

November 16, 2021 File No. 04.0190999.64

GEOTECHNICAL

ENVIRONMENTAL

ECOLOGICAL

CONSTRUCTION MANAGEMENT

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City of Portsmouth
Planning Board
Attn: Dexter Legg, Chairman
1 Junkins Ave, 3rd Floor
Portsmouth, New Hampshire 03801

Re: Conditional Use Permit Application
Eversource Energy
2021 E194, U181, & 3135 Transmission Line Structure
Replacement Project
Portsmouth, New Hampshire

Dear Chairman Legg:

This letter transmits a Conditional Use Permit Application on behalf of Public Service Company of New Hampshire doing business as Eversource Energy (Eversource), for the E194, U181, & 3135 Transmission Line Structure Replacement Project (see attached **Figure 1, Locus Plan**). On behalf of Eversource, GZA GeoEnvironmental, Inc. (GZA) is requesting consideration of a Conditional Use Permit Application for required impacts within the City of Portsmouth.

The proposed project includes the replacement of eight utility structures along the existing E194, U181, & 3135 Transmission Lines in Portsmouth, New Hampshire. The E194 and U181 Transmission Line ROW is approximately 5.5 miles in length, beginning at the Schiller Substation and ending at Ocean Road Substation in Portsmouth, New Hampshire, and has a width of approximately 300 feet. The 3135 Transmission Line ROW is approximately 12.8 miles in length, beginning at the Newington Substation in Newington, NH and ending at Timber Swamp Substation in Hampton, New Hampshire, and has a width of approximately 170-300 feet. The 3135 Transmission Line runs parallel to the U181 and E194 Transmission Lines through Newington and Portsmouth and breaks off just north of the Portsmouth and Greenland town line. See Figure 2 -Access and Permitting Plans for a depiction of the proposed project. The Site crosses through residential, commercial, and rural properties, as well as three public roads including Gosling Road, Borthwick Avenue, and Greenland Avenue. Natural cover within the ROW includes upland shrublands and wetland emergent and scrub-shrub habitats.



In total, the proposed project requires approximately 98,984 sq. ft. of temporary wetland impact for equipment access and work pad placement. The proposed project also requires 25,224 sq. ft. of temporary buffer impact in uplands for access and work pad placement. A summary of proposed wetland and buffer impacts is provided in the table below.

Table 1 – Summary of Wetland and Surface Water Buffer Impacts

Wetland ID	Classification	Temporary Wetland Impact (sq. ft.)	Temporary Upland Buffer Impact (sq. ft.)
PW-6	PEM1/5H	33,740	12,146
PW-11	PEM1E/PSS1E	52,229	11,447
PW-28	PEM1E/PSS1E	13,015	1,631
	Total	98,984	25,224

Key to classifications:

P = palustrine wetland system

SS = scrub-shrub, 1 = broad-leaved deciduous EM = emergent, 1= persistent, 5 = Phragmites

Modifiers

E = nontidal, seasonally flooded/saturated H = permanently flooded

The proposed project is necessary in order to support current and future electricity demands in the region. The proposed structure replacements were selected based on a line load modeling evaluation completed by Eversource. The existing wood structures will be replaced with wood equivalent steel structures in order to increase the long-term reliability of the line. There are no proposed expansions to the ROW or construction of new lines associated with this project. In addition, work is proposed within an existing and maintained utility ROW, and therefore tree removal is not anticipated as part of this project. Pole replacements will be on average 5-10-ft higher than existing poles due to updated National Electric Safety Code Standards. Work is proposed to begin in March 2022 and pending emergencies and weather-related delays, the proposed project will be completed by early summer 2022.

In addition to this Conditional Use Permit, Eversource will also be filing a Statutory Permit by Notification (SPN) with the Department of Environmental Services (DES) Wetlands Bureau.

Wetlands were delineated by GZA in 2016 and confirmed in 2021 in accordance with the United States Army Corps of Engineers (USACE) Wetlands Delineation Manual using the Routine Determinations Method, and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual as required by the New Hampshire Department of Environmental Services (NHDES) Wetlands Bureau and the USACE. GZA photographed resources and recorded data relevant to functions and values provided by these natural resources within the ROW in October 2021. GZA classified wetlands in accordance with the "Classification of Wetlands and Deepwater Habitats of United States" (Federal Geographic Committee, 2013).

Where proposed access and work pads are located within existing wetlands and adjacent 100-ft wetland buffer areas, timber matting will be utilized to minimize and prevent rutting and compaction within wetlands



E194, U181, & 3135 Transmission Line Structure Replacement
Page | 3

and wetland buffers. Work will be conducted in accordance with NHDES Best Management Practices Manual for Utilities in and Adjacent to Wetlands and Waterbodies (March 2019). Prior to placement of timber matting within wetlands and wetland buffers, timber mats will be reviewed to ensure cleanliness to prevent spread of invasive plant species. Upon completion of work, timber matting will be removed and temporarily impacted wetlands and wetland buffers will be stabilized with straw and will be restored using a native herbaceous seed mix.

In accordance with the City of Portsmouth Zoning Ordinance, Article 10, section 10.1017.60, a Conditional Use Permit may be issued by the Planning Board for the construction of Public and Private Utilities within Rights-of-Ways in wetlands and wetland buffers provided that certain conditions are satisfied. The following section describes how the proposed project meets the stated conditions.

- A. The proposed construction is in the public interest. The proposed project is necessary to maintain the power supply of the existing transmission line. The existing lines are approximately 67 years old and select poles mush be replaced due to horizontal splitting, rotting, and woodpecker holes. If the work is not conducted, the utility poles could eventually fail and prevent power transmission. The project will improve the existing transmission line and increase reliability. This project does not propose expansion of the existing utility line ROW and does not include the construction of new lines. The project is maintenance of existing infrastructure within an existing and maintained utility ROW.
- B. Design, construction, and maintenance methods will utilize best management practices to minimize any detrimental impact of such use upon the wetland and will include restoration of the site as nearly as possible to its original grade, condition, and vegetated state. As previously mentioned, the proposed work will be conducted in accordance with NHDES Best Management Practices Manual for Utilities in and Adjacent to Wetlands and Waterbodies (March 2019). The access for the project has been sited to avoid prime wetlands and prime wetland buffers to the greatest extent feasible. In addition, the project utilizes existing access trails within the ROW to limit and prevent new disturbance. Where access ways temporarily cross a wetland or wetland buffer, the proposed project has been designed to minimize temporary wetland impacts through the use of timber matting. Matting will be temporarily placed in a narrow section of the wetland, to provide appropriate access and prevent rutting and compaction.

Best management practices that include the installation and maintenance of erosion and sediment barriers will be used during construction. In addition, timber matting will be reviewed prior to placement to prevent the spread of invasive plant species. Upon completion of work, temporarily impacted areas will be seeded and mulched with a native herbaceous seed mix to establish permanent vegetative cover, as necessary, to promote restoration as nearly as possible to its original grade, condition, and vegetated state.

- C. No alternative feasible route exists which does not cross or alter a wetland or have a less detrimental impact on a wetland. There are no alternatives with less impact that maintain the safety and reliability of the existing transmission line. Access is sited within an existing and maintained utility ROW. In addition, the project has been designed to utilize existing historical access routes along the ROW, where possible, to minimize impacts to wetlands.
- D. Alterations of natural vegetation or managed woodland will occur only to the extent necessary to achieve construction goals. The proposed project will utilize existing access trails within the ROW to limit



disturbance to wetlands and wetland buffers to the greatest extent feasible. Timber matting will be used to limit impacts on natural vegetation. Best management practices will be used to restore the site as nearly as possible to its original grade, condition and vegetated state. Permanent alterations of natural vegetation are proposed only where Eversource has identified utility structures which must be replaced in order to maintain current and projected future energy demands.

GZA conducted a wetland Function and Value Assessment in October 2021. Wetlands within the ROW corridor are typically capable of production export, nutrient removal, and groundwater recharge and discharge. Common principal functions and values include sediment and toxicant retention due to wetlands having close proximity to roadways, wildlife habitat, and floodflow alteration. It is not anticipated that the long-term functions and values of these wetlands will be impacted as a result of the proposed project. The project is maintenance of existing utility infrastructure.

Prior to daily construction activities, timber matting will be reviewed by personnel trained in wildlife identification and observed turtles and snakes will be safely relocated out of the active work zone, in similar nearby habitat. Observed turtles and snakes will be moved off of construction access roads to limit and prevent mortality to turtles and snakes during construction and will be reported to New Hampshire Fish and Game. Erosion control matting, if utilized, will consist of jute matting. Matting with plastic mesh will be avoided to limit unintentional mortality to snakes.

