functions and values were assessed in accordance with the Wetlands Functions and Values: Descriptive Approach as described in the U.S. Army Corps of Engineers (USACE) Highway Methodology Workbook. This is a qualitative descriptive approach currently used by the USACE New England Division for purposes of the Section 404 permit program. As part of this method, the evaluator examines a number of “Considerations/Qualifiers” that can be used as indicators or descriptors of particular functions and values. The Considerations/Qualifiers are assigned to wetlands based on the judgment of the evaluator, using site observations and field data sheets. The USACE Highway Methodology Workbook ("Workbook") defines functions and values as follows:

Functions: *Functions are self-sustaining properties of a wetland ecosystem that exist in the absence of society. Functions result from both living and non-living components of a specific wetland. These include all processes necessary for the self-maintenance of the wetland ecosystem such as primary production and nutrient cycling, among others. Therefore, functions relate to the ecological significance of wetland properties without regard to subjective human values.*

Values: *Values are benefits to society that derive from one or more functions and the physical characteristics associated with a wetland. The value of a particular wetland function, or combination thereof, is based on human judgment of the worth, merit, quality, or importance attributed to those functions.*

Eight functions and five values, defined by the Workbook were considered during the FVA for the NECEC Project. They are as follows:

A. *Functions:*

1. *Groundwater Recharge/Discharge*

   This function describes a wetland's ability to act as a recharge site, such as its potential to provide water to an aquifer or its ability to act as an input site for groundwater to discharge to the surface (*i.e.*, springs and seeps).

2. *Floodflow Alteration*

   This function considers a wetland's ability to store and slowly release floodwaters over an extended period of time following storm events.

3. *Fish and Shellfish Habitat*

   This function considers the potential for a wetland and intermittent or perennial waterbodies associated with a wetland to provide habitat for fish and shellfish.

4. *Sediment/Toxicant Retention/Pathogen Retention*

   This function describes a wetland's effectiveness at trapping and retaining potentially harmful sediment, toxicants, and pathogens.

5. *Nutrient Removal/Retention/Transformation*

   This function considers a wetland's ability to remove nutrients such as phosphorus and nitrogen from runoff and prevent the nutrients from reaching surface and groundwater by retaining and transforming them.

6. *Production Export*

This function measures a wetland’s effectiveness at producing foods for living creatures or other usable products such as timber for humans.

7. *Sediment/Shoreline Stabilization*

   This function considers a wetland’s potential for stabilizing and protecting sediments and shorelines from erosion.

8. *Wildlife Habitat*

   This function relates to a wetland’s ability to provide habitat for various species of wildlife generally associated with wetlands and adjacent uplands. This includes habitat for both non-migratory and migratory wildlife species.

B. Values:

1. *Recreation (Consumptive and Non-Consumptive)*

   This value describes a wetland’s ability to provide opportunities for consumptive activities such as hunting and fishing, or non-consumptive activities such as boating, bird watching, and swimming.

2. *Educational/Scientific Value*

   This value considers a wetland’s potential for providing teaching and learning possibilities and opportunities for scientific work and research.

3. *Uniqueness/Heritage*

   This value relates to a wetland’s potential for providing special values such as possessing historically significant sites and unique natural areas.

4. *Visual Quality/Aesthetics*

   This value considers the aesthetic and visual quality associated with a wetland.

5. *Threatened or Endangered Species Habitat*

   This value pertains to a wetland’s potential for harboring rare, threatened, and endangered species and their habitat.

Of the thirteen functions and values commonly attributed to wetlands, a total of nine functions and values are associated with wetlands in the project area. In general, the dominant natural wetland community types in the NECEC Project area are characterized as palustrine forested, emergent and scrub-shrub. The majority of the wetlands in the project area provide some groundwater recharge/discharge, nutrient removal and wildlife habitat.

The wetlands functions and values impacted by the NECEC Project depend on their ecological characteristics; some of the influencing factors can include: size and proximity of wetlands to industrial or commercial activity, plant diversity and height, hydrogeomorphology and soil type. The effects of any changes to these physical characteristics are evaluated in assessing whether the Project impacts will have a significant effect on wetland functions and values.

Each wetland was reviewed as part of a wetland delineation and field verification process performed during the 2015, 2016, and 2017 growing seasons. Wetland functions and values were recorded as part of that effort (and as part of the previous effort on the NECEC project, for those Project segments co-located with the MPRP Project. Functions and values were assessed as “Principal,” “Secondary,” or “Not Suitable” based on the criteria provided in the Workbook. Observations for each wetland type were recorded on evaluation forms; these forms are included in **Exhibits 12-1 to 12-5** of this report.

12.3 Results

12.3.1 Transmission Corridors

12.3.1.1 Habitat Conversion

As a result of the removal of vegetation to accommodate NECEC facilities, portions of forested wetlands will be permanently converted from forested to scrub-shrub or emergent communities. Some forested wetlands that meet the criteria to be wetlands of special significance (WOSS) will also be converted. For a definition and detailed descriptions regarding WOSS wetlands in the NECEC corridor, see Attachment 9 - Site Conditions, of this Application. Because WOSS represent areas of special significance, FVAs for forested WOSS and forested non-WOSS wetlands have been considered separately.

During field investigations, it was determined that all forested WOSS that will be converted during construction of the proposed NECEC facilities share similar functions and values. Likewise, all forested wetlands that are not (or do not contain) WOSS share similar functions and values. Furthermore, all scrub-shrub and emergent wetlands on the existing transmission corridors associated with the NECEC share similar functions and values. The scrub-shrub and emergent wetlands after conversion of forested wetlands are expected to be similar with respect to functions and values to the wetlands located in existing CMP corridors maintained as early successional habitat. For these reasons, this discussion provides a generic description of functions and values for forested WOSS, forested non-WOSS, and scrub- shrub/emergent wetlands. A discussion, which provides a comparison of functions and values between existing and expected future conditions and addresses overall impacts, is provided in Section 12.3.2 below.

<u>**Forested WOSS Functions and Values:**</u> Forested WOSS that will be converted as a result of the NECEC Project are generally similar to one another in overall tree composition. For those unique communities that may provide significant habitat (IWWH, DWA, SVP etc.) or that constitute an unusual natural community (MNAP focus area, MNAP exemplary natural community etc.) additional descriptions are provided in Section 7 and Section 9 of the Site Law Application.

Attachment 9 of the NRPA application provides detailed descriptions of the forested wetlands for each of the project segments. Dominant tree canopy species are likely to include red maple, green and black ash, balsam fir, black and red spruce, gray and yellow birch, eastern hemlock, and northern white-cedar. American elm and larch were also noted, but to a lesser degree. Several of these tree species are also present in the shrub and sapling strata. The understory is generally sparse in these wetlands with scattered occurrences of herbaceous species such as sensitive and cinnamon ferns, reed canary grass, and various sedge species.

The principal functions provided by forested WOSS are production export and wildlife habitat. Secondary functions are groundwater discharge, floodflow alteration, nutrient removal and transformation, and sediment/shoreline stabilization. WOSS associated with streams and rivers have functions that are associated with these resources such as floodflow alteration.