Should you have any questions, please contact Ms. Lindsey White at 603-232-8753 or at lindsey.white@gza.com.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

Lindsey White, CPSS Project Manager

Tracy L. Tarr, CWS, CESSWI

Associate Principal

Deborah M. Zarta-Gier Consultant/Reviewer



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LEW/TLT/DMZ: jc

P:(0410BS(0190900S)(04.0190990S) - EE SITING PERMITTING 2019-2022\04.0190999.64 - E194 TRANSMISSION LINE STRUCTURE REPLACEMENT PROJECT\WORK\LOCAL PERMITTING\PORTSMOUTH CUP\DRAFT E194_U181_3135 STRUCTURE REPLACEMENTS PORTSMOUTH CUP PORT

Attachments: Conditional Use Permit Application Form - Online

List of Abutters

Photo Log

Wetland Function and Value Assessment

Table 1 – Wetland Buffer Review

Figure 1 – Locus Plan

Figure 2 – Access and Permitting Plans

Application Fee







E194, U181, 3135, & 369 Transmission Line Structure Replacement Project

Eversource Energy Abutters List Portsmouth, New Hampshire

Wetland Scientist

GZA GeoEnvironmental, Inc. Attn: Tracy Tarr, CWS, CWB, CESSWI 5 Commerce Park North, Suite 201 Bedford, NH 03110

Map 234-7-3, Map 240-2-1001, Map 240-2-2001, Map 241-18, Map 259-27, Map 282-5, Map 278-2, Map 265-2E

City of Portsmouth
1 Junkins Avenue
Portsmouth, NH 03801

Map 214-2

GSP Schiller LLC. 431 River Road Bow, NH 03304

Map 216-1

135 Commerce Way LLC. 210 Commerce Way, Suite 300 Portsmouth, NH 03801

Map 234-21

Davenport, Elijah Y. 34 Coakley Road Portsmouth, NH 03801

Map 234-18

Barbin, Derek 46 Coakley Road Portsmouth, NH 03801

Map 234-15

Manougian, Richard J. 58 Coakley Road Portsmouth, NH 03801

Map 234-12

Mariotta Family Trust 70 Coakley Road Portsmouth, NH 03801

Owner/Applicant

Eversource Energy (a.k.a. PSNH) PO Box 270 Hartford, CT 06141

Map 28-5

GSP 325 Gosling LLC. 431 River Road Bow, NH 03304

Map 215-1

Retrosi Properties LLC. 150 Gosling Street Portsmouth, NH 03801

Map 216-1-1

150 Commerce Way LLC. 210 Commerce Way, Suite 300 Portsmouth, NH 03801

Map 234-20

White, Garrett B. 38 Coakley Road Portsmouth, NH 03801

Map 234-17

Gallmeyer, John 34 Coakley Road Portsmouth, NH 03801

Map 234-14

Bowlen, Wayne T. 62 Coakley Road Portsmouth, NH 03801

Map 234-11

Dorr, Leslie E. 2004 Trust 74 Coakley Road Portsmouth, NH 03801

Map 214-3

Public Service Company of New Hampshire, DBA Eversource Energy PO Box 270 Hartford, CT 06141-0270

Map 28-4

GSP Newington LLC. 431 River Road Bow, NH 03304

Map 215-9

Kelly Property Trust PO Box 342 Rye Beach, NH 03871

Map 215-14

Cole BJ Portfolio LLC. 25 Research Drive Westborough, MA 01581

Map 234-19

St. Martin, Brittany 42 Coakley Road Portsmouth, NH 03801

Map 234-16

Rice Family Irrevocable Trust 54 Coakley Road Portsmouth, NH 03801

Map 234-13

Adams, Christopher 68 Coakley Road Portsmouth, NH 03801

Map 234-10

Delvalle, Kathleen 644 Main Street Rollingsford, NH 03869



E194, U181, 3135, & 369 Transmission Line Structure Replacement Project

Eversource Energy Abutters List

Portsmouth, New Hampshire

Map 234-9

Hunkins, Joseph V. PO Box 5 Greenland, NH 03840

Map 234-7

Johnson, Paul R. 92 Coakley Road Portsmouth, NH 03801

Map 234-33

Callahan, Keith S. Revocable Trust 60 Garland Road Rye, NH 03870

Map 234-42

Mulkerin, Jos M. III 31 Coakley Road Portsmouth, NH 03801

Map 234-7-4A, Map 240-2-1

HCA Realty Inc PO Box 80610 Indianapolis, IN 46280

Map 165-14

Boston and Maine Corp. Iron Horse Park High Street North Billerica, MA 01862

Map 242-5, Map 258-53

Roman Catholic Bishop of Manchester 153 Ash Street Manchester, NH 03104

Map 258-2

Harding, Samuel C. 2450 Ocean Boulevard Rye Beach, NH 03871 Map 234-8

Cook, Samuel A. 426 Middle Street Portsmouth, NH 03801

Map 234-31

Saulnier, Rose Marie 19 Coakley Road Portsmouth, NH 03801

Map 234-34

Wolf, John J. 4 Palm Drive Greenland, NH 03840

Map 234-43

Crowell, Cedric L. 35 Coakley Road Portsmouth, NH 03801

Map 240-2-2

Jackson Gray Condos Master Card 330 Borthwick Avenue Portsmouth, NH 03801

Map 242-1, Map 258-54,

Map 263-1-6 State of NH 11 Hazen Drive Concord, NH 03301

Map 258-1, Map 258-1-1

Foucher, Joli Ann 566 Greenland Road Portsmouth, NH 03801

Map 258-12

Donohue, Kelly L. 144 Oxford Avenue Portsmouth, NH 03801 Map 234-7

Mitchell, Joseph R. 94 Trust 58 Fox Point Road Newington, NH 03801

Map 234-32

Howard, Alfred Jr. 23 Coakley Road Portsmouth, NH 03801

Map 234-41

Sokorelis, Eli 15 Larry Lane Portsmouth, NH 03801

Map 234-44

Lull, Seth 39 Coakley Road Portsmouth, NH 03801

Map 240-3, Map 240-1

Liberty Mutual 175 Berkeley Road Boston, MA 02117

Map 242-4

Stokel S. B. & N. A. Trust 83 Peverly Hill Road Portsmouth, NH 03801

Map 258-3-1

Tooke, Kenneth M. 606 Greenland Road Portsmouth, NH 03801

Map 258-13

Scarlotto, Joseph W. 130 Oxford Avenue Portsmouth, NH 03801



E194, U181, 3135, & 369 Transmission Line Structure Replacement Project Eversource Energy Abutters List

Portsmouth, New Hampshire

Map 258-34

Finam, Daniel S. 555 Greenland Road Portsmouth, NH 03801

Map 258-51, Map 258-52

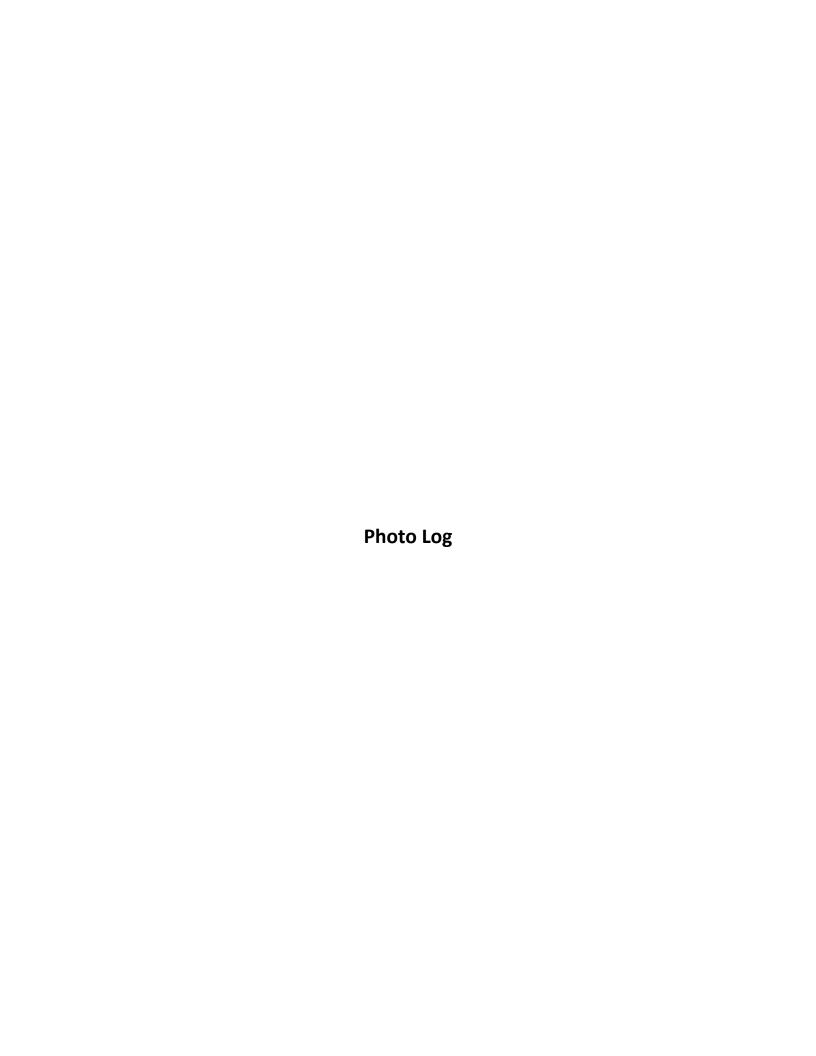
Thoma, Mark F. & Hans M. PO Box 1148
Portsmouth, NH 03802

Map 258-35

Garand, Susan L. 551 Greenland Road Portsmouth, NH 03801

Map 263-1-5

Griffin Road Realty LLC. 304 Maplewood Avenue Portsmouth, NH 03801 Map 258-36, Map 278-1, Map 265-2D, Map 241-18 City of Portsmouth DPW PO Box 628 Portsmouth, NH 03802





Photograph No. 1: Southeasterly view of proposed access in the 100-foot wetland buffer of Wetland PW-28 from Gosling Road towards E194 Structure 3 to be replaced.



Photograph No. 2: Easterly view of E194 Structure 3 (center) to be replaced within Wetland PW-28.



Photograph No. 3: Southwesterly view of proposed access and work area in the 100-foot wetland buffer of Wetland PW-11 for E194 Structure 34 to be replaced.



Photograph No. 4: Northeasterly view of E194 Structure 34 to be replaced within Wetland PW-11.



Photograph No. 5: Southwesterly view of E194 Structure 35 (right) and U181 Structure 35 (left) to be replaced within Wetland PW-11.



Photograph No. 6: Westerly view of proposed access in the 100-foot wetland buffer of Wetland PW-11.

PHOTO LOG

E194, U181, & 3135 Transmission Line Structure Replacement Project Portsmouth, New Hampshire



Photograph No. 7: Easterly view of Wetland PW-11 (left) and U181 Structure 36 to be replaced.