Some forested WOSS provide significant wildlife habitat features, while others consist of regionally significant wetlands having unique and more valuable functions and values. Within the northern portions of the project area, WOSS that are associated with larger tracts of conservation land, public reserve land and/or state identified MNAP focus areas, tend to have additional values that are associated with these designated areas. Values such as recreation, uniqueness/heritage, and visual quality/aesthetics are common values associated with these larger non-fragmented land tracts. In addition, one potential function, endangered species habitat, may be present in wetlands associated with larger tracts of undeveloped surrounding land in the northern portion of the project.

Groundwater discharge within forested WOSS in the NECEC Project conversion area is generally evidenced by the presence of seepages draining from the wetlands and into the streams. This typically occurs when there is a change in topography. Forested WOSS that will be converted by the NECEC provide limited floodflow alteration function. Most of the streams are small, with limited flow capacity; furthermore, floodplain areas are narrow with limited space to temporarily store floodwater.

Forested WOSS areas typically provide wildlife habitat values; specific values may include habitat for nesting passerines and winter cover for deer. In some cases, forested WOSS exhibiting pit and mound micro-topographic relief provide amphibian breeding habitat, and may function as vernal pool or significant vernal pool habitat. Most of the forested wetlands along streams provide indirect habitat value to fish and shellfish, by reducing insolation and thermal impacts through shading, reducing turbidity through erosion control and by providing general habitat value. Riparian areas are used as travel corridors by many wildlife species. Streams also support food resources for wildlife. Wetlands adjacent to streams provide habitat for many avian species including waterfowl, wading birds, raptors, upland game birds, and passerines.

Forested WOSS that will be converted as a result of the NECEC Project provide production export by providing a potential source of timber and wildlife food sources, such as hard and soft mast and animal prey species. Nutrient removal and transformation as part of the food chain is a function generally provided by forested wetlands. Through conversion of forested lands to scrub-shrub, the food chain contribution is limited by the reduction of biomass annually produced in forested ecosystems.

Sediment/shoreline stabilization is typically provided by riparian wetlands such as those found in forested WOSS. This stabilization is provided by the roots of vegetation along the stream banks, which hold the soil together. This function is minimal along small streams, but is more valuable along larger streams and rivers especially near developments.

Values in forested WOSS that may be altered, but not lost, by the NECEC project could include recreation, such as hunting and wildlife viewing. Although no direct observation of recreation such as hunting or wildlife viewing occurred, evidence of hunting included the presence of multiple tree stands used for hunting, both in and adjacent to forested WOSS. For some species, the addition of a transmission line corridor adds habitat value, particularly to heavily forested areas of the state. Transmission line corridors add vegetative, structural, and habitat diversity to an area that is otherwise predominantly forested, providing edge habitat and generally, increasing biodiversity. Transmission lines can also serve as wildlife travel corridors and may be used as recreational corridors for activities including hunting, hiking, wildlife viewing and snowmobiling.

A summary of functions and values for forested WOSS is provided in **Table 12-2**, and an example of a Wetland Function-Value Evaluation Form is provided in **Exhibit 12-1**.

Forested non-WOSS Functions and Values: Forested non-WOSS wetlands that will be converted by the NECEC Project were documented to provide similar functions and values (**Exhibit 12-2**) to the forested WOSS described above, with one exception: functions associated with water bodies, such as floodflow alteration, are not provided (**Table 12-2**) because waterbodies are not located within non-WOSS areas. Wildlife habitat and associated food chain functions are generally less than for WOSS due to the lack of direct connectivity with a waterbody.

Scrub-Shrub and Emergent Wetland Functions and Values: Within the project area, scrub-shrub and emergent wetlands are dominated by early successional plant communities providing functions and values associated with early succession (**Exhibit 12-3**). These wetland cover types are maintained permanently in the course of normal transmission line corridor maintenance. To a lesser degree, mature and stable ecosystems also classified as scrub-shrub and emergent wetlands are present. These naturally low-growing, stable plant communities include alder thickets, ericaceous peatlands and sedge meadows.

Groundwater discharge is a common function as evidenced by small seeps, especially on sloping ground. Shrub and emergent wetlands that are associated with waterbodies provide floodflow alteration, and food chain and habitat functions. The annual growth and decomposition of vegetation contributes to nutrient cycling and biomass production. Wildlife food production associated with food chain functions, wildlife movement and hydrologic flushing via tributary streams, result in production export. In the northern portions of the project area, peatlands dominated by low growing shrubs are more common. In some cases, these large emergent and/or scrub-shrub plant communities have the capacity to provide significant carbon sequestration; typically, these peatland wetlands attenuate nutrients thereby reducing the nutrient loading of waters that move through these wetland systems and improving water qualities. Values provided by these wetlands, particularly those situated in the northern portions of the project area, include recreation, visual quality/aesthetic and potential endangered species habitat.

Several tracts of conservation land are within the northern portions of the project areas. Some of these conservation lands are connected to adjacent conserved lands, both public and private. Several hunting stands were observed during field surveys, as were snowmobile and ATV trails, also having the potential to provide passive recreational opportunity.

12.3.1.2 Permanent Fill (Structure Installation)

Where avoidance is impossible, portions of some of the shrub and herbaceous wetlands will be impacted by the installation of new structures, which involves excavation, structure placement, and backfilling. The disturbed area is restored by replacing the topsoil, applying mulch, and allowing vegetation to grow essentially returning the disturbed areas to preconstruction conditions. Although these impacts are considered permanent, revegetation restores much of the preexisting functions. The full loss of functions is restricted to the small “footprint” of the structure.

12.3.1.3 Temporary Fill (Access Ways and Structure Preparation Pads)

To the extent possible, all proposed temporary access ways and structure preparation pads in wetlands will be sited in such a way to avoid and minimize impacts. As an example, whenever possible and where existing infrastructure and topography do not present safety concerns, access ways will be located through the narrowest portions of wetlands.

Based on field observations and application of the Highway Methodology, most of the wetlands that will be temporarily filled provide the following principal and secondary functions and values:

1. Principal functions: Groundwater discharge; floodflow alteration, sediment/shoreline stabilization and wildlife habitat
2. Secondary functions: Production export
3. Principal values: None
4. Secondary values: Recreation

A summary of typical functions and values associated with wetlands that will be subjected to temporary fill is provided in **Table 12-2** and an example of a Wetland Function Value Evaluation Form is provided in **Exhibit 12-5**.

Many of these wetland areas are currently composed of the scrub-shrub and emergent cover types. The exception is when proposed access ways are planned in areas that are currently forested wetland, but will be converted to accommodate additional transmission line corridor. All areas of temporary fill will be restored to preconstruction conditions. Denuded soils will be seeded, mulched and, if necessary, further stabilized. As a result, no permanent loss of wetland functions and values is anticipated.

12.3.2 Substations

The NECEC Project will include construction of two substations; a new converter station north of Merrill Road in Lewiston, and a STATCOM substation at the intersection of Fickett Road and Allen Road in Pownal, as well as facility upgrades at six existing substations (Larrabee Road, Crowleys, Surowiec, Raven Farm, Coopers Mills, and Maine Yankee). There are no mapped wetlands within the footprint of the six existing substations and therefore no impacts to wetland functions and values.

There will be no wetland conversion associated with the converter station and substation construction; all wetland impacts associated with these activities will be the result of fill. The area (in both acres and square feet) of wetland fill that will be required for development of each substation is presented in **Table 12-1** above. Functions and values of wetlands that will be filled at each substation site are described in detail, below.