Photograph No. 8: Northerly view of Wetland PW-11 from U181 Structure 36 to be replaced.

PHOTO LOG

E194, U181, & 3135 Transmission Line Structure Replacement Project Portsmouth, New Hampshire



Photograph No. 9: Westerly view of Wetland PW-11 (right) and E194 Structure 36 to be replaced.



Photograph No. 10: Southeasterly view of proposed access from Greenland Road for 3135 Structure 105 and 106 to be replaced.

PHOTO LOG

E194, U181, & 3135 Transmission Line Structure Replacement Project Portsmouth, New Hampshire



Photograph No. 11: Northeasterly view of Wetland PW-7 from proposed access route. There are no direct impacts to this wetland system.



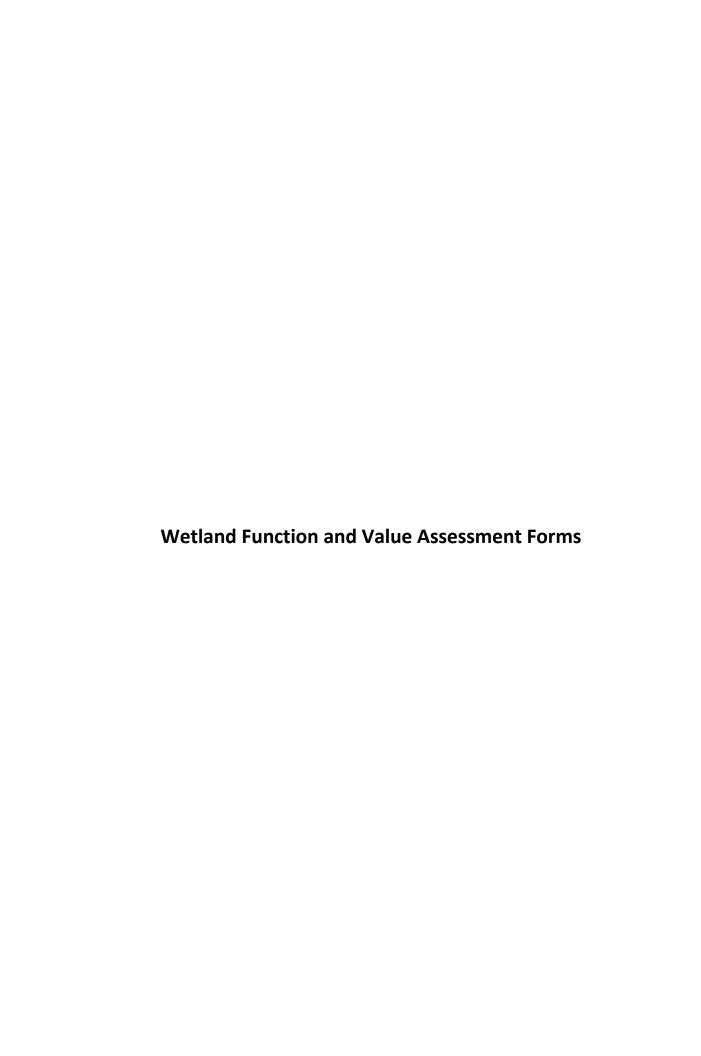
Photograph No. 12: Southeasterly view of proposed access in the 100-foot wetland buffer of Wetland PW-6 for 3135 Structure 105 and 106 to be replaced.



Photograph No. 13: Southwesterly view of 3135 Structure 106 to be replaced within Wetland PW-6.



Photograph No. 14: Northeasterly view of 3135 Structure 105 to be replaced within the 100-foot wetland buffer of Wetland PW-6.





File No: 04.0190999.64 Wetland ID: Wetland PW-6		WETLAND FUNCTION – VALUE EVALUATION FORM			Date: 10/26/2021 GZA Personnel: Peter Petkauskos, Tracy Tarr, CWS	
PEM1/PSS1Fg/R4SB Function/Value		Capability Y N	Rationale (Reference #)	Su	Summary	
=	Groundwater Recharge/Discharge	Υ	1, 2, 4, 6, 7, 10	Wetland hydrology is supported by runoff and a high-water table. A portion of the wetland contains sandy soils (see NRCS Soils Overlay).		Υ
	Floodflow Alteration	Υ	1, 3, 5, 6, 8, 9, 13, 18	The wetland receives and retains over residential and commercial propertie		Υ
	Fish and Shellfish Habitat	Υ	1	An intermittent stream is present, howatercourse limits habitat.	wever the size and depth of the	N
*	Sediment/Toxicant Retention	Υ	1, 2, 3, 4, 5, 8	The wetland receives stormwater from Greenland Road and surrounding residences.		Υ
	Nutrient Removal	Υ	1, 3, 4, 5, 7, 8, 9, 14	Dense vegetation is present, and the wetland contains very poorly drained soils.		Υ
→	Production Export	Υ	1, 2, 4, 5, 7, 12	The wetland contains dense vegetation and export is occurring through wildlife use in the wetland.		Υ
wy	Sediment/Shoreline Stabilization	Υ	3, 4, 5, 7, 15	An intermittent stream is present, but no distinct ban is evident between the stream and the wetland.		N
	Wildlife Habitat	Y	3, 4, 5, 6, 7, 8, 13, 14, 18, 19, 20, 21	The wetland is located in "supporting landscape" (see Wildlife Action Plan overlay). Several songbird species were observed in the emergent and scrub shrub wetland. Wetland is designated as a prime wetland and is located within a conservation easement area.		Υ
/	Recreation	Υ	4, 5, 7, 10	No water-based recreational opportunities are present. Walking trails are present.		N
#	Educational/Scientific Value	Υ	2, 3, 5, 6, 8	The wetland is located within the "Great Bog" conservation area. Parking suitable for school buses is present. However, access and maintained trails are limited.		Υ
*	Uniqueness/Heritage	Y	4, 9, 12, 15, 19	The wetland is designated as a prime wetland. The wetland is part of the "Great Bog" conservation area.		Υ
₹	Visual Quality/Aesthetics	Υ	1, 2, 3, 5, 6, 8, 9, 11, 12	The wetland contains emergent marsh vistas and contains viewing locations from trails.		Υ
ES	Endangered Species Habitat	Υ	Not Applicable	The NHB has records of hairy fruited sedge, a State endangered species, and tufted yellow-loosestrife, a State threatened species in the larger wetland system (see NHB memo dated NHB21-3200). species.		Υ

Notes: Dominant plants within the herbaceous layer include sensitive fern, broad-leaf cattail, phragmites, purple loosestrife, Joe Pye weed, wool grass, boneset, and sphagnum moss. Dominant plants within the shrub/sapling/tree layer include speckled alder, bebb willow, glossy buckthorn, red osier dogwood, multiflora rose, and autumn olive.



File No): 04.0190999.64					Date: 10/26/2021	
Wetland ID: Wetland PW-7 PEM1/PSS1E Function/Value		WETLAND FUNCTION – VALUE EVALUATION FORM				GZA Personnel: Peter Petkauskos, Tracy Tarr, CWS	
		Capability Y N		Rationale (Reference #)	Summary		Principal Yes/No
=	Groundwater Recharge/Discharge	Y		4	Wetland hydrology is supported by runoff and a high-water table. The wetland contains sandy soils (see NRCS Soils Overlay). The wetland is not underlain by an aquifer (see Aquifer Transmissivity Overlay) or associated with a stream.		N
	Floodflow Alteration	Υ		3, 5, 6, 8, 9, 18	The wetland receives and retains sto north.	ormwater from Greenland Road to the	N
	Fish and Shellfish Habitat		N	Not Applicable	No streams or permanently flooded h	nabitat are present in the assessment area.	N
∜	Sediment/Toxicant Retention	Y		1, 2	The wetland receives stormwater from Greenland Road to the north.		Y
	Nutrient Removal	Y		3, 5, 8, 9	Dense vegetation is present within the emergent and scrub shrub wetland.		N
→	Production Export	Y		7, 12	The wetland contains dense vegetation, and some export is occurring through wildlife use in the wetland.		N
w	Sediment/Shoreline Stabilization		N	Not Applicable	No streams or shoreline edges are associated with the wetland.		N
&	Wildlife Habitat	Y		4, 5, 7, 8	The wetland is not located in an area being mapped as "highest ranked habitat" or "supporting landscape" (see Wildlife Action Plan overlay).		N
**	Recreation	Y		4, 5, 10	No water-based recreational opportunities are present.		N
#	Educational/Scientific Value	Υ		5, 6, 8	The wetland is located within the "Great Bog" conservation area. Parking suitable for school buses is present however, the wetland is dominated by invasive plants with limited educational opportunities compared to PW-6.		N
*	Uniqueness/Heritage		N	9	The wetland is not known to contain exemplary communities and is not designated as a prime wetland.		N
₹	Visual Quality/Aesthetics		N	Not Applicable	The wetland does not contain open water or emergent marsh vistas.		N
ES	Endangered Species Habitat		N	1, 2	The NHB does not have records of rare species (see NHB memo dated NHB21-3200).		N

Notes: Dominant plants within the herbaceous layer include purple loosestrife, phragmites, soft rush, sensitive fern, wool grass, golden rod, reed canary grass. Dominant plants within the shrub/sapling/tree layer include glossy buckthorn, red osier dogwood, bebb willow, and meadowsweet.