12.3.2.1 Merrill Road Converter Station

CMP completed field delineations of wetlands and water resources within the proposed footprint of the converter station in 2017. The parcel contains a mix of forested uplands and wetlands, plus herbaceous wetlands that lie within the existing transmission line corridor (Section 9.4.1). The surrounding and nearby land uses include forested uplands and wetlands, agricultural fields, single-family residential development, and a roadway. The forested canopy is characterized by second or third growth. Three different wetlands are found in the parcel slated for the substation. However, only two of the wetlands will be partially impacted due to the development. There is also a small stream that flows through the northern corner of the parcel, but it does not extend into the proposed development area.

A forested, small finger of wetland 145-1 extends into the western side of the proposed development area. However, this forested finger is part of a larger, mostly shrub and emergent wetland that lies within the existing transmission line corridor. The small stream that flows through the northern corner of the parcel is also connected to this larger wetland. Wetland areas within 25 feet of the stream are WOSS. The primary functions of the larger wetland complex are groundwater recharge/discharge and wildlife habitat. Wetland 145-1 drains toward tributaries associated with Stetson Brook. Groundwater discharged into the wetland eventually flows toward the drainage basin for Stetson Brook. In addition to groundwater discharge, wildlife habitat functions are provided by wetland 145-1. The wetland contains structural diversity, as it consists of emergent, scrub-shrub and forested components. Wetland within the transmission line corridor contains four shallow, natural vernal pools, which did not contain egg mass numbers high enough to trigger significance status. Also observed were three, low quality, man-made ruts that also function as amphibian breeding areas. The forested finger of this wetland provides cover for wildlife such as deer and passerines. Secondary functions include sediment retention and floodflow alteration. The vast nature of wetland 145-1 and its constricted outlet provide the conditions for floodflow alteration function. During rain events, this wetland has the ability to store large quantities of water before draining into the Stetson Brook watershed. Dovetailing on floodflow alteration, is the wetland’s ability to provide sediment and toxicant retention. Local ATV use and tree harvesting activity have the potential to leave soils exposed and at risk for mobilization within runoff. The relatively flat nature of wetland 145-1 can provide the opportunity for sediment trapping before runoff is discharged into local watercourses.

The second wetland that will be impacted by the project is wetland 145-2, a PFO wetland, characterized by deep organic soils. The basin of this wetland contains a natural vernal pool and a SVP, and is therefore a WOSS. The SVP is a relatively large vernal pool that contained at least 75 wood frog egg masses and 25 spotted salamander egg masses during spring 2017 field studies. Both vernal pools are positioned in the northern portion of the wetland, the portion that will likely be impacted by site development. However, the vernal pool depressions are located outside of the limits of disturbance for the substation site development.

The primary function of the wetland is wildlife habitat as indicated by the presence of the two vernal pools. Secondary functions provided by this wetland include groundwater recharge/discharge and production export. During field investigations, several areas of ledge and resulting seeps were observed surrounding the basin shaped wetland. Wetland 145-2 has the capacity to produce a significant source of biomass, through vegetative production as well as amphibian production. As amphibians are consumed by predators or disperse naturally, the biomass produced by the wetland is exported to adjacent uplands.

12.3.2.2 Fickett Road Substation

The NECEC Project will include the construction of a new substation facility on approximately 6.12 acres near the intersection of Allen Road and Fickett Road in Pownal. The land area sited for development is a mixture of agricultural fields, open and forested uplands, and shrub and emergent wetlands.

A portion of wetland 161-16 will be impacted as a result of site development. However, the agricultural field component of the site has been impacted by prior agricultural practices of mowing and ditching. Wetland 161-16 is associated with Runaround Brook, therefore, wetland areas within 25 feet of the brook are classified as WOSS.

The primary functions of this wetland are groundwater discharge and floodflow alteration. Wetland 161-16 provides groundwater discharge by draining groundwater into the associated stream channel of Runaround Brook. As mentioned above, historically this wetland has been altered by anthropogenic activity, including mowing and ditching. Ditches can be seen from aerial photography and tend to expedite the groundwater discharge function of the wetland. Floodflow alteration is also a primary function of wetland 161-16. The large, flat composition of this wetland in combination with thick herbaceous cover create the conditions suitable for floodwater storage. During significant rain events, this wetland has the capacity to store and slowly release surface water to the adjacent Runaround Brook and its tributaries. Slow release of floodwaters reduces runoff velocity and results in less erosion. Secondary functions of wetland 161-16 include sediment and toxicant retention, nutrient removal and wildlife habitat. As often is found with flood storage, sediment and toxicant retention is a function that could be provided by this wetland. Broadly and gently sloping topography and thick herbaceous cover provide the conditions for sediment and toxicant retention. While opportunity for sediment and toxicant retention are available, currently there are minimal sources of excess sediment. This wetland may provide this function, however, during high velocity runoff events, particularly during local construction activity. Nutrient removal is also a secondary function provided by wetland 161-16. Nutrients dissolved in the surface water from local animal pasturing and agricultural fields can be absorbed by the thick herbaceous wetland vegetation. Wildlife habitat functions are limited to general habitat values for deer, passerines, raptors, small mammals and small predators.

12.4 Discussion

12.4.1 Transmission Corridors

12.4.1.1 Habitat Conversion

Table 12-2 summarizes changes to wetland functions and values that could result from converting forested wetlands to shrub and emergent wetlands. The removal of capable tree, sapling, and shrub species and specimens, coupled with maintenance, creates and maintains permanent early successional communities with different functions and values. Some functions are enhanced and others are diminished. Habitat functions are altered with some species or aspects of their life cycle benefiting and others not. Generally, the growth of shrub and emergent vegetation promotes species diversity, stem density, annual growth and decomposition, and increased layering of vegetation. Forage, cover, and habitat values for wildlife species are different in early successional communities with increased herbaceous forage, soft mast, grass and sedge seeds, tubers, and flowering plants and increased cover. The removal of capable species reduces shading and hard mast production and loss of winter cover for some species. Overall in a densely forested region, converting forested areas to shrub and emergent communities can increase habitat diversity.

Improved wetland functions are summarized as follows:

1. Increasing groundwater discharge;
2. Slowing and constricting floodwater
3. Retaining sediments and nutrients;
4. Increasing nutrient cycling and building up of organic matter;
5. Increasing ecological production including wildlife food sources;
6. Producing merchantable timber; and
7. Increasing habitat for early successional species.

Diminished wetland functions are summarized as follows:

1. Decreasing shading along small streams;
2. Eliminating recurring timber harvests; and
3. Reducing habitat for arboreal species.

Enhanced functions include an increased amount of groundwater discharge that noticeably results within transmission line corridors. The removal of capable species creates permanent early successional conductions which often develop well vegetated and diverse communities. Dense shrub and herbaceous vegetation can slow the flow of water in streams and increase floodflow alteration functions, slowing and retaining sediments and nutrients.