File No: 04.0190999.64 Wetland ID: Wetland PW-11 PEM1/PSS1Fg		WETLAND FUNCTION – VALUE EVALUATION FORM			Date: 10/26/2021 GZA Personnel: Peter		
		~~	LAN	DI UNCTION - VAL	Petkauskos, Tracy Tarr, CWS		
Function/Value		Capability Y N		Rationale (Reference #)	Summary		Principal Yes/No
=	Groundwater Recharge/Discharge	Υ		4	Wetland hydrology is supported by runoff and a high-water table. The wetland is not underlain by an aquifer (see Aquifer Transmissivity Overlay).		N
	Floodflow Alteration	Υ		3, 4, 5, 6, 7, 8, 9, 18	The wetland receives and retains over residential and commercial properties	The wetland receives and retains overland sheet flow from surrounding residential and commercial properties.	
	Fish and Shellfish Habitat		N	Not Applicable	No streams or permanently flooded h	No streams or permanently flooded habitat are present in the assessment area.	
∜	Sediment/Toxicant Retention	Y		1, 2, 4, 5, 9	The wetland receives stormwater from I95, Coakley Road, Borthwick Ave, and Portsmouth Hospital.		Υ
	Nutrient Removal	Υ		3, 4, 5, 6, 7, 8, 9	Dense vegetation is present, and the wetland contains very poorly drained organic soils.		Υ
→	Production Export	Υ		1, 2, 4, 7, 12	The wetland contains dense vegetation, and some export is occurring through wildlife use in the wetland.		N
wi	Sediment/Shoreline Stabilization		N	Not Applicable	No streams or shoreline edges are associated with the wetland.		N
*	Wildlife Habitat	Y		8, 13, 19, 21	The wetland is located in "highest ranked habitat in NH" (see Wildlife Action Plan overlay).		Υ
A	Recreation	Y		5	The wetland is located on City of Portsmouth conservation land. However, no water-based recreational opportunities are present.		N
#=	Educational/Scientific Value	Υ		5	The wetland is located on City of Portsmouth conservation land. However, access is limited and parking suitable for school buses is not present.		N
*	Uniqueness/Heritage	Υ		Not Applicable	The wetland is not known to contain exemplary communities and is not designated as a prime wetland. However, a portion of the wetland is located within City of Portsmouth Conservation Land.		N
₹ ₩	Visual Quality/Aesthetics	Υ		2, 8	The wetland contains a large emergent marsh with overall views available from the surrounding uplands.		N
ES	Endangered Species Habitat		N	1, 2	The NHB does not have records of ra NHB21-3200).	are species (see NHB memo dated	N

Notes: Dominant plants within the herbaceous layer include fringed sedge, cinnamon fern, sensitive fern, tussock sedge, broad-leaf cattail, phragmites, purple loosestrife, and Joe Pye weed.

Dominant plants within the shrub/sapling/tree layer include glossy buckthorn, silky dogwood, red osier dogwood, speckled alder, bebb willow, meadowsweet, and multiflora rose.



File No: 04.0190999.64 Wetland ID: Wetland PW-28 PEM1/PSS1E		WETLAND FUNCTION – VALUE EVALUATION FORM				Date: 10/26/2021 GZA Personnel: Peter Petkauskos, Tracy Tarr, CWS	
Function/Value		Capability Y N		Rationale (Reference #)	Su	Summary	
=	Groundwater Recharge/Discharge	Y		4	Wetland hydrology is supported by runoff and a high-water table. A portion of the wetland contains sandy soils (see NRCS Soils Overlay). The wetland is not underlain by an aquifer (see Aquifer Transmissivity Overlay).		N
	Floodflow Alteration	Υ		3, 5, 6, 9, 18	The wetland receives and retains overland sheet flow from surrounding commercial properties to the east and west.		N
	Fish and Shellfish Habitat		N	Not Applicable	No streams or permanently flooded h	nabitat are present in the assessment area.	N
*	Sediment/Toxicant Retention	Υ		1, 2	The wetland receives stormwater from Gosling Road and surrounding commercial properties.		Υ
	Nutrient Removal	Y		3, 4, 8, 9	Dense vegetation is present within the emergent and scrub shrub wetland.		N
→	Production Export	Υ		1, 7, 12	The wetland contains dense vegetation, and some export is occurring through wildlife use in the wetland.		N
ner	Sediment/Shoreline Stabilization		N	Not Applicable	No streams or shoreline edges are associated with the wetland.		N
*	Wildlife Habitat	Υ		6, 7, 8, 13,	The wetland contains emergent/scrub-shrub cover and has landscape connectivity with a stream off-site.		Υ
	Recreation		N	5	No water-based recreational opportunities are present on-site.		N
#	Educational/Scientific Value		N	5	The wetland is located on private property and parking suitable for school buses is not present.		N
*	Uniqueness/Heritage		N	Not Applicable	The wetland is not known to contain exemplary communities and is not designated as a prime wetland.		N
₹	Visual Quality/Aesthetics		N	Not Applicable	The wetland does not contain open water or emergent marsh vistas.		N
ES	Endangered Species Habitat		N	1, 2	The NHB does not have records of rare species (see NHB memo dated NHB21-3200).		N

Notes: Dominant plants within the herbaceous layer include soft rush, golden rod, sensitive fern, sphagnum moss, fringed sedge, purple loosestrife, and Joe Pye weed.

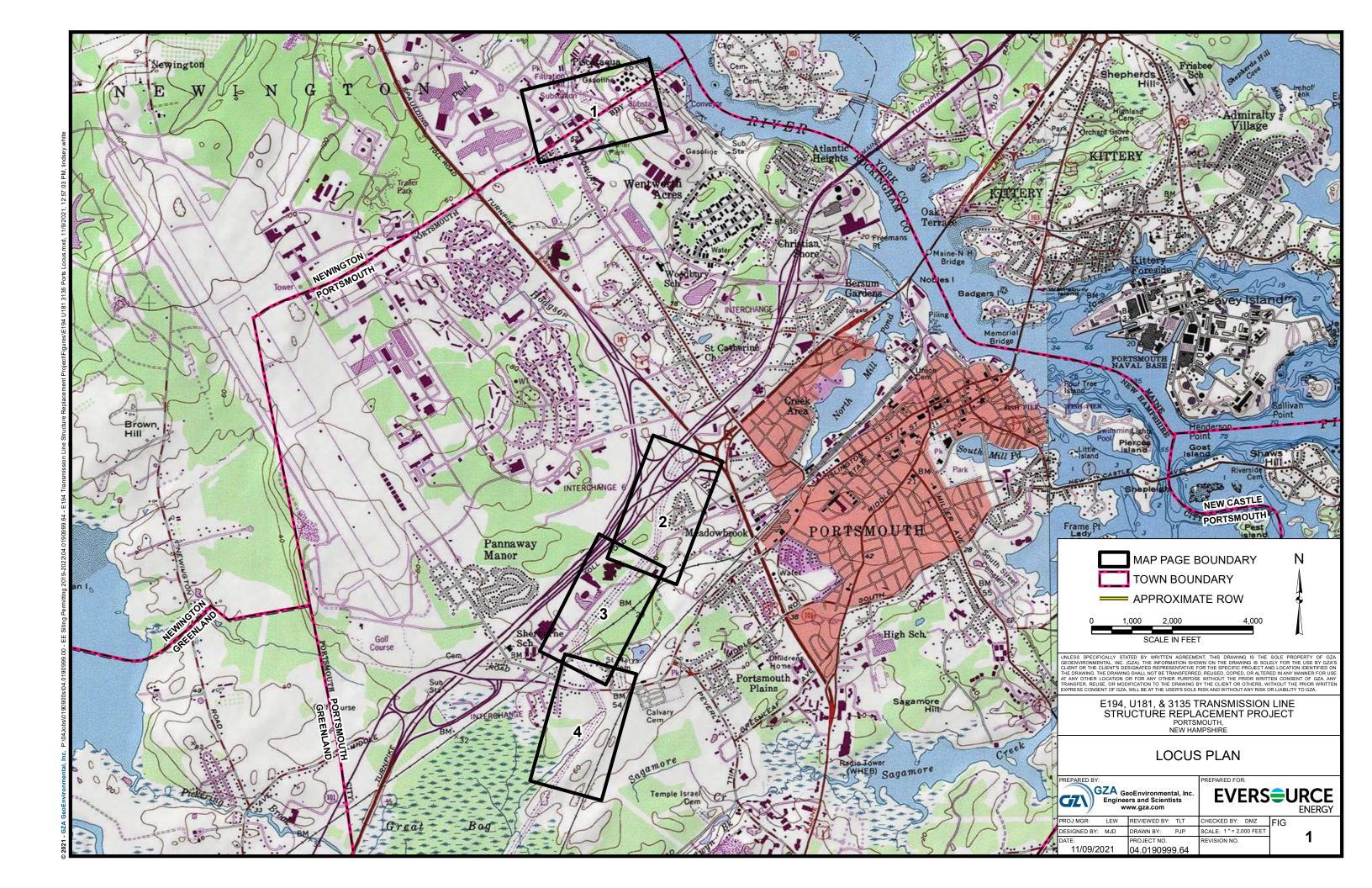
Dominant plants within the shrub/sapling/tree layer include red osier dogwood, glossy buckthorn, bebb willow, winter berry, oriental bittersweet, and speckled alder.



Table 1 - Wetland Buffer Review

Wetland ID	Temporary Buffer Impact (Sq. Ft.)	Vegetation in Buffer	Percent Invasive Species (%)	Percent Pavement(%)
PW-6	12,146	Goldenrod, purple crown vetch, milkweed, raspberry, glossy buckthorn	30%	0%
PW-11	11,447	Sweet fern, goldenrod, purple crown vetch, staghorn sumac, glossy buckthorn, raspberry, autumn olive	30%	25%
PW-28	1,631	Goldenrod, glossy buckthorn, staghorn sumac, raspberry, quaking aspen	25%	< 5%







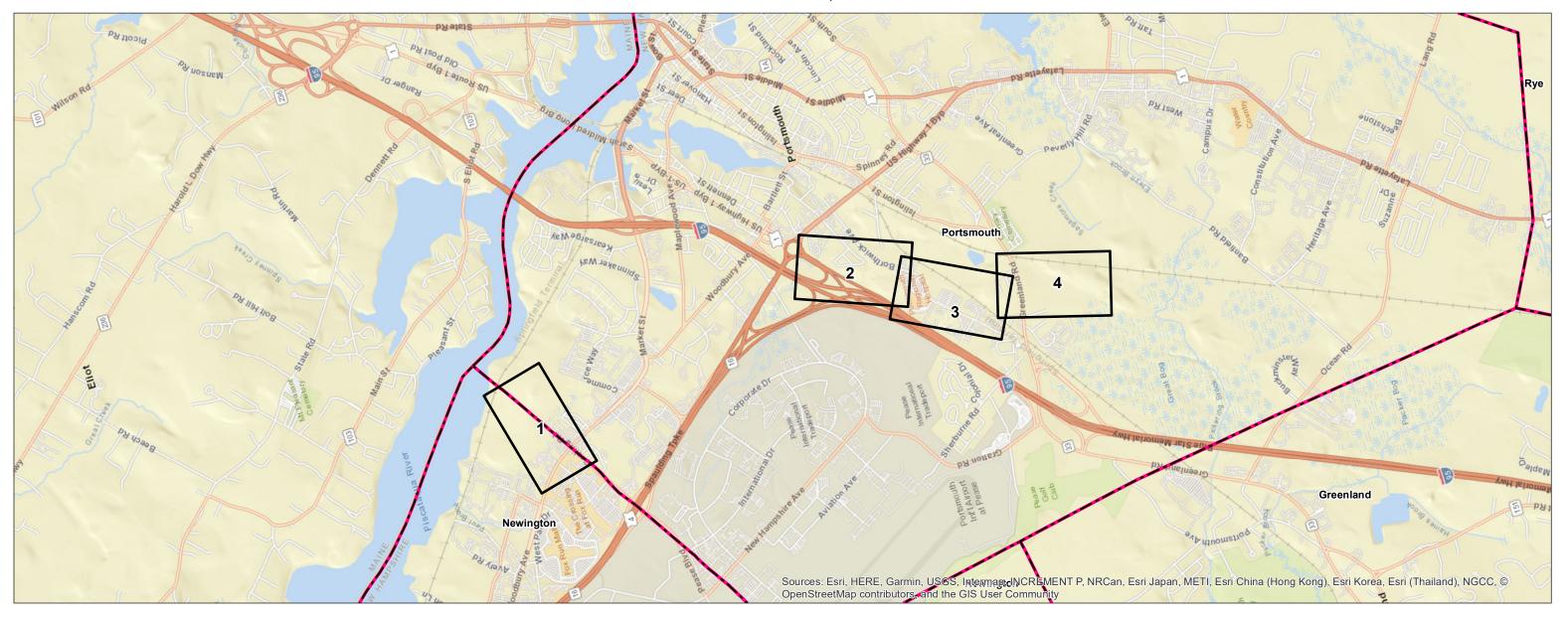
E194, U181 & 3135 Transmission Lines - Structure Replacement Project

PORTSMOUTH, NEW HAMPSHIRE

Environmental Resources Map

DRAFT MAP SET

Date: November 09, 2021





13 Legends Drive Hooksett, NH 03106

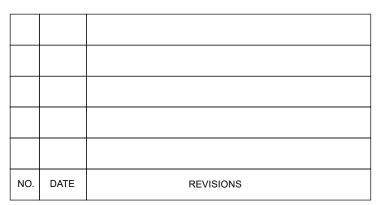


INDEX OF FIGURES

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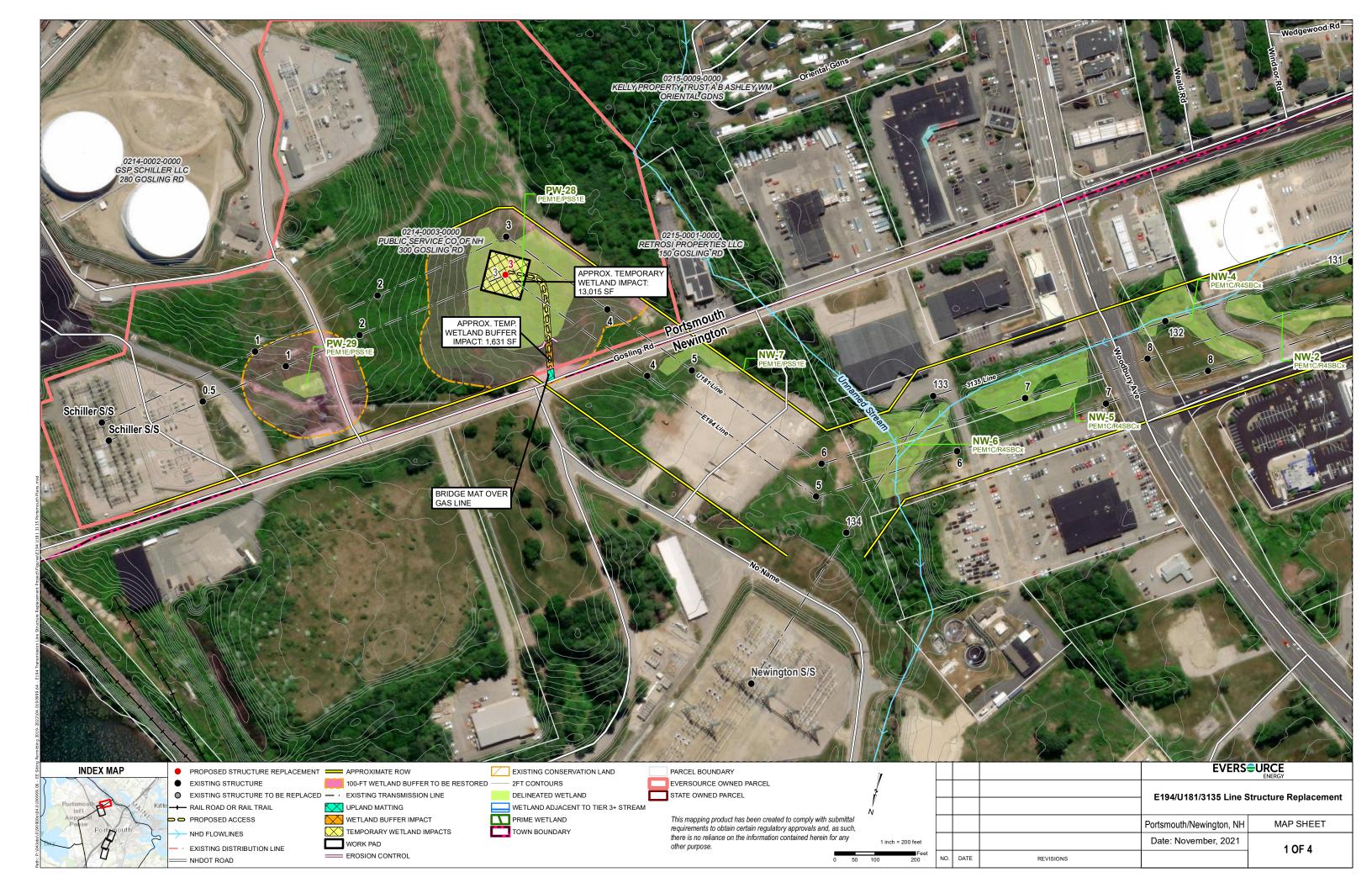
1 Miles

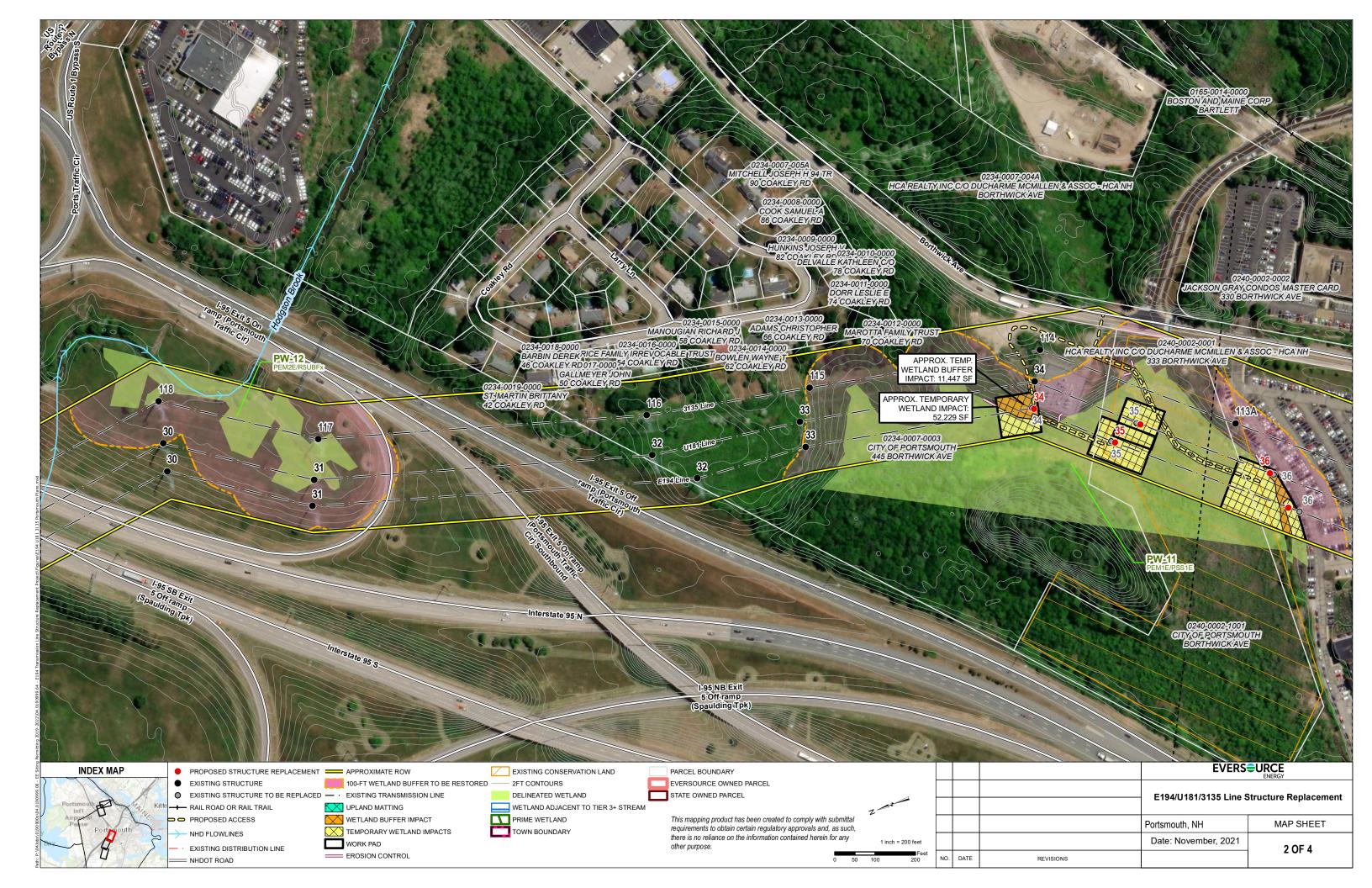
Title Sheet / Index Map Map Sheets 1-4 Sheet 1 Notes Sheet 2 Detail