For wetlands found along streams, the production export and cycling of nutrients to the stream ecosystem via detritus may be enhanced by conversion. Ecological productions, diversity, stem density, annual growth, and decomposition will increase. This is a contribution to the local food chain and supports habitat values. Often early successional habitats produce more soft mast and insects as wildlife food sources. Harvesting timber for sale as lumber, cord wood, and pulp is provided by the initial conversion of forested wetlands to shrub and emergent wetlands. The conversion of forested wetland to shrub or herbaceous wetland will favor species that require and/or use early successional habitat. This will also reduce the habitat value to arboreal species; however, similar habitat is abundant in contiguous and adjacent forested wetlands. Hunting value will remain after clearing as habitat for game species will still be present.

None of the functions or values provided by forested wetlands that will be converted as a result of the construction of the transmission lines will be completely lost or severely diminished by the conversion of forested wetlands to scrub-shrub and emergent wetlands. Removal of trees will decrease cover and shading provided to streams from these wetlands; however, streams in electrical transmission corridors are generally protected to allow development of dense shrub buffers which provide shading to smaller streams. Conversion eliminates forest management land practices and recurring timber harvests. Wildlife habitat functions are altered with a reduction in habitat for arboreal species. On balance, there is a positive net benefit with regard to functions and values. This is particularly true, given that approximately 90 percent of the State of Maine is forested. A comparison of functions and values provided by forested, shrub and emergent wetlands is provided in **Table 12-2**.

Table 12-2: Comparison of Wetland Functions and Values for Forested Wetlands Converted to Shrub and Emergent Wetlands in Transmission Line Rights-of-Way

Function/Value	Considerations Improved	Considerations Diminished	Considerations Not Changed
Groundwater Recharge/Discharge	13: Signs of groundwater discharge increase, especially on slopes with poorly draining soils, and wetland extents often expand	None	1-12; 14-16
Floodflow Alteration	18: Removal of canopy will create favorable conditions for emergent and shrub vegetation growth that can slow water flow	None	1-17
Fish/Shellfish Habitat Freshwater	None	8: Decreased shading values along small coldwater streams. Shading can be maintained by increased shrub density	1-7; 9-17
Sediment/Toxicant/Pathogen Retention	15: Water and vegetation interspersion can increase 16: Vegetation density can increase	None	1-14
Nutrient Removal/Retention/ Transformation	8: Vegetation density can increase 9: Aquatic vegetation diversity and abundance increases 11: Decomposing organic matter can increase 13: Increased shrub and emergent vegetation can constrict and slow water flow leaving the wetland	None	1-7; 10; 12; 14
Production Export	1: Forage, soft mast, and seed food sources can increase 2: Detritus development can increase 3: Commercially valuable timber is removed 4: Wildlife use changes 5: Higher trophic level consumer use changes 7: Vegetation density can increase 8: Vegetation diversity can increase 9: Aquatic vegetation can increase 12: Density of flowering plants can increase	1: hard mast food sources can decrease 3: Future timber production is eliminated 4: Wildlife use changes 5: Higher trophic level consumer use changes	6; 10; 11; 13; 14

Function/Value	**Considerations Improved**	**Considerations Diminished**	**Considerations Not Changed**
Sediment/Shoreline Stabilization	12: Shrub and herbaceous vegetation can increase 13: Emergent vegetation 15: A dense resilient herbaceous vegetation layer can develop	14: Larger trees and shrubs are removed	1-11
Wildlife Habitat	8: Forage, soft mast, and seed food sources can increase 9 & 13: Shrub and emergent vegetation can increase 14: Plant species diversity increases as shrub and emergent species grow 15: Shrub, emergent and vine growth increases 21: Increase of habitat for ground and shrub dwelling avian species and mammalian species that need dense cover	8: Hard mast food sources can decrease 15: Loss of canopy results in a decrease in diversity of woody vegetation 21: Loss of habitat for arboreal avian and mammalian species	1-7; 10-12; 16-20; 22; 23
Recreation	None	None	1-12
Education/Scientific Value	None	None	1-16
Uniqueness/Heritage	None	None	1-31
Visual Quality/Aesthetics	None	None	1-12
Endangered Species Habitat	Site and Species Specific	Site and Species Specific	1-2

12.4.1.2 Permanent Fill (Pole Installation)

Pole installation creates permanent wetland impacts and the negligible loss of wetland functions. The area of permanent fill encompasses 30 to 195 per structure depending on structure type, although much of this area is restored and grows back into an herbaceous wetland community. The actual permanent loss of functions and habitat is restricted to the pole diameter or structure foundation. The small physical loss of wetland equates to a negligible loss of wetland functions and values relative to the remaining wetland area. For example, structure installation in a wetland would not diminish the habitat functions and value to hunting, but there would be very minor, i.e., *de minimis* loss of food chain contribution and groundwater discharge.

12.4.1.3 Temporary Fill (Access Ways and Structure Preparation Pads)

The placement of temporary fill to construct access ways and structure preparation pads results in temporary wetland impacts and a minor temporary loss of wetland functions and values. After the access ways and structure preparation pads are no longer needed, the temporary fill (typically equipment mats) is removed and the affected areas are restored. The restoration effort may involve seeding, if necessary (wetland seed mix can be added to areas that have been denuded), and mulched with a layer of straw. If necessary, compacted soils will be scarified with an excavator bucket to loosen the surface of the soil, then seeded and mulched as needed. In addition, all ruts in wetlands will be smoothed out and graded to match pre-construction contours to the extent practicable. All temporarily affected wetlands are expected to exhibit preconstruction-level functions and values within one to two years following the completion of construction activities.

12.4.2 Substations

Table 12-3 summarizes the functions that will be affected by the development of the new substations. Most of the wetlands that will be impacted provide groundwater discharge and wildlife habitat functions. Food chain contribution through production export and nutrient removal are functions provided by the larger and interconnected wetlands, especially those with diverse and dense emergent vegetation. These wetlands often have greater biomass production and annual decomposition than forested wetlands, which tend to provide less food chain functions.

The construction of the Merrill Road Converter Station will require fill impacts to two wetlands. One wetland contains significant habitat values associated with a SVP. Fill impacts will also reduce the groundwater discharge function, while clearing will alter habitat values favoring species that use early successional shrub habitat.

Impacts to wetlands on the Fickett Road Substation site will likely affect habitat and groundwater functions provided by shrub and emergent wetland. Nutrient removal and floodflow functions will also be diminished.

Table 12-3: Summary of Wetland Functions and Values for the Wetlands Impacted by Substation Construction

Wetland ID Area	Impact Area (ac. & sq. ft.)	Functions and Values	
		Principal	Secondary
Fickett Road Substation			
WET 161-16	1.33ac / 57,935 sq. ft.	Floodflow alteration; Groundwater recharge/discharge	Sediment toxicant/retention; nutrient removal; wildlife habitat
Merrill Road Converter Station			
WET 145-01	3.05 ac / 132,858 sq. ft.	Groundwater discharge/recharge; wildlife habitat	Sediment/toxicant retention; floodflow alteration
WET 145-02	.03 ac / 1,307 sq. ft.	Wildlife habitat	Groundwater recharge/discharge; production export

Exhibit 12-1: Wetland Function- Value Evaluation Form for Forested Wetlands of Special (WOSS) Transmission Line Impacts

Exhibit 12-1: Wetland Function - Value Evaluation Form for Forested Wetlands of Special Significance (WOSS) Transmission Line Impacts

Human made? NO. Is wetland part of a wildlife corridor? NO, or a "habitat island"? NO. Wetland ID Forested WOSS. Adjacent land use Transmission line and forests. Distance to nearest roadway or other development? Generally 0.5 mile average. Dominant wetland systems present. Palustrine forested broad-leaved deciduous. Contiguous undeveloped buffer zone present. YES, upland/wetland forest. Prepared by Burns & McDonnell/Boyle Associates Date: September 2017. Is the wetland a separate hydraulic system? NO, if not, where does the wetland lie in the drainage basin? Generally along 3rd or 4th order streams. Impact: Type Conversion Area **Table 9-10**. How many tributaries contribute to the wetland? Generally 2 or 3. Wildlife & vegetation diversity/abundance (see Routine Form). Field Evaluation with Delineation Completed.