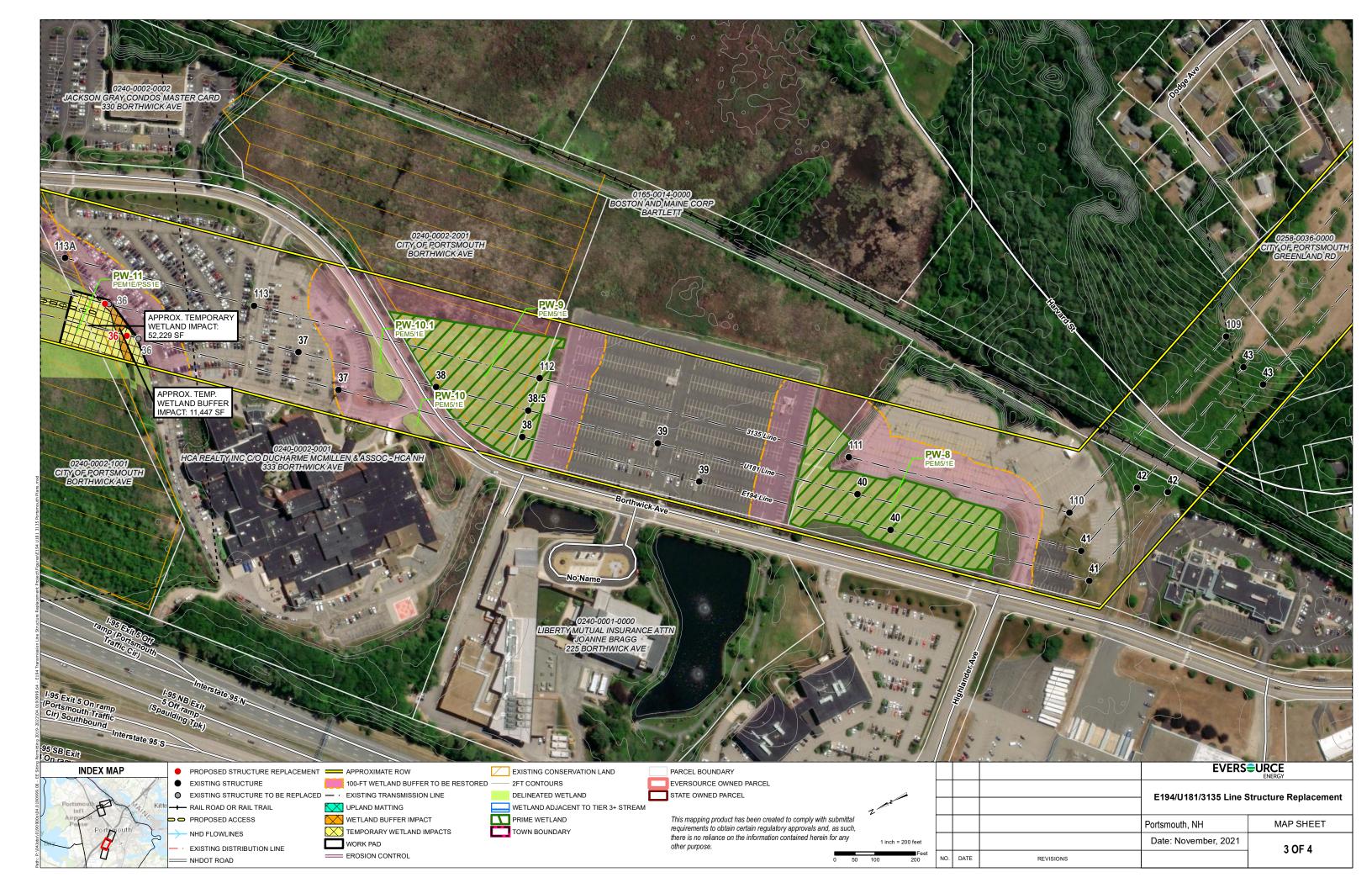


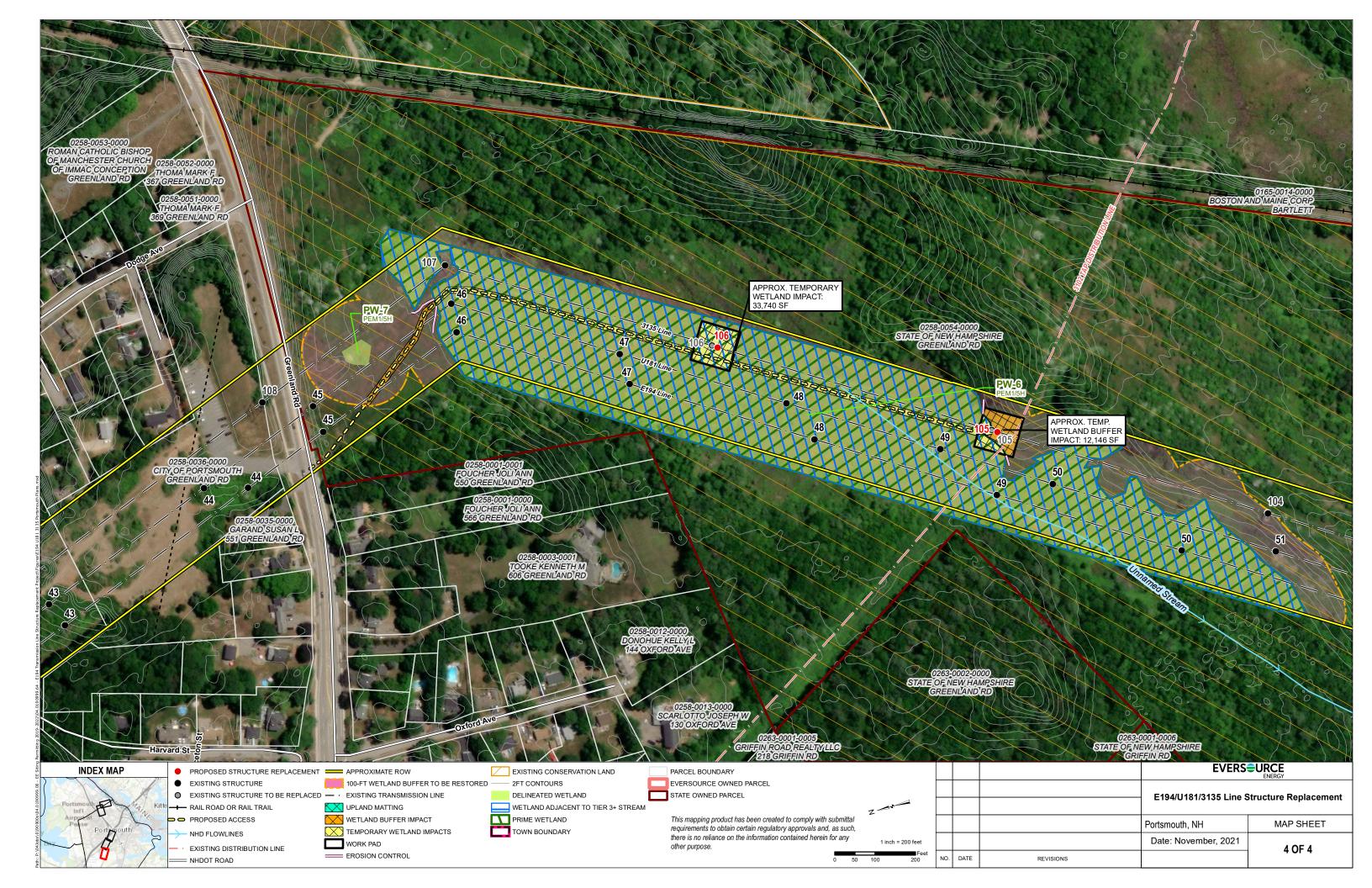
PREPARED BY:











CONSTRUCTION SEQUENCE:

- 1. WETLAND BOUNDARIES TO BE CLEARLY MARKED PRIOR TO THE START OF CONSTRUCTION.
- 2. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAIL PROVIDED, AS NECESSARY, AND CONSISTENT WITH THE NHDES MARCH 2019 BMP MANUAL FOR UTILITY MAINTENANCE.
- 3. WETLAND IMPACTS ASSOCIATED WITH WETLAND CROSSINGS ARE REQUIRED FOR ACCESS BETWEEN STRUCTURES WITHIN THE RIGHT OF WAY.
- 4. ADEQUATE PRECAUTION SHALL BE EXERCISED TO AVOID SPILLAGE OF FUEL OILS, CHEMICALS, OR SIMILAR SUBSTANCES; NO FUELS, LUBRICANTS, CHEMICALS OR SIMILAR SUBSTANCES SHALL BE STORED BENEATH TREES OR IN THE VICINITY OF ANY WETLANDS, RIVER, STREAM OR OTHER BODY OF WATER; OR IN THE VICINITY OF NATURAL OR MAN-MADE CHANNELS LEADING THERETO. NO POWER EQUIPMENT SHALL BE STORED, MAINTAINED, OR FUELED IN ANY AREA ADJACENT TO A WETLAND, RIVER, STREAM OR OTHER BODY OF WATER.
- 5. REMOVE COMPLETELY ALL CONTAMINATION FROM ANY SPILLAGE OF CHEMICALS OR PETROLEUM PRODUCT WITH COMPLETE REHABILITATION OF THE AFFECTED AREA.
- 6. ACCESS ROUTES HAVE BEEN SELECTED TO PREVENT DEGRADATION OF THE RIGHT-OF-WAY AND MINIMIZE ENVIRONMENTAL IMPACT. OPERATIONS SHALL BE CONFINED TO THE SPECIFIED ACCESS ROUTES WITHIN THE PROPOSED WETLAND IMPACT AREA. ACCESS ROUTES SHALL NOT EXCEED A 16 FOOT-WIDTH.
- 7. IMPACT TO VEGETATION WITHIN WETLANDS WILL BE LIMITED TO THE EXTENT NECESSARY TO PLACE THE SWAMP MATS WHERE REQUIRED
- 8. LOW GROWING VARIETIES OF VEGETATION ADJACENT TO WETLANDS SHALL BE PRESERVED TO THE EXTENT POSSIBLE. STUMPS AND ROCKS SHALL NOT BE REMOVED, AND THERE SHALL BE NO EXCAVATIONS, FILLS OR GRADING DONE ADJACENT TO WETLANDS, UNLESS MINOR EXCAVATIONS IS NEEDED FOR ACCESS.
- 9. TIMBER MATS AND PERIMETER CONTROLS WILL BE USED ALONG ACCESS ROUTES AND WORK PADS WITHIN WETLAND AREAS. THESE MATS ARE CONSTRUCTED OF HEAVY TIMBERS OR COMPOSITE MATERIAL, BOLTED TOGETHER, AND ARE PLACED END-TO-END IN THE WETLAND TO SUPPORT HEAVY EQUIPMENT. ALL SWAMP MATS SHALL BE PLACED AND REMOVED SO AS NOT TO CAUSE ANY RUTS, CHANNELS OR DEPRESSIONS, OR OTHERWISE CAUSE ANY UNDUE DISTURBANCE TO WETLANDS.
- 10. IF TIMBER MAT BMP IS NOT SUFFICIENT DUE TO HIGH WATER, ADDITIONAL BMP'S MAY INCLUDE THE PLACEMENT OF GEOTEXTILE FABRIC, 3"-4" STONE, AND GRAVEL TO PROVIDE A SUITABLE ROAD BED. A TEMPORARY CULVERT MAY BE REQUIRED IN AREAS OF HIGH FLOW TO MAINTAIN HYDROLOGIC CONNECTIVITY. ALL MATERIAL WILL BE REMOVED FROM JURISDICTIONAL AREAS AFTER CONSTRUCTION COMPLETION.
- 11. NO MATERIAL SHALL BE PLACED IN ANY LOCATION OR IN ANY MANNER SO AS TO IMPAIR SURFACE WATER FLOW INTO, THROUGH OR OUT OF ANY WETLAND AREA. NO INSTALLATION SHALL CREATE AN IMPOUNDMENT THAT WILL IMPEDE THE FLOW OF WATER OR CAUSE FLOODING.
- 12. NO MATERIAL SHALL BE TAKEN FROM THE WETLANDS AREA EXCEPT THAT WHICH MUST NECESSARILY BE REMOVED FOR THE STRUCTURE OR FOUNDATION PLACEMENT OR STABILIZATION. ALL EXCESS MATERIAL TAKEN FROM THE WETLAND WILL BE REMOVED FROM THE SITE.
- 13. ANY PROPOSED SUPPORT FILLS SHALL BE CLEAN GRAVEL AND STONE, FREE OF WASTE METAL PRODUCTS, ORGANIC MATERIALS AND SIMILAR DEBRIS AND SHALL NOT EXCEED THE AMOUNT PERMITTED. THIS ALLOWABLE FILL IS THE ONLY FILL THAT MAY REMAIN IN THE WETLAND AFTER CONSTRUCTION. ALL CUT AND FILLS SLOPES SHALL BE SEEDED/LOAMED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- 14. INSTALL NEW POLES IN THE LOCATIONS DESIGNATED ON THE PERMITTING PLANS.
- 15. CABLE INSTALLATION WILL BE PERFORMED IN A MANNER SO AS TO AVOID, OR LIMIT TO THE MAXIMUM EXTENT POSSIBLE, TRAVERSING WETLANDS WITH HEAVY EQUIPMENT. IN SOME CASES, A HELICOPTER MAY BE USED DURING THE INSTALLATION TO MINIMIZE IMPACTS.
- 16. REMOVAL OF THE OLD POLE WILL OCCUR ONCE THE CABLE HAS BEEN INSTALLED ON THE NEW STRUCTURE. THE OLD STRUCTURES WILL BE REMOVED FROM THE SITE. POLES WILL BE CUT AT THE GROUND SURFACE. FOOTINGS WILL BE ABANDONED IN PLACE TO MINIMIZE IMPACTS.
- 17. ALL TIMBER MATS, MATERIAL, AND DEBRIS WILL BE REMOVED FROM THE WORK AREA UPON THE COMPLETION OF CONSTRUCTION.
- 18. UPLAND DISTURBED AREAS SHALL BE RESTORED AND STABILIZED UPON COMPLETION OF CONSTRUCTION. WORK PAD RESTORATION SHOULD INCLUDE REDUCING THE WORK PAD TO A 30 BY 60 FOOT AREA, AND REDUCING SLOPES TO A MAXIMUM OF 25%. STOCKPILED MATERIAL SHOULD BE SPREAD TO REDUCE ANY UNNECESSARY SLOPES. GRAVEL WORK PADS AND SLOPES SHOULD BE SCARIFIED TO A MINIMUM OF 3" BEFORE SPREADING TOPSOIL/LOAM.
- 19. ALL TEMPORARY WETLAND IMPACTS WILL BE RE-GRADED TO ORIGINAL CONTOURS FOLLOWING CONSTRUCTION. NEW ENGLAND EROSION CONTROL/RESTORATION MIX, AVAILABLE THROUGH NEW ENGLAND WETLAND PLANTS, INC., 820 WEST STREET, AMHERST, MA 01002, 413-548-8000, OR EQUIVALENT SEED MIX SHALL BE APPLIED IN WETLAND AREAS THAT ARE NOT INUNDATED, AS NECESSARY.
- 20. MULCH USED FOR STABLIZATION SHALL CONSIST OF SEEDLESS STRAW.
- 21. SEDIMENT AND EROSION CONTROL MEASURES WILL BE EVALUATED AND REMOVED IF NECESSARY UPON THE COMPLETION OF CONSTRUCTION.
- 22. COMMERCIAL LOAM WILL NOT BE USED AS PART OF RESTORATION. ONLY IN-SITU TOPSOIL WILL BE USED TO RESTORE DISTURBED AREAS.
- 23. WHERE OPTIMAL TURTLE BREEDING AREAS OVERLAP WITH DISTURBANCE (AS DETERMINED BY AN ENVIRONMENTAL MONITOR), MINERAL SOILS WILL BE SCARIFIED TO ALLEVIATE COMPACTION AND BECOME MORE SUITED FOR TURTLE BREEDING.
- 24. NATURALLY VEGETATED LOCAL WETLAND BUFFER AREAS OUTSIDE OF EXISTING TRAILS MUST BE RESTORED UPON COMPLETION

WINTER CONSTRUCTION NOTES

- 1. PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED. STABILIZATION METHODS SHALL INCLUDE SEEDING AND MULCH, AND INSTALLATION OF EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.
- 2. DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE TEMPORARILY STABILIZED WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.

3. AFTER NOVEMBER 15TH, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL (NHDOT 304.3).

OWNER: EVERSOURCE ENERGY 13 LEGENDS DRIVE

- BASE PLAN PROVIDED BY EVERSOURCE ENERGY. EVERSOURCE ENERGY PROVIDED THE WETLAND DATA. EVERSOURCE ENERGY PROVIDED THE UTILITY DESIGN.
- 2. JURISDICTIONAL WETLANDS WERE DELINEATED BY GZA GEOENVIRONMENTAL, INC. IN DECEMBER 2016
 AND CONFIRMED IN 2021, IN ACCORDANCE WITH THE 1987 U.S.
 ARMY CORPS OF ENGINEERS' "WETLANDS DELINEATION MANUAL, TECHNICAL REPORT Y-87-1," AND
 REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTH CENTRAL AND
 NORTHEAST REGION," JANUARY 2012. WETLANDS WILL BE REVIEWED BY GZA GEOENVIRONMENTAL, INC. PRIOR TO START
- 3. GZA EVALUATED WETLANDS AS POTENTIAL VERNAL POOLS IN DECEMBER 2016 AND 2021 IN ACCORDANCE WITH "IDENTIFICATION AND DOCUMENTATION OF VERNAL POOLS IN NEW HAMPSHIRE," 2016, NEW HAMPSHIRE FISH AND
- 4. AS APPLICABLE, GZA WILL COMPLETE WETLANDS FUNCTION AND VALUES ASSESSMENT IN ACCORDANCE WITH THE ACOE'S "HIGHWAY METHODOLOGY WORKBOOK SUPPLEMENT," SEPTEMBER 1999.
- 5. SITE PLAN IS FOR PERMITTING PURPOSES ONLY AND DOES NOT REPRESENT A PROPERTY BOUNDARY SURVEY.
- 6. THE PROJECT WILL BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER AGR 3800 RELATIVE TO INVASIVE SPECIES.
- 7. IN ACCORANCE WITH ENV-WQ 1505.02, THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION, BUT IN NO CASE SHALL EXCEED 5 ACRES AT ANY ONE TIME BEFORE DISTURBED AREAS ARE STABILIZED. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:

 A MINIMUM 85 PERCENT VEGETATED GROWTH HAS BEEN ESTABLISHED

 A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL HAS BEEN INSTALLED.
- OR, EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
- 8. IN THE EVENT THAT A RARE OR THREATENED SPECIES IS OBSERVED, THE NEW HAMPSHIRE FISH AND GAME AND NEW HAMPSHIRE NATURAL HERITAGE BUREAU WILL BE NOTIFIED. TURTLE NESTING SEASON EXTENDS FROM LATE MAY THROUGH THE BEGINNING OF JULY. IF WOOD, BLANDING'S OR SPOTTED TURTLES ARE FOUND LAYING EGGS IN THE WORK AREA, CONTACT MEISSA DOPERALSKI AT 603-271-1735 OR JOSH MEGYESY AT 603-271-17125 FOR FURTHER INSTRUCTIONS. OBSERVATIONS OF NORTHERN BLACK RACER SNAKES SEEN IN ANY AREA FROM THE END OF SEPTEMBER THROUGH THE MONTH OF APRIL MUST BE IMMEDIATELY REPORTED TO THE NHFG DEPARTMENT (BRENDAN CLIFFORD AT 603-271-0463 OR MELISSA DOPERALSKI, AT 603-271-1738). IF NORTHERN BLACK RACER IS FOUND IN A WORK AREA FROM NOVEMBER THROUGH THE MONTH OF APRIL, WORK SHALL IMMEDIATELY CEASE AND THE OBSERVATION MUST BE REPORTED TO THE NHFG (BRENDAN CLIFFORD OR MELISSA DOPERALSKI).

EROSION CONTROL NOTES:

- 1. INSTALLATION OF EROSION CONTROL GRINDINGS AND/OR SILT FENCES SHALL BE COMPLETE PRIOR TO THE START OF WORK IN ANY GIVEN AREA. EROSION CONTROLS SHALL BE USED DURING CONSTRUCTION AND REMOVED WHEN ALL SLOPES HAVE A HEALTHY STAND OF VEGETATION COVER. EROSION CONTROL MEASURES SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER .25" OR GREATER RAINFALL EVENTS.
- 2. AS REQUIRED, CONSTRUCT TEMPORARY BERMS, SILTATION FENCES, SEDIMENT TRAPS, ETC. TO PREVENT EROSION & SEDIMENTATION OF WETLANDS.
- 3. THE WORK AREA SHALL BE GRADED AND OTHERWISE SHAPED IN SUCH A MANNER AS TO MINIMIZE SOIL EROSION, SILTATION OF DRAINAGE CHANNELS, DAMAGE TO EXISTING VEGETATION, AND DAMAGE TO PROPERTY OUTSIDE LIMITS OF THE WORK AREA. EROSION CONTROL GRINDINGS WILL BE NECESSARY TO
- 4. ANY STRIPPED TOPSOIL SHALL BE STOCKPILED, WITHOUT COMPACTION, AND STABILIZED WITH BMPS.
- 5. PERMANENT OR TEMPORARY COVER MUST BE IN PLACE BEFORE THE GROWING SEASON ENDS. WHEN SEEDED AREAS ARE NOT MULCHED, PLANTINGS SHOULD BE MADE FROM EARLY SPRING TO MAY 20 OR FROM AUGUST 15 TO SEPTEMBER 15. NO DISTURBED AREA SHALL BE LEFT EXPOSED DURING WINTER MONTHS, PLANT ANNUAL RYEGRASS PRIOR TO OCTOBER 15TH.
- 6. EROSION CONTROLS SHALL BE INSPECTED WEEKLY AND AFTER EVERY HALF-INCH OF RAINFALL.
- 7. EROSION CONTROL MATTING, IF REQUIRED, WILL CONSIST OF JUTE MATTING. MATTING WITH WELDED PLASTIC OR 'BIODEGRADABLE PLASTIC' NETTING OR THREAD WILL BE AVOIDED TO LIMIT UNINTENTIONAL MORTALITY TO SNAKES.

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E194, U181, 3135, & 369 TRANSMISSION LINE STRUCTURE **REPLACEMENT PROJECT**

PORTSMOUTH, NEWINGTON, & HAMPTON, NEW HAMPSHIRE

NOTES



EVERSURCE ENERGY CHECKED BY: DMZ SHEET

REVIEWED BY: TLT LEW DESIGNED BY: MJD DRAWN BY: MJD SCALE: ROJECT NO EVISION NO 11/09/2021 04.0190999.64

Best Management Practices (BMP's) for Straw wattles

Definition and purpose:

Straw wattles are burlap rolls filled with straw that trap sediment and interrupt water flow by reducing slope lengths.

Applications:

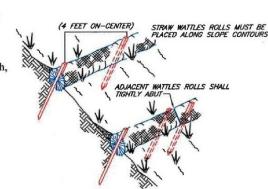
- * Along erodible or unstablizied slopes
- * Spread overland waterflow
- * Trap sediment
- * Around storm drain inlets to slow water and settle out sediment
- * Overlap ends approximately 6 inches

Installation:

Straw wattles are installed parallel to slope contours and perpendicular to sheet flow.

Spacing* - Dependent on slope length, soil steepness and soil type (general range 10 - 25').

Trenching - 2"-5" inch trench Stacking - at each end and four foot on center (i.e. 25 foot wattle uses 6 stacks)

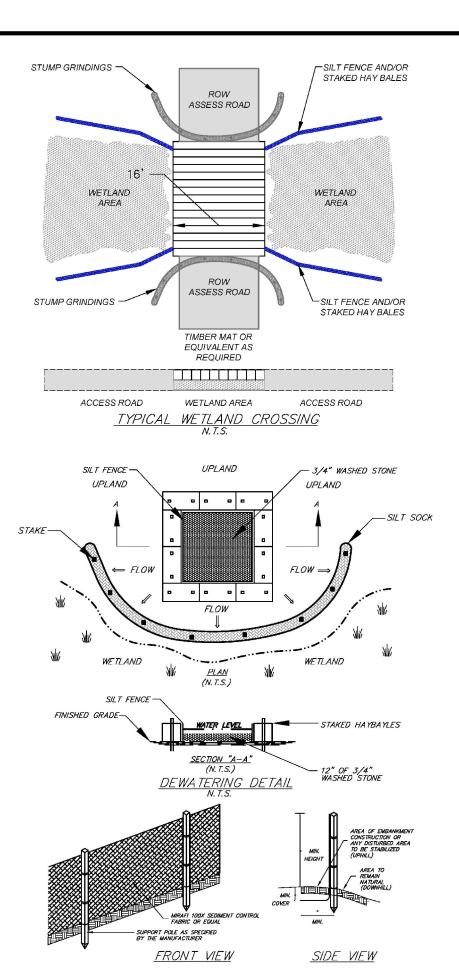


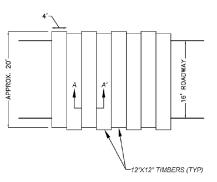


NOT TO SCALE

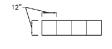
NOTES (SILT FENCE)

- 1. THE HEIGHT OF THE BARRIER SHALL NOT EXEED 36 INCHES.
- 2. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP, AND SECURELY SEALED. SEE MANUFACTURER'S RECOMMENDATIONS.
- 3 POSTS SHALL BE PLACED AT A MAXIMUM OF 10 FEET APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 12 INCHES). WHEN EXTRA STRENGTH FABRIC IS USED WITHOUT THE WIRE SUPPORT FENCE, POST SPACING SHALL BE AS MANUFACTURER RECOMMENDS.
- 4. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 6 INCHES WIDE AND 6 INCHES DEEP ALONG THE LINE OF POSTS AND UPSLOPE OF THE BARRIER IN ACCORDANCE WITH RECOMMENDATIONS
- 5. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE, AND WILL EXTEND A MINIMUM OF 8 INCHES INTO THE TRENCH. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES
- 6. THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER FABRIC.
- 7. FABRIC BARRIERS SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.
- 3. FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST ONCE DAILY DURING PROLONGED RAINFALL AND ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
- 9. SHOULD THE FABRIC DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
- 10. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE—HALF THE HEIGHT OF THE BARRIER.
- 1. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.



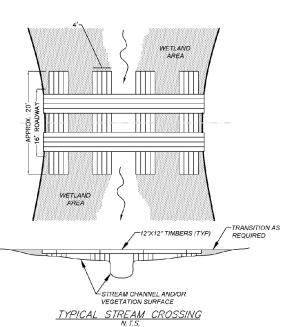


TYPICAL SWAMP MAT PLAN VIEW





VEGETATION SURFACE TYPICAL SWAMP MAT SECTION DETAIL



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E194, U181, 3135, A& 369 TRANSMISSION LINE STRUCTURE REPLACEMENT PROJECT PORTSMOUTH, NEWINGTON, & HAMPTON **NEW HAMPSHIRE**

DETAILS

REPARED FOR GZA GeoEnvironmental, Inc Engineers and Scientists LEW REVIEWED BY: TLT CHECKED BY: DMZ SHEET PROJ MGR: DESIGNED BY: MJD DRAWN BY: MJD SCALE: 10/05/2021 04.0190999.64