Function/Value	Suitability		Rationale Reference #	Principal or Secondary	Comments
	Y	N			
Groundwater Recharge/Discharge	X		1; 7; 13	Secondary	Seepage discharge into streams/floodplain
Floodflow Alteration	X		2; 10; 13	Secondary	Upper end of watersheds, small size
Fish and Shellfish Habitat		X			
Production Export	X		1; 3; 4; 5; 14	Principal	Veg prod/decomp, wildlife food sources
Sediment/Toxicant Retention		X			
Nutrient Removal	X		5; 7; 8; 10; 12; 13	Secondary	Veg production/decomposition: food chain
Sediment/Shoreline Stabilization	X		6; 7; 9; 14	Secondary	Found along streams and roots hold soil
Wildlife Habitat	X		1-4; 5; 6; 7; 8; 9; 13-15; 17-22	Principal	General habitat values, large tracts of undeveloped land/habitat blocks, vernal pool habitat
Education/Scientific Value		X			
Recreation	X		1-7	Secondary	Potential for hunting/trapping/hiking/ATV/snowmobile/wildlife viewing
Uniqueness/Heritage	X		4-7; 10-14	Secondary	Areas near the Cold Stream Forest identified by large-scale regional conservation planning groups as primary lands of biological significance.
Visual Quality/Aesthetics	X		5; 7-8; 10-12	Secondary	Some wetlands located within state identified MNAP Focus Areas; other wetland areas situated within conservation areas/large habitat blocks/public reserve land
Endangered Species Habitat	X		2	Secondary	Some wetlands may provide habitat for RTE species
Other					

Notes: Several wetland areas associated with deer wintering areas, potential RTE species habitat, IWWH, conservation land, public reserve lands, MNAP focus areas (Cold Stream Focus Area & Attean Pond - Moose River Focus Area)

Exhibit 12-2: Wetland Function- Value Evaluation Form for Forested Wetlands – Non WOSS Transmission Line Impacts

Exhibit 12-2: Wetland Function - Value Evaluation Form for Forested Wetlands - Non WOSS Transmission Line Impacts

Human made? NO. Is wetland part of a wildlife corridor? NO, or a "habitat island"? NO. Wetland ID Forested Non WOSS. Adjacent land use Transmission line and forests. Distance to nearest roadway or other development? Generally 0.5 mile average. Dominant wetland systems present. Palustrine forested broad-leaved deciduous. Contiguous undeveloped buffer zone present. YES, upland/wetland forest. Prepared by Burns & McDonnell/Boyle Associates Date: September 2017. Is the wetland a separate hydraulic system? NO, if not, where does the wetland lie in the drainage basin? Generally part of larger wetlands not associated with streams. Impact: Type Conversion Area **Table 9-10.** How many tributaries contribute to the wetland? None. Wildlife & vegetation diversity/abundance (see Routine Form). Field Evaluation with Delineation Completed.

Function/Value	Suitability		Rationale Reference #	Principal or Secondary	Comments
	Y	N			
Groundwater Recharge/Discharge	X		1; 7; 13	Secondary	Seepage discharge during the spring and summer
Floodflow Alteration		X			
Fish and Shellfish Habitat		X			
Production Export	X		1; 3; 4; 5; 14	Principal	Veg. prod/decomp, wildlife food sources
Sediment/Toxicant Retention		X			
Nutrient Removal		X			
Sediment/Shoreline Stabilization		X			
Wildlife Habitat	X		1-4; 5; 6; 7; 8; 9; 13-15; 17-22	Principal	General habitat values, large tracts of undeveloped land/habitat blocks, vernal pool habitat
Education/Scientific Value		X			
Recreation	X		1-7; 7	Secondary	Potential for hunting/trapping/hiking/ATV/snowmobile/wildlife viewing
Uniqueness/Heritage	X		4-7; 10-14	Secondary	Areas near the Cold Stream Forest identified by large-scale regional conservation planning groups as primary lands of biological significance.
Visual Quality/Aesthetics	X		5; 7-8; 10-12	Secondary	Some wetlands located within state identified MNAP Focus Areas; other wetland areas situated within conservation areas/large habitat blocks/public reserve land
Endangered Species Habitat	X		2	Secondary	Some wetlands may provide habitat for RTE species
Other					

Notes: Several wetland areas associated with deer wintering areas, potential RTE species habitat, IWWH, conservation land, public reserve lands, MNAP focus areas (Cold Stream Focus Area & Attean Pond - Moose River Focus Area)

Exhibit 12-3: Wetland Function- Value Evaluation Form for PSS and PEM Wetlands Transmission Line Impacts

Exhibit 12-3: Wetland Function - Value Evaluation Form for PSS and PEM Wetlands Transmission Line Impacts

Human made? NO. Is wetland part of a wildlife corridor? YES, or a "habitat island"? NO. Wetland ID N/A. Adjacent land use *i.e.,* farm fields, transmission line, upland and forests. Distance to nearest roadway or other development? >50 feet. Dominant wetland systems present PSS1 & PEM1. Contiguous undeveloped buffer zone present. No. Prepared by Burns & McDonnell/Boyle Associates Date: September 2017. Is the wetland a separate hydraulic system? NO, if not, where does the wetland lie in the drainage basin? Upper. Impact: Type Fill Area **Table 9-10**. How many tributaries contribute to the wetland? One. Wildlife & vegetation diversity/abundance (see Routine Form). Field Evaluation with Delineation Completed.

Function/Value	Suitability		Rationale Reference #	Principal or Secondary	Comments
	Y	N			
Groundwater Recharge/Discharge	X		2; 7	Secondary	Groundwater controlled hydrology
Floodflow Alteration		X			
Fish and Shellfish Habitat		X			
Production Export	X		1; 2; 4; 7	Secondary	Vegetation prod/decomp: food chain
Sediment/Toxicant Retention		X			
Nutrient Removal	X		4; 5; 8; 9; 10	Secondary	Ag fields are a potential source of nutrients
Sediment/Shoreline Stabilization		X			
Wildlife Habitat	X		5; 6; 7; 8; 13	Secondary	General habitat, passerines, white-tailed deer; moose, beaver, muskrat, waterfowl
Education/Scientific Value		X			
Recreation	X		3; 5; 6	Secondary	Potential for hunting/trapping/hiking/ATV/snowmobile/wildlife viewing
Uniqueness/Heritage	X		32	Secondary	Appalachian Trail passes through portion of project area
Visual Quality/Aesthetics	X		5; 7-8; 10-12	Secondary	Some wetlands located within conservation areas/large habitat blocks/public reserve land
Endangered Species Habitat	X		2	Secondary	Some wetlands may provide habitat for RTE species
Other					

Notes:

Exhibit 12-4 (a-c): Wetland Function – Value Evaluation Criteria

Exhibit 12-4a: Wetland Function-Value Evaluation Form: Fickett Road Substation Emergent/Shrub Wetland 161-16

Human made? NO. Is wetland part of a wildlife corridor? NO, or a "habitat island"? NO. Wetland ID 161-16. Adjacent land use farm fields, transmission line, upland and forests. Distance to nearest roadway or other development? >50 feet. Dominant wetland systems present PEM1 & PSS1. Contiguous undeveloped buffer zone present. No. Prepared by Burns & McDonnell/Boyle Associates Date: September 2017. Is the wetland a separate hydraulic system? NO, if not, where does the wetland lie in the drainage basin? Lower. Impact: Type Fill Area (302.82 sq. ft.). How many tributaries contribute to the wetland? One. Wildlife & vegetation diversity/abundance (see Routine Form). Field Evaluation with Delineation Completed.

Function/Value	**Suitability**		**Rationale Reference #**	**Principal or Secondary**	**Comments**
	Y	**N**			
Groundwater Recharge/Discharge	X		2; 7; 9; 12; 13; 15	Principal	Groundwater controlled hydrology
Floodflow Alteration	X		1; 3; 5; 6; 8-14; 16; 18	Principal	Wetland is broad with thick vegetation, able to detain large amounts of water
Fish and Shellfish Habitat		X			
Production Export	X		1; 3; 4; 7; 12; 13		Wetland is mowed/hayed
Sediment/Toxicant Retention	X		3-5; 7; 8; 10-14; 16	Secondary	Wetland provides opportunity for sediment trapping
Nutrient Removal	X		3; 4; 5; 7; 8-14	Secondary	Ag fields are a potential source of nutrients
Sediment/Shoreline Stabilization	X		5; 7; 9; 12; 15		Wetland bordering associated stream reduces water velocity of watercourse
Wildlife Habitat	X		5-8; 13; 17-21	Secondary	General habitat, passerines, white-tailed deer; small mamals
Education/Scientific Value		X			
Recreation		X			
Uniqueness/Heritage		X			
Visual Quality/Aesthetics	X		2; 5; 7; 9-12		Scenic wetland but not unique to area
Endangered Species Habitat		X			
Other					

Notes:

Exhibit 12-4b: Wetland Function-Value Evaluation Form: Merrill Road Converter Substation Wetland 145-01 PSS/PEM

Human made? NO. Is wetland part of a wildlife corridor? NO, or a "habitat island"? NO. Wetland ID 145-01.Adjacent land use: Adjacent ROW, residential, upland and forests. Distance to nearest roadway or other development? ~1,000 feet. Dominant wetland systems present PSS1 & PEM1. Contiguous undeveloped buffer zone present. Yes. Prepared by Burns & McDonnell/Boyle Associates Date: September 2017. Is the wetland a separate hydraulic system? NO, if not, where does the wetland lie in the drainage basin? Upper. Impact: Type Fill Area (344.99 sq. ft.). How many tributaries contribute to the wetland? One. Wildlife & vegetation diversity/abundance (see Routine Form). Field Evaluation with Delineation Completed.

Function/Value	Suitability		Rationale Reference #	Principal or Secondary	Comments
	Y	N			
Groundwater Recharge/Discharge	X		1; 7; 13	Principal	Seepage discharge from upland to wetland
Floodflow Alteration	X		1; 3; 5; 6; 8; 9; 13; 15	Secondary	Expansive area and constricted outlet provide effective flood storage.
Fish and Shellfish Habitat		X			
Production Export	X		1; 2; 4; 7		Veg. prod/decomp; food chain
Sediment/Toxicant Retention	X		4; 5; 7-13; 15; 16	Secondary	Opportunity for sediment trapping exists: thick vegetation, large storage capacity
Nutrient Removal	X		5; 7; 8; 10; 12; 13		Veg. prod/decomp; food chain
Sediment/Shoreline Stabilization		X			
Wildlife Habitat	X		3; 5-8; 13; 16	Principal	General habitat, amphibian habitat
Education/Scientific Value		X			
Recreation		X			Unlikely to provide hunting due to close proximity to development; some ATV use nearby
Uniqueness/Heritage		X			
Visual Quality/Aesthetics		X			
Endangered Species Habitat		X			
Other					

Notes:

Exhibit 12-4c: Wetland Function-Value Evaluation Form: Merrill Road Converter Station Wetland 145-02 PFO

Human made? NO. Is wetland part of a wildlife corridor? Yes, or a "habitat island"? NO. Wetland ID 145-02. Adjacent land use: Adjacent ROW, residential, upland and forests. Distance to nearest roadway or other development? ~1,000 feet. Dominant wetland systems present: PFO1/4E. Contiguous undeveloped buffer zone present. Yes. Prepared by Burns & McDonnell/Boyle Associates Date: September 2017. Is the wetland a separate hydraulic system? NO, if not, where does the wetland lie in the drainage basin? Upper. Impact: Type Fill Area (0 sq. ft.). How many tributaries contribute to the wetland? None. Wildlife & vegetation diversity/abundance (see Routine Form). Field Evaluation with Delineation Completed.

Function/Value	**Suitability**		**Rationale Reference #**	**Principal or Secondary**	**Comments**
	Y	**N**			
Groundwater Recharge/Discharge	X		2; 7; 13	Secondary	Seepage discharge from upland to wetland
Floodflow Alteration	X		3; 5; 6; 8; 9		Basin like formation and deep organic soils provides opportunity for storage
Fish and Shellfish Habitat		X			
Production Export	X		1; 2; 4; 7	Secondary	Veg. prod/decomp; food chain; movement via amphibians and other wildlife
Sediment/Toxicant Retention		X			Opportunity exisits, however no sources present
Nutrient Removal	X		5; 7; 8; 10; 12; 13		Veg. prod/decomp; food chain
Sediment/Shoreline Stabilization		X			
Wildlife Habitat	X		4; 5; 7; 16	Principal	General habitat, evidence of amphibian habitat
Education/Scientific Value		X			
Recreation		X			Unlikely to provide hunting due to close proximity to development
Uniqueness/Heritage		X			
Visual Quality/Aesthetics		X			
Endangered Species Habitat		X			
Other					

Notes:

Exhibit 12-5: Wetland Function-Value Evaluation Form- Wetlands Subjected to Temporary Fill- Access Ways

Exhibit 12-5: Wetland Function-Value Evaluation Form - Wetlands Subjected to Temporary Fill - Access Way

Human made? NO. Is wetland part of a wildlife corridor? NO, or a "habitat island"? NO. Wetland Early-successional. Adjacent land use: Transmission line, upland and forests. Distance to nearest roadway or other development? 0.5 mile average. Dominant wetland systems present: Palustrine scrub-shrub and emergent persistent. Contiguous undeveloped buffer zone present. YES. Prepared by Burns & McDonnell/Boyle Associates Date: September 2017. Is the wetland a separate hydraulic system? NO, if not, where does the wetland lie in the drainage basin? Generally along 3rd and 4th order stream. Impact: Temporary fill for construction access. How many tributaries contribute to the wetland? Variable (1-3). Wildlife & vegetation diversity/abundance (see Routine Form). Field Evaluation with Delineation Completed.

Function/Value	**Suitability**		**Rationale Reference #**	**Principal or Secondary**	**Comments**
	Y	**N**			
Groundwater Recharge/Discharge	X		1; 7; 13	Principal	Seepage discharge into streams/floodplain/wetlands
Floodflow Alteration	X		2; 10; 13	Principal	Upper end of watersheds, small size
Fish and Shellfish Habitat		X			
Production Export	X		1; 3; 4; 5; 14	Secondary	Veg. prod/decomp, wildlife food source
Sediment/Toxicant Retention		X			
Nutrient Removal		X			
Sediment/Shoreline Stabilization	X		6; 7; 9; 14	Principal	Found along streams and roots hold soil
Wildlife Habitat	X		4; 5; 6; 7; 8	Principal	General habitat values
Education/Scientific Value		X			
Recreation	X		3; 5; 6	Secondary	Recreational hunting/trapping
Uniqueness/Heritage		X			
Visual Quality/Aesthetics		X			
Endangered Species Habitat		X			
Other					

Notes:

13.0 COMPENSATORY MITIGATION

13.1 Introduction

The NECEC Project will result in unavoidable temporary and permanent impacts to protected natural resources and is subject to the compensation requirements of the MDEP, pursuant to NRPA, 38 M.R.S. §480-A *et seq.*, and of the USACE pursuant to Section 404 of the CWA (33.U.S.C. §1344). This attachment describes the unavoidable impacts that would result from the construction of the project and the compensatory mitigation proposed by CMP. Compensatory mitigation described in this section addresses the requirements of both the MDEP and the USACE.

As further described in NRPA application Attachment 2, Alternatives Analysis, by utilizing existing utility corridors to the greatest extent practicable, NECEC was designed to achieve the project purpose and need while avoiding and minimizing impacts to sensitive cultural, environmental, and historic resources, as well as private property, located within and in close proximity to the project area. Extensive natural resources data were collected and alternatives were analyzed to design the least environmentally damaging practicable alternative.

In designing the project, CMP first sought to avoid impacts wherever practicable. Where impacts cannot be avoided, a number of mitigation measures will be employed prior to and during construction to minimize impacts. These include measures such as: erosion and sedimentation controls, the use of equipment mats, consultation with third-party inspectors, construction timing restrictions, installation of avian avoidance markers, and winter condition clearing and construction, where practicable. Areas of temporary impact will be restored and revegetated per the restoration measures described in CMP's Environmental Guidelines provided in **Exhibit 14-1** of the Site Law application.

Pursuant to NRPA 38 M.R.S. §480 (Z) and the 2016 USACE New England District Compensatory Mitigation Guidance ("USACE Guidance"), CMP will compensate for the unavoidable impacts that are not fully addressed through CMP's avoidance and mitigation measures. CMP intends to offset unavoidable impacts to natural resources through a contribution to the MDEP In-Lieu Fee Compensation Program (ILF Program). The intent of this contribution to the ILF Program is to result in "no-net-loss" of wetland functions and values. ILF contributions are placed in the Maine Natural Resources Conservation Fund by the MDEP and made available for grant awards for qualified natural resource conservation projects.

13.2 Impacts

CMP will compensate for temporary and secondary (i.e., impacts that are not directly associated with the placement of fill, e.g., conversion of habitat) natural resource impacts and permanent alteration of protected natural resources. All temporary impacts will be of short duration, i.e., less than 18 months, and typically much shorter than 18 months. Permanent impacts requiring compensation are limited to either cover type conversion of protected natural resources or placement of fill resulting in loss of protected natural resource area. Protected natural resource impacts that will result from construction of the NECEC Project and require compensation are:

- Temporary Wetland Fill
- Permanent Cover Type Conversion of Forested Wetlands
- Direct Non-Wetland Impact in High and Moderate Value IWWH
- Permanent Fill in SVP Habitat
- Permanent Wetland Fill

As summarized in **Table 13-1**, the majority of the protected natural resource impacts resulting from the NECEC Project are temporary and secondary in nature. Permanent, direct impacts to protected natural resources have been minimized to the extent practicable through the project design process. Direct impacts are associated with permanent fill as opposed to an indirect impact such as vegetation clearing.

CMP, upon further discussions with MDEP and the USACE, anticipates that the ILF contribution will result in a significant financial commitment that will enable CMP, the MDEP and the USACE to achieve the regulatory goals of no-net-loss of wetland and other protected natural resource functions and values.

Table 13-1: Summary of Resource Impacts

Resource Impact[1]	Acres of Impact	Impact Type
Temporary wetland fill	50.97 acres	Temporary
Permanent cover type conversion of forested wetland	124.14 acres	Secondary
Direct non-wetland impact to IWWH	0.016 acre	Direct
Permanent fill in SVP habitat	0.314	Permanent
Permanent wetland fill	4.70	Permanent

1: Resource impacts are based on preliminary Project design and therefore may change as design progresses.

Each of these impact categories is described in detail below.

13.2.1 Temporary Wetland Fill

Temporary wetland fill impacts are primarily associated with the construction of short term access ways required for clearing and construction activities. Temporary fill associated with access way construction was conservatively calculated assuming non-frozen conditions. As a result, temporary fill was included in the calculation for access ways and structure preparation areas in all wetland areas. Temporary fill in wetland areas will consist of protective matting (e.g. timber mats) for heavy equipment set up and travel.

The practice of placing temporary mats in wetlands and over streams is an effective mitigation measure to minimize impacts to these sensitive resources. Access ways have been designed to limit disturbance to natural resources so that these resources are protected to the greatest extent practicable. For example, wetlands and streams will be crossed at their narrowest point if other conditions and construction access requirements allow this. Access ways will be removed as soon as it is safe and feasible to do so and when the access ways are no longer needed for the project. Fill needed for temporary access ways will not cause a net loss in wetland acreage or functionality.

13.2.2 Permanent Cover Type Conversion of Forested Wetlands

The majority (73 percent) of the NECEC Project will be located within or immediately adjacent to existing transmission line corridors. Clearing of tree species capable of growing into the conductors (referred to as “capable species”) will be required to expand the width of the portion of the corridor where the project will be co-located with existing transmission lines, typically by 75 feet, and to create the 150-foot wide section of the new 300-foot wide corridor located between The Forks Plt and Beattie Twp.

Tree removal from wetlands does not result in a net loss of any wetland area, and only potentially shifts or alters, but does not reduce, certain wetland functions and values. This type of cover type alteration, i.e., conversion of forested wetlands to early successional cover type wetlands, will result in the largest cumulative wetland alteration. Over the approximately 200 miles of transmission line corridors along the NECEC Project, conversion of forested wetlands to early successional wetlands accounts for approximately 124.14 acres.

13.2.3 Direct Non-Wetland Impact within High and Moderate Value IWWH

Where unavoidable, direct non-wetland impact to IWWH will result from the placement of transmission line structures. Direct impacts to non-wetland areas within IWWH total approximately 0.016 acre. Compensation for impacts to wetlands within IWWH will be included in the ILF contribution for permanent fill in freshwater wetlands contained in IWWH.

13.2.4 Permanent Fill in Significant Vernal Pool Habitat

Permanent fill in SVP habitat will result from pole placement in both wetlands and uplands located within the 250-foot critical terrestrial habitat located around the pool depression, as well as from site development associated with the Merrill Road Converter Station. PSVPs which have not yet been determined as “significant” will be included in this calculation. There will be no direct impact to any significant vernal pool depressions. Approximately 0.041 acre of permanent fill will be required for the placement of transmission structures within SVP habitat. Construction of the Merrill Road Converter Station will result in the placement of 0.273 acre of permanent fill in vernal pool habitat.

13.2.5 Permanent Wetland Fill

There will be permanent fill impacts from structures placed in wetlands. In this context, “structures” includes wooden or steel poles (and associated anchors, footings, etc.). Fill will result from the structures, soil mounding associated with pole-placement and, where necessary, concrete footings for steel structures. The area of disturbance for each pole varies depending on structure type. Structure installations will range from approximately 30 to 185 square feet of permanent fill per structure, depending on structure type (e.g., steel monopole or wood H-frame). Following installation, the areas around structures naturally revegetate to herbaceous or shrub wetland communities. The small loss of wetland area from the structure fill equates to a negligible loss of wetland functions and values relative to the remaining wetland area at each structure site. Taken individually, impacts from structures will have a negligible permanent impact on their particular installation locations. Cumulative permanent wetland fill from all NECEC transmission line structures totals approximately 0.21 acre.

The Merrill Road Converter Station and the Fickett Road Substation will have permanent wetland impacts from fill. Approximately 3.16 acres and 1.33 acres of permanent wetland fill will be required to construct the Merrill Road Converter Station and Fickett Road Substation, respectively.

13.3 Compensation Requirements

13.3.1 Introduction

The NRPA Wetlands and Waterbodies Protection Rules provide that “compensation is the off- setting of a lost wetland function with a function of equal or greater value,” and sets as a goal “no-net-loss of wetland functions and values” (NRPA Wetlands and Waterbodies Protection Rules, Chapter 310 § 5C). This goal supports the national goal of no-net-loss articulated in a February 6, 1990 MOA between the EPA and USACE Concerning the Determination of Mitigation Under the Clean Water Act Section 404(b)(1) Guidelines.

CMP will offset unavoidable impacts to natural resources through a contribution to the MDEP ILF Program. As stated by the MDEP fact sheet for the ILF Program, the program was established to provide applicants with a flexible compensation option over and above traditional permittee-responsible compensation projects and the applicant may choose which method of compensation is preferred for a given project (MDEP 2015). Similarly, the USACE Guidance (2016) states: *“when mitigation banks and/or ILF programs are available, Corps regulations state a general preference for their use for mitigation unless permittee-responsible mitigation is determined to be more appropriate.”*

Many of the impact types from a project such as the NECEC Project differ considerably from “hard” developments (e.g. parking lots or shopping centers). New transmission line corridors and transmission line corridor expansions require forested cover type conversion to permanently maintained early-successional habitat and do not result in a loss of wetland acreage, but rather minimal temporary impacts to resource functions and values. The USACE Guidance (2016) acknowledges the short duration and minor scale of these impacts and includes recommended adjustments in required compensation ratios for temporary and/or secondary impacts to wetlands. Based on the standard ratios[5] and applicable adjustments, the required compensation amounts will be arrived at for each impact type. As discussed

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[5] Standard ratio refers to the resource compensation fee as determined by the rates and formulas defined by the MDEP ILF Program.

with the MDEP during the September 19, 2017 pre-submission meeting, CMP will continue to develop standard adjustments to the ILF Program compensation rates with the MDEP and USACE. CMP will propose an appropriate ILF contribution amount as a supplement to this application prior to the agencies decision on the application.

13.3.2 Temporary Wetland Fill

There are approximately 50.97 acres of proposed temporary wetland fill impacts. These small, scattered impacts will have de minimis effect on the overall functions and values in the areas in which they occur, and there will be no permanent loss of wetland functions and values or wetland area. Temporary wetland fill will be in place significantly less than 18 months, i.e., typically for a period of 12 months. Compensation for temporary wetland fill, in place less than 18 months, is only required by the USACE, and is not required by MDEP. Because all forested wetlands will be converted to scrub shrub wetlands, the ILF contribution for temporary wetland fill in scrub-shrub wetlands using an adjustment developed with the USACE will be applied. This adjustment will be applied to the amount of compensation required for permanent direct fill with a multiplier of one as identified by the ILF Program.

13.3.3 Permanent Cover Type Conversion of Forested Wetland

There will be approximately 124.14 acres of forested wetland converted to scrub-shrub and emergent wetlands. Compensation for forested wetland conversion is not required by the MDEP, but is required by the USACE, even though there is no-net-loss of wetland functions or acreage resulting from clearing of forested wetland. The ILF contribution for permanent cover type conversion of forested wetlands to scrub shrub wetlands will be determined by applying an adjustment developed with the USACE. The adjustment will be applied to the amount of compensation required for permanent direct fill with a multiplier of one as identified by the ILF Program.

13.3.4 Direct Non-Wetland Impact within High and Moderate Value IWWH

There will be approximately 0.157 acre of direct impact to non-wetland areas within High and Moderate Value IWWH. Compensation for direct impact to IWWH is only required by the MDEP. MDEP clarified during a pre-application meeting on August 17, 2017, that direct impacts were those impacts from permanent fill and indirect impacts were impacts associated with vegetation clearing. The ILF Program formula will be used to calculate the ILF for compensation of impacts to non-wetland areas[6] within IWWH.

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[6] Direct impact in wetland areas located within IWWH requires 100% compensation with a resource multiplier of two and will be accounted for in the ILF calculation for permanent fill in WOSS.

13.3.5 Permanent Fill in Significant Vernal Pool Habitat

There will be no permanent fill in SVP aquatic habitat (i.e., the pool depression) as a result of the NECEC Project. However, there is approximately 0.314 acre of permanent fill proposed for vernal pool critical terrestrial habitats. The ILF contribution for permanent fill in vernal pool critical terrestrial habitat in non-wetland areas[7] will be determined by applying a resource multiplier of one to the vernal pool compensation formula. Given the minor area of permanent impacts associated with pole installation in SVP critical terrestrial habitat, CMP will develop a proposed adjustment to the standard ratio, in consultation with the MDEP and the USACE.

13.3.6 Permanent Wetland Fill

Across the entire project, in aggregate, permanent fill impacts from transmission structures will only account for approximately 0.21 acre. The small physical loss of wetland from structures and associated fill areas equates to a negligible loss of wetland functions and values relative to the remaining wetland area at each structure site. Individually, impacts from structures in wetlands will have a negligible permanent impact on the particular locations in which they are placed. CMP will provide compensation for the cumulative permanent wetland impacts associated with structures. Permanent wetland fill from substations totals 4.49 acres. Of the 4.7 acres of permanent wetland fill, fill in Non-WOSS and WOSS totals 4.3 acres and 0.4 acre, respectively. The ILF contribution for permanent fill in wetlands will be calculated for each wetland based on its specific characteristics and on applicable resource multipliers contained in the DEP Fact Sheet - In Lieu Fee Compensation Program

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[7] Permanent fill in wetland areas located within SVP critical terrestrial habitat requires 100% compensation with a resource multiplier of two and will be accounted for in the ILF calculation for permanent fill in WOSS.

APPENDIX A - REFERENCES

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